POWER SUPPLIES

LED DRIVER POWER SUPPLY
SWITCHING POWER SUPPLY

MOONS'
moving in better ways

POWER SUPPLIES Contents

MOONS'

Numbering System of Power Supplies

M F 320 A 24 A G 0 _ V/RC - 01

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩

P U 040 A 070 A Q 1 _ L - 01

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩

① case option	M	Metal case
	P	Plastic case
	O	Open frame
	B	Brick(module)
	U	"U"case
	L	"L"case
② Input voltage range	A	85~127 VAC
	E	175~264 VAC
	F	85~264 VAC
	S	115VAC / 230VAC switch selectable
	U	90~305 VAC
③ rated output power*1	-	Rated output power in integer value
④ series code & PFC function	A	Active PFC
	P	Passive PFC
	N	PFC not available
	H	Series code
⑤ rated output voltage/current of main circuit*2	-	Rated output voltage / current of main circuit in integer value
⑥ number of output channels	A	1 output
	B	2 output
	C	3 output
	D	4 output
	E ~	E~ by analogy
⑦ type of power supply	G	General series
	P	LED driver series - constant voltage
	Q	LED driver series - constant current
	S	ODM (original design manufacturer) series
	D	DIN rail series
	T	Telecommunication series
⑧ mode of output channels combination*3	-	Mode of output channels combination
⑨ specific function*4	-	No dimming
	0-10V	0-10V dimming / compatible with PWM dimming（minimum 10% of the current）
	0-10V/OFF	0-10V dimming / compatible with PWM dimming（minimum 0% of the current,OFF function）
	CLK	Clock dimming / compatible with PWM dimming（clock dimming）
	COL	Constant brightness dimming, attenuation compensation function
	485	485 BUS dimming
	DALI	DALI dimming
	DMX	DMX dimming
	ZIGBEE	ZIGBEE wireless dimming
	PLC	Power line communication（PLC) dimming
	ACOVP	With extremely wide range of input voltage, cannot be damaged in the 90-456Vac input
	HP	Output hot-swappable
	STB	Support accessory power supply output
	UART	Support UART communication
	ADJ	Support output current fine-tuning
	V	Vertical terminal block
	H	Horizontal terminal block
	C	Connector
	L	Wiring type
⑩ code stream	01,02,…	To define the specific function by code stream (Defult value is blank for the first model and the second model begins from 01), and to be shown on our data plate "P/N:".

■ Note:

*1 Series model output power value or powergrade; the LED driver series 3-digit mark.

*2 In the LED driver series, the 3 digit "XXX" are used to represent the output voltage(V) or output current(mA).

eg: The output voltage of 48V is labeled as "048", and the output current of 350mA is labeled as "350".

*3 Output combined mode

3.1 Single Output: default value of "0" and can be omitted. "0-9, J-Z" represents a different output specifications.

eg: "PU040A070AQ-L" is the LED drivers, PU040A Series, output 38W/700 mA/27-54VDC

3.2 Multiple Output: "0" for same output voltage and current (and can be omitted). "0-9, J-Z" for different output specifications.

*4 Specific function: The power supplies that have the same output power, voltage, current, but have different optional features are designated with different suffixes to distinguish the specific S.P.S. models. There may be several suffixes separated by "/", in sequence.

4.1 The first group is fixed to the definition of terminal types.

4.2 Typical options:

0-10V - 0-10V dimming / compatible with PWM dimming（minimum 10% of the current）

0-10V/OFF - 0-10V dimming / compatible with PWM dimming（minimum 0% of the current, OFF function）

CLK - Clock dimming / compatible with PWM dimming（clock dimming）

COL - Constant brightness dimming, attenuation compensation function

485 - 485 BUS dimming

DALI - DALI dimming

DMX - DMX dimming

ZIGBEE - ZIGBEE wireless dimming

PLC - Power line communication（PLC) dimming

ACOVP - With extremely wide range of input voltage, cannot be damaged in the 90-456Vac input

HP - Output hot-swappable

STB - Support accessory power supply output

UART - Support UART communication

ADJ - Support output current fine-tuning

V - Vertical terminal block

H - Horizontal terminal block

C - Connector

L - Wiring type

RC - Remote (ON/OFF) control

RS - Remote sensing

M - Motor (application)

F - Ran (cooling)

LT - Long life

AT - Over temperature protection (OTP); automatic recovery

HC - OCP type: hiccup mode, automatic recovery

PF - Power failure signal output function

PC - Parallel connection

PV - Programmable voltage

4.3 If there are several items in ⑨, the name should be written in sequence.

e.g.: MU200H350AQ-0_10V/CLK/DALI/STB-01

Quick Selection Map for LED Drivers

Application	Type	Shell Material	Series Name	Dimension (L*W*H)	C.C. or C.V.	Dimming	Page
Outdoor Use	General H Series Class I	Metal Cases	MU050H	193*42.5*34.5 mm	CC	0-10V / PWM / Resistance / CLK	06
			MU060H	173*67.5*40 mm	CC	0-10V / PWM / Resistance / CLK	08
			MU075H	173*67.5*40 mm	CC	0-10V / PWM / Resistance / CLK	10
			MU100H	187*67.5*40 mm	CC	0-10V / PWM / Resistance / CLK	12
			MU120H	202*67.5*40 mm	CC	0-10V / PWM / Resistance / CLK	14
			MU150H	221*67.5*40 mm	CC	0-10V / PWM / Resistance / CLK	16
			MU200H	251*67.5*40 mm	CC	0-10V / PWM / Resistance / CLK	18
	General H Series Class I I	Plastic Case	PU012H	85*36*23 mm	CC	/	20
			PU025H	80*78*27 mm	CC	0-10V / PWM / Resistance	22
			PU040H	95*70*32 mm	CC	0-10V / PWM / Resistance	24
		Metal Case	MU150H	221*67.5*40 mm	CC	0-10V / PWM / Resistance / CLK	26
			MU200H	251*67.5*40 mm	CC	0-10V / PWM / Resistance / CLK	28
	General Half-potted Series	Plastic Case	PU030A	120*46*30 mm	CC	0-10V / PWM / Resistance / CLK	30
		Metal Case	UU060A	140*71*35 mm	CC	0-10V / PWM / Resistance / CLK	32
			UF100A	162*71*40 mm	CC	0-10V / PWM / Resistance / CLK	34
	General A Series	Plastic Case	PU012A	85*36*23 mm	CV	/	36
			PU040A	95*70*32 mm	CV	/	38
		Metal Case	MU050A	193*42.5*34.5 mm	CV	/	44
			MU060A	177*67.5*37 mm	CC	0-10V / PWM / Resistance	46
			MU060A	190*67.5*37 mm	CV	/	48
			MU075A	177*67.5*37 mm	CC	0-10V / PWM / Resistance	50
			MU075A	190*67.5*37 mm	CV	/	52
			MU096A	210*67.5*37 mm	CC,CV	0-10V / PWM / Resistance	54/56
			MU100A	221*67.5*37 mm	CC	0-10V / PWM / Resistance	58/60
			MU150A	205*86*43 mm	CV	/	62
			MU200A	223*95*46 mm	CV	/	64
	General Other Series	Metal Case	MT240H100AQ / 0-10V	223*95*46mm	CC	0-10V / Resistance/ PWM	66
			MU240AxxxAQD	223*95*46mm	CC	0-10V/ Resistance	68
			MU320HxxxAQ_CP	251*90*44.5 mm	CC	0 ～ 10V / PWM /Resistance/ CLK	70
Outdoor Use	DALI Intelligent Series	Metal Case	MU050AxxxAQ_DALI/STB	203*63.5*40 mm	CC	DALI	72
			MU060AxxxAQ_DALI/STB	241*67.5*37 mm	CC	DALI	74
			MU084AxxxAQ_DALI/STB	241*67.5*37 mm	CC	DALI	76
			MU100AxxxAQ_DALI/STB	241*67.5*37 mm	CC	DALI	78
			MU150AxxxAQ_DALI/STB	232*86*43 mm	CC	DALI	80
			MU200AxxxAQ_DALI/STB	232*95*46 mm	CC	DALI	82
Indoor Use6	Intelligent Series	Metal Case	30W intelligent (A series)	130*72*28 mm	CC	DALI / 0-10V	84/90
			30W intelligent	126*76*30 mm	CC	DALI(Backfeed/Sidefeed)	96/98
				126*76*30 mm	CC	0-10V(Backfeed/Sidefeed)	100/102
				126*76*30 mm	CC	DMX(Backfeed/Sidefeed)	104/106
			40W intelligent	126*76*30 mm	CC	DALI(Backfeed/Sidefeed)	108/110
				126*76*30 mm	CC	0-10V(Backfeed/Sidefeed)	112/114
				126*76*30 mm	CC	DMX(Backfeed/Sidefeed)	116/118
			50W intelligent (A series)	130*76*30mm/ 444*30*21mm"	CC	DALI / 0-10V / DMX	120/132/140
			50W intelligent-Compact	130*76*30 mm	CC	DALI	144-151
				130*76*30 mm	CC	0-10V	166-169
			50W intelligent-Backfeed	130*76*30 mm	CC	DALI	152
				130*76*30 mm	CC	0-10V	170
				130*76*30 mm	CC	DMX	178
			50W intelligent-Slim	440*30*21 mm	CC	DALI	154-163
				440*30*21 mm	CC	0-10V	172-177
			96W intelligent-Backfeed	178.8*83.4*31.6 mm	CC	DALI	180
				178.8*83.4*31.6 mm	CC	DMX	182
		Plastic Case	30W intelligent	210*40.45*33.5 mm	CC	DALI	84
			30W intelligent	210*40.45*33.5 mm	CC	0-10V	90
	Intelligent Other Series	Metal Case	MU096I024AP	300*61.8*30.5*mm	CC	DALI	184
			DMX/RDM DC-DC module	28*150*17 mm	CC	DMX	186
Indoor Use	MF Series	Metal Case	MF50 N Series	99.5*97*36mm	CV	/	188
			MF100 A Series	170*99*44mm	CV	/	190
			MF150 A Series	170*99*50mm	CV	/	192
			MF320 A Series	199*99*52mm	CV	/	194
			MF300A5AG	215*115*25.5mm	CV	/	196

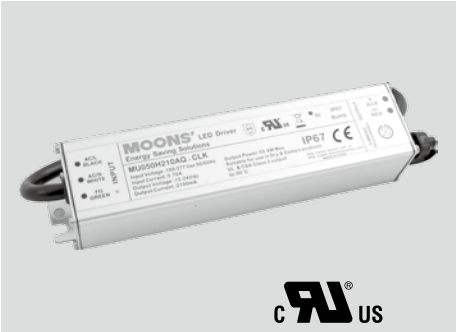
Comparison Chart for LED Drivers

Series Name	PFC		AC Input Range (VAC)	Potted	C.C. or C.V.	IP	Dimming	Io Adj	Max. Eff.	Warranty (years)
	Single Stage	Two Stage								
PU012A	✓		90-305Vac	✓	CC,CV	66			85%	5
PU012H	✓		90-305Vac	✓	CC	66			87%	5
PU025H	✓		90-305Vac	✓	CC	66	0-10V / PWM / Resistance		89%	5
PU040A	✓		90-305Vac	✓	CC,CV	66	0-10V / PWM / Resistance		88%	5
PU040H	✓		90-305Vac	✓	CC	66	0-10V / PWM / Resistance		91%	5
MU050A	✓		90-305Vac	✓	CC,CV	67	0-10V / PWM / Resistance		92%	5
MU050H	✓		90-305Vac	✓	CC	67	0-10V / PWM / Resistance / CLK		91%	5
MU060A		✓	90-305Vac	✓	CC,CV	67	0-10V / PWM / Resistance		91%	5
MU060H	✓		90-305Vac	✓	CC	67	0-10V / PWM / Resistance / CLK		91%	5
MU075A		✓	90-305Vac	✓	CC,CV	67	0-10V / PWM / Resistance		91%	5
MU075H	✓		90-305Vac	✓	CC	67	0-10V / PWM / Resistance / CLK		91%	5
MU096A		✓	90-305Vac	✓	CC,CV	67	0-10V / PWM / Resistance		90%	5
MU100A		✓	90-305Vac	✓	CC,CV	67	0-10V / PWM / Resistance		92%	5
MU100H	✓		90-305Vac	✓	CC	67	0-10V / PWM / Resistance / CLK		91%	5
MU120H	✓		90-305Vac	✓	CC	67	0-10V / PWM / Resistance / CLK		91%	5
MU150A		✓	90-305Vac	✓	CC,CV	67	0-10V / PWM / Resistance		92%	5
MU150H		✓	90-305Vac	✓	CC	67	0-10V / PWM / Resistance / CLK		93%	5
MU200A		✓	90-305Vac	✓	CC,CV	67	0-10V / PWM / Resistance		92%	5
MU200H		✓	90-305Vac	✓	CC	67	0-10V / PWM / Resistance / CLK		93.50%	5
PU030A	✓		90-305Vac	✓ (half)	CC		0-10V / PWM / Resistance / CLK	√	88%	5
UU060A	✓		90-305Vac	✓ (half)	CC		0-10V / PWM / Resistance / CLK	√	90%	5
UF100A		✓	90-305Vac	✓ (half)	CC		0-10V / PWM / Resistance / CLK	√	92%	5
MT240H100AQ_0-10V		✓	249~528 VAC	✓	CC	67	0-10V / PWM / Resistance		90%	5
MU240AxxxAQD		✓	90-305 VAC	✓	CC	67	0-10V/ Resistance		93%	5
MU320HxxxAQ_CP		✓	90-305 VAC	✓	CC	67	0-10V / PWM /Resistance/ CLK		94%	5
MU050AxxxAQ_DALI / STB	✓		90-305 VAC	✓	CC	67	DALI		87%	5
MU060AxxxAQ_DALI / STB		✓	90-305 VAC	✓	CC	67	DALI		87%	5
MU084AxxxAQ_DALI / STB		✓	90-305 VAC	✓	CC	67	DALI		88%	5
MU100AxxxAQ_DALI / STB		✓	90-305 VAC	✓	CC	67	DALI		88%	5
MU150AxxxAQ_DALI / STB		✓	90-305 VAC	✓	CC	67	DALI		90%	5
MU200AxxxAQ_DALI / STB		✓	90-305 VAC	✓	CC	67	DALI		92%	5
30W intelligent		✓	90-305Vac		CC	20	DALI / DMX / 0-10V	√	87%	5
40W intelligent		✓	90-305Vac		CC	20	DALI / DMX / 0-10V	√	88%	5
50W intelligent		✓	90-305Vac		CC	20	DALI / DMX / 0-10V	√	89%	5
96W intelligent-Backfeed		✓	90-305Vac		CC	20	DALI / DMX	√	88%	5
		✓	90-305Vac		CC	20	DMX	√	88%	5
MU096I024AP		✓	90-305Vac		CV	20	DALI	√	88%	5

MU050H Class I Series

Features

- Input voltage：90-305VAC
- High efficiency：91% typical
- Active PFC：0.99 typical
- High surge immunity
- Low THD
- IP67 compliant
- Protections：OVP, OCP, OTP, SCP
- Constant Current / 0-10V Dimming / Clock Dimming(CLK)
- Compliance to worldwide safety regulations for lighting
- Suitable for dry/damp locations
- CUL
- 5-year warranty



193 x 42.5 x 34.5mm

Electrical Specifications

Input voltage range	90~305VAC
Frequency	47~63Hz
Power factor	0.99（typical）， ＞0.90 100~277VACinput，75%~100% load
Input current	0.7A at 100VAC, 0.35A at 220VAC
Inrush current	50A MAX at 230VAC
Leakage current	0.75mA at 277Vac/60Hz input
Maximum output power	50W
Line regulation	±3%
Load regulation	±3%
Start-up time	<1.5s at 120VAC, <0.75s at 220VAC
Protections	over voltage, over current, over temperature, short circuit: auto recovery
THD	＜10%，220VAC，50Hz input，80%~100% load ＜15%，110VAC/277VAC，60Hz input，80%~100% load

Environmental Specifications

Operating temperature	-40℃ ~ +70℃
Operating humidity	20% ~ 95% RH
Storage temperature	-40℃ ~ +80℃
Storage humidity	10% ~ 95% RH
Cooling method	convection
Isolation voltage	input / output 3750VAC
MTBF	300,000 hours full load at 25℃ ambient
Life time	50,000 hours, 75℃ TC
Reference dimension (L x W x H)	193 x 42.5 x 34.5 (mm)
Weight	0.55 kg

Safety & EMC Compliance

CUL	UL8750, UL1012, UL1310, CSA-C22.2 NO. 107.1, CSA-C22.2 NO. 223-M91
CE	EN 61347-1, EN61347-2-13
Conducted emissions	FCC Part15 Class B/ EN55015
Radiated emissions	FCC Part15 Class B/ EN55015
Harmonic current emissions	EN61000-3-2
Voltage fluctuations and flicker	EN61000-3-3
Electrostatic discharge	EN61000-4-2
RFE field susceptibility	EN61000-4-3
Electrical fast transient	EN61000-4-4
Surge immunity test	EN61000-4-5（Surge: L-N, 4KV, L/N-Earth, 6KV）
Conducted radio frequency	EN61000-4-6
Power frequency magnetic field test	EN61000-4-8
Voltage dips	EN61000-4-11
Electromagnetic immunity	EN61547

Model Specifications

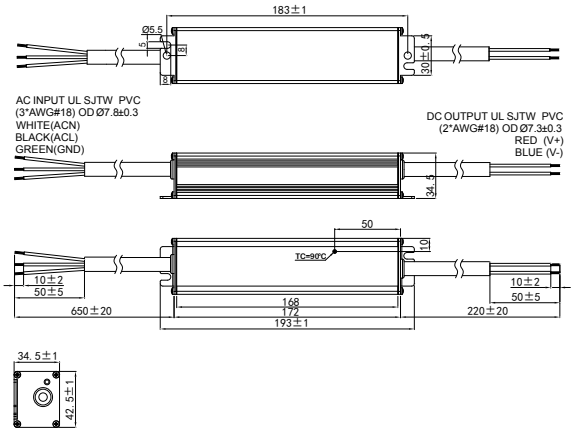
Model			Output Current	Output Voltage	Current Accuracy	Efficiency (typical)	
Constant Current	0-10V Dimming	Clock Dimming				110Vac	220Vac
MU050H035AQ	MU050H035AQ_0-10V	MU050H035AQ_CLKS	350mA	71-142VDC	± 5%	90.0%	91.0%
MU050H045AQ	MU050H045AQ_0-10V	MU050H045AQ_CLKS	450mA	55-111VDC	± 5%	90.0%	91.0%
MU050H070AQ	MU050H070AQ_0-10V	MU050H070AQ_CLKS	700mA	36-72VDC	± 5%	89.0%	90.0%
MU050H105AQ	MU050H105AQ_0-10V	MU050H105AQ_CLKS	1050mA	24-48VDC	± 5%	89.0%	90.0%
MU050H140AQ	MU050H140AQ_0-10V	MU050H140AQ_CLKS	1400mA	18-36VDC	± 5%	88.0%	89.0%
MU050H175AQ	MU050H175AQ_0-10V	MU050H175AQ_CLKS	1750mA	14-29VDC	± 5%	88.0%	89.0%
MU050H210AQ	MU050H210AQ_0-10V	MU050H210AQ_CLKS	2100mA	12-24VDC	± 5%	87.0%	88.0%
MU050H245AQ	MU050H245AQ_0-10V	MU050H245AQ_CLKS	2450mA	10-20VDC	± 5%	87.0%	88.0%
MU050H280AQ	MU050H280AQ_0-10V	MU050H280AQ_CLKS	2800mA	9-18VDC	± 5%	86.0%	87.0%
MU050H315AQ	MU050H315AQ_0-10V	MU050H315AQ_CLKS	3150mA	8-16VDC	± 5%	84.0%	85.0%

Remarks: 1.The function instruction can be found in the Appendix Page 199\ Page 202.

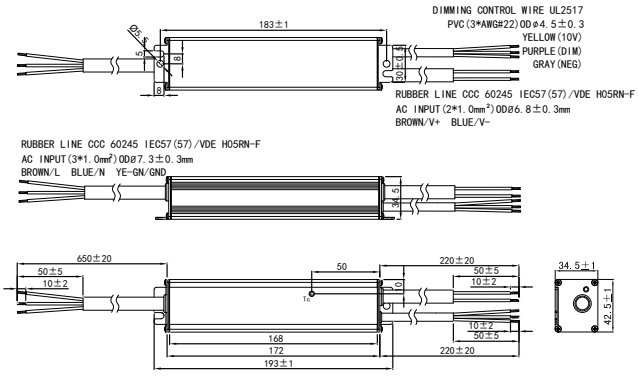
2. For the Clock Dimming function driver, there is MU50HXXXAQ_CLK and MU50HXXXAQ_CLKS

Mechanical Outline (unit: mm)

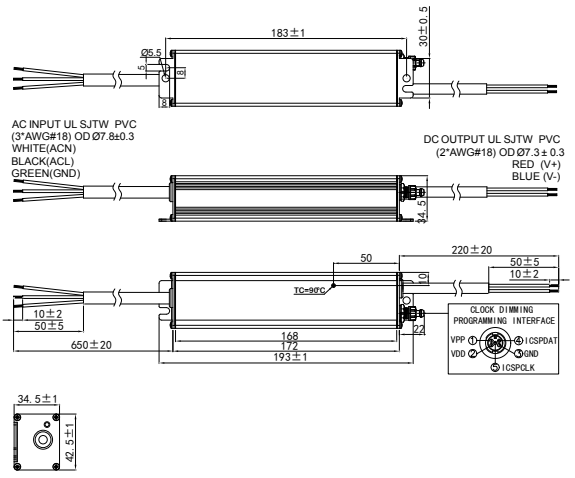
Constant Current



0-10V Dimming / Clock Dimming(CLKS)



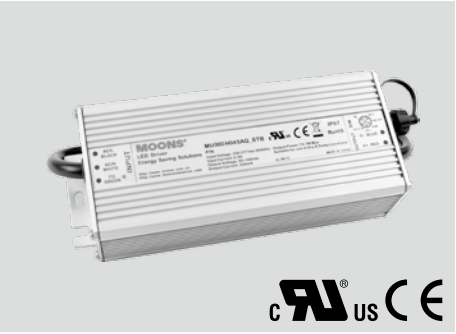
Clock Dimming(CLK)



MU060H Class I Series

Features

- Input voltage：90-305VAC
- High efficiency：91% typical
- Active PFC：0.99 typical
- High surge immunity
- Low THD
- IP67 compliant
- Protections：OVP, OCP, OTP, SCP
- Constant Current/0-10V Dimming/Clock Dimming(CLK)/Standby(STB)
- Compliance to worldwide safety regulations for lighting
- Suitable for dry/damp locations
- CUL / CE
- 5-year warranty



173 x 67.5 x 40mm

Electrical Specifications

Input voltage range	90~305VAC
Frequency	47~63Hz
Power factor	0.99（typical）, >0.90 100~277VAC input, 75%~100% load
Input current	0.8A at 110VAC, 0.4A at 220VAC
Inrush current	50A MAX at 230VAC
Leakage current	0.75mA at 277Vac/60Hz input
Maximum output power	60W
Line regulation	±1%
Load regulation	±3%
Start-up time	<1.5s at 110VAC, <0.75s at 220VAC
Protections	over voltage, over current, over temperature, short circuit: auto recovery
THD	<10%, 220VAC, 50Hz input, 70%~100% load <15%, 110VAC/277VAC, 60Hz input, 70%~100% load

Environmental Specifications

Operating temperature	-40℃ ~ +70℃
Operating humidity	20% ~ 95% RH
Storage temperature	-40℃ ~ +80℃
Storage humidity	10% ~ 95% RH
Cooling method	convection
Isolation voltage	input / output 3750VAC
MTBF	300,000 hours full load at 25℃ ambient
Life time	50,000 hours, 75℃ TC
Reference dimension (L x W x H)	173 x 67.5 x 40 (mm)
Weight	0.8 kg

Safety & EMC Compliance

CUL	UL8750, UL1012, UL1310, CSA-C22.2 NO. 107.1, CSA-C22.2 NO. 223-M91
CE	EN 61347-1, EN61347-2-13
Conducted emissions	FCC Part15 Class B / EN55015
Radiated emissions	FCC Part15 Class B / EN55015
Harmonic current emissions	EN61000-3-2
Voltage fluctuations and flicker	EN61000-3-3
Electrostatic discharge	EN61000-4-2
RFE field susceptibility	EN61000-4-3
Electrical fast transient	EN61000-4-4
Surge immunity test	EN61000-4-5（Surge: L-N, 4KV, L/N-Earth, 6KV）
Conducted radio frequency	EN61000-4-6
Power frequency magnetic field test	EN61000-4-8
Voltage dips	EN61000-4-11
Electromagnetic immunity	EN61547

Model Specifications

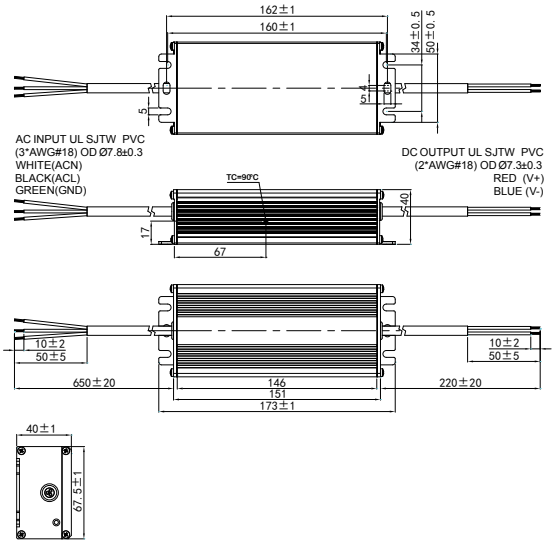
Model				Output Current	Output Voltage	Current Accuracy	Efficiency (typical)	
Constant Current	0-10V Dimming	Clock Dimming	Standby				110Vac	220Vac
MU060H035AQ	MU060H035AQ_0-10V	MU060H035AQ_CLKS	MU060H035AQ_STB	350mA	85-170VDC	± 5%	90.0%	91.0%
MU060H045AQ	MU060H045AQ_0-10V	MU060H045AQ_CLKS	MU060H045AQ_STB	450mA	67-134VDC	± 5%	90.0%	91.0%
MU060H053AQ	MU060H053AQ_0-10V	MU060H053AQ_CLKS	MU060H053AQ_STB	530mA	56-113VDC	± 5%	90.0%	91.0%
MU060H070AQ	MU060H070AQ_0-10V	MU060H070AQ_CLKS	MU060H070AQ_STB	700mA	43-86VDC	± 5%	89.0%	90.0%
MU060H105AQ	MU060H105AQ_0-10V	MU060H105AQ_CLKS	MU060H105AQ_STB	1050mA	29-58VDC	± 5%	89.0%	90.0%
MU060H140AQ	MU060H140AQ_0-10V	MU060H140AQ_CLKS	MU060H140AQ_STB	1400mA	21-43VDC	± 5%	88.0%	89.0%
MU060H175AQ	MU060H175AQ_0-10V	MU060H175AQ_CLKS	MU060H175AQ_STB	1750mA	17-35VDC	± 5%	88.0%	89.0%
MU060H210AQ	MU060H210AQ_0-10V	MU060H210AQ_CLKS	MU060H210AQ_STB	2100mA	14-29VDC	± 5%	87.0%	88.0%
MU060H245AQ	MU060H245AQ_0-10V	MU060H245AQ_CLKS	MU060H245AQ_STB	2450mA	12-25VDC	± 5%	86.0%	87.0%
MU060H280AQ	MU060H280AQ_0-10V	MU060H280AQ_CLKS	MU060H280AQ_STB	2800mA	10-21VDC	± 5%	85.0%	86.0%
MU060H315AQ	MU060H315AQ_0-10V	MU060H315AQ_CLKS	MU060H315AQ_STB	3150mA	9-19VDC	± 5%	84.0%	85.0%
MU060H350AQ	MU060H350AQ_0-10V	MU060H350AQ_CLKS	MU060H350AQ_STB	3500mA	8-17VDC	± 5%	83.0%	84.0%
MU060H420AQ	MU060H420AQ_0-10V	MU060H420AQ_CLKS	MU060H420AQ_STB	4200mA	7-14VDC	± 5%	82.0%	83.0%
MU060H500AQ	MU060H500AQ_0-10V	MU060H500AQ_CLKS	MU060H500AQ_STB	5000mA	6-12VDC	± 5%	81.0%	82.0%

Remarks: 1.The function instruction can be found in the Appendix Page 199~Page 204

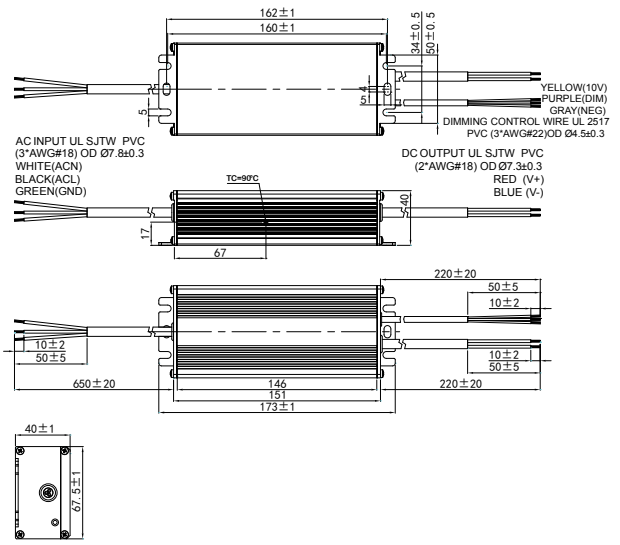
2. For the Clock Dimming function driver, there is MU60HXXXAQ_CLK and MU60HXXXAQ_CLKS

Mechanical Outline (unit: mm)

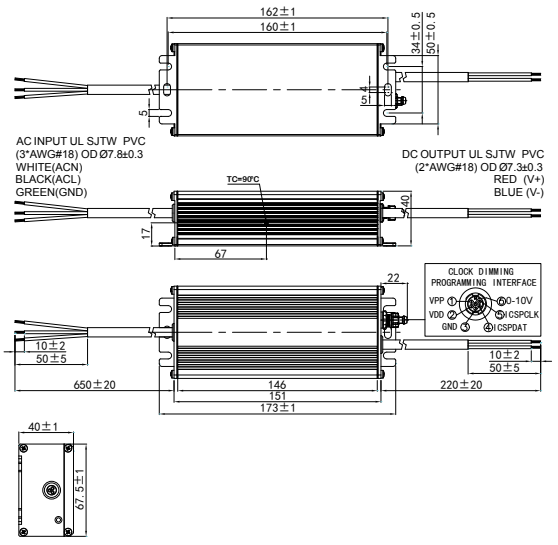
Constant Current



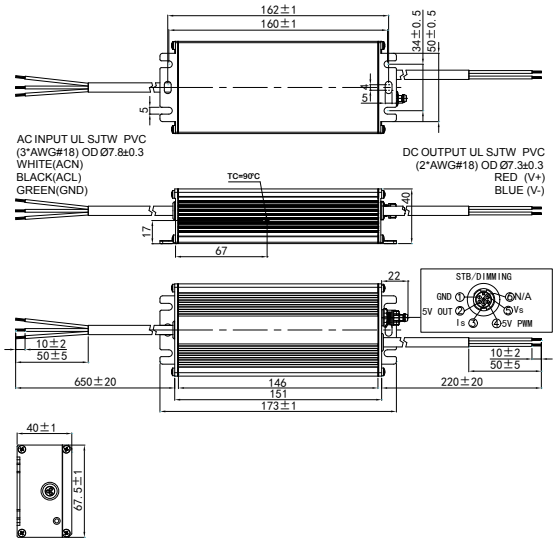
0-10V Dimming / Clock Dimming(CLKS)



Clock Dimming(CLK)



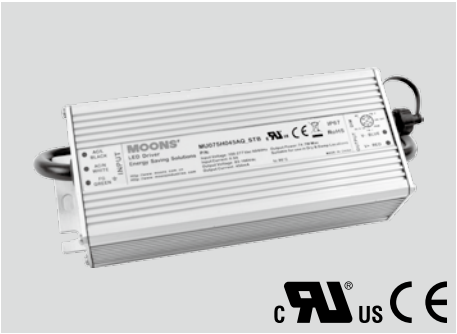
Standby



MU075H Class I Series

Features

- Input voltage：90-305VAC
- High efficiency：91% typical
- Active PFC：0.99 typical
- High surge immunity
- Low THD
- IP67 compliant
- Protections：OVP, OCP, OTP, SCP
- Constant Current/0-10V Dimming/Clock Dimming(CLK)/Standby(STB)
- Compliance to worldwide safety regulations for lighting
- Suitable for dry/damp locations
- CUL / CE
- 5-year warranty



173 x 67.5 x 40mm

Electrical Specifications

Input voltage range	90~305VAC
Frequency	47~63Hz
Power factor	0.99（typical），＞0.90 100~277VAC input，75%~100% load
Input current	1A at 110VAC, 0.5A at 220VAC
Inrush current	60A at 230VAC input 25℃ cold start
Leakage current	0.75mA MAX at 277Vac/60Hz input
Maximum output power	75W
Line regulation	±1%
Load regulation	±3%
Start-up time	<1.5s at 110VAC, <0.75s at 220VAC
Protections	over voltage, over current, over temperature, short circuit: auto recovery
THD	＜10%，220VAC，50Hz input，70%~100% load ＜15%，110VAC/277VAC，60Hz input，70%~100% load

Environmental Specifications

Operating temperature	-40℃ ~ +70℃
Operating humidity	20% ~ 95% RH
Storage temperature	-40℃ ~ +80℃
Storage humidity	10% ~ 95% RH
Cooling method	convection
Isolation voltage	input / output 3750VAC
MTBF	300,000 hours full load at 25℃ ambient
Life time	50,000 hours, 75℃ TC
Reference dimension (L x W x H)	173 x 67.5 x 40 (mm)
Weight	0.8 kg

Safety & EMC Compliance

CUL	UL8750, UL1012, UL1310, CSA-C22.2 NO. 107.1, CSA-C22.2 NO. 223-M91
CE	EN 61347-1, EN61347-2-13
Conducted emissions	FCC Part15 Class B / EN55015
Radiated emissions	FCC Part15 Class B / EN55015
Harmonic current emissions	EN61000-3-2
Voltage fluctuations and flicker	EN61000-3-3
Electrostatic discharge	EN61000-4-2
RFE field susceptibility	EN61000-4-3
Electrical fast transient	EN61000-4-4
Surge immunity test	EN61000-4-5（Surge: L-N, 4KV, L/N-Earth, 6KV）
Conducted radio frequency	EN61000-4-6
Power frequency magnetic field test	EN61000-4-8
Voltage dips	EN61000-4-11
Electromagnetic immunity	EN61547

Model Specifications

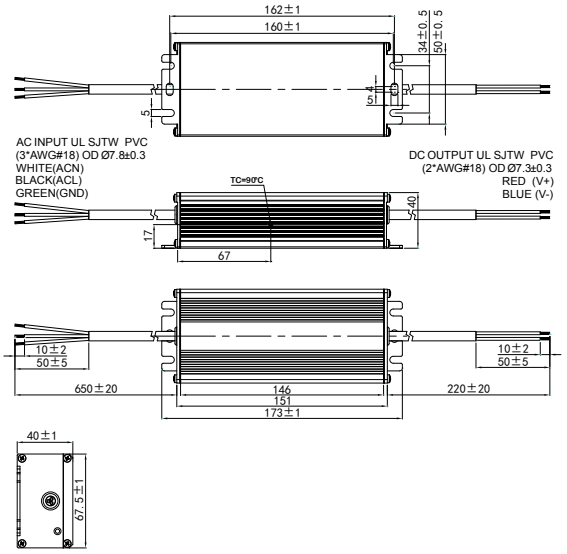
Model				Output Current	Output Voltage	Current Accuracy	Efficiency (typical)	
Constant Current	0-10V Dimming	Clock Dimming	Standby				110Vac	220Vac
MU075H035AQ	MU075H035AQ_0-10V	MU075H035AQ_CLKS	MU075H035AQ_STB	350mA	107-214VDC	± 5%	90.0%	91.0%
MU075H045AQ	MU075H045AQ_0-10V	MU075H045AQ_CLKS	MU075H045AQ_STB	450mA	83-166VDC	± 5%	90.0%	91.0%
MU075H053AQ	MU075H053AQ_0-10V	MU075H053AQ_CLKS	MU075H053AQ_STB	530mA	71-142VDC	± 5%	89.0%	90.0%
MU075H070AQ	MU075H070AQ_0-10V	MU075H070AQ_CLKS	MU075H070AQ_STB	700mA	54-108VDC	± 5%	89.0%	90.0%
MU075H105AQ	MU075H105AQ_0-10V	MU075H105AQ_CLKS	MU075H105AQ_STB	1050mA	36-72VDC	± 5%	89.0%	90.0%
MU075H140AQ	MU075H140AQ_0-10V	MU075H140AQ_CLKS	MU075H140AQ_STB	1400mA	27-54VDC	± 5%	88.0%	89.0%
MU075H175AQ	MU075H175AQ_0-10V	MU075H175AQ_CLKS	MU075H175AQ_STB	1750mA	21-43VDC	± 5%	88.0%	89.0%
MU075H210AQ	MU075H210AQ_0-10V	MU075H210AQ_CLKS	MU075H210AQ_STB	2100mA	18-36VDC	± 5%	87.0%	88.0%
MU075H245AQ	MU075H245AQ_0-10V	MU075H245AQ_CLKS	MU075H245AQ_STB	2450mA	15-31VDC	± 5%	87.0%	88.0%
MU075H280AQ	MU075H280AQ_0-10V	MU075H280AQ_CLKS	MU075H280AQ_STB	2800mA	13-27VDC	± 5%	86.0%	87.0%
MU075H315AQ	MU075H315AQ_0-10V	MU075H315AQ_CLKS	MU075H315AQ_STB	3150mA	12-24VDC	± 5%	86.0%	87.0%
MU075H375AQ	MU075H375AQ_0-10V	MU075H375AQ_CLKS	MU075H375AQ_STB	3750mA	10-20VDC	± 5%	85.0%	86.0%
MU075H420AQ	MU075H420AQ_0-10V	MU075H420AQ_CLKS	MU075H420AQ_STB	4200mA	9-18VDC	± 5%	85.0%	86.0%
MU075H500AQ	MU075H500AQ_0-10V	MU075H500AQ_CLKS	MU075H500AQ_STB	5000mA	7-15VDC	± 5%	84.0%	85.0%

Remarks: 1.The function instruction can be found in the Appendix Page 199~Page 204.

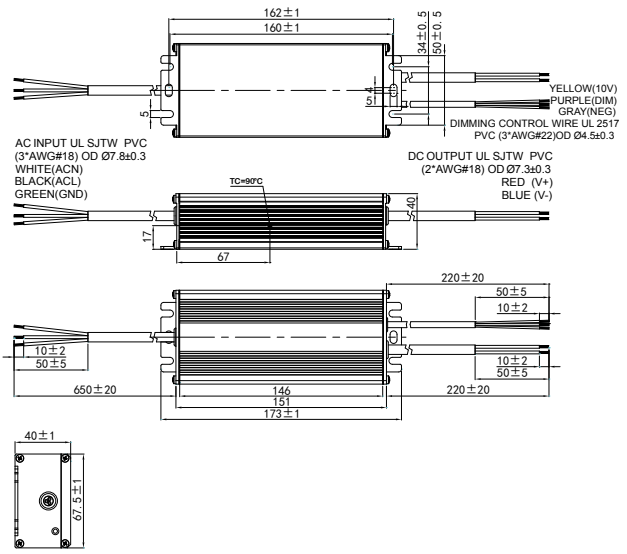
2. For the Clock Dimming function driver, there is MU75HXXXAQ_CLK and MU75HXXXAQ_CLKS

Mechanical Outline (unit: mm)

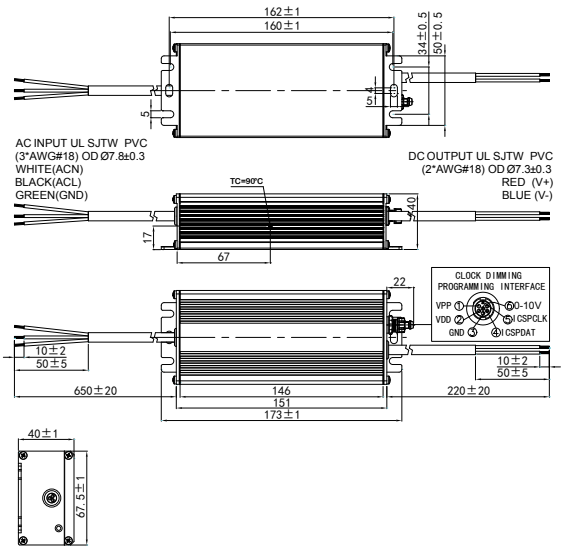
Constant Current



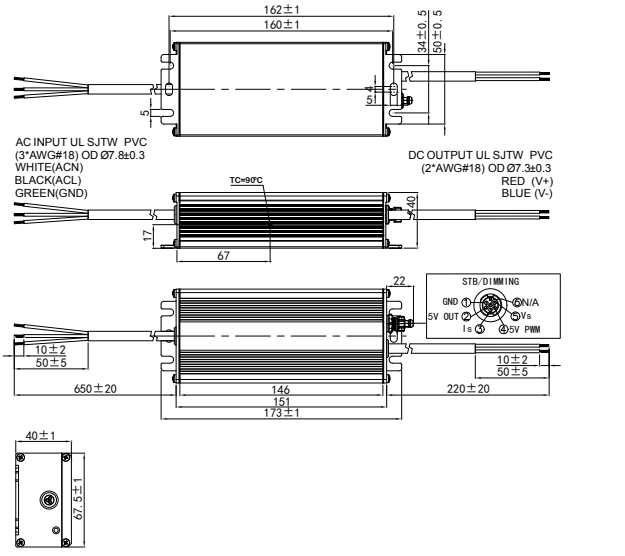
0-10V Dimming / Clock Dimming(CLKS)



Clock Dimming(CLK)



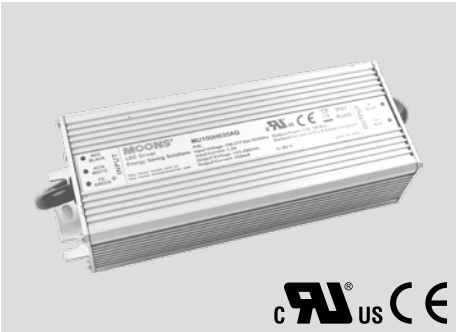
Standby



MU100H Class I Series

Features

- Input voltage：90-305VAC
- High efficiency：91% typical
- Active PFC：0.99 typical
- High surge immunity
- Low THD
- IP67 compliant
- Protections：OVP, OCP, OTP, SCP
- Constant Current/0-10V Dimming/Clock Dimming(CLK)/Standby(STB)
- Compliance to worldwide safety regulations for lighting
- Suitable for dry/damp locations
- CUL / CE
- 5-year warranty



187 x 67.5 x 40mm

Electrical Specifications

Input voltage range	90~305VAC
Frequency	47~63Hz
Power factor	0.99（typical）， ＞0.90 100~277VAC input，80%~100% load
Input current	1.2A at 110VAC, 0.6A at 220VAC
Inrush current	15A at 230VAC input
Leakage current	1mA MAX at 277Vac/50Hz input
Maximum output power	100W
Line regulation	±1%
Load regulation	±3%
Start-up time	<1.2s at 110VAC，<1s at 220VAC
Protections	over voltage, over current, over temperature, short circuit: auto recovery
THD	＜10%，220VAC，50Hz input，80%~100% load ＜15%，110VAC/277VAC，60Hz input，80%~100% load

Environmental Specifications

Operating temperature	-40℃ ~ +70℃
Operating humidity	10% ~ 95% RH
Storage temperature	-40℃ ~ +80℃
Storage humidity	5% ~ 95% RH
Cooling method	convection
Isolation voltage	input / output 3750VAC
MTBF	300,000 hours full load at 25℃ ambient
Life time	50,000 hours, 75℃ TC
Reference dimension (L x W x H)	187 x 67.5 x 40 (mm)
Weight	0.85 kg

Safety & EMC Compliance

CUL	UL8750, UL1012, UL1310, CSA-C22.2 NO. 107.1, CSA-C22.2 NO. 223-M91
CE	EN 61347-1, EN61347-2-13
Conducted emissions	FCC Part15Class B / EN55015
Radiated emissions	FCC Part15Class B / EN55015
Harmonic current emissions	EN61000-3-2
Voltage fluctuations and flicker	EN61000-3-3
Electrostatic discharge	EN61000-4-2
RFE field susceptibility	EN61000-4-3
Electrical fast transient	EN61000-4-4
Surge immunity test	EN61000-4-5（Surge: L-N, 4KV, L/N-Earth, 6KV）
Conducted radio frequency	EN61000-4-6
Power frequency magnetic field test	EN61000-4-8
Voltage dips	EN61000-4-11
Electromagnetic immunity	EN61547

Model Specifications

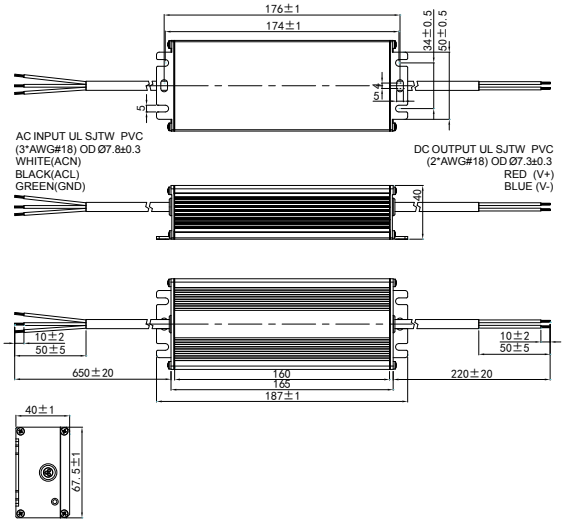
Model				Output Current	Output Voltage	Current Accuracy	Efficiency (typical)	
Constant Current	0-10V Dimming	Clock Dimming	Standby				110Vac	220Vac
MU100H035AQ	MU100H035AQ_0-10V	MU100H035AQ_CLKS	MU100H035AQ_STB	350mA	143-286VDC	± 5%	89.0%	91.0%
MU100H045AQ	MU100H045AQ_0-10V	MU100H045AQ_CLKS	MU100H045AQ_STB	450mA	111-222VDC	± 5%	89.0%	91.0%
MU100H053AQ	MU100H053AQ_0-10V	MU100H053AQ_CLKS	MU100H053AQ_STB	530mA	94-188VDC	± 5%	89.0%	91.0%
MU100H070AQ	MU100H070AQ_0-10V	MU100H070AQ_CLKS	MU100H070AQ_STB	700mA	71-143VDC	± 5%	89.0%	91.0%
MU100H105AQ	MU100H105AQ_0-10V	MU100H105AQ_CLKS	MU100H105AQ_STB	1050mA	48-95VDC	± 5%	88.0%	90.0%
MU100H140AQ	MU100H140AQ_0-10V	MU100H140AQ_CLKS	MU100H140AQ_STB	1400mA	36-71VDC	± 5%	88.0%	90.0%
MU100H175AQ	MU100H175AQ_0-10V	MU100H175AQ_CLKS	MU100H175AQ_STB	1750mA	27-55VDC	± 5%	88.0%	90.0%
MU100H210AQ	MU100H210AQ_0-10V	MU100H210AQ_CLKS	MU100H210AQ_STB	2100mA	23-46VDC	± 5%	87.0%	89.0%
MU100H245AQ	MU100H245AQ_0-10V	MU100H245AQ_CLKS	MU100H245AQ_STB	2450mA	19-39VDC	± 5%	87.0%	89.0%
MU100H280AQ	MU100H280AQ_0-10V	MU100H280AQ_CLKS	MU100H280AQ_STB	2800mA	17-34VDC	± 5%	87.0%	89.0%
MU100H315AQ	MU100H315AQ_0-10V	MU100H315AQ_CLKS	MU100H315AQ_STB	3150mA	15-30.5VDC	± 5%	86.0%	88.0%
MU100H350AQ	MU100H350AQ_0-10V	MU100H350AQ_CLKS	MU100H350AQ_STB	3500mA	13-27VDC	± 5%	86.0%	88.0%
MU100H420AQ	MU100H420AQ_0-10V	MU100H420AQ_CLKS	MU100H420AQ_STB	4200mA	12-23VDC	± 5%	86.0%	88.0%

Remarks: 1.The function instruction can be found in the Appendix Page 199~Page 204.

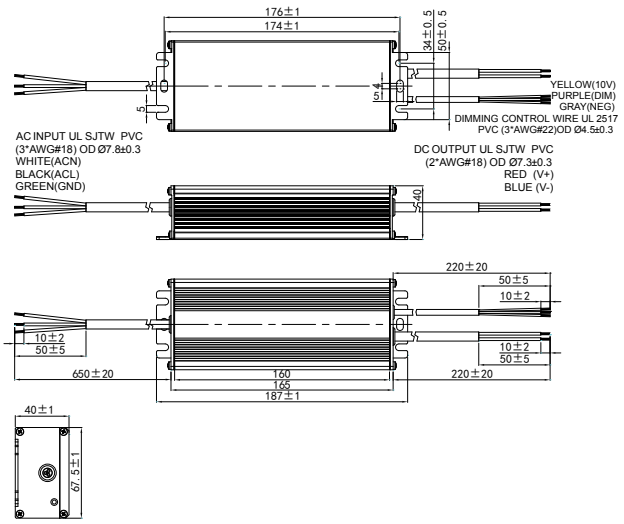
2. For the Clock Dimming function driver, there is MU100HXXXAQ_CLK and MU100HXXXAQ_CLKS

Mechanical Outline (unit: mm)

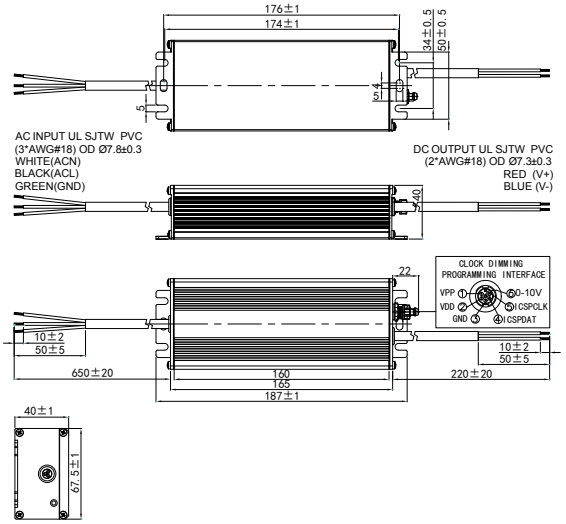
Constant Current



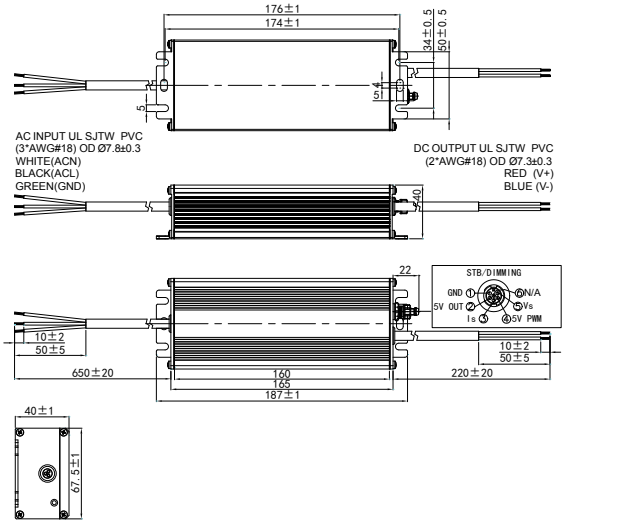
0-10V Dimming / Clock Dimming(CLKS)



Clock Dimming(CLK)



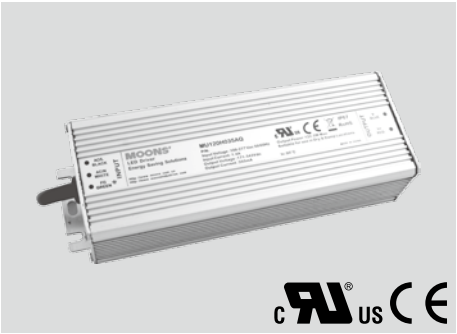
Standby



MU120H Class I Series

Features

- Input voltage：90-305VAC
- High efficiency：91% typical
- Active PFC：0.99 typical
- High surge immunity
- Low THD
- IP67 compliant
- Protections：OVP, OCP, OTP, SCP
- Constant Current/0-10V Dimming/Clock Dimming(CLK)/Standby(STB)
- Compliance to worldwide safety regulations for lighting
- Suitable for dry/damp locations
- CUL / CE
- 5-year warranty



202 x 67.5 x 40mm

Electrical Specifications

Input voltage range	90~305VAC
Frequency	47~63Hz
Power factor	0.99（typical）， ＞0.90 100~277VAC input，80%~100% load
Input current	1.4A at 110VAC, 0.7A at 220VAC
Inrush current	15A at 230VAC input
Leakage current	1mA MAX at 277Vac/50Hz input
Maximum output power	120W
Line regulation	±1%
Load regulation	±3%
Start-up time	<1.2s at 110VAC, <1s at 220VAC
Protections	over voltage, over current, over temperature, short circuit: auto recovery
THD	＜10%，220VAC，50Hz input，80%~100% load ＜15%，110VAC/277VAC，60Hz input，80%~100% load

Environmental Specifications

Operating temperature	-40℃ ~ +70℃
Operating humidity	10% ~ 95% RH
Storage temperature	-40℃ ~ +80℃
Storage humidity	5% ~ 95% RH
Cooling method	convection
Isolation voltage	input / output 3750VAC
MTBF	300,000 hours full load at 25℃ ambient
Life time	50,000 hours, 75℃ TC
Reference dimension (L x W x H)	202 x 67.5 x 40 (mm)
Weight	0.95 kg

Safety & EMC Compliance

CUL	UL8750, UL1012, CSA-C22.2 NO. 107.1
CE	EN 61347-1, EN61347-2-13
Conducted emissions	FCC Part15 Class B / EN55015
Radiated emissions	FCC Part15 Class B / EN55015
Harmonic current emissions	EN61000-3-2
Voltage fluctuations and flicker	EN61000-3-3
Electrostatic discharge	EN61000-4-2
RFE field susceptibility	EN61000-4-3
Electrical fast transient	EN61000-4-4
Surge immunity test	EN61000-4-5（Surge: L-N, 4KV, L/N-Earth, 6KV）
Conducted radio frequency	EN61000-4-6
Power frequency magnetic field test	EN61000-4-8
Voltage dips	EN61000-4-11
Electromagnetic immunity	EN61547

Model Specifications

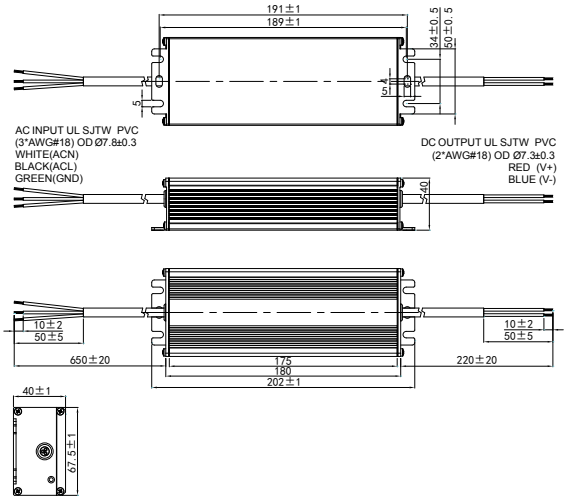
Model				Output Current	Output Voltage	Current Accuracy	Efficiency (typical)	
Constant Current	0-10V Dimming	Clock Dimming	Standby				110Vac	220Vac
MU120H035AQ	MU120H035AQ_0-10V	MU120H035AQ_CLKS	MU120H035AQ_STB	350mA	171-343VDC	± 5%	89.0%	91.0%
MU120H045AQ	MU120H045AQ_0-10V	MU120H045AQ_CLKS	MU120H045AQ_STB	450mA	133-267VFC	± 5%	89.0%	91.0%
MU120H053AQ	MU120H053AQ_0-10V	MU120H053AQ_CLKS	MU120H053AQ_STB	530mA	113-227VDC	± 5%	89.0%	91.0%
MU120H070AQ	MU120H070AQ_0-10V	MU120H070AQ_CLKS	MU120H070AQ_STB	700mA	86-171VDC	± 5%	89.0%	91.0%
MU120H105AQ	MU120H105AQ_0-10V	MU120H105AQ_CLKS	MU120H105AQ_STB	1050mA	57-114VDC	± 5%	88.0%	90.0%
MU120H140AQ	MU120H140AQ_0-10V	MU120H140AQ_CLKS	MU120H140AQ_STB	1400mA	43-86VDC	± 5%	88.0%	90.0%
MU120H175AQ	MU120H175AQ_0-10V	MU120H175AQ_CLKS	MU120H175AQ_STB	1750mA	34-69VDC	± 5%	88.0%	90.0%
MU120H210AQ	MU120H210AQ_0-10V	MU120H210AQ_CLKS	MU120H210AQ_STB	2100mA	29-57VDC	± 5%	87.0%	89.0%
MU120H245AQ	MU120H245AQ_0-10V	MU120H245AQ_CLKS	MU120H245AQ_STB	2450mA	24-48VDC	± 5%	87.0%	89.0%
MU120H280AQ	MU120H280AQ_0-10V	MU120H280AQ_CLKS	MU120H280AQ_STB	2800mA	21-43VDC	± 5%	87.0%	89.0%
MU120H315AQ	MU120H315AQ_0-10V	MU120H315AQ_CLKS	MU120H315AQ_STB	3150mA	19-38VDC	± 5%	86.0%	88.0%
MU120H350AQ	MU120H350AQ_0-10V	MU120H350AQ_CLKS	MU120H350AQ_STB	3500mA	17-34VDC	± 5%	86.0%	88.0%
MU120H420AQ	MU120H420AQ_0-10V	MU120H420AQ_CLKS	MU120H420AQ_STB	4200mA	14-28VDC	± 5%	85.0%	87.0%
MU120H500AQ	MU120H500AQ_0-10V	MU120H500AQ_CLKS	MU120H500AQ_STB	5000mA	12-24VDC	± 5%	85.0%	87.0%

Remarks: 1.The function instruction can be found in the Appendix Page 199~ Page 204.

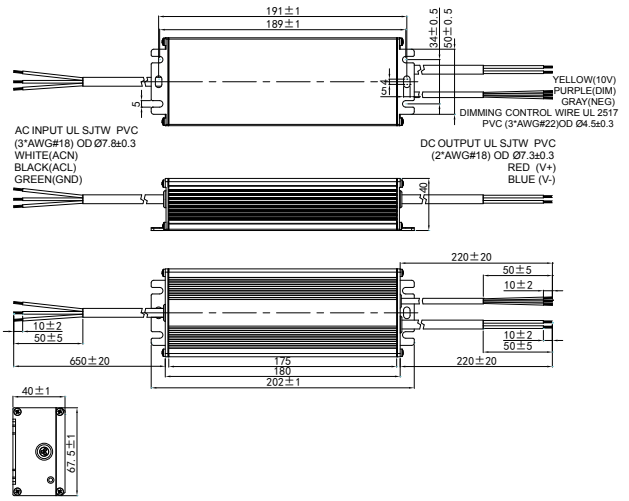
2. For the Clock Dimming function driver, there is MU120HXXXAQ_CLK and MU120HXXXAQ_CLKS

Mechanical Outline (unit: mm)

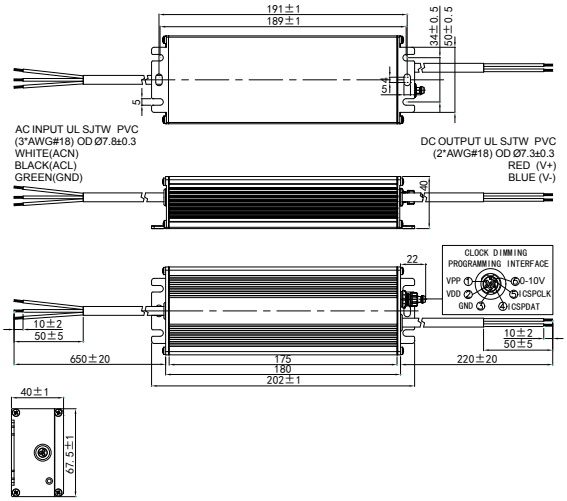
Constant Current



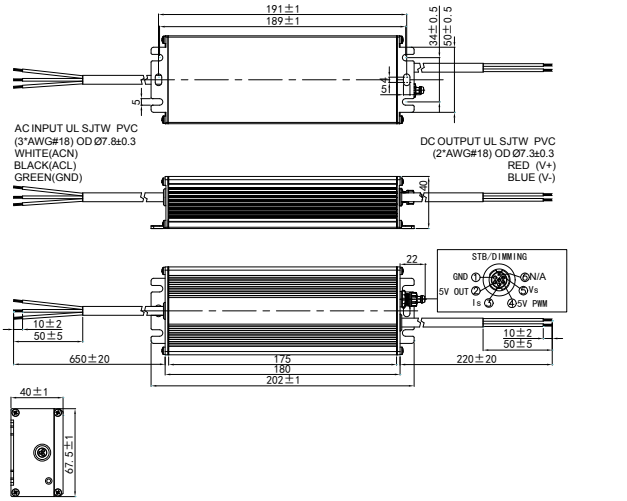
0-10V Dimming / Clock Dimming(CLKS)



Clock Dimming(CLK)



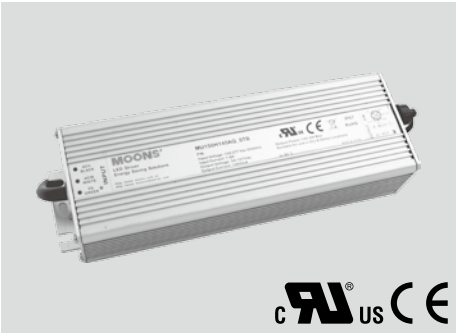
Standby



MU150H Class I Series

Features

- Input voltage：90-305VAC
- High efficiency：93% typical
- Active PFC：0.99 typical
- High surge immunity
- Low THD
- IP67 compliant
- Protections：OVP, OCP, OTP, SCP
- Constant Current/0-10V Dimming/Clock Dimming(CLK)/Standby(STB)
- Compliance to worldwide safety regulations for lighting
- Suitable for dry/damp locations
- CUL / CE
- 5-year warranty



221 x 67.5 x 40mm

Electrical Specifications

Input voltage range	90~305VAC
Frequency	47~63Hz
Power factor	0.99（typical）， ＞0.90 100~277VAC input，80%~100% load
Input current	1.8A at 100VAC, 0.9A at 220VAC
Inrush current	65A at 230VAC，25℃ cold start
Leakage current	0.75mA MAX at 277Vac/50Hz input
Maximum output power	150W
Line regulation	±1%
Load regulation	±3%
Start-up time	<1.2s at 120VAC，<1s at 220VAC
Protections	over voltage, over current, over temperature, short circuit: auto recovery
THD	＜10% at 220VAC， input 50Hz，80%~100% load ＜15% at 110VAC and 277VAC，input 60Hz ，80%~100% load

Environmental Specifications

Operating temperature	-40℃ ~ +70℃
Operating humidity	20% ~ 95% RH
Storage temperature	-40℃ ~ +85℃
Storage humidity	10%~ 95% RH
Cooling method	convection
Isolation voltage	input / output 3750VAC
MTBF	300,000 hours full load at 25℃ ambient
Life time	50,000 hours, 75℃ TC
Reference dimension (L x W x H)	221 x 67.5 x 40 (mm)
Weight	1.05 kg

Safety & EMC Compliance

CUL	UL8750，UL1012, CSA-C22.2 NO. 107.1
CE	EN 61347-1, EN61347-2-13
Conducted emissions	FCC Part15 Class B / EN55015
Radiated emissions	FCC Part15 Class B / EN55015
Harmonic current emissions	EN61000-3-2
Voltage fluctuations and flicker	EN61000-3-3
Electrostatic discharge	EN61000-4-2
RFE field susceptibility	EN61000-4-3
Electrical fast transient	EN61000-4-4
Surge immunity test	EN61000-4-5（Surge: L-N, 4KV, L/N-Earth, 6KV）
Conducted radio frequency	EN61000-4-6
Power frequency magnetic field test	EN61000-4-8
Voltage dips	EN61000-4-11
Electromagnetic immunity	EN61547

Model Specifications

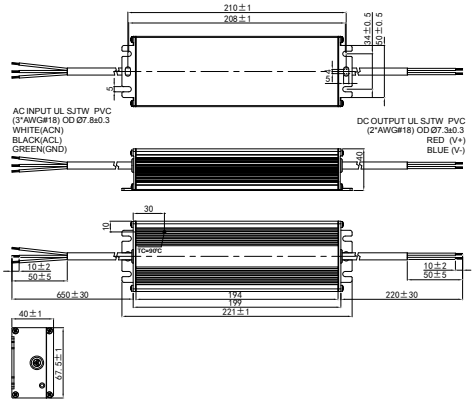
Model				Output Current	Output Voltage	Current Accuracy	Efficiency (typical)	
Constant Current	0-10V Dimming	Clock Dimming	Standby				110Vac	220Vac
MU150H035AQ	MU150H035AQ_0-10V	MU150H035AQ_CLKS	MU150H035AQ_STB	350mA	214-428VDC	± 5%	90.0%	93.0%
MU150H045AQ	MU150H045AQ_0-10V	MU150H045AQ_CLKS	MU150H045AQ_STB	450mA	167-333VDC	± 5%	90.0%	93.0%
MU150H053AQ	MU150H053AQ_0-10V	MU150H053AQ_CLKS	MU150H053AQ_STB	530mA	142-283VDC	± 5%	90.0%	93.0%
MU150H070AQ	MU150H070AQ_0-10V	MU150H070AQ_CLKS	MU150H070AQ_STB	700mA	107-214VDC	± 5%	90.0%	93.0%
MU150H085AQ	MU150H085AQ_0-10V	MU150H085AQ_CLKS	MU150H085AQ_STB	850mA	88-176VDC	± 5%	90.0%	93.0%
MU150H105AQ	MU150H105AQ_0-10V	MU150H105AQ_CLKS	MU150H105AQ_STB	1050mA	71-142VDC	± 5%	89.0%	92.0%
MU150H120AQ	MU150H120AQ_0-10V	MU150H120AQ_CLKS	MU150H120AQ_STB	1200mA	63-125VDC	± 5%	89.0%	92.0%
MU150H140AQ	MU150H140AQ_0-10V	MU150H140AQ_CLKS	MU150H140AQ_STB	1400mA	54-107VDC	± 5%	89.0%	92.0%
MU150H150AQ	MU150H150AQ_0-10V	MU150H150AQ_CLKS	MU150H150AQ_STB	1500mA	50-100VDC	± 5%	89.0%	92.0%
MU150H175AQ	MU150H175AQ_0-10V	MU150H175AQ_CLKS	MU150H175AQ_STB	1750mA	43-85VDC	± 5%	89.0%	92.0%
MU150H185AQ	MU150H185AQ_0-10V	MU150H185AQ_CLKS	MU150H185AQ_STB	1850mA	41-81VDC	± 5%	89.0%	92.0%
MU150H210AQ	MU150H210AQ_0-10V	MU150H210AQ_CLKS	MU150H210AQ_STB	2100mA	36-71VDC	± 5%	89.0%	92.0%
MU150H245AQ	MU150H245AQ_0-10V	MU150H245AQ_CLKS	MU150H245AQ_STB	2450mA	31-61VDC	± 5%	89.0%	92.0%
MU150H280AQ	MU150H280AQ_0-10V	MU150H280AQ_CLKS	MU150H280AQ_STB	2800mA	27-53VDC	± 5%	89.0%	92.0%
MU150H300AQ	MU150H300AQ_0-10V	MU150H300AQ_CLKS	MU150H300AQ_STB	3000mA	25-50VDC	± 5%	88.0%	91.0%
MU150H315AQ	MU150H315AQ_0-10V	MU150H315AQ_CLKS	MU150H315AQ_STB	3150mA	24-48VDC	± 5%	88.0%	91.0%
MU150H350AQ	MU150H350AQ_0-10V	MU150H350AQ_CLKS	MU150H350AQ_STB	3500mA	21-42VDC	± 5%	88.0%	91.0%
MU150H420AQ	MU150H420AQ_0-10V	MU150H420AQ_CLKS	MU150H420AQ_STB	4200mA	18-36VDC	± 5%	88.0%	91.0%
MU150H500AQ	MU150H500AQ_0-10V	MU150H500AQ_CLKS	MU150H500AQ_STB	5000mA	15-30VDC	± 5%	88.0%	91.0%

Remarks: 1.The function instruction can be found in the Appendix Page 199~Page 204.

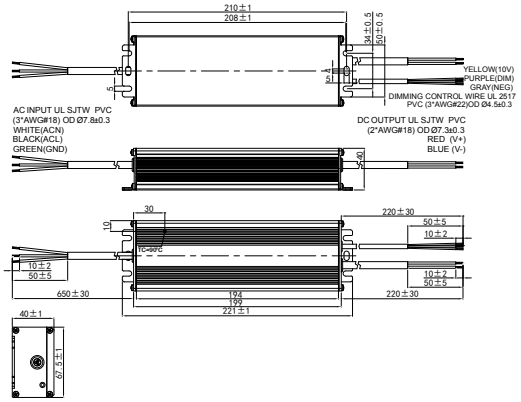
2. For the Clock Dimming function driver, there is MU150HXXXAQ_CLK and MU150HXXXAQ_CLKS

Mechanical Outline (unit: mm)

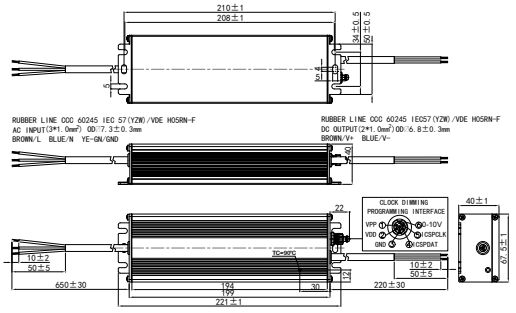
Constant Current



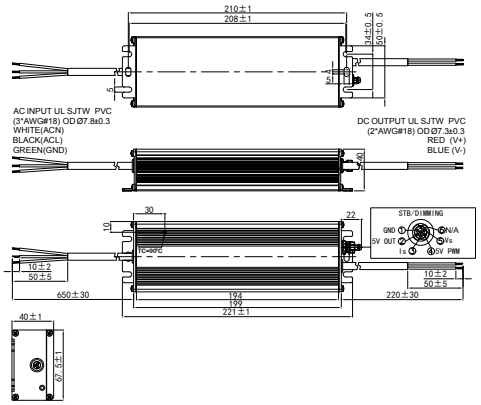
0-10V Dimming / Clock Dimming(CLKS)



Clock Dimming(CLK)



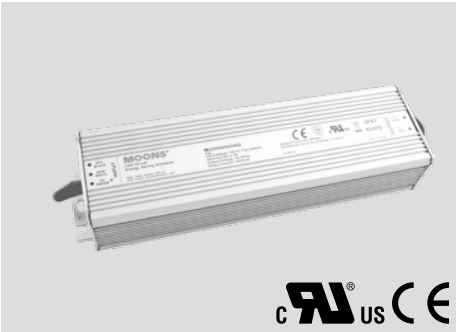
Standby



MU200H Class I Series

Features

- Input voltage：90-305VAC
- High efficiency：93.5% typical
- Active PFC：0.99 typical
- High surge immunity
- Low THD
- IP67 compliant
- Protections：OVP, OCP, OTP, SCP
- Constant Current/0-10V Dimming/Clock Dimming(CLK)/Standby(STB)
- Compliance to worldwide safety regulations for lighting
- Suitable for dry/damp locations
- CUL / CE
- 5-year warranty



251 x 67.5 x 40mm

Electrical Specifications

Input voltage range	90~305VAC
Frequency	47~63Hz
Power factor	0.99（typical）， ＞0.90 100~277VAC input，80%~100% load
Input current	2.4A at 100VAC, 1.2A at 220VAC
Inrush current	65A at 230VAC，25℃ cold start
Leakage current	0.75 mA MAX at 277Vac/50Hz input
Maximum output power	200W
Line regulation	±1%
Load regulation	±3%
Start-up time	<1.2s at 120VAC，<1s at 220VAC
Protections	over voltage, over current, over temperature, short circuit: auto recovery
THD	＜10% at 220VAC， input 50Hz，80%~100% load ＜15% at 110VAC and 277VAC，input 60Hz ，80%~100% load

Environmental Specifications

Operating temperature	-40℃ ~ +70℃
Operating humidity	20% ~ 95% RH
Storage temperature	-40℃ ~ +85℃
Storage humidity	10% ~ 95% RH
Cooling method	convection
Isolation voltage	input / output 3750VAC
MTBF	300,000 hours full load at 25℃ ambient
Life time	50,000 hours, 75℃ TC
Reference dimension (L x W x H)	251 x 67.5 x 40 (mm)
Weight	1.2 kg

Safety & EMC Compliance

CUL	UL8750，UL1012, CSA-C22.2 NO. 107.1
CE	EN 61347-1, EN61347-2-13
Conducted emissions	FCC Part15 Class B / EN55015
Radiated emissions	FCC Part15 Class B / EN55015
Harmonic current emissions	EN61000-3-2
Voltage fluctuations and flicker	EN61000-3-3
Electrostatic discharge	EN61000-4-2
RFE field susceptibility	EN61000-4-3
Electrical fast transient	EN61000-4-4
Surge immunity test	EN61000-4-5（Surge: L-N, 4KV, L/N-Earth, 6KV）
Conducted radio frequency	EN61000-4-6
Power frequency magnetic field test	EN61000-4-8
Voltage dips	EN61000-4-11
Electromagnetic immunity	EN61547

Model Specifications

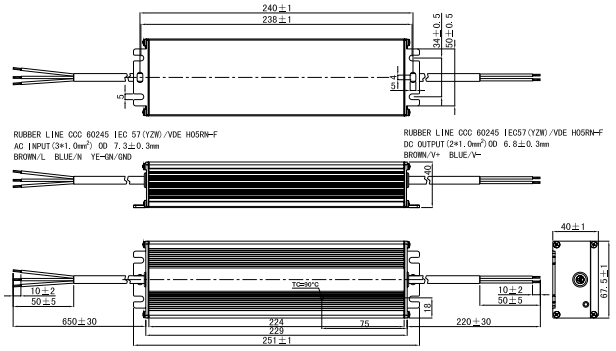
Model				Output Current	Output Voltage	Current Accuracy	Efficiency (typical)	
Constant Current	0-10V Dimming	Clock Dimming	Standby				110Vac	220Vac
MU200H035AQ	MU200H035AQ_0-10V	MU200H035AQ_CLKS	MU200H035AQ_STB	350mA	286-571VDC	± 5%	90.5%	93.5%
MU200H045AQ	MU200H045AQ_0-10V	MU200H045AQ_CLKS	MU200H045AQ_STB	450mA	222-444VDC	± 5%	90.5%	93.5%
MU200H053AQ	MU200H053AQ_0-10V	MU200H053AQ_CLKS	MU200H053AQ_STB	530mA	189-377VDC	± 5%	90.5%	93.5%
MU200H070AQ	MU200H070AQ_0-10V	MU200H070AQ_CLKS	MU200H070AQ_STB	700mA	143-285VDC	± 5%	90.5%	93.5%
MU200H085AQ	MU200H085AQ_0-10V	MU200H085AQ_CLKS	MU200H085AQ_STB	850mA	118-235VDC	± 5%	90.0%	93.0%
MU200H105AQ	MU200H105AQ_0-10V	MU200H105AQ_CLKS	MU200H105AQ_STB	1050mA	95-190VDC	± 5%	90.0%	93.0%
MU200H120AQ	MU200H120AQ_0-10V	MU200H120AQ_CLKS	MU200H120AQ_STB	1200mA	83-166VDC	± 5%	90.0%	93.0%
MU200H140AQ	MU200H140AQ_0-10V	MU200H140AQ_CLKS	MU200H140AQ_STB	1400mA	71-142VDC	± 5%	90.0%	93.0%
MU200H150AQ	MU200H150AQ_0-10V	MU200H150AQ_CLKS	MU200H150AQ_STB	1500mA	67-133VDC	± 5%	90.0%	92.0%
MU200H175AQ	MU200H175AQ_0-10V	MU200H175AQ_CLKS	MU200H175AQ_STB	1750mA	57-114VDC	± 5%	89.0%	92.0%
MU200H210AQ	MU200H210AQ_0-10V	MU200H210AQ_CLKS	MU200H210AQ_STB	2100mA	48-95VDC	± 5%	89.0%	92.0%
MU200H245AQ	MU200H245AQ_0-10V	MU200H245AQ_CLKS	MU200H245AQ_STB	2450mA	41-81VDC	± 5%	89.0%	92.0%
MU200H280AQ	MU200H280AQ_0-10V	MU200H280AQ_CLKS	MU200H280AQ_STB	2800mA	36-71VDC	± 5%	89.0%	92.0%
MU200H300AQ	MU200H300AQ_0-10V	MU200H300AQ_CLKS	MU200H300AQ_STB	3000mA	34-67VDC	± 5%	89.0%	92.0%
MU200H315AQ	MU200H315AQ_0-10V	MU200H315AQ_CLKS	MU200H315AQ_STB	3150mA	32-63VDC	± 5%	88.5%	91.5%
MU200H350AQ	MU200H350AQ_0-10V	MU200H350AQ_CLKS	MU200H350AQ_STB	3500mA	29-57VDC	± 5%	88.5%	91.5%
MU200H420AQ	MU200H420AQ_0-10V	MU200H420AQ_CLKS	MU200H420AQ_STB	4200mA	24-48VDC	± 5%	88.5%	91.5%
MU200H490AQ	MU200H490AQ_0-10V	MU200H490AQ_CLKS	MU200H490AQ_STB	4900mA	20-40VDC	± 5%	88.0%	91.0%
MU200H560AQ	MU200H560AQ_0-10V	MU200H560AQ_CLKS	MU200H560AQ_STB	5600mA	18-36VDC	± 5%	88.0%	91.0%
MU200H600AQ	MU200H600AQ_0-10V	MU200H600AQ_CLKS	MU200H600AQ_STB	6000mA	17-33VDC	± 5%	88.0%	91.0%

Remarks: 1.The function instruction can be found in the Appendix Page 199 -Page 204.

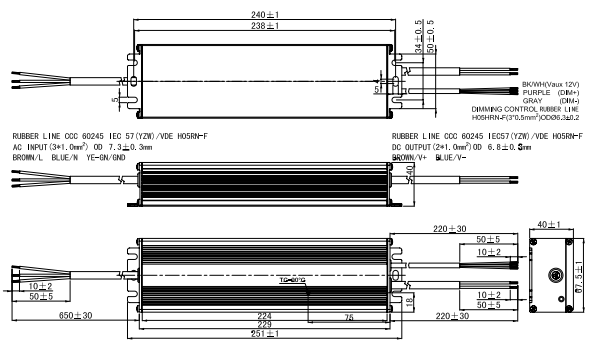
2. For the Clock Dimming function driver, there is MU200HXXXAQ_CLK and MU200HXXXAQ_CLKS

Mechanical Outline (unit: mm)

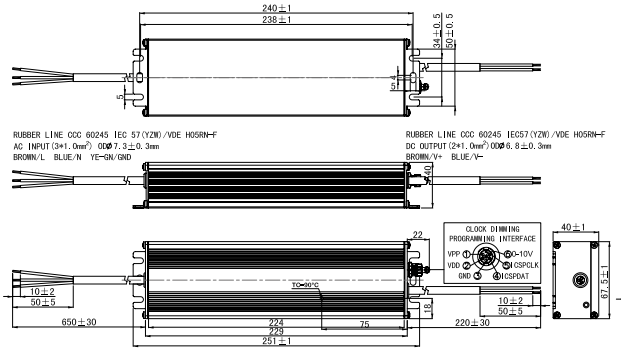
Constant Current



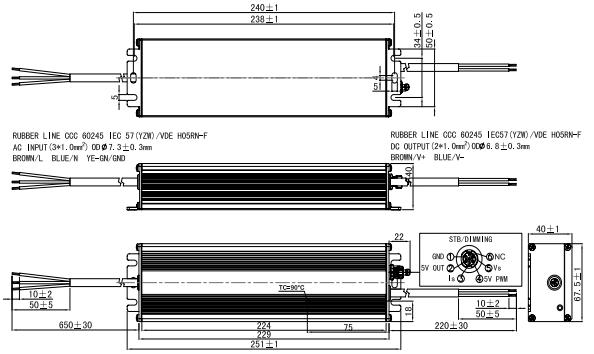
0-10V Dimming / Clock Dimming(CLKS)



Clock Dimming(CLK)



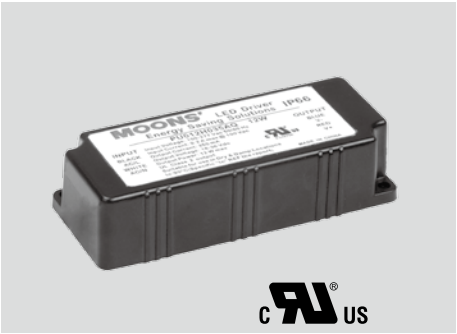
Standby



PU012H Class II Series

Features

- Input voltage：90-305VAC
- High efficiency：86% typical
- Active PFC：0.99 typical
- Surge protection
- IP66 compliant
- Protections：OVP, OCP, SCP
- Constant Current
- Compliance to worldwide safety regulations for lighting
- Suitable for dry/damp locations
- CUL
- 5-year warranty



85 x 36 x 23mm

Electrical Specifications

Input voltage range	90~305VAC
Frequency	47~63Hz
Power factor	0.99 at 120VAC/60Hz，0.97 at 230VAC/50Hz (typical)
Input current	0.2A at 100VAC input，full load
Inrush current	15A at 230VAC input, 25℃ cold start
Leakage current	0.5mA MAX at 277VAC/60Hz input
Maximum output power	12W
Line regulation	± 5%
Load regulation	± 5%
Start-up time	<1.2s at 120VAC，<1s at 220VAC
Protections	over voltage, over current, short circuit: auto recovery

Environmental Specifications

Operating temperature	-40℃ ~ +60℃
Operating humidity	20%~ 95%RH
Storage temperature	-40℃ ~ +85℃
Storage humidity	10% ~ 95% RH
Cooling method	convection
Isolation voltage	input / output 3750VAC
MTBF	300,000 hours full load at 25℃ ambient
Life time	50,000 hours, 75℃ TC
Reference dimension (L x W x H)	85 x 36 x 23 (mm)
Weight	0.1 kg

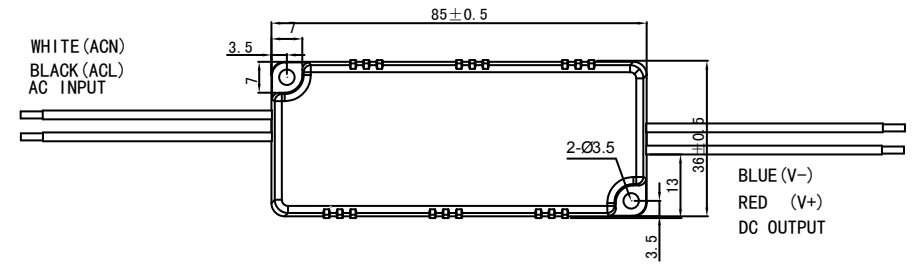
Safety & EMC Compliance

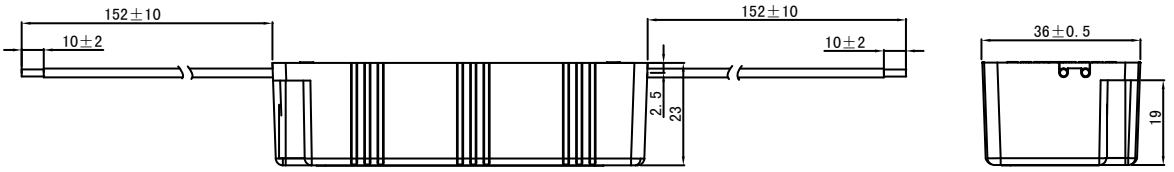
CUL	UL8750， UL1310, CSA-C22.2 NO. 107.1, CSA-C22.2 NO. 223-M91
CE	EN 61347-1, EN61347-2-13
Conducted emissions	FCC Part15 Class B/ EN55015
Radiated emissions	FCC Part15 Class B/ EN55015
Harmonic current emissions	EN61000-3-2
Voltage fluctuations and flicker	EN61000-3-3
Electrostatic discharge	EN61000-4-2
RFE field susceptibility	EN61000-4-3
Electrical fast transient	EN61000-4-4
Surge immunity test	EN61000-4-5
Conducted radio frequency	EN61000-4-6
Power frequency magnetic field test	EN61000-4-8
Voltage dips	EN61000-4-11
Electromagnetic immunity	EN61547

Constant Current — Model Specifications

Model	Output Current	Output Voltage	Current Accuracy	Efficiency (typical)	
				110Vac	220Vac
PU012H025AQ	250mA	24-48VDC	± 6%	85.0%	86.0%
PU012H030AQ	300mA	18-36VDC	± 6%	84.0%	85.0%
PU012H035AQ	350mA	18-36VDC	± 6%	84.0%	85.0%
PU012H045AQ	450mA	13-27VDC	± 5%	83.0%	84.0%
PU012H070AQ	700mA	8-17VDC	± 5%	82.0%	83.0%
PU012H100AQ	1000mA	6-12VDC	± 5%	80.0%	81.0%

Mechanical Outline (unit: mm)





PU025H Class II Series

Features

- Input voltage：90-305VAC
- High efficiency：89% typical
- Active PFC：0.99 typical
- Surge protection
- IP66 compliant
- Protections：OVP, OCP, SCP
- Constant Current / 0-10V Dimming
- Compliance to worldwide safety regulations for lighting
- Suitable for dry/damp locations
- CUL/CE/ENEC
- 5-year warranty

80 x 78 x 27mm

Electrical Specifications

Input voltage range	90~305VAC
Frequency	47~63Hz
Power factor	0.99 at 120VAC/60Hz，0.97 at 230VAC/50Hz (typical)
Input current	0.4A at 100VAC input，full load
Inrush current	15A at 230VAC input, 25℃ cold start
Leakage current	0.5mA MAX at 277VAC/60Hz input
Maximum output power	25W
Line regulation	± 5%
Load regulation	± 5%
Start-up time	<1.2s at 120VAC, <1s at 220VAC
Protections	over voltage, over current, short circuit: auto recovery

Environmental Specifications

Operating temperature	-40℃ ~ +60℃
Operating humidity	20% ~ 95% RH
Storage temperature	-40℃ ~ +85℃
Storage humidity	10% ~ 95% RH
Cooling method	convection
Isolation voltage	input / output 3750VAC
MTBF	300,000 hours full load at 25℃ ambient
Life time	50,000 hours, 75℃ TC
Reference dimension (L x W x H)	80 x 78 x 27 (mm)
Weight	0.17 kg

Safety & EMC Compliance

CUL	UL8750, UL1012, UL1310, CSA-C22.2 NO. 107.1, CSA-C22.2 NO. 223-M91
CE	EN 61347-1, EN61347-2-13
Conducted emissions	FCC Part15 Class B / EN55015
Radiated emissions	FCC Part15 Class B / EN55015
Harmonic current emissions	EN61000-3-2
Voltage fluctuations and flicker	EN61000-3-3
Electrostatic discharge	EN61000-4-2
RFE field susceptibility	EN61000-4-3
Electrical fast transient	EN61000-4-4
Surge immunity test	EN61000-4-5
Conducted radio frequency	EN61000-4-6
Power frequency magnetic field test	EN61000-4-8
Voltage dips	EN61000-4-11
Electromagnetic immunity	EN61547

Constant Current — Model Specifications

Model	Output Current	Output Voltage	Current Accuracy	Efficiency (typical)	
				110Vac	220Vac
PU025H035AQ	350mA	36-72VDC	± 5%	88.0%	89.0%
PU025H045AQ	450mA	28-55VDC	± 5%	87.0%	88.0%
PU025H070AQ	700mA	18-36VDC	± 5%	86.0%	87.0%
PU025H105AQ	1050mA	12-24VDC	± 5%	85.0%	86.0%
PU025H120AQ	1200mA	10-21VDC	± 5%	84.0%	85.0%
PU025H140AQ	1400mA	9-18VDC	± 5%	83.0%	84.0%
PU025H175AQ	1750mA	7-14VDC	± 5%	82.0%	83.0%
PU025H210AQ	2100mA	6-12VDC	± 5%	81.0%	82.0%

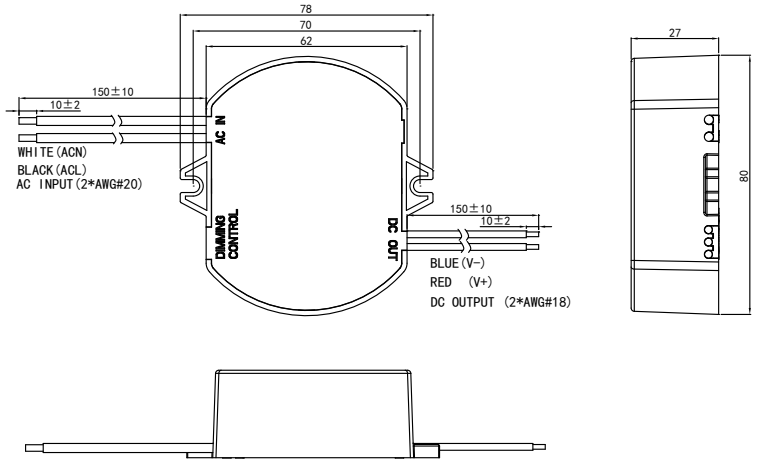
0-10V Dimming — Model Specifications

Model	Output Current	Output Voltage	Current Accuracy	Efficiency (typical)	
				110Vac	220Vac
PU025H035AQ_0-10V	350mA	36-72VDC	± 5%	87.0%	88.0%
PU025H045AQ_0-10V	450mA	28-55VDC	± 5%	86.0%	87.0%
PU025H070AQ_0-10V	700mA	18-36VDC	± 5%	85.0%	86.0%
PU025H105AQ_0-10V	1050mA	12-24VDC	± 5%	84.0%	85.0%
PU025H120AQ_0-10V	1200mA	10-21VDC	± 5%	83.0%	84.0%
PU025H140AQ_0-10V	1400mA	9-18VDC	± 5%	82.0%	83.0%
PU025H175AQ_0-10V	1750mA	7-14VDC	± 5%	81.0%	82.0%
PU025H210AQ_0-10V	2100mA	6-12VDC	± 5%	80.0%	81.0%

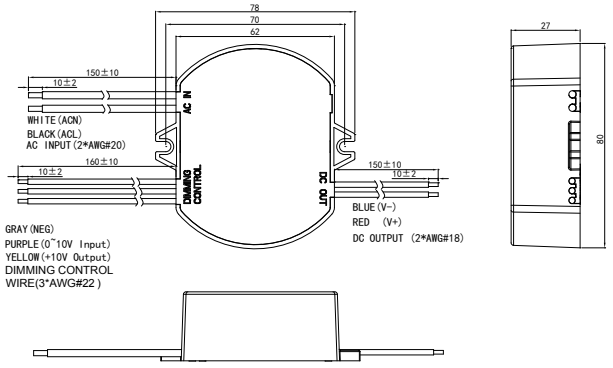
Remarks: The function instruction can be found in the Appendix Page 199.

Mechanical Outline (unit: mm)

Constant Current



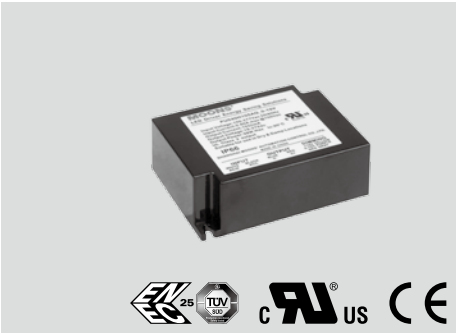
0-10V Dimming



PU040H Class II Series

Features

- Input voltage：90-305VAC
- High efficiency：90% typical
- Active PFC：0.99 typical
- Surge protection
- IP66 compliant
- Protections：OVP, OCP, OTP, SCP
- Constant Current / 0-10V Dimming
- Compliance to worldwide safety regulations for lighting
- Suitable for dry /damp locations
- CUL / CE / ENEC
- 5-year warranty



95 x 70x 32mm

Electrical Specifications

Input voltage range	90~305VAC
Frequency	47~63Hz
Power factor	0.99 at 120VAC/60Hz，0.97 at 230VAC/50Hz (typical)
Input current	0.6A at 100VAC input，full load
Inrush current	15A at 230VAC input, 25℃ cold start
Leakage current	0.5mA MAX at 277VAC/60Hz input
Maximum output power	40W
Line regulation	± 3%
Load regulation	± 3%
Start-up time	<1.2s at 120VAC, <1s at 220VAC
Protections	over voltage, over current, over temperature, short circuit: auto recovery

Environmental Specifications

Operating temperature	-40℃ ~ +60℃
Operating humidity	20% ~ 95% RH
Storage temperature	-40℃ ~ +85℃
Storage humidity	10% ~ 95% RH
Cooling method	convection
Isolation voltage	input / output 3750VAC
MTBF	300,000 hours full load at 25℃ ambient
Life time	50,000 hours, 75℃ TC
Reference dimension (L x W x H)	95 x 70 x 32 (mm)
Weight	0.3 kg

Safety & EMC Compliance

CUL	UL8750, UL1012, UL1310, CSA-C22.2 NO. 107.1, CSA-C22.2 NO. 223-M91
CE	EN 61347-1, EN61347-2-13
Conducted emissions	FCC Part15 Class B / EN55015
Radiated emissions	FCC Part15 Class B / EN55015
Harmonic current emissions	EN61000-3-2
Voltage fluctuations and flicker	EN61000-3-3
Electrostatic discharge	EN61000-4-2
RFE field susceptibility	EN61000-4-3
Electrical fast transient	EN61000-4-4
Surge immunity test	EN61000-4-5
Conducted radio frequency	EN61000-4-6
Power frequency magnetic field test	EN61000-4-8
Voltage dips	EN61000-4-11
Electromagnetic immunity	EN61547

Constant Current — Model Specifications

Model	Output Current	Output Voltage	Current Accuracy	Efficiency (typical)	
				110Vac	220Vac
PU040H035AQ	350mA	57-114VDC	± 5%	90.0%	91.0%
PU040H045AQ	450mA	44-89VDC	± 5%	89.5%	90.5%
PU040H070AQ	700mA	28-54VDC	± 5%	89.0%	90.0%
PU040H105AQ	1050mA	19-37VDC	± 5%	88.0%	89.0%
PU040H140AQ	1400mA	14-29VDC	± 5%	88.0%	89.0%
PU040H175AQ	1750mA	11-23VDC	± 5%	87.0%	88.0%
PU040H210AQ	2100mA	9-19VDC	± 5%	85.5%	86.5%
PU040H245AQ	2450mA	8-16VDC	± 5%	84.0%	85.0%
PU040H280AQ	2800mA	7-14VDC	± 5%	83.5%	85.0%
PU040H315AQ	3150mA	6-12VDC	± 5%	82.5%	84.0%

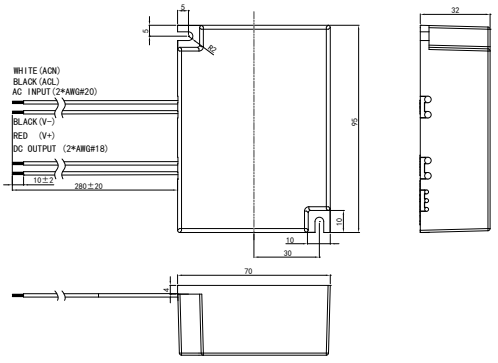
0-10V Dimming — Model Specifications

Model	Output Current	Output Voltage	Current Accuracy	Efficiency (typical)	
				110Vac	220Vac
PU040H035AQ_0-10V	350mA	57-114VDC	± 5%	89.0%	90.0%
PU040H045AQ_0-10V	450mA	44-89VDC	± 5%	88.5%	89.5%
PU040H070AQ_0-10V	700mA	28-54VDC	± 5%	87.5%	88.5%
PU040H105AQ_0-10V	1050mA	19-37VDC	± 5%	87.0%	88.0%
PU040H140AQ_0-10V	1400mA	14-29VDC	± 5%	86.5%	87.5%
PU040H175AQ_0-10V	1750mA	11-23VDC	± 5%	85.0%	86.0%
PU040H210AQ_0-10V	2100mA	9-19VDC	± 5%	84.0%	85.0%
PU040H245AQ_0-10V	2450mA	8-16VDC	± 5%	83.5%	84.5%
PU040H280AQ_0-10V	2800mA	7-14VDC	± 5%	82.5%	84.0%
PU040H315AQ_0-10V	3150mA	6-12VDC	± 5%	81.5%	83.0%

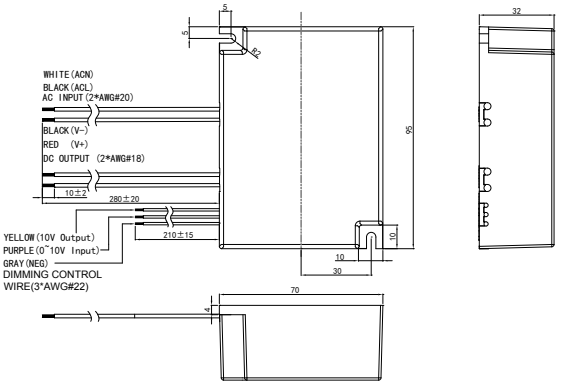
Remarks: The function instruction can be found in the Appendix Page 199.

Mechanical Outline (unit: mm)

Constant Current



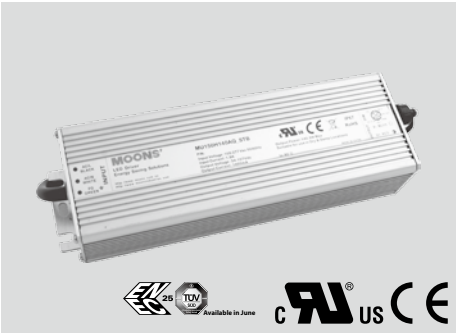
0-10V Dimming



MU150H Class II Series

Features

- Input voltage：90-305VAC
- High efficiency：93% typical
- Active PFC：0.99 typical
- High surge immunity
- Low THD
- IP67 compliant
- Protections：OVP, OCP, OTP, SCP
- Constant Current/0-10V Dimming/Clock Dimming(CLK)/Standby(STB)
- Compliance to worldwide safety regulations for lighting
- Suitable for dry/damp locations
- CUL / CE
- 5-year warranty



221 x 67.5 x 40mm

Electrical Specifications

Input voltage range	90~305VAC
Frequency	47~63Hz
Power factor	0.99（typical）， >0.90 100~277VAC input，80%~100% load
Input current	1.8A at 100VAC, 0.9A at 220VAC
Inrush current	65A at 230VAC， 25℃ cold start
Leakage current	0.5mA MAX at 277Vac/50Hz input
Maximum output power	150W
Line regulation	±1%
Load regulation	±3%
Start-up time	<1.2s at 120VAC， <1s at 220VAC
Protections	over voltage, over current, over temperature, short circuit: auto recovery
THD	<10% at 220VAC， input 50Hz ， 80%~100% load <15% at 110VAC and 277VAC, input 60Hz ， 80%~100% load

Environmental Specifications

Operating temperature	-40℃ ~ +70℃
Operating humidity	20% ~ 95% RH
Storage temperature	-40℃ ~ +85℃
Storage humidity	10% ~ 95% RH
Cooling method	convection
Isolation voltage	input / output 3750VAC
MTBF	300,000 hours full load at 25℃ ambient
Life time	50,000 hours, 75℃ TC
Reference dimension (L x W x H)	221 x 67.5 x 40 (mm)
Weight	1.05 kg

Safety & EMC Compliance

CUL	UL8750， UL1012, CSA-C22.2 NO. 107.1
CE	EN 61347-1, EN61347-2-13
Conducted emissions	FCC Part15 Class B / EN55015
Radiated emissions	FCC Part15 Class B / EN55015
Harmonic current emissions	EN61000-3-2
Voltage fluctuations and flicker	EN61000-3-3
Electrostatic discharge	EN61000-4-2
RFE field susceptibility	EN61000-4-3
Electrical fast transient	EN61000-4-4
Surge immunity test	EN61000-4-5（Surge: L-N, 4KV, L/N-Case, 4KV）
Conducted radio frequency	EN61000-4-6
Power frequency magnetic field test	EN61000-4-8
Voltage dips	EN61000-4-11
Electromagnetic immunity	EN61547

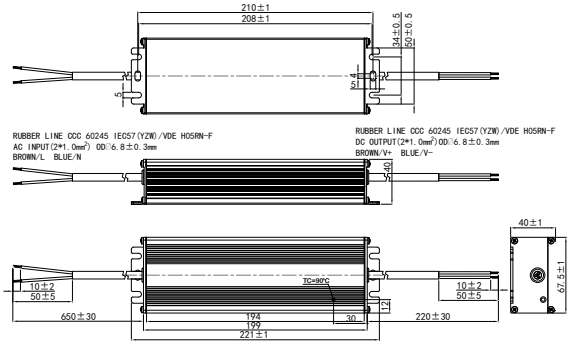
Model Specifications

Model				Output Current	Output Voltage	Current Accuracy	Efficiency (typical)	
Constant Current	0-10V Dimming	Clock Dimming	Standby				110Vac	220Vac
MU150H035AQ	MU150H035AQ_0-10V	MU150H035AQ_CLKS	MU150H035AQ_STB	350mA	214-428VDC	± 5%	90.0%	93.0%
MU150H045AQ	MU150H045AQ_0-10V	MU150H045AQ_CLKS	MU150H045AQ_STB	450mA	167-333VDC	± 5%	90.0%	93.0%
MU150H053AQ	MU150H053AQ_0-10V	MU150H053AQ_CLKS	MU150H053AQ_STB	530mA	142-283VDC	± 5%	90.0%	93.0%
MU150H070AQ	MU150H070AQ_0-10V	MU150H070AQ_CLKS	MU150H070AQ_STB	700mA	107-214VDC	± 5%	90.0%	93.0%
MU150H105AQ	MU150H105AQ_0-10V	MU150H105AQ_CLKS	MU150H105AQ_STB	1050mA	71-142VDC	± 5%	89.0%	92.0%
MU150H140AQ	MU150H140AQ_0-10V	MU150H140AQ_CLKS	MU150H140AQ_STB	1400mA	54-107VDC	± 5%	89.0%	92.0%
MU150H175AQ	MU150H175AQ_0-10V	MU150H175AQ_CLKS	MU150H175AQ_STB	1750mA	43-85VDC	± 5%	89.0%	92.0%
MU150H210AQ	MU150H210AQ_0-10V	MU150H210AQ_CLKS	MU150H210AQ_STB	2100mA	36-71VDC	± 5%	89.0%	92.0%
MU150H245AQ	MU150H245AQ_0-10V	MU150H245AQ_CLKS	MU150H245AQ_STB	2450mA	31-61VDC	± 5%	89.0%	92.0%
MU150H280AQ	MU150H280AQ_0-10V	MU150H280AQ_CLKS	MU150H280AQ_STB	2800mA	27-53VDC	± 5%	89.0%	92.0%
MU150H315AQ	MU150H315AQ_0-10V	MU150H315AQ_CLKS	MU150H315AQ_STB	3150mA	24-48VDC	± 5%	88.0%	91.0%
MU150H350AQ	MU150H350AQ_0-10V	MU150H350AQ_CLKS	MU150H350AQ_STB	3500mA	21-42VDC	± 5%	88.0%	91.0%
MU150H420AQ	MU150H420AQ_0-10V	MU150H420AQ_CLKS	MU150H420AQ_STB	4200mA	18-36VDC	± 5%	88.0%	91.0%
MU150H500AQ	MU150H500AQ_0-10V	MU150H500AQ_CLKS	MU150H500AQ_STB	5000mA	15-30VDC	± 5%	88.0%	91.0%

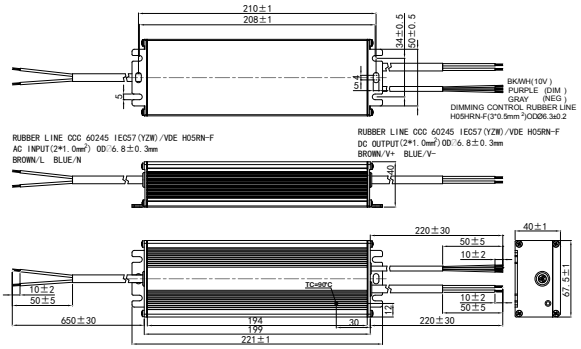
Remarks: 1.The function instruction can be found in the Appendix Page 199~Page 204

Mechanical Outline (unit: mm)

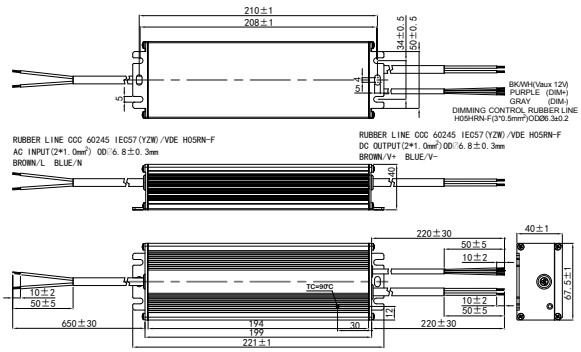
Constant Current



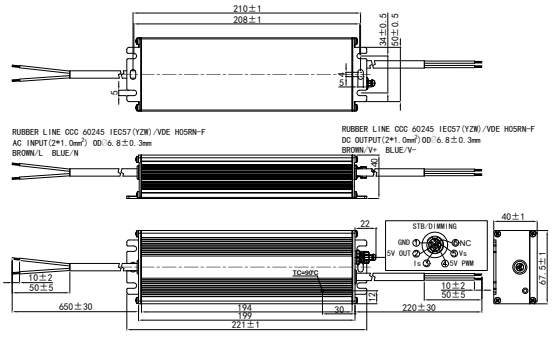
0-10V Dimming



Clock Dimming(CLKS)



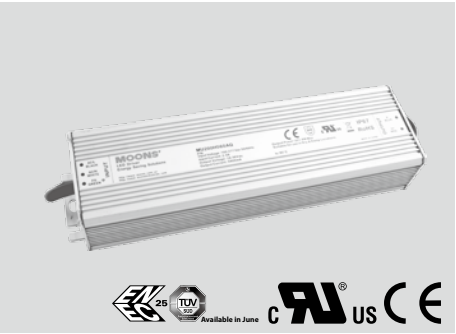
Standby



MU200H Class II Series

Features

- Input voltage：90-305VAC
- High efficiency：93.5% typical
- Active PFC：0.99 typical
- High surge immunity
- Low THD
- IP67 compliant
- Protections：OVP, OCP, OTP, SCP
- Constant Current/0-10V Dimming/Clock Dimming(CLK)/Standby(STB)
- Compliance to worldwide safety regulations for lighting
- Suitable for dry/damp locations
- CUL / CE
- 5-year warranty



251 x 67.5 x 40mm

Electrical Specifications

Input voltage range	90~305VAC
Frequency	47~63Hz
Power factor	0.99（typical）, > 0.90 100~277VAC input，60%~100% load
Input current	2.4A at 100VAC, 1.2A at 220VAC
Inrush current	65A at 230VAC，25℃ cold start
Leakage current	0.5 mA MAX at 277Vac/50Hz input
Maximum output power	200W
Line regulation	±1%
Load regulation	±3%
Start-up time	<1.2s at 120VAC，<1s at 220VAC
Protections	over voltage, over current, over temperature, short circuit: auto recovery
THD	<10%，220VAC，50Hz input，80%~100% load <15%，110VAC and 277VAC，60Hz input，80%~100% load

Environmental Specifications

Operating temperature	-40℃ ~ +70℃
Operating humidity	20% ~ 95% RH
Storage temperature	-40℃ ~ +85℃
Storage humidity	10% ~ 95% RH
Cooling method	convection
Isolation voltage	input / output 3750VAC
MTBF	300,000 hours full load at 25℃ ambient
Life time	50,000 hours, 75℃ TC
Reference dimension (L x W x H)	251 x 67.5 x 40 (mm)
Weight	1.2 kg

Safety & EMC Compliance

CUL	UL8750，UL1012, CSA-C22.2 NO. 107.1
CE	EN 61347-1, EN61347-2-13
Conducted emissions	FCC Part15 Class B/ EN55015
Radiated emissions	FCC Part15 Class B/ EN55015
Harmonic current emissions	EN61000-3-2
Voltage fluctuations and flicker	EN61000-3-3
Electrostatic discharge	EN61000-4-2
RFE field susceptibility	EN61000-4-3
Electrical fast transient	EN61000-4-4
Surge immunity test	EN61000-4-5（Surge: L-N, 4KV, L/N-Case, 4KV）
Conducted radio frequency	EN61000-4-6
Power frequency magnetic field test	EN61000-4-8
Voltage dips	EN61000-4-11
Electromagnetic immunity	EN61547

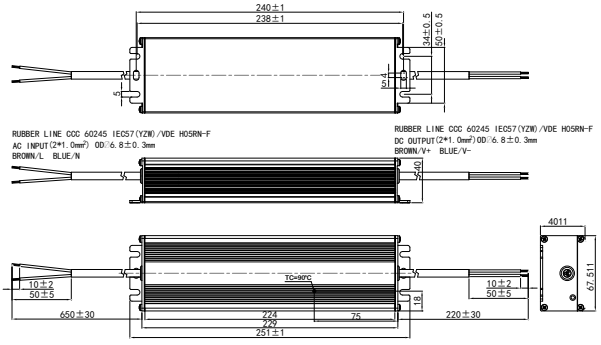
Model Specifications

Model				Output Current	Output Voltage	Current Accuracy	Efficiency (typical)	
Constant Current	0-10V Dimming	Clock Dimming	Standby				110Vac	220Vac
MU200H035AQ	MU200H035AQ_0-10V	MU200H035AQ_CLKS	MU200H035AQ_STB	350mA	286-571VDC	± 5%	90.5%	93.5%
MU200H045AQ	MU200H045AQ_0-10V	MU200H045AQ_CLKS	MU200H045AQ_STB	450mA	222-444VDC	± 5%	90.5%	93.5%
MU200H053AQ	MU200H053AQ_0-10V	MU200H053AQ_CLKS	MU200H053AQ_STB	530mA	189-377VDC	± 5%	90.5%	93.5%
MU200H070AQ	MU200H070AQ_0-10V	MU200H070AQ_CLKS	MU200H070AQ_STB	700mA	143-285VDC	± 5%	90.5%	93.5%
MU200H105AQ	MU200H105AQ_0-10V	MU200H105AQ_CLKS	MU200H105AQ_STB	1050mA	95-190VDC	± 5%	90.0%	93.0%
MU200H140AQ	MU200H140AQ_0-10V	MU200H140AQ_CLKS	MU200H140AQ_STB	1400mA	71-142VDC	± 5%	90.0%	93.0%
MU200H175AQ	MU200H175AQ_0-10V	MU200H175AQ_CLKS	MU200H175AQ_STB	1750mA	57-114VDC	± 5%	89.0%	92.0%
MU200H210AQ	MU200H210AQ_0-10V	MU200H210AQ_CLKS	MU200H210AQ_STB	2100mA	48-95VDC	± 5%	89.0%	92.0%
MU200H245AQ	MU200H245AQ_0-10V	MU200H245AQ_CLKS	MU200H245AQ_STB	2450mA	41-81VDC	± 5%	89.0%	92.0%
MU200H280AQ	MU200H280AQ_0-10V	MU200H280AQ_CLKS	MU200H280AQ_STB	2800mA	36-71VDC	± 5%	89.0%	92.0%
MU200H315AQ	MU200H315AQ_0-10V	MU200H315AQ_CLKS	MU200H315AQ_STB	3150mA	32-63VDC	± 5%	88.5%	91.5%
MU200H350AQ	MU200H350AQ_0-10V	MU200H350AQ_CLKS	MU200H350AQ_STB	3500mA	29-57VDC	± 5%	88.5%	91.5%
MU200H420AQ	MU200H420AQ_0-10V	MU200H420AQ_CLKS	MU200H420AQ_STB	4200mA	24-48VDC	± 5%	88.5%	91.5%
MU200H490AQ	MU200H490AQ_0-10V	MU200H490AQ_CLKS	MU200H490AQ_STB	4900mA	20-40VDC	± 5%	88.0%	91.0%
MU200H560AQ	MU200H560AQ_0-10V	MU200H560AQ_CLKS	MU200H560AQ_STB	5600mA	18-36VDC	± 5%	88.0%	91.0%

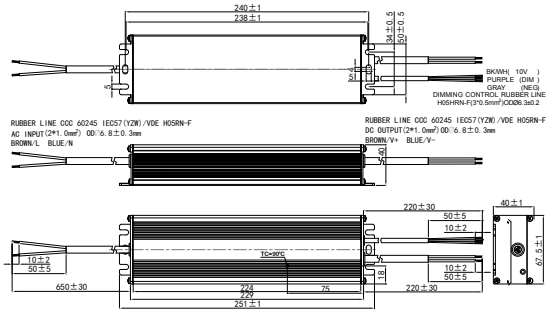
Remarks: 1.The function instruction can be found in the Appendix Page 199~Page 204.

Mechanical Outline (unit: mm)

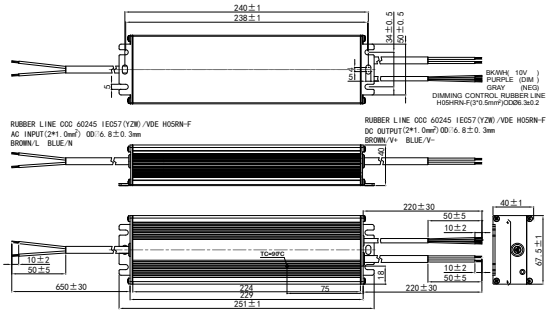
Constant Current



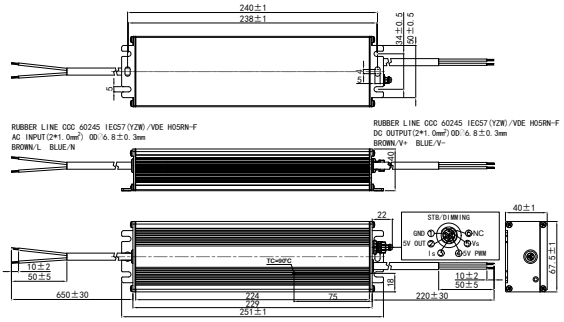
0-10V Dimming



Clock Dimming(CLKS)



Standby



PU030A Series - Constant Current Output & Dimming Control

Features

- Input voltage range 90-305VAC.
- High efficiency: 88% typical
- Active PFC: 0.99 typical
- Surge protection
- Protections: OVP, SCP
- Compliance to worldwide safety regulations for lighting
- Suitable for dry/damp locations
- CUL / CE
- 5-year warranty

120 × 46 × 30mm

Electrical Specifications

Input voltage range	90~305 VAC
Frequency	47~63 Hz
Power factor	0.99 at 110 VAC; 0.97 at 220 VAC (typical)
Inrush current	15A Max (at 220 VAC, 25℃, cold start)
Input current	0.4A Max at 100VAC
Efficiency	87% (typical) at 110 VAC maximum load, 88% (typical) at 220 VAC maximum load
Maximum power	30W
Turn on delay	< 1.5S at 220VAC maximum load, < 3S at 110VAC maximum load
Leakage current	0.75mA Max
Protections	Over Voltage,Short Circuit

Environmental Specifications

Operating temperature	-35ºC ~ +60ºC
Storage temperature	-40ºC ~ +85ºC
Operating humidity	20% ~ 95%RH
Storage humidity	10% ~ 95%RH
Cooling method	Convection
MTBF	300,000 hours at full load and 25ºC ambient
Life time	50,000 hours at 40ºC ambient
Reference dimension(L × W × H)	120 x 46 x 30 (mm)

Safety & EMC Compliance

CUL	UL8750
CE	EN61347-1, EN61347-2-13
Conducted Emissions	FCC Part15 Class B / EN55015
Radiated Emissions	FCC Part15 Class B / EN55015
Harmonic Current Emissions	EN61000-3-2
Electrostatic Discharge	EN61000-4-2
Surge Immunity Test	EN61000-4-5

Model Specifications - constant current

Part Number	Output Power	Output Current	Output Voltage	Current Accuracy	Efficiency (typical)		Output Current Adj. Range*1
					110VAC	220VAC	
PU030A070AQ	30W	700mA	24-42VDC	± 5%	87%	88%	unadjustable
PU030A081AQ	30W	1000mA	24-36VDC	± 5%	87%	88%	270-1150mA
PU040A140AQ1	40W	1400mA	16-31VDC	± 5%	88%	89%	unadjustable

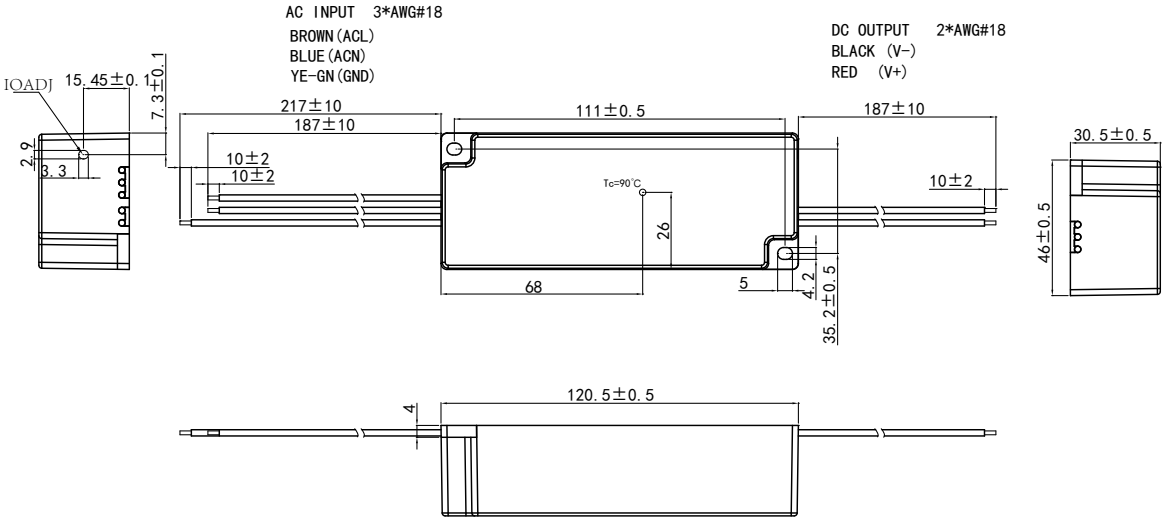
*1: Current can be set by adjusting the potentiometer, the maximum output power can not exceed 30W.

Model Specifications - Dimming Control (0-10V)

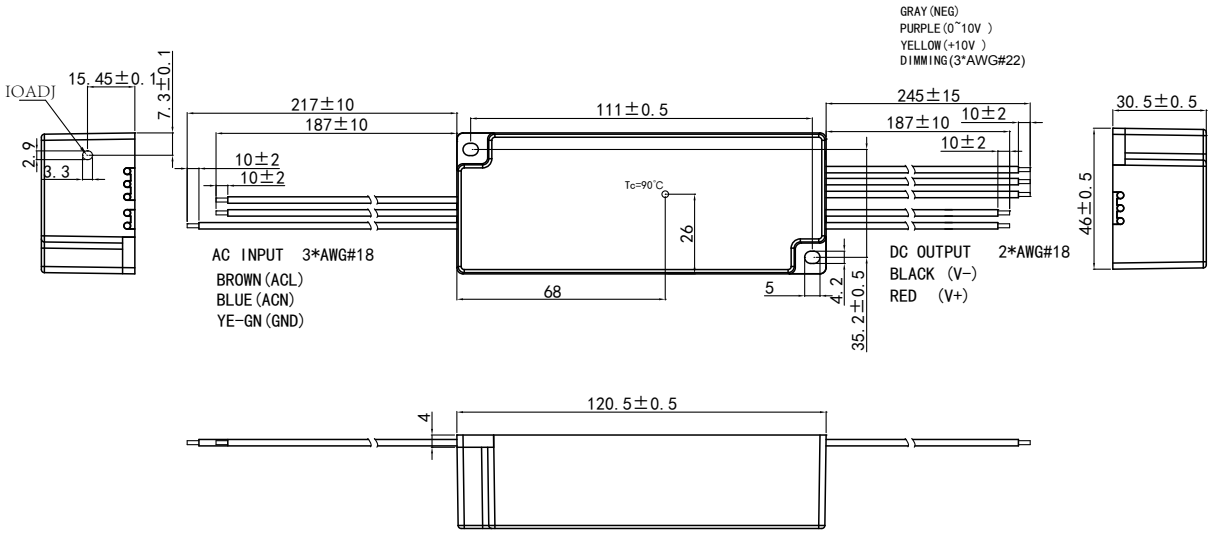
Part Number	Output Power	Output Current	Output Voltage	Current Accuracy	Efficiency (typical)	
					110VAC	220VAC
PU030A081AQD	30W	1000mA	24-36VDC	± 5%	87%	88%

Mechanical Outline (unit:mm)

Constant Current



Constant Current with Dimming Control (0~10V)



UU060A Series - Constant Current Output & Dimming Control

Features

- Input voltage range 90-305VAC
- High efficiency: 89% typical
- Active PFC: 0.99 typical
- Surge protection
- Support 0-10V dimming
- Protections: OVP, OTP, SCP
- Compliance to worldwide safety regulations for lighting
- Suitable for dry/damp locations
- CUL / CE
- 5-year warranty

140 × 71 × 35mm

Electrical Specifications

Input voltage range	90~305 VAC
Frequency	47~63 Hz
Power factor	0.99 at 110 VAC; 0.97 at 220 VAC (typical)
Inrush current	15A Max (at 230 VAC, 25℃, cold start)
Input current	0.8A Max at 100VAC, 0.4A Max at 220Vac
Efficiency	88% (typical) at 110 VAC maximum load, 89% (typical) at 220 VAC maximum load
Maximum power	60W
Turn on delay	< 1.5S at 220VAC maximum load, < 3S at 110VAC maximum load
Leakage current	0.75mA Max (277VAC 50Hz input)
Protections	Over Voltage, Over Temperature, Short Circuit

Environmental Specifications

Operating temperature	-35ºC ~ +60ºC
Storage temperature	-40ºC ~ +80ºC
Operating humidity	20% ~ 90%RH
Storage humidity	10% ~ 95%RH
Cooling method	Convection
MTBF	300,000 hours at full load and 25ºC ambient
Life time	50,000 hours at 40ºC ambient
Reference dimension(L × W × H)	140 x 71 x 35 (mm)

Safety & EMC Compliance

CUL	UL8750
CE	EN61347-1, EN61347-2-13
Conducted Emissions	FCC Part15 Class B / EN55015
Radiated Emissions	FCC Part15 Class B / EN55015
Harmonic Current Emissions	EN61000-3-2
Voltage Fluctuations and Flicker	EN61000-3-3
Electrostatic Discharge	EN61000-4-2
RFE Field Susceptibility	EN61000-4-3
Electrical Fast Transient	EN61000-4-4
Surge Immunity Test	EN61000-4-5
Conducted Radio Frequency	EN61000-4-6
Power Frequency Magnetic Field Test	EN61000-4-8
Voltage Dips	EN61000-4-11
Electromagnetic Immunity	EN61547

Model Specifications - Constant Current

Part Number	Output Power	Output Current	Output Voltage	Current Accuracy	Efficiency (typical)		Output Current Adj. Range*1
					110VAC	220VAC	
UU060A075AQ	60W	750mA	48-72VDC	± 5%	89%	90%	350-900mA
UU060A160AQ		1600mA	24-40VDC	± 5%	89%	90%	500-1900mA
c UL us CE UU060A190AQ		1900mA	24-36VDC	± 5%	89%	90%	1000-2200mA
UU060A220AQ		2200mA	18-36VDC	± 5%	89%	90%	1000-2200mA

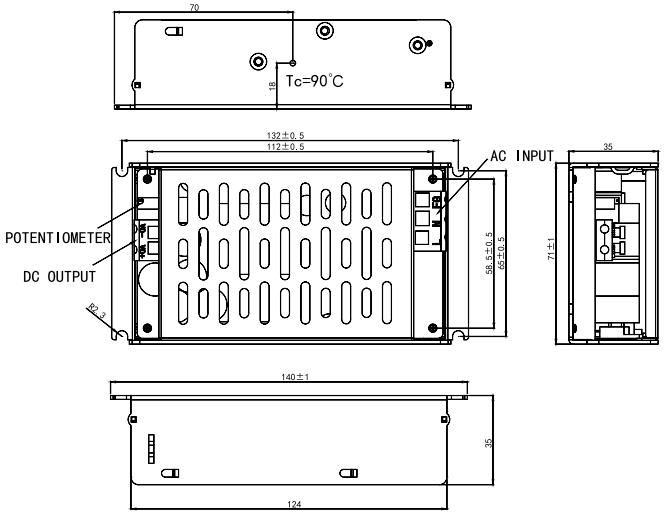
*1: Current can be set by adjusting the potentiometer, the maximum output power can not exceed 60W.

Model Specifications - Dimming Control (0-10V)

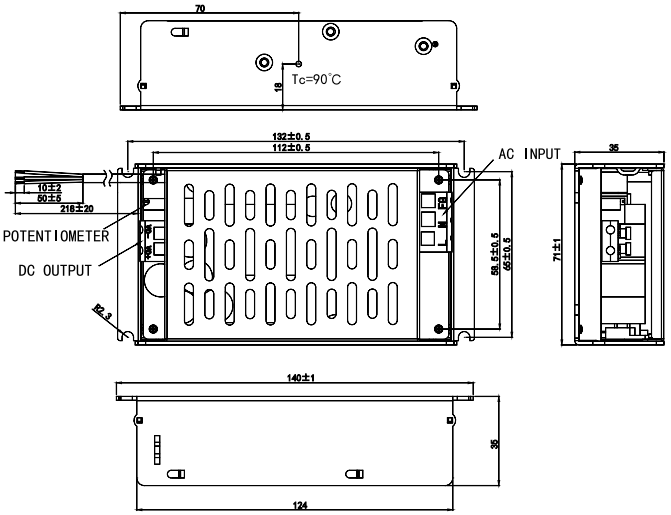
Part Number	Output Power	Output Current	Output Voltage	Current Accuracy	Efficiency (typical)	
					110VAC	220VAC
UU060A140AQD	60W	1400mA	25-38VDC	± 5%	88%	89%
UU060A180AQD		1760mA	24-36VDC	± 5%	88%	89%
CE UU060A190AQD		1900mA	24-36VDC	± 5%	88%	89%

Mechanical Outline (unit:mm)

Constant Current



Constant Current with Dimming Control (0~10V)



UF100A Series - Constant Current Output & Dimming Control

Features

- Input voltage range 90-305VAC
- High efficiency: 91% typical
- Active PFC: 0.99 typical
- Surge protection
- Support 0-10V dimming
- Protections: OVP, OTP, SCP
- Compliance to worldwide safety regulations for lighting
- Suitable for dry/damp locations
- CUL / CE
- 5-year warranty

162 × 71 × 40mm

Electrical Specifications

Input voltage range	90~305 VAC
Frequency	47~63 Hz
Power factor	0.99 (typical)
Inrush current	40A Max (at 230 VAC, 25℃, cold start)
Input current	1.2A Max at 110VAC, 0.6A Max at 220Vac
Efficiency	89% (typical) at 110 VAC maximum load, 91% (typical) at 220 VAC maximum load
Maximum power	100W
Turn on delay	< 1.5S at 220VAC maximum load, < 3S at 110VAC maximum load
Leakage current	1mA Max (277VAC 50Hz input)
Protections	Over Voltage, Over Temperature, Short Circuit

Environmental Specifications

Operating temperature	-35ºC ~ +60ºC
Storage temperature	-40ºC ~ +85ºC
Operating humidity	10% ~ 90%RH
Storage humidity	5% ~ 95%RH
Cooling method	Convection
MTBF	300,000 hours at full load and 25ºC ambient
Life time	50,000 hours at 40ºC ambient
Reference dimension(L × W × H)	162 x 71 x 40 (mm)

Safety & EMC Compliance

CUL	UL8750
CE	EN61347-1, EN61347-2-13
Conducted Emissions	EN55015
Radiated Emissions	EN55015
Harmonic Current Emissions	EN61000-3-2
Voltage Fluctuations and Flicker	EN61000-3-3
Electrostatic Discharge	EN61000-4-2
RFE Field Susceptibility	EN61000-4-3
Electrical Fast Transient	EN61000-4-4
Surge Immunity Test	EN61000-4-5
Conducted Radio Frequency	EN61000-4-6
Power Frequency Magnetic Field Test	EN61000-4-8
Voltage Dips	EN61000-4-11
Electromagnetic Immunity	EN61547

Model Specifications - Constant Current

Part Number	Output Power	Output Current	Output Voltage	Current Accuracy	Efficiency (typical)		Output Current Adj. Range*1
					110VAC	220VAC	
UF100A075AQ	100W	750mA	90-137VDC	± 5%	90%	92%	350-900mA
UF100A085AQ		850mA	72-120VDC	± 5%	90%	92%	500-1000mA
UF100A150AQ		1500mA	43-67VDC	± 5%	90%	92%	500-1750mA
UF100A170AQ		1700mA	30-50VDC	± 5%	89%	91%	750-2250mA
UF100A048AP		2100mA	30-45VDC	± 5%	89%	91%	1400-2300mA
UF100A250AQ		2500mA	24-40VDC	± 5%	89%	91%	1600-3000mA
UF100A300AQ		3000mA	24-35VDC	± 5%	89%	91%	1000-3500mA

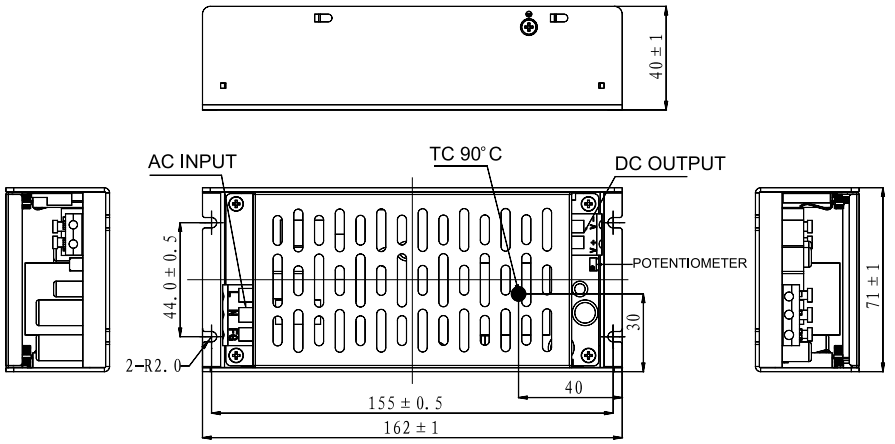
*1: Current can be set by adjusting the potentiometer, the maximum output power can not exceed 100W.

Model Specifications - Dimming Control (0-10V)

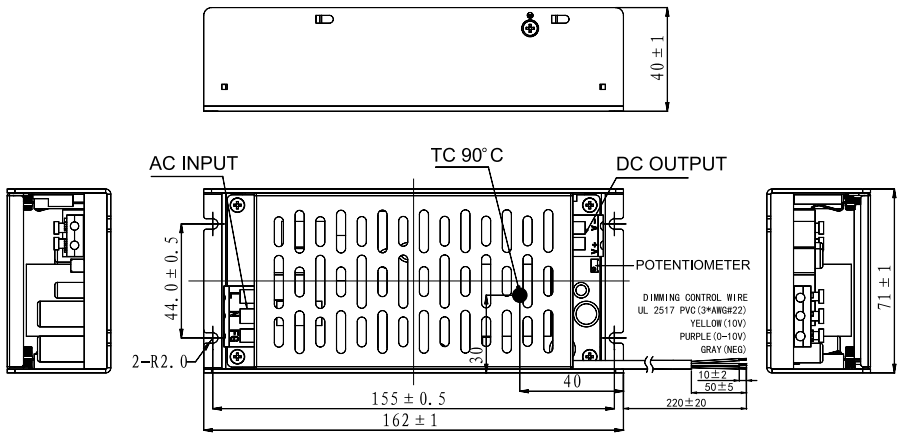
Part Number	Output Power	Output Current	Output Voltage	Current Accuracy	Efficiency (typical)	
					110VAC	220VAC
UF070A110AQD	100W	1100mA	43-67VDC	± 5%	89%	91%
UF070A210AQD		2100mA	24-35VDC	± 5%	89%	91%
UF100A097AQD		970mA	72-105VDC	± 5%	89%	91%
UF100A150AQD		1500mA	43-67VDC	± 5%	89%	91%
UF100A300AQD		3000mA	24-35VDC	± 5%	89%	91%

Mechanical Outline (unit:mm)

Constant Current



Constant Current with Dimming Control (0~10V)



PU012 Series - Constant Voltage Output

Features

- Input voltage range: 90-305VAC
- High efficiency: 85% typical
- Active PFC: 0.97 typical
- IP66 compliant
- Protections: OVP, OCP, SCP
- Compliance to worldwide safety regulations for lighting
- Suitable for dry/damp locations
- CUL / CE
- 5-year warranty

85 × 36 × 23mm

Electrical Specifications

Input voltage range	90~305VAC
Frequency	47~63Hz
Power factor	0.97 at 110VAC; 0.94 at 220VAC (typical)
Inrush current	15A MAX (25℃ at 220VAC, cold start)
Input current	0.18A MAX at 110VAC; 0.1A MAX at 220VAC
Efficiency	85% (typical) at 220VAC maximum load
Maximum power	12W
Line regulation	± 3%
Load regulation	± 3%
Leakage current	0.3mA MAX
Hold-up time	Half cycle
Protections	Over voltage, over current, short circuit

Environmental Specifications

Operating temperature	-30℃ ~ +60℃
Storage temperature	-40℃ ~ +85℃
Maximum case temperature	90℃
Humidity	5% ~ 95%RH
Cooling method	Convection
Isolation voltage	Input / output 3750VAC
Vibration	5-55Hz/2g, 30minutes
MTBF	300,000 hours full load at 25℃ ambient
Life time	50,000 hours at 50℃ ambient
Reference dimension (L × W × H)	85 × 36 × 23 (mm)

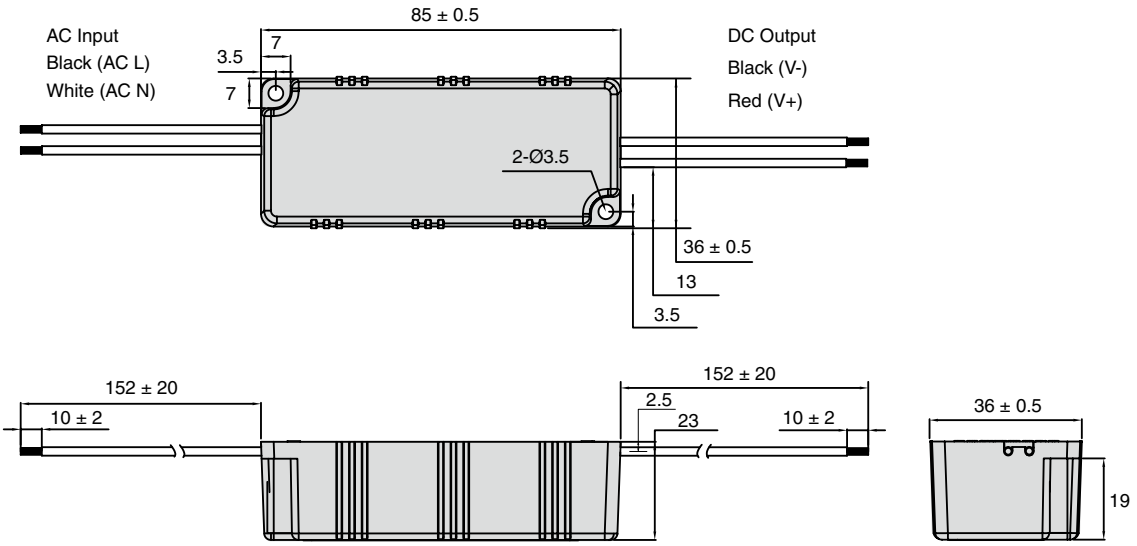
Safety & EMC Compliance

CUL	UL8750, UL935, UL1012, UL1310,CSA-C22.2 No. 107.1, CSA-C22.2 NO. 223-M91 Class 2
CE	EN 61347-1, EN61347-2-13
Conducted emissions	FCC Part15 Class B / EN55015
Radiated emissions	FCC Part15 Class B / EN55015
Harmonic current emissions	EN61000-3-2
Voltage fluctuations and flicker	EN61000-3-3
Electrostatic discharge	EN61000-4-2
RFE field susceptibility	EN61000-4-3
Electrical fast transient	EN61000-4-4
Conducted radio frequency	EN61000-4-6
Power frequency magnetic field test	EN61000-4-8
Voltage dips	EN61000-4-11
Electromagnetic immunity	EN61547

Model Specifications - constant voltage

Part Number	Output Voltage	MAX Output Current	Voltage Accuracy	Efficiency (typical)	
				110VAC	220VAC
PU012A048AP	48VDC	250mA	± 5%	85%	85%
PU012A036AP	36VDC	350mA	± 5%	84%	84%
PU012A024AP	24VDC	500mA	± 5%	83%	83%
PU012A016AP	16VDC	800mA	± 5%	82%	82%
PU012A012AP	12VDC	1000mA	± 5%	80%	80%

Mechanical Outline (unit: mm)



PU040 Series - Constant Voltage Output & Dimming Control

Features

- Input voltage range: 90-305VAC
- High efficiency: 88% typical
- Active PFC: 0.97 typical
- IP66 compliant
- Protections: OVP, OCP, SCP
- Compliance to worldwide safety regulations for lighting
- Suitable for dry/damp locations
- CUL / CE
- Dimming control: 0 ~ 10VDC / PWM
- 5-year warranty

95 × 70 × 32mm

Electrical Specifications

Input voltage range	90~305 VAC
Frequency	47~63Hz
Power factor	0.97 at 110VAC; 0.92 at 220VAC (typical)
Inrush current	15A MAX (25℃ at 220VAC, cold start)
Input current	0.5A MAX at 110VAC; 0.25A MAX at 220VAC
Efficiency	88% (typical) at 220VAC maximum load
Maximum power	40W
Line regulation	± 3%
Load regulation	± 3%
Leakage current	0.5mA MAX(at 277 VAC)
Hold-up time	Half cycle
Protections	Over voltage, over current, short circuit

Environmental Specifications

Operating temperature	-30℃ ~ +60℃
Storage temperature	-40℃ ~ +85℃
Maximum case temperature	90℃
Humidity	5% ~ 95%RH
Cooling method	Convection
Isolation voltage	Input / output 3750VAC
Vibration	5-55Hz/2g, 30minutes
MTBF	300,000 hours full load at 25℃ ambient
Life time	50,000 hours at 50°C ambient
Reference dimension (L × W × H)	95 × 70 × 32 (mm)

Safety & EMC Compliance

CUL	UL8750, UL935, UL1012, UL1310,CSA-C22.2 No. 107.1, CSA-C22.2 NO. 223-M91 Class 2
CE	EN 61347-1, EN61347-2-13
Conducted emissions	FCC Part15 Class B / EN55015
Radiated emissions	FCC Part15 Class B / EN55015
Harmonic current emissions	EN61000-3-2
Voltage fluctuations and flicker	EN61000-3-3
Electrostatic discharge	EN61000-4-2
RFE field susceptibility	EN61000-4-3
Electrical fast transient	EN61000-4-4
Conducted radio frequency	EN61000-4-6
Power frequency magnetic field test	EN61000-4-8
Voltage dips	EN61000-4-11
Electromagnetic immunity	EN61547

Model Specifications - constant voltage

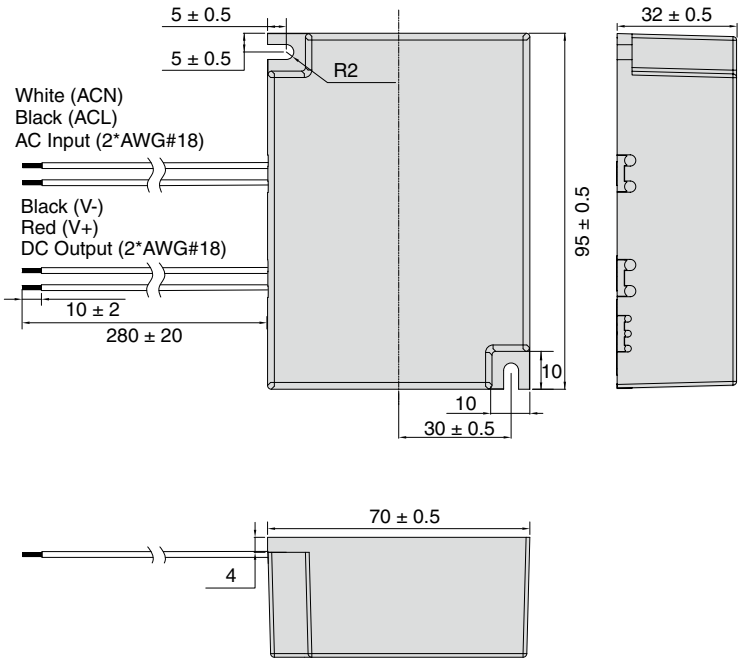
Part Number	Output Voltage	MAX Output Current	Voltage Accuracy	Efficiency (typical)	
				110VAC	220VAC
PU040A048AP	48VDC	830mA	± 5%	86%	87%
PU040A036AP	36VDC	1100mA	± 5%	86%	87%
PU040A024AP	24VDC	1670mA	± 5%	85%	86%
PU040A018AP	18VDC	2220mA	± 5%	84%	85%
PU040A012AP	12VDC	3330mA	± 5%	83%	84%
PU040A009AP	9VDC	4450mA	± 5%	82%	83%

Model Specifications - dimming control (0~10V)

Part Number	Output Current	Output Voltage	Current Accuracy	Efficiency (typical)	
				110VAC	220VAC
PU040A035AQD	350mA	38-114VDC	± 5%	87%	88%
PU040A045AQD	450mA	30-89VDC	± 5%	87%	88%
PU040A070AQD	700mA	18-54VDC	± 5%	86%	87%
PU040A090AQD	900mA	18-45VDC	± 5%	86%	87%
PU040A105AQD	1050mA	12-36VDC	± 5%	86%	87%
PU040A120AQD	1200mA	11-33VDC	± 5%	86%	87%
PU040A140AQD	1400mA	10-29VDC	± 5%	86%	87%
PU040A166AQD	1660mA	8-24VDC	± 5%	85%	86%
PU040A182AQD	1820mA	12-22VDC	± 5%	85%	86%
PU040A200AQD	2000mA	10-20VDC	± 5%	84%	85%
PU040A222AQD	2220mA	6-18VDC	± 5%	84%	85%
PU040A333AQD	3330mA	4-12VDC	± 5%	83%	84%

Mechanical Outline (unit: mm)

Constant Voltage Output



MU050AXXXAQ Series

Features

- Input voltage range: 90-305VAC
- High efficiency: 89% typical
- Active PFC: 0.99 typical
- IP67 design for indoor or outdoor installations
- Protections: OVP, OTP, SCP
- Compliance to CQC, FCC Part 15 Class B, EN55015
- 5-year warranty

193 × 42.5 × 34.5mm

Electrical Specifications

Input voltage range	90~305VAC
Frequency	47~63Hz
Power factor	0.99 at 110VAC; 0.97 at 220VAC (typical)
THD,Typical	< 20% at 100 ~ 277VAC input, 100% load conditions
AC Current	0.65A at 100VAC and rated load
Inrush current	15A MAX (25℃, at 220 VAC, cold start)
Line regulation	± 5%
Load regulation	± 5%
Leakage current	0.75mA at 277VAC input
Turn-on Delay Time	<3s at 120VAC，<1.5s at 220VAC
Protections	Over Voltage Protection,Short Circuit Protection,Over Temperature Protection

Environmental Specifications

Working Temperature	Ta: -30 ~+60℃，Tc: Max. 90℃
Working Humidity	20% ~ 95%RH
Storage Temperature	-40 ~ +85℃
Humidity	10% ~ 95%RH
Vibration	2G（10 ~ 500HZ），10 min/circle，period for 60 min each along X、Y、Z axes
MTBF	300,000 hours, measured at full load, 25℃ ambient temperature MIL-HDBK-217F(25℃)
Dimension(L × W × H)	193 x 42.5 x34.5mm

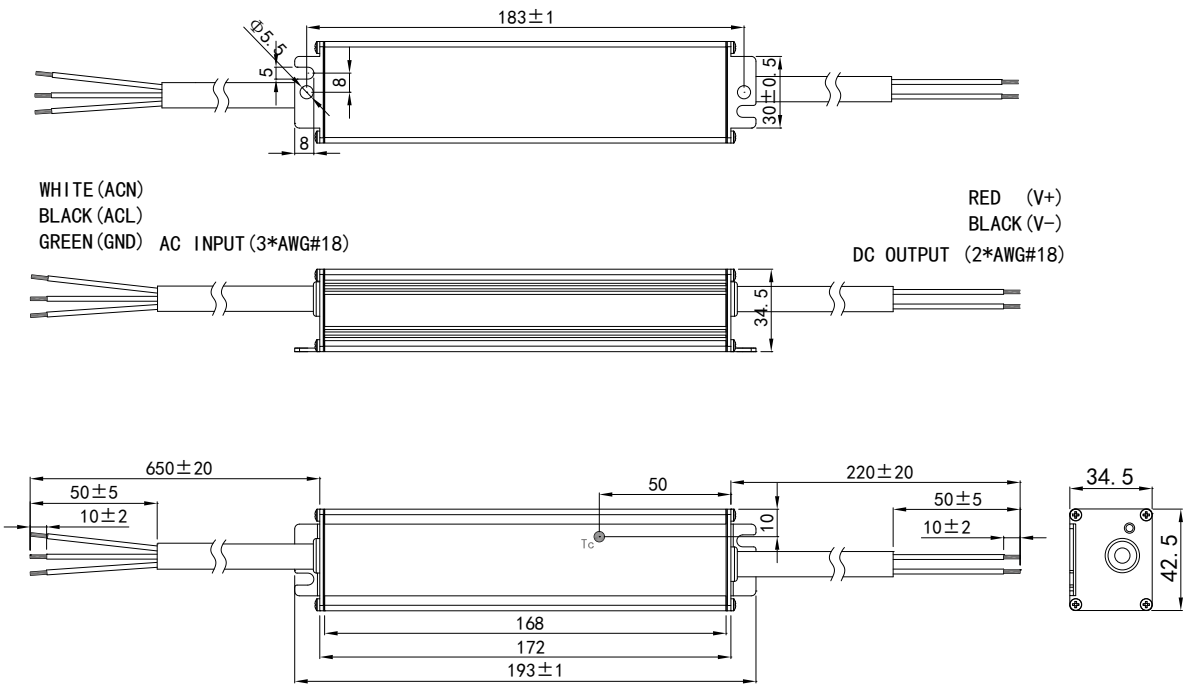
Safety & EMC Compliance

Safety Standard	CQC , EN61347-1 , EN61347-2-13
Withstand Voltage	I/P-O/P : 3.75KVAC , 5mA，1minite; I/P-FG : 1.5KVAC , 5mA，1minite; O/P-FG : 0.5KVAC , 5mA，1minite.
Isolation Resistance	I/P-O/P , I/P-FG : 500VDC，100MΩ，1minite
EMC Emission	EN55015/FCC Part 15 Class B，EN61000-3-2 Class C，EN61000-3-3
EMC Immunity	EN61000-4-2,3,4,5,6,8,11，EN61547

Model Specifications

Model	DC Voltage	Rated Current	Voltage Range	Current Accuracy	Efficiency (typical)	
					110VAC	220VAC
MU050A035AQ	143V	350mA	90~143VDC	±5%	89%	90%
MU050A050AQ	100V	500mA	60~100VDC	±5%	88.5%	89.5%
MU050A065AQ	77V	650mA	50~77VDC	±5%	88%	89%
MU050A070AQ	72V	700mA	43~72VDC	±5%	88%	89%
MU050A105AQ	48V	1050mA	29~48VDC	±5%	88%	89%
MU050A120AQ	41V	1200mA	25~41VDC	±5%	88%	89%
MU050A140AQ	36V	1400mA	24~36VDC	±5%	87%	88%
MU050A182AQ	27V	1820mA	18~27VDC	±5%	86%	87%
MU050A240AQ	21V	2350mA	12~21VDC	±5%	85%	86%

Mechanical Outline (unit: mm)



MU050AXXXAQD Series

Features

- Input voltage range: 90-305VAC
- High efficiency: 89% typical
- Active PFC: 0.99 typical
- IP67 design for indoor or outdoor installations
- Dimming function: 0 ~ 10VDC
- Protections: OVP, SCP, OTP
- Compliance to CQC, FCC Part 15 Class B, EN55015
- 5-year warranty

193 × 42.5 × 34.5mm

Electrical Specifications

Input voltage range	90~305VAC
Frequency	47~63Hz
Power factor	0.99 at 110VAC; 0.97 at 220VAC (typical)
THD	< 20% at 100 ~ 277VAC input, 100% load conditions
Inrush current	15A at 220VAC/50Hz input 25℃ cold start
AC current	0.65A at 100VAC and rated load
Line regulation	± 5%
Load regulation	± 5%
Leakage current	0.75mA at 277VAC input
Protections	Over Voltage Protection,Short Circuit Protection,Over Temperature Protection

Environmental Specifications

Working temperature	Ta: -30 ~+60℃, Tc: Max. 90℃
Working Humidity	20% ~ 95%RH
Storage temperature , Humidity	-40~ +85℃ , 10%~ 95% RH
Vibration	2G（10 ~ 500HZ）, 10 min/circle, period for 60 min each along X、Y、Z axes
MTBF	300,000 hours, measured at full load, 25℃ ambient temperature MIL-HDBK-217F(25℃)
Reference dimension(L × W × H)	193 × 42.5 × 34.5 (mm)

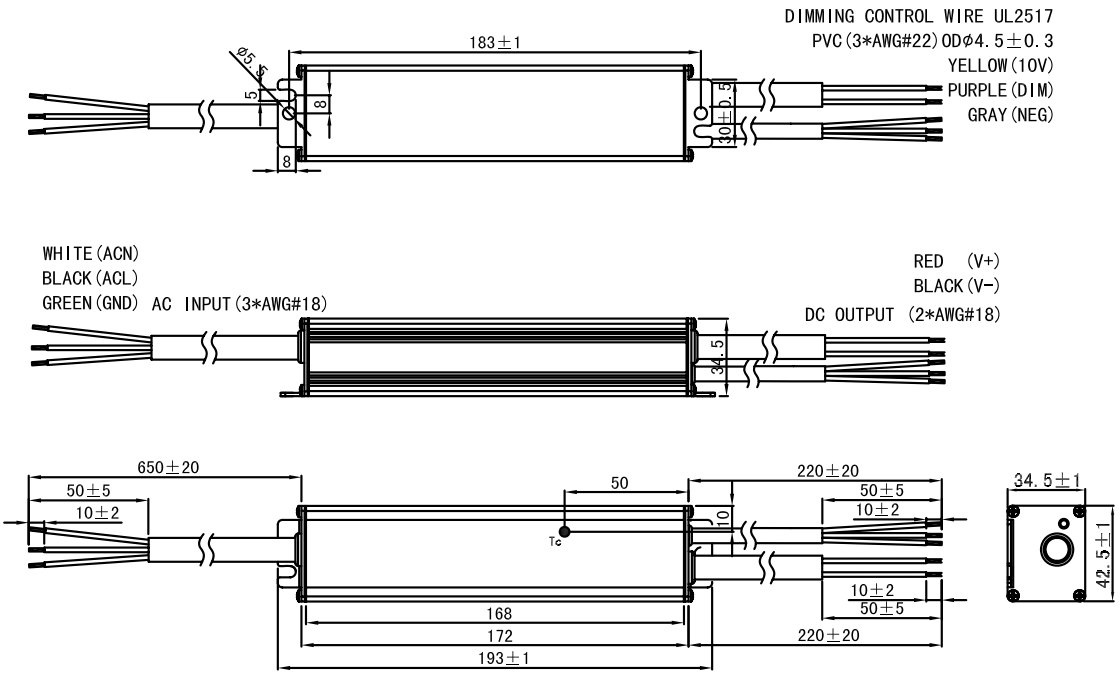
Safety & EMC Compliance

Safety Standard	CQC , EN61347-1 , EN61347-2-13
Withstand Voltage	I/P-O/P : 3.75KVAC , 5mA, 1 minite I/P-FG : 1.5KVAC , 5mA, 1 minite O/P-FG : 0.5KVAC , 5mA, 1 minite
Isolation Resistance	I/P-O/P , I/P-FG : 500VDC, 100MΩ, 1 minite
EMC Emission	EN55015/FCC Part 15 Class B, EN61000-3-2 Class C, EN61000-3-3
EMC Immunity	EN61000-4-2,3,4,5,6,8,11, EN61547

Model Specifications

Part Number	DC Voltage	Rated Current	Voltage Range	Current Accuracy	Efficiency (typical)	
					110VAC	220VAC
MU050A035AQD	142V	350mA	95-142VDC	5%	88%	89%
MU050A050AQD	100V	500mA	70-100VDC	5%	88%	89%
MU050A070AQD	72V	700mA	50-72VDC	5%	87%	88%
MU050A240AQD	21V	2350mA	15-21VDC	5%	85%	86%

Mechanical Outline (unit: mm)



MU050A Series - Constant Voltage Output

Features

- Input voltage range: 90-305VAC
- High efficiency: 91% typical
- Active PFC: 0.98 typical
- Surge protection
- IP67 compliant
- Protections: OVP, SCP, OTP, OLP
- Compliance to worldwide safety regulations for lighting
- Suitable for dry/damp locations
- CE
- 5-year warranty

193 × 42.5 × 34.5mm

Electrical Specifications

Input voltage range	90~305VAC
Frequency	47~63Hz
Power factor	0.98 at 110VAC; 0.94 at 220VAC (typical)
Inrush current	15A MAX (25℃ at 220VAC, cold start)
Input current	0.7A MAX at 110VAC; 0.35A MAX at 220VAC
Efficiency	91% (typical) at 220VAC maximum Load
Maximum power	50W
Line regulation	± 3%
Load regulation	± 3%
Leakage current	0.5mA MAX
Protections	Over Voltage, Short Circuit, Over Temperature, Over Load

Environmental Specifications

Operating temperature	-30℃ ~ +60℃
Storage temperature	-40℃ ~ +85℃
Maximum case temperature	90℃
Humidity	5% ~ 95%RH
Cooling method	Convection
Isolation voltage	Input / output 3750VAC
MTBF	300,000 hours at full load and 25ºC ambient
Life time	50,000 hours at 50ºC ambient
Reference dimension (L x W x H)	193 × 42.5 × 34.5 (mm)

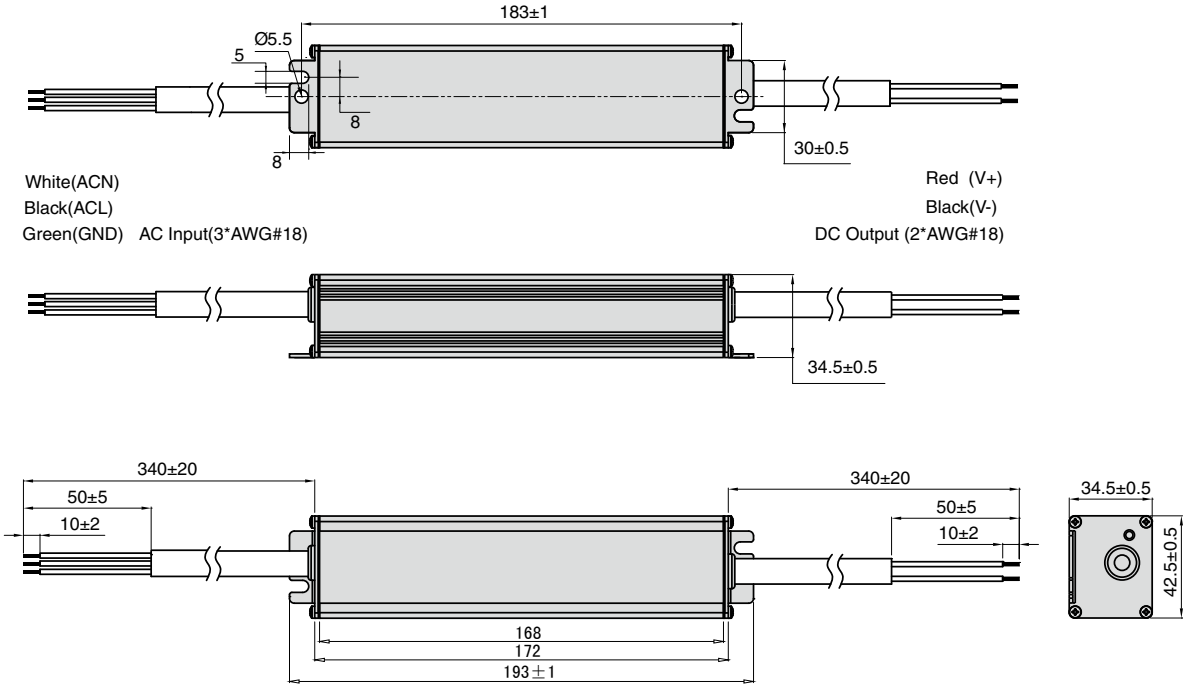
Safety & EMC Compliance

CUL	UL8750, UL935, UL1012, UL1310,CSA-C22.2 No. 107.1, CSA-C22.2 NO. 223-M91 Class 2
CE	EN 61347-1, EN61347-2-13
Conducted emissions	FCC Part15 Class B / EN55015
Radiated emissions	FCC Part15 Class B / EN55015
Harmonic current emissions	EN61000-3-2
Voltage fluctuations and flicker	EN61000-3-3
Electrostatic discharge	EN61000-4-2
RFE field susceptibility	EN61000-4-3
Electrical fast transient	EN61000-4-4
Surge immunity test	EN61000-4-5
Conducted radio frequency	EN61000-4-6
Power frequency magnetic field test	EN61000-4-8
Voltage dips	EN61000-4-11
Electromagnetic immunity	EN61547

Model Specifications - Constant Voltage

Part Number	Output Voltage	Max Output Current	Voltage Accuracy	Efficiency (typical)	
				110VAC	220VAC
MU050A012AP	12VDC	4200mA	± 5%	84%	85%
MU050A018AP	18VDC	2780mA	± 5%	86.5%	87.5%
MU050A024AP	24VDC	2100mA	± 5%	87.5%	88.5%
MU050A036AP	36VDC	1400mA	± 5%	89%	90%
MU050A048AP	48VDC	1050mA	± 5%	90%	91%

Mechanical Outline (unit: mm)



MU060A Series - Constant Current Output & Dimming Control

Features

- Input voltage range: 90-305VAC
- High efficiency: 90% typical
- Active PFC: 0.99 typical
- Surge protection
- IP67 compliant
- Protections: OVP, SCP, OTP
- Compliance to worldwide safety regulations for lighting
- Suitable for dry/damp locations
- CUL / CE
- Dimming control: 0 ~ 10VDC / PWM
- 5-year warranty

177 × 67.5 × 37mm

Electrical Specifications

Input voltage range	90~305VAC
Frequency	47~63Hz
Power factor	0.99 at 110VAC; 0.95 at 220VAC (typical)
Inrush current	50A MAX (25℃ at 220VAC, cold start)
Input current	0.8A MAX at 110VAC; 0.36A MAX at 220VAC
Efficiency	90% (typical) at 220VAC maximum load
Maximum power	60W
Line regulation	± 1%
Load regulation	± 3%
Leakage current	1mA MAX
Protections	Over voltage, short circuit, over temperature

Environmental Specifications

Operating temperature	-30℃ ~ +70℃
Storage temperature	-40℃ ~ +85℃
Maximum case temperature	90℃
Humidity	5% ~ 95%RH
Cooling method	Convection
Isolation voltage	Input/output 3000VAC
MTBF	300,000 hours full load at 25℃ ambient
Life time	50,000 hours at 50℃ ambient
Reference dimension (L x W xH)	177 × 67.5 × 37 (mm)

Safety & EMC Compliance

CUL	UL8750, UL935, UL1012, UL1310,CSA-C22.2 No. 107.1, CSA-C22.2 NO. 223-M91 Class 2
CE	EN 61347-1, EN61347-2-13
Conducted emissions	FCC Part15 Class B / EN55015
Radiated emissions	FCC Part15 Class B / EN55015
Harmonic current emissions	EN61000-3-2
Voltage fluctuations and flicker	EN61000-3-3
Electrostatic discharge	EN61000-4-2
RFE field susceptibility	EN61000-4-3
Electrical fast transient	EN61000-4-4
Surge immunity test	EN61000-4-5
Conducted radio frequency	EN61000-4-6
Power frequency magnetic field test	EN61000-4-8
Voltage dips	EN61000-4-11
Electromagnetic immunity	EN61547

Model Specifications - constant current

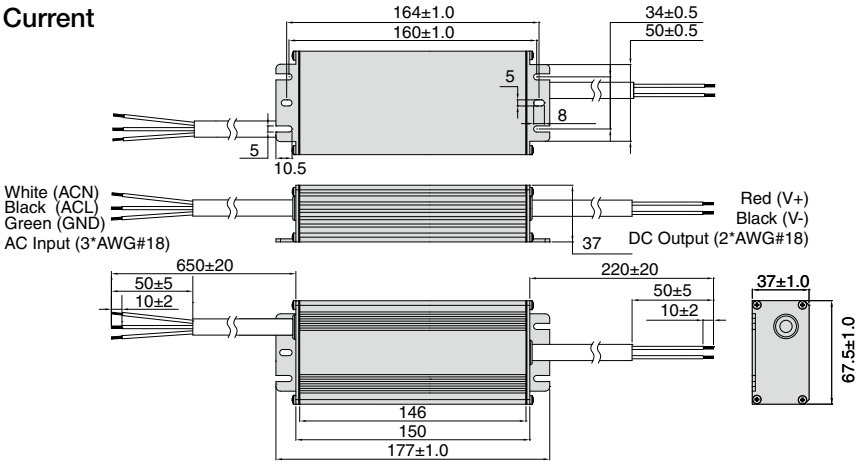
Part Number	Output Current	Output Voltage	Current Accuracy	Efficiency (typical)	
				110VAC	220VAC
MU060A035AQ	350mA	86-170VDC	± 5%	88%	90%
MU060A045AQ	450mA	67-134VDC	± 5%	87%	89%
PS E MU060A070AQ	700mA	43-86VDC	± 5%	86%	88%
MU060A105AQ	1050mA	29-58VDC	± 5%	86%	88%
MU060A140AQ	1400mA	21-43VDC	± 5%	86%	88%
CB MU060A170AQ	1700mA	18-36VDC	± 5%	86%	88%
MU060A230AQ	2300mA	13-27VDC	± 5%	85%	87%
MU060A330AQ	3300mA	9-18VDC	± 5%	84%	86%
MU060A500AQ	5000mA	6-12VDC	± 5%	82%	84%

Model Specifications - dimming control (0~10V)

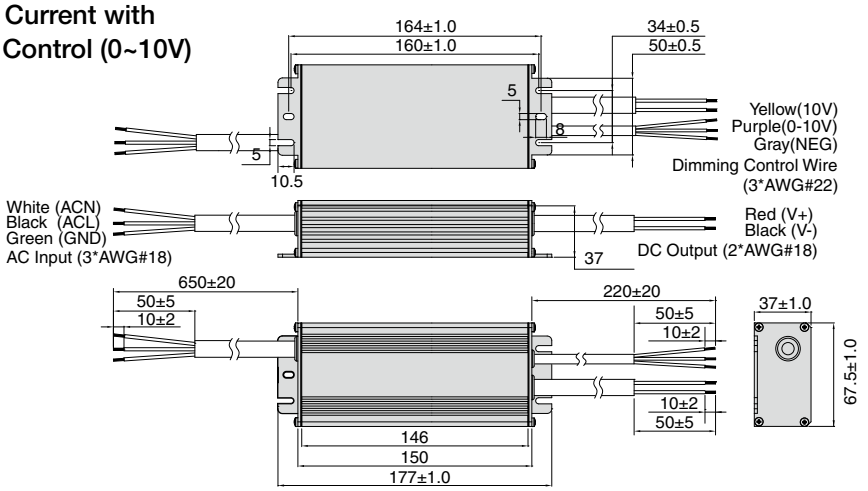
Part Number	Output Current	Output Voltage	Current Accuracy	Efficiency (typical)	
				110VAC	220VAC
MU060A035AQD	350mA	86-170VDC	± 5%	88%	90%
MU060A045AQD	450mA	67-134VDC	± 5%	87%	89%
MU060A070AQD	700mA	43-86VDC	± 5%	86%	88%
MU060A105AQD	1050mA	29-58VDC	± 5%	86%	88%
MU060A140AQD	1400mA	21-43VDC	± 5%	86%	88%
MU060A170AQD	1700mA	18-36VDC	± 5%	86%	88%
MU060A230AQD	2300mA	13-27VDC	± 5%	85%	87%
MU060A330AQD	3300mA	9-18VDC	± 5%	84%	86%
MU060A500AQD	5000mA	6-12VDC	± 5%	82%	84%

Mechanical Outline (unit: mm)

Constant Current



Constant Current with Dimming Control (0~10V)



MU060A Series - Constant Voltage Output

Features

- Input voltage range: 90-305VAC
- High efficiency: 91.5% typical
- Active PFC: 0.99 typical
- Surge protection
- IP67 compliant
- Protections: OVP, OCP, SCP, OTP
- Compliance to worldwide safety regulations for lighting
- Suitable for dry/damp locations
- CUL / CE
- 5-year warranty

190 × 67.5 × 37mm

Electrical Specifications

Input voltage range	90~305VAC
Frequency	47~63Hz
Power factor	0.99 at 110VAC; 0.95 at 220VAC (typical)
Inrush current	50A MAX (25℃ at 220VAC, cold start)
Input current	0.8A MAX at 110VAC; 0.4A MAX at 220VAC
Efficiency	91.5% (typical) at 220VAC maximum load
Maximum power	60W
Line regulation	±1%
Load regulation	±2%
Leakage current	1mA MAX
Protections	Over voltage, over current, short circuit, over temperature

Environmental Specifications

Operating temperature	-35℃ ~ +70℃
Storage temperature	-40℃ ~ +85℃
Maximum case temperature	90℃
Humidity	5% ~ 95%RH
Cooling method	Convection
Isolation voltage	Input/output 3000VAC
MTBF	300,000 hours full load at 25℃ ambient
Life time	50,000 hours at 50ºC ambient
Reference Dimension (L x W x H)	190 × 67.5 × 37 (mm)

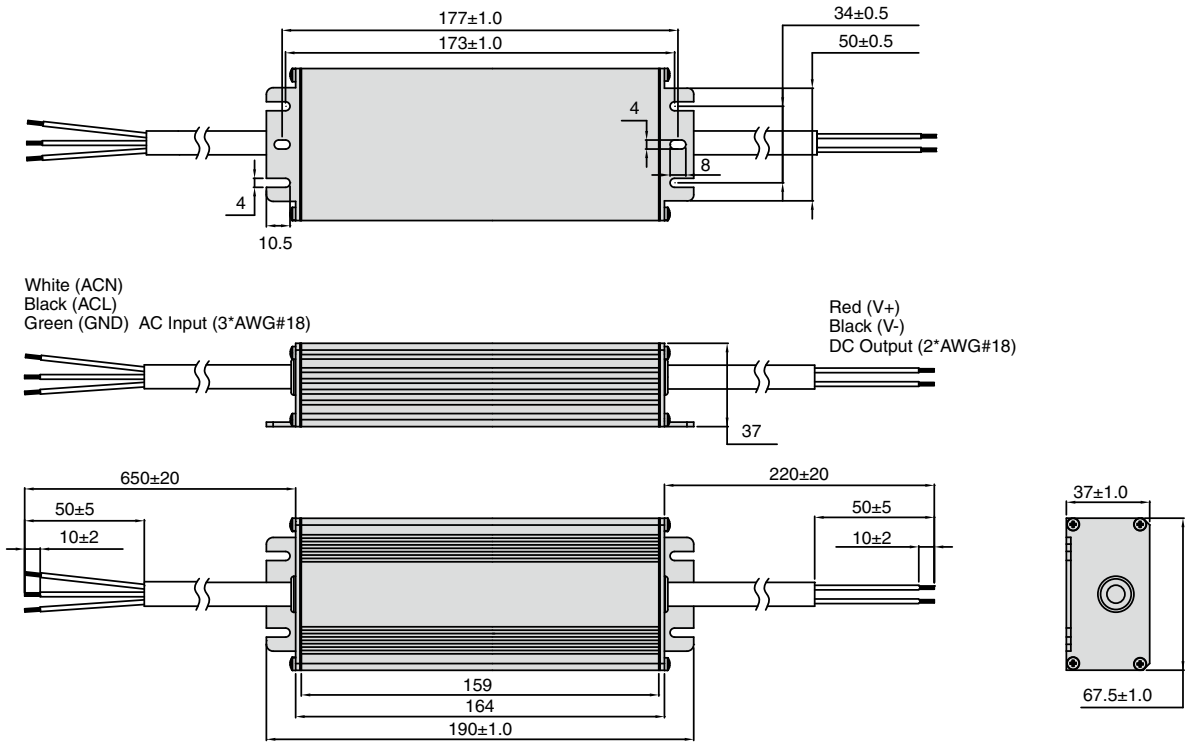
Safety & EMC Compliance

CUL	UL8750, UL935, UL1012, UL1310,CSA-C22.2 No. 107.1, CSA-C22.2 NO. 223-M91 Class 2
CE	EN 61347-1, EN61347-2-13
Conducted emissions	FCC Part15 Class B / EN55015
Radiated emissions	FCC Part15 Class B / EN55015
Harmonic current emissions	EN61000-3-2
Voltage fluctuations and flicker	EN61000-3-3
Electrostatic discharge	EN61000-4-2
RFE field susceptibility	EN61000-4-3
Electrical fast transient	EN61000-4-4
Surge immunity test	EN61000-4-5
Conducted radio frequency	EN61000-4-6
Power frequency magnetic field test	EN61000-4-8
Voltage dips	EN61000-4-11
Electromagnetic immunity	EN61547

Model Specifications - Constant Voltage

Part Number	Output Voltage	MAX Output Current	Voltage Accuracy	Efficiency (typical)	
				110VAC	220VAC
MU060A012AP	12VDC	5000mA	± 5%	87.5%	89.5%
MU060A024AP	24VDC	2500mA	± 5%	89.5%	91.5%
MU060A036AP	36VDC	1670mA	± 5%	89.5%	91.5%
MU060A042AP	42VDC	1430mA	± 5%	89.5%	91.5%
MU060A048AP	48VDC	1250mA	± 5%	89.5%	91.5%
MU060A054AP	54VDC	1110mA	± 5%	89.5%	91.5%
MU060A081AP	81VDC	740mA	± 5%	89.5%	91.5%
MU060A105AP	105VDC	570mA	± 5%	89.5%	91.5%

Mechanical Outline (unit: mm)



MU075A Series - Constant Current Output & Dimming Control

Features

- Input voltage range: 90-305VAC
- High efficiency: 90% typical
- Active PFC: 0.99 typical
- Surge protection
- IP67 compliant
- Protections: OVP, SCP, OTP
- Compliance to worldwide safety regulations for lighting
- Suitable for dry/damp locations
- CUL / CE
- Dimming control: 0 ~ 10VDC / PWM
- 5-year warranty

177 × 67.5 × 37mm

Electrical Specifications

Input voltage range	90~305VAC
Frequency	47~63Hz
Power factor	0.99 at 110VAC; 0.96 at 220VAC (typical)
Inrush current	50A MAX (25℃ at 220VAC, cold start)
Input current	0.9A MAX at 110VAC; 0.42A MAX at 220VAC
Efficiency	90% (typical) at 220VAC maximum load
Maximum power	75W
Line regulation	±1%
Load regulation	±3%
Leakage current	1mA MAX
Protections	Over voltage, short circuit, over temperature

Environmental Specifications

Operating temperature	-35℃ ~ +70℃
Storage temperature	-40℃ ~ +85℃
Maximum case temperature	90℃
Humidity	5% ~ 95%RH
Cooling method	Convection
Isolation voltage	Input / output 3000VAC
MTBF	300,000 hours full load at 25℃ ambient
Life time	50,000 hours at 50℃ ambient
Reference dimension (L x W x H)	177 × 67.5 × 37 (mm)

Safety & EMC Compliance

CUL	UL8750, UL935, UL1012, UL1310,CSA-C22.2 No. 107.1, CSA-C22.2 NO. 223-M91 Class 2
CE	EN 61347-1, EN61347-2-13
Conducted emissions	FCC Part15 Class B / EN55015
Radiated emissions	FCC Part15 Class B / EN55015
Harmonic current emissions	EN61000-3-2
Voltage fluctuations and flicker	EN61000-3-3
Electrostatic discharge	EN61000-4-2
RFE field susceptibility	EN61000-4-3
Electrical fast transient	EN61000-4-4
Surge immunity test	EN61000-4-5
Conducted radio frequency	EN61000-4-6
Power frequency magnetic field test	EN61000-4-8
Voltage dips	EN61000-4-11
Electromagnetic immunity	EN61547

Model Specifications - Constant Current

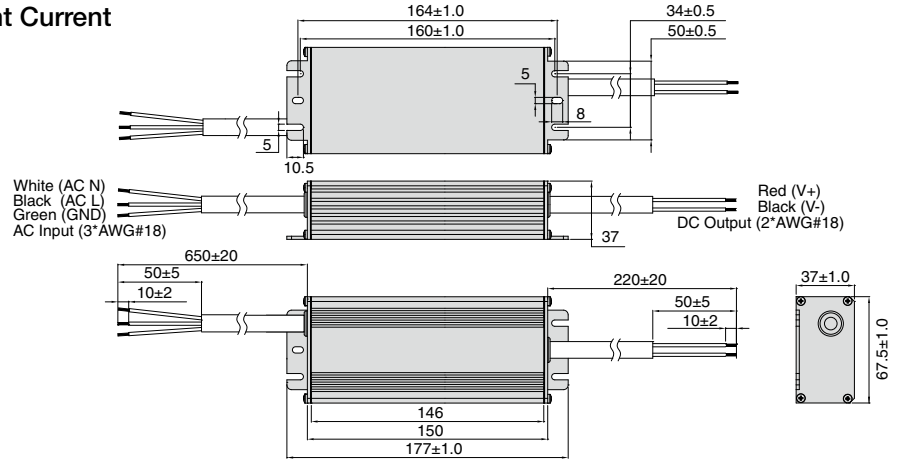
Part Number	Output Current	Output Voltage	Current Accuracy	Efficiency (typical)	
				110VAC	220VAC
MU075A035AQ	350mA	107-214VDC	± 5%	88%	90%
MU075A045AQ	450mA	83-166VDC	± 5%	88%	90%
MU075A070AQ	700mA	54-108VDC	± 5%	87%	89%
MU075A105AQ	1050mA	36-72VDC	± 5%	86%	88%
MU075A140AQ	1400mA	27-54VDC	± 5%	86%	88%
MU075A210AQ	2100mA	18-36VDC	± 5%	85%	87%
MU075A280AQ	2800mA	13-27VDC	± 5%	85%	87%
MU075A375AQ	3750mA	10-20VDC	± 5%	84%	86%
MU075A500AQ	5000mA	7-15VDC	± 5%	82%	84%

Model Specifications - Dimming Control (0~10V)

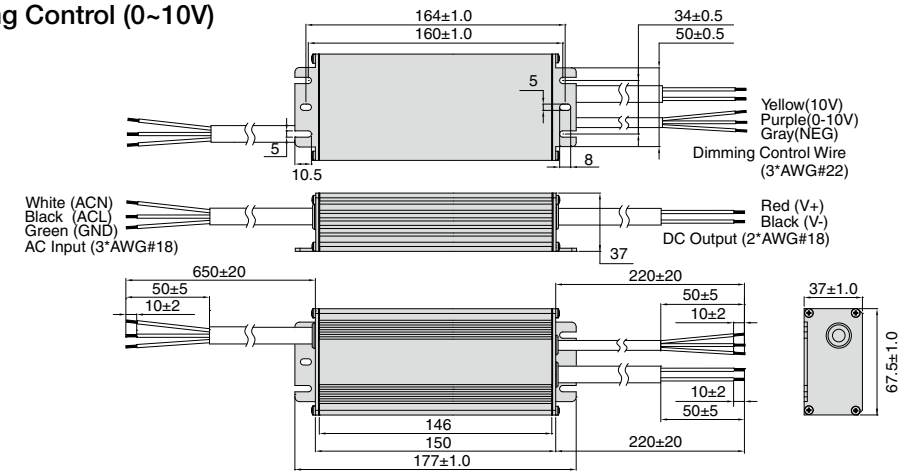
Part Number	Output Current	Output Voltage	Current Accuracy	Efficiency (typical)	
				110VAC	220VAC
MU075A035AQD	350mA	107-214VDC	± 5%	88%	90%
MU075A045AQD	450mA	83-166VDC	± 5%	88%	90%
MU075A070AQD	700mA	54-108VDC	± 5%	87%	89%
MU075A105AQD	1050mA	36-72VDC	± 5%	86%	88%
MU075A140AQD	1400mA	27-54VDC	± 5%	86%	88%
MU075A210AQD	2100mA	18-36VDC	± 5%	85%	87%
MU075A280AQD	2800mA	13-27VDC	± 5%	85%	87%
MU075A375AQD	3750mA	10-20VDC	± 5%	84%	86%
MU075A500AQD	5000mA	7-15VDC	± 5%	82%	84%

Mechanical Outline (unit: mm)

Constant Current



Constant Current with Dimming Control (0~10V)



MU075A Series - Constant Voltage Output

Features

- Input voltage range: 90-305VAC
- High efficiency: 92% typical
- Active PFC: 0.99 typical
- Surge protection
- IP67 compliant
- Protections: OVP, OCP, SCP, OTP
- Compliance to worldwide safety regulations for lighting
- Suitable for dry/damp locations
- CUL / CE
- 5-year warranty

190 × 67.5 × 37mm

Electrical Specifications

Input voltage range	90~305VAC
Frequency	47~63Hz
Power factor	0.99 at 110VAC; 0.95 at 220VAC (typical)
Inrush current	50A MAX (25℃ at 220VAC, cold start)
Input current	0.9A MAX at 110VAC; 0.45A MAX at 220VAC
Efficiency	92% (typical) at 220VAC maximum load
Maximum power	75W
Line regulation	±1%
Load regulation	±2%
Leakage current	1mA MAX
Protections	Over voltage, over current, short circuit, over temperature

Environmental Specifications

Operating temperature	-35℃ ~ +70℃
Storage temperature	-40℃ ~ +85℃
Maximum case temperature	90℃
Humidity	5% ~ 95%RH
Cooling method	Convection
Isolation voltage	Input / output 3000VAC
MTBF	300,000 hours full load at 25℃ ambient
Life time	50,000 hours at 50℃ ambient
Reference Dimension (L x W x H)	190 × 67.5 × 37 (mm)

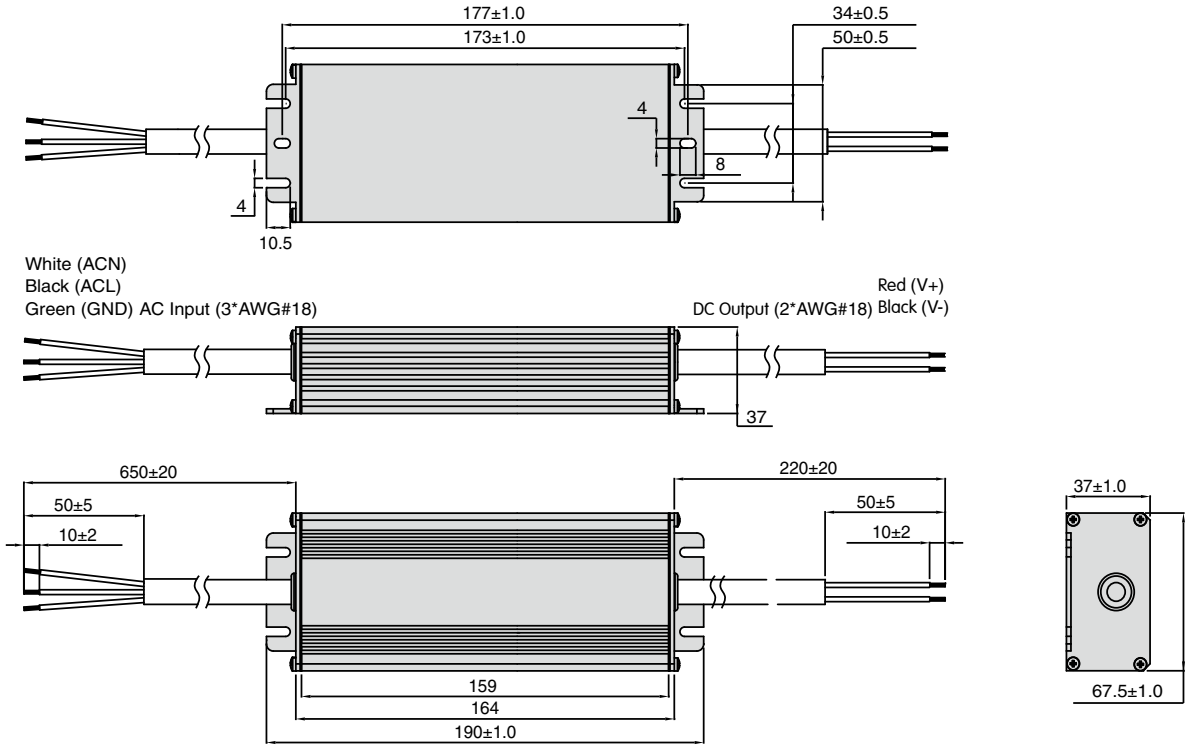
Safety & EMC Compliance

CUL	UL8750, UL935, UL1012, UL1310,CSA-C22.2 No. 107.1, CSA-C22.2 NO. 223-M91 Class 2
CE	EN 61347-1, EN61347-2-13
Conducted emissions	FCC Part15 Class B / EN55015
Radiated emissions	FCC Part15 Class B / EN55015
Harmonic current emissions	EN61000-3-2
Voltage fluctuations and flicker	EN61000-3-3
Electrostatic discharge	EN61000-4-2
RFE field susceptibility	EN61000-4-3
Electrical fast transient	EN61000-4-4
Surge immunity test	EN61000-4-5
Conducted radio frequency	EN61000-4-6
Power frequency magnetic field test	EN61000-4-8
Voltage dips	EN61000-4-11
Electromagnetic immunity	EN61547

Model Specifications - Constant Voltage

Part Number	Output Voltage	MAX Output Current	Voltage Accuracy	Efficiency (typical)	
				110VAC	220VAC
MU075A012AP	12VDC	6.25A	± 5%	88%	90%
MU075A024AP	24VDC	3.13A	± 5%	90%	92%
MU075A036AP	36VDC	2.08A	± 5%	90%	92%
MU075A042AP	42VDC	1.79A	± 5%	90%	92%
MU075A048AP	48VDC	1.56A	± 5%	90%	92%
MU075A054AP	54VDC	1.39A	± 5%	90%	92%
MU075A081AP	81VDC	0.93A	± 5%	90%	92%
MU075A105AP	105VDC	0.71A	± 5%	90%	92%

Mechanical Outline (unit: mm)



MU096A Series - Constant Current Output & Dimming Control

Features

- Input voltage range: 90-305VAC
- High efficiency: 90% typical
- Active PFC: 0.99 typical
- Surge protection
- IP67 compliant
- Protections: OVP, SCP, OTP
- Compliance to worldwide safety regulations for lighting
- Suitable for dry/damp locations
- CUL / CE
- Dimming control: 0 ~ 10VDC / PWM
- 5-year warranty

201 × 67.5 × 37mm

Electrical Specifications

Input voltage range	90~305VAC
Frequency	47~63Hz
Power factor	0.99 at 110VAC; 0.96 at 220VAC
Inrush current	50A MAX (25℃ at 220VAC, cold start)
Input current	1.2A MAX at 110VAC; 0.6A MAX at 220VAC
Efficiency	up to 90%
Maximum power	96W
Line regulation	±1%
Load regulation	±3%
Leakage current	1mA MAX
Protections	Over voltage, short circuit, over temperature

Environmental Specifications

Operating temperature	-35℃ ~ +70℃
Storage temperature	-40℃ ~ +85℃
Maximum case temperature	90℃
Humidity	5% ~ 95%RH
Cooling method	Convection
Isolation voltage	Input / output 3000VAC
MTBF	300,000 hours full load at 25℃ ambient
Life time	50,000 hours at 50℃ ambient
Reference dimension (L x W x H)	201 × 67.5 × 37 (mm)

Safety & EMC Compliance

CUL	UL8750, UL935, UL1012, UL1310 Class 2, CSA-C22.2 No.107.1 CSA-C22.2 No.223-M91 Class 2
CE	EN 61347-1, EN61347-2-13
Conducted emissions	FCC Part15 Class B / EN55015
Radiated emissions	FCC Part15 Class B / EN55015
Harmonic current emissions	EN61000-3-2
Voltage fluctuations and flicker	EN61000-3-3
Electrostatic discharge	EN61000-4-2
RFE field susceptibility	EN61000-4-3
Electrical fast transient	EN61000-4-4
Surge immunity test	EN61000-4-5
Conducted radio frequency	EN61000-4-6
Power frequency magnetic field test	EN61000-4-8
Voltage dips	EN61000-4-11
Electromagnetic immunity	EN61547

Model Specifications - Constant Current

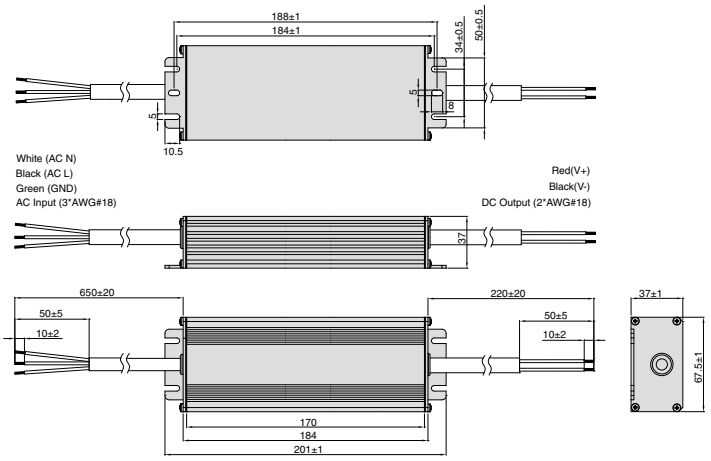
Part Number	Output Current	Output Voltage	Current Accuracy	Efficiency (typical)	
				110VAC	220VAC
MU096A175AQ	1750mA	55V	± 5%	86%	89%
MU096A210AQ	2100mA	46V	± 5%	85%	88%
MU096A245AQ	2450mA	39V	± 5%	85%	88%
MU096A280AQ	2800mA	34V	± 5%	85%	88%
MU096A315AQ	3150mA	30.5V	± 5%	84%	87%
MU096A357AQ	3570mA	27V	± 5%	84%	87%
MU096A420AQ	4200mA	23V	± 5%	84%	87%

Model Specifications - Dimming Control (0~10V)

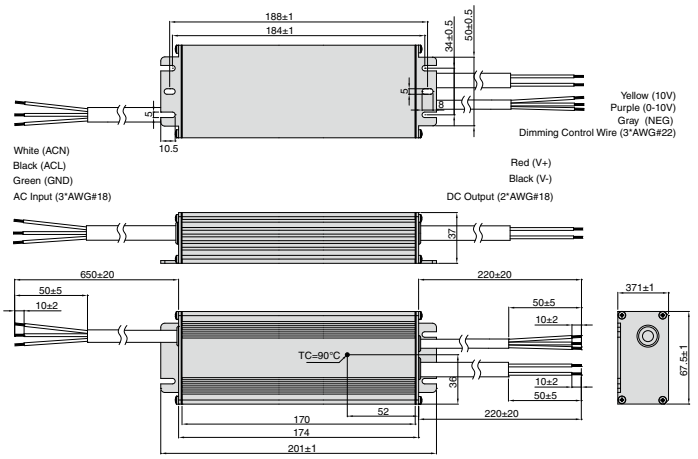
Part Number	Output Current	Output Voltage	Current Accuracy	Efficiency (typical)	
				110VAC	220VAC
MU096A175AQD	1750mA	55V	± 5%	86%	89%
MU096A210AQD	2100mA	46V	± 5%	85%	88%
MU096A245AQD	2450mA	39V	± 5%	85%	88%
MU096A280AQD	2800mA	34V	± 5%	85%	88%
MU096A315AQD	3150mA	30.5V	± 5%	84%	87%
MU096A357AQD	3570mA	27V	± 5%	84%	87%
MU096A420AQD	4200mA	23V	± 5%	84%	87%

Mechanical Outline (unit: mm)

Constant Current



Constant Current with Dimming Control (0~10V)



MU096A Series - Constant Voltage Output

Features

- Input voltage range: 90-305VAC
- High efficiency: up to 90%
- Active PFC: 0.99 typical
- Surge protection
- IP67 compliant
- Protections: OVP, OCP, SCP, OTP
- Compliance to worldwide safety regulations for lighting
- Suitable for dry/damp locations
- CUL / CE
- 5-year warranty

201 × 67.5 × 37mm

Electrical Specifications

Input voltage range	90~305VAC
Frequency	47~63Hz
Power factor	0.99 at 110VAC; 0.96 at 220VAC
Inrush current	50A MAX (25℃ at 220VAC, cold start)
Input current	1.2A MAX at 110VAC; 0.6A MAX at 220VAC
Efficiency	up to 90%
Maximum power	96W
Line regulation	±1%
Load regulation	±2%
Leakage current	1mA MAX
Protections	Over voltage, over current, short circuit, over temperature

Environmental Specifications

Operating temperature	-35℃ ~ +70℃
Storage temperature	-40℃ ~ +85℃
Maximum case temperature	90℃
Humidity	5% ~ 95%RH
Cooling method	Convection
Isolation voltage	Input / output 3000VAC
MTBF	300,000 hours full load at 25℃ ambient
Life time	50,000 hours at 50℃ ambient
Reference Dimension (L x W x H)	201 × 67.5 × 37 (mm)

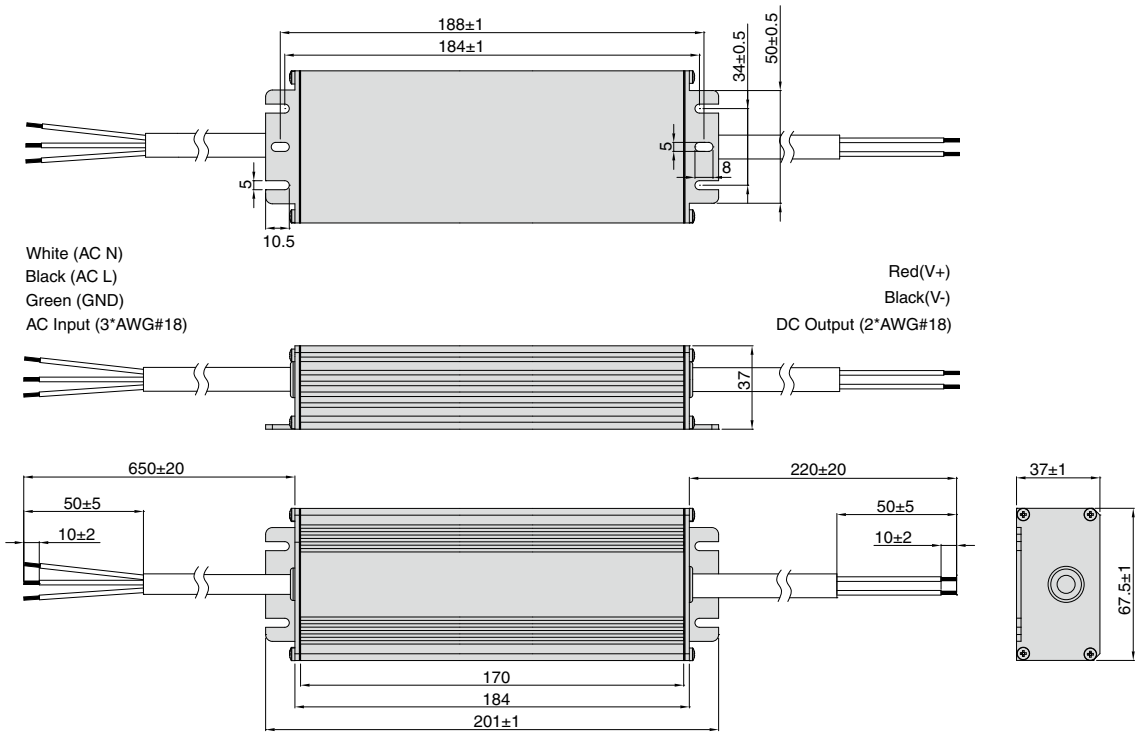
Safety & EMC Compliance

CUL	UL8750, UL935, UL1012, UL1310 Class 2, CSA-C22.2 No.107.1 CSA-C22.2 No.223-M91 Class 2
CE	EN 61347-1, EN61347-2-13
Conducted emissions	FCC Part15 Class B / EN55015
Radiated emissions	FCC Part15 Class B / EN55015
Harmonic current emissions	EN61000-3-2
Voltage fluctuations and flicker	EN61000-3-3
Electrostatic discharge	EN61000-4-2
RFE field susceptibility	EN61000-4-3
Electrical fast transient	EN61000-4-4
Surge immunity test	EN61000-4-5
Conducted radio frequency	EN61000-4-6
Power frequency magnetic field test	EN61000-4-8
Voltage dips	EN61000-4-11
Electromagnetic immunity	EN61547

Model Specifications - Constant Voltage

Part Number	Output Voltage	MAX Output Current	Voltage Accuracy	Efficiency (typical)	
				110VAC	220VAC
CB MU096A024AP	24 VDC	4.0A	± 5%	84%	87%
MU096A028AP	28VDC	3.4A	± 5%	84%	87%
MU096A036AP	36 VDC	2.66A	± 5%	85%	88%
MU096A042AP	42 VDC	2.25A	± 5%	85%	88%
MU096A048AP	48 VDC	2.0A	± 5%	85%	88%
MU096A054AP	54 VDC	1.77A	± 5%	86%	89%

Mechanical Outline (unit: mm)



MU100A Series - Constant Current Output & Dimming Control

Features

- Input voltage range: 90-305VAC
- High efficiency: 92% typical
- Active PFC: 0.99 typical
- Surge protection
- IP67 compliant
- Protections: OVP, SCP, OTP
- Compliance to worldwide safety regulations for lighting
- Suitable for dry/damp locations
- CUL / CE
- Dimming control: 0 ~ 10VDC / PWM
- 5-year warranty

221 × 67.5 × 37mm

Electrical Specifications

Input voltage range	90~305VAC
Frequency	47~63Hz
Power factor	0.99 at 110VAC; 0.96 at 220VAC (typical)
Inrush current	65 A MAX (25℃, at 220VAC, cold start)
Input current	1.3A MAX at 110VAC; 0.6A MAX at 220VAC
Efficiency	92% (typical) at 220VAC maximum load
Maximum power	100W
Line regulation	± 1%
Load regulation	± 3%
Leakage current	1mA MAX
Protections	Over voltage, short circuit, over temperature

Environmental Specifications

Operating temperature	-35℃ ~ +70℃
Storage temperature	-40℃ ~ +85℃
Maximum case temperature	90℃
Humidity	5% ~ 95%RH
Cooling method	Convection
Isolation voltage	Input / output 3000VAC
MTBF	300,000 hours full load at 25℃ ambient
Life time	50,000 hours at 50℃ ambient
Reference Dimension (L x W x H)	221 × 67.5 × 37(mm)

Safety & EMC Compliance

CUL	UL8750,UL1012,CSA-C22.2 No. 107.1
CE	EN 61347-1, EN61347-2-13
Conducted emissions	FCC Part15 Class B / EN55015
Radiated emissions	FCC Part15 Class B / EN55015
Harmonic current emissions	EN61000-3-2
Voltage fluctuations and flicker	EN61000-3-3
Electrostatic discharge	EN61000-4-2
RFE field susceptibility	EN61000-4-3
Electrical fast transient	EN61000-4-4
Surge immunity test	EN61000-4-5
Conducted radio frequency	EN61000-4-6
Power frequency magnetic field test	EN61000-4-8
Voltage dips	EN61000-4-11
Electromagnetic immunity	EN61547

Model Specifications - Constant Current

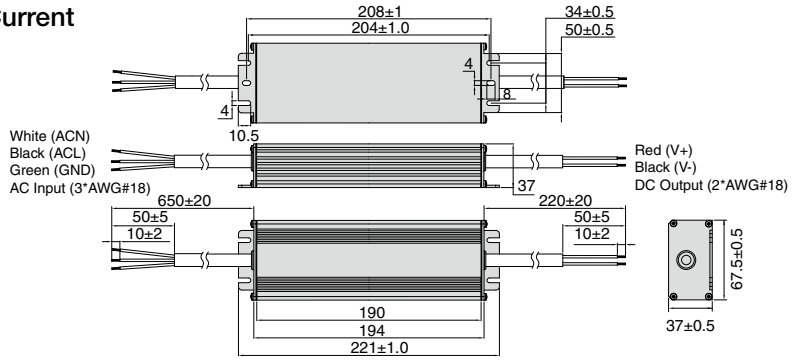
Part Number	Output Current	Output Voltage	Current Accuracy	Efficiency (typical)	
				110VAC	220VAC
MU100A035AQ	350mA	172-286VDC	± 5%	90%	92%
MU100A045AQ	450mA	132-222VDC	± 5%	90%	92%
MU100A070AQ	700mA	86-143VDC	± 5%	89%	91%
MU100A105AQ	1050mA	57-95VDC	± 5%	89%	91%
MU100A140AQ	1400mA	43-71VDC	± 5%	89%	91%
MU100A175AQ	1750mA	34-57VDC	± 5%	89%	91%
MU100A210AQ	2100mA	29-48VDC	± 5%	89%	91%
MU100A245AQ	2450mA	25-41VDC	± 5%	89%	91%
MU100A280AQ	2800mA	22-36VDC	± 5%	88%	90%
MU100A315AQ	3150mA	19-32VDC	± 5%	88%	90%
MU100A357AQ	3570mA	17-28VDC	± 5%	88%	90%
MU100A420AQ	4200mA	14-24VDC	± 5%	88%	90%

Model Specifications - Dimming Control (0~10V)

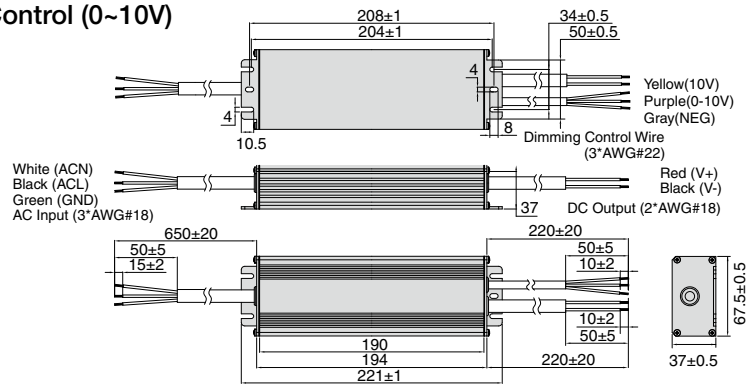
Part Number	Output Current	Output Voltage	Current Accuracy	Efficiency (typical)	
				110VAC	220VAC
MU100A035AQD	350mA	172-286VDC	± 5%	90%	92%
MU100A045AQD	450mA	132-222VDC	± 5%	90%	92%
MU100A070AQD	700mA	86-143VDC	± 5%	89%	91%
MU100A105AQD	1050mA	57-95VDC	± 5%	89%	91%
MU100A140AQD	1400mA	43-71VDC	± 5%	89%	91%
MU100A175AQD	1750mA	34-57VDC	± 5%	89%	91%
MU100A210AQD	2100mA	29-48VDC	± 5%	89%	91%
MU100A245AQD	2450mA	25-41VDC	± 5%	89%	91%
MU100A280AQD	2800mA	22-36VDC	± 5%	88%	90%
MU100A315AQD	3150mA	19-32VDC	± 5%	88%	90%
MU100A357AQD	3570mA	17-28VDC	± 5%	88%	90%
MU100A420AQD	4200mA	14-24VDC	± 5%	88%	90%

Mechanical Outline (unit: mm)

Constant Current



Constant Current with Dimming Control (0~10V)



MU100A Series - Constant Voltage Output

Features

- Input voltage range: 90-305VAC
- High efficiency: 93% typical
- Active PFC: 0.99 typical
- Surge protection
- IP67 compliant
- Protections: OVP, OCP, SCP, OTP
- Compliance to worldwide safety regulations for lighting
- Suitable for dry/damp locations
- CUL / CE
- 5-year warranty

221 × 67.5 × 37mm

Electrical Specifications

Input voltage range	90~305VAC
Frequency	47~63Hz
Power factor	0.99 at 110VAC; 0.95 at 220VAC (typical)
Inrush current	65A MAX (25℃, at 220VAC, cold start)
Input current	1.2A MAX at 110 VAC; 0.6A MAX at 220VAC
Efficiency	93% (typical) at 220VAC maximum load
Maximum power	100W
Line regulation	±1%
Load regulation	±2%
Leakage current	1mA MAX
Protections	Over voltage, over current, short circuit, over temperature

Environmental Specifications

Operating temperature	-35℃ ~ +70℃
Storage temperature	-40℃ ~ +85℃
Maximum case temperature	90℃
Humidity	5% ~ 95%RH
Cooling method	Convection
Isolation voltage	Input / output 3000VAC
MTBF	300,000 hours full load at 25℃ ambient
Life time	50,000 hours at 50℃ ambient
Reference dimension (L x W x H)	211 × 67.5 × 37 (mm)

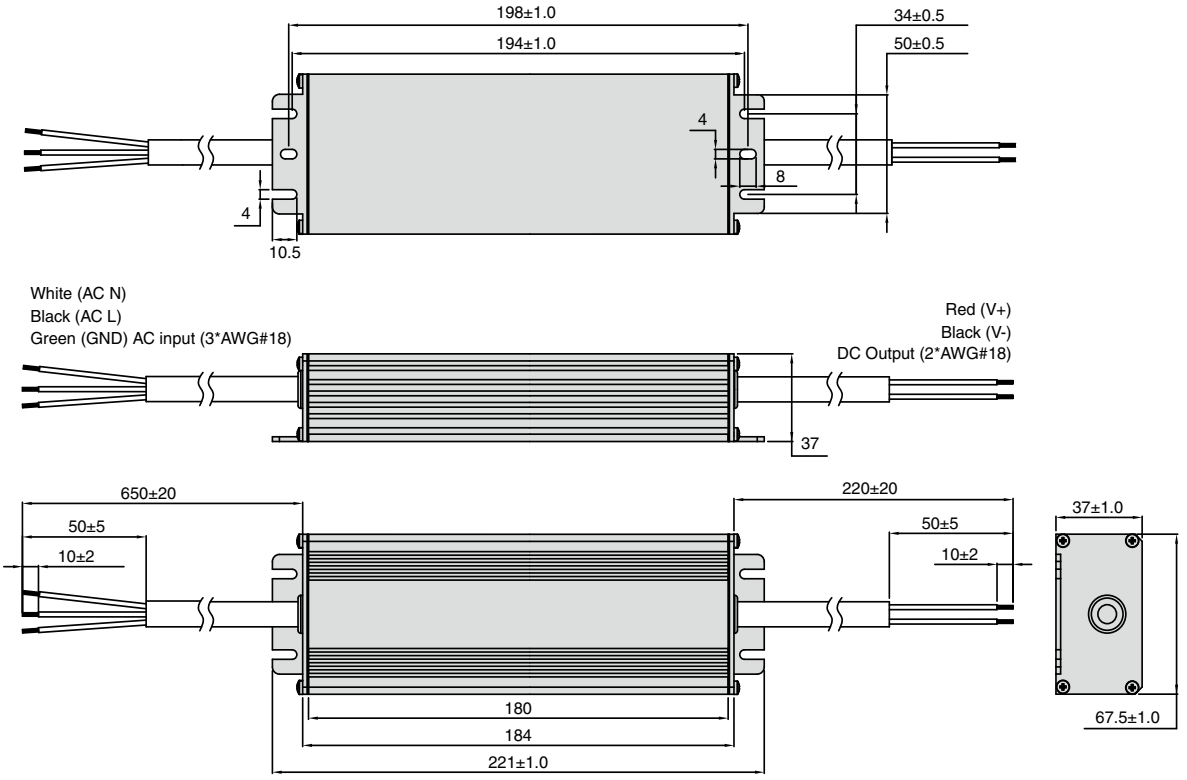
Safety & EMC Compliance

CUL	UL8750,UL1012,CSA-C22.2 No. 107.1
CE	EN 61347-1, EN61347-2-13
Conducted emissions	FCC Part15 Class B / EN55015
Radiated emissions	FCC Part15 Class B / EN55015
Harmonic current emissions	EN61000-3-2
Voltage fluctuations and flicker	EN61000-3-3
Electrostatic discharge	EN61000-4-2
RFE field susceptibility	EN61000-4-3
Electrical fast transient	EN61000-4-4
Surge immunity test	EN61000-4-5
Conducted radio frequency	EN61000-4-6
Power frequency magnetic field test	EN61000-4-8
Voltage dips	EN61000-4-11
Electromagnetic immunity	EN61547

Model Specifications - constant voltage

Part Number	Output Voltage	MAX Output Current	Voltage Accuracy	Efficiency (typical)	
				110VAC	220VAC
MU100A012AP	12VDC	8.33A	± 5%	89%	91%
MU100A024AP	24VDC	4.17A	± 5%	90%	92%
MU100A036AP	36VDC	2.77A	± 5%	90%	92%
MU100A042AP	42VDC	2.38A	± 5%	90%	92%
MU100A048AP	48VDC	2.08A	± 5%	90%	92%
MU100A054AP	54VDC	1.85A	± 5%	90%	92%
MU100A081AP	81VDC	1.23A	± 5%	91%	93%
MU100A105AP	105VDC	0.95A	± 5%	91%	93%

Mechanical Outline (unit: mm)



MU150A Series - Constant Voltage Output

Features

- Input voltage range: 90-305VAC
- High efficiency: 93% typical
- Active PFC: 0.99 typical
- Surge protection
- IP67 compliant
- Protections: OVP, OCP, SCP, OTP
- Compliance to worldwide safety regulations for lighting
- Suitable for dry/damp locations
- CUL / CE
- 5-year warranty

205 × 86 × 43mm

Electrical Specifications

Input voltage range	90~305VAC
Frequency	47~63Hz
Power factor	0.99 at 110VAC; 0.96 at 220VAC (typical)
Inrush current	65A MAX (25℃ at 220VAC, cold start)
Input current	1.8A MAX at 110VAC; 0.9A MAX at 220VAC
Efficiency	93% (typical) at 220VAC maximum load
Maximum power	150W
Line regulation	±1%
Load regulation	±2%
Leakage current	1mA MAX
Protections	Over voltage, over current, short circuit, over temperature

Environmental Specifications

Operating temperature	-35℃ ~ +70℃
Storage temperature	-40℃ ~ +85℃
Maximum case temperature	90℃
Humidity	5% ~ 95%RH
Cooling method	convection
Isolation voltage	Input / output 3000VAC
MTBF	300,000 hours full load at 25℃ ambient
Life time	50,000 hours at 50℃ ambient
Reference dimension (L x W x H)	205 × 86 × 43 (mm)

Safety & EMC Compliance

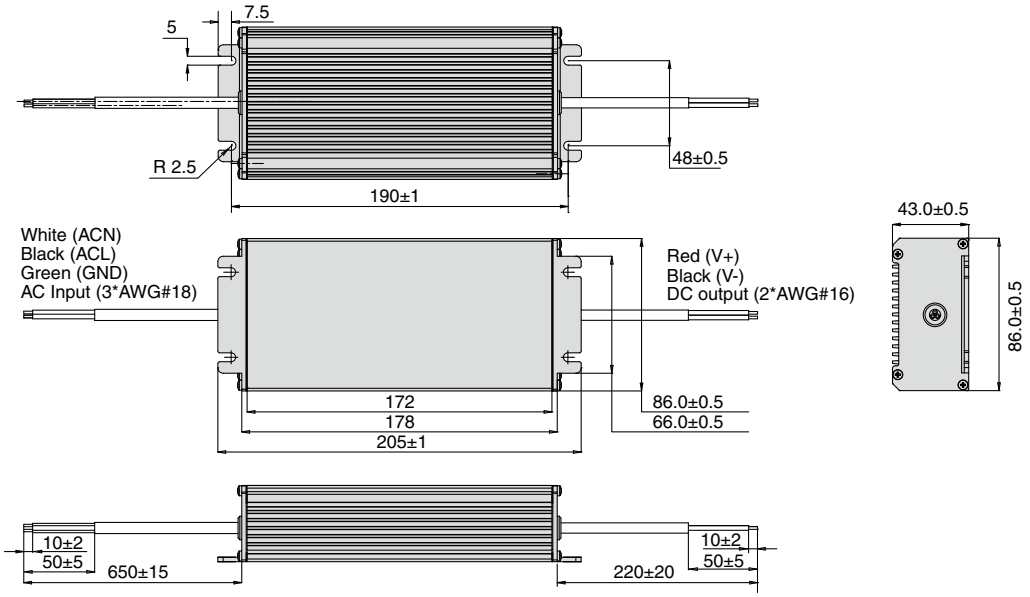
CUL	UL8750,UL1012,CSA-C22.2 No. 107.1
CE	EN 61347-1, EN61347-2-13
Conducted emissions	FCC Part15 Class B / EN55015
Radiated emissions	FCC Part15 Class B / EN55015
Harmonic current emissions	EN61000-3-2
Voltage fluctuations and flicker	EN61000-3-3
Electrostatic discharge	EN61000-4-2
RFE field susceptibility	EN61000-4-3
Electrical fast transient	EN61000-4-4
Surge immunity test	EN61000-4-5
Conducted radio frequency	EN61000-4-6
Power frequency magnetic field test	EN61000-4-8
Voltage dips	EN61000-4-11
Electromagnetic immunity	EN61547

Model Specifications - Constant Voltage

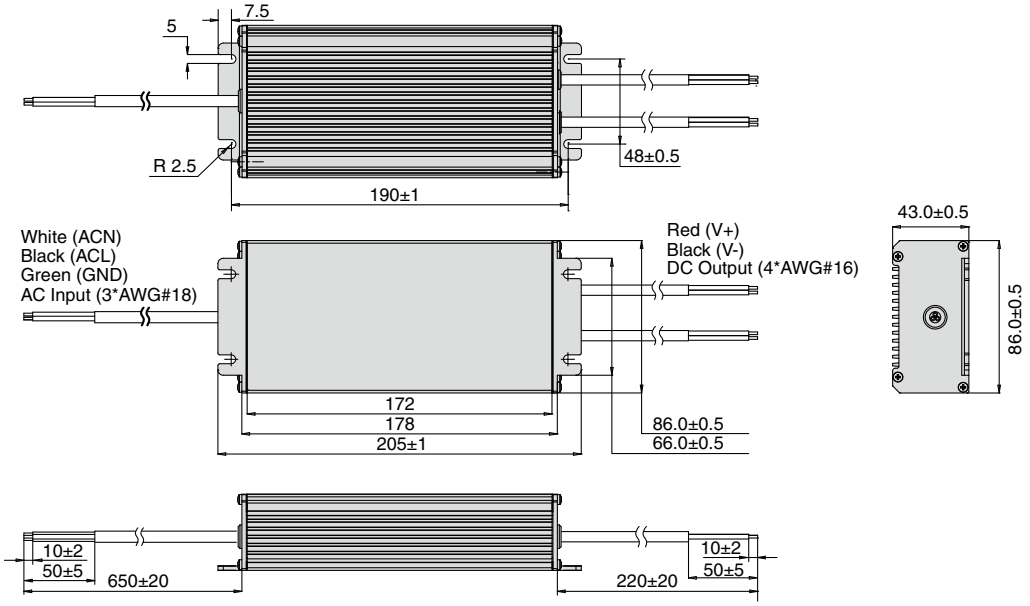
Part Number	Output Voltage	MAX Output Current	Voltage Accuracy	Efficiency (typical)	
				110VAC	220VAC
MU150A012AP	12VDC	12.50A	± 5%	90%	92%
MU150A024AP	24VDC	6.25A	± 5%	91%	93%
MU150A036AP	36VDC	4.17A	± 5%	91%	93%
MU150A042AP	42VDC	3.57A	± 5%	91%	93%
MU150A048AP	48VDC	3.13A	± 5%	91%	93%
MU150A054AP	54VDC	2.78A	± 5%	91%	93%
MU150A081AP	81VDC	1.85A	± 5%	91%	93%
MU150A105AP	105VDC	1.42A	± 5%	91%	93%

Mechanical Outline (unit: mm)

Constanct Voltage



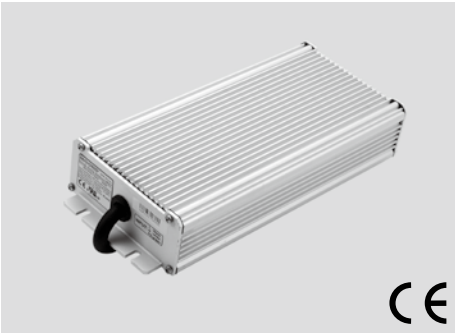
constant voltage with 12V



MU200A Series - Constant Voltage Output

Features

- Input voltage range: 90-305 VAC
- High efficiency: 93% typical
- Active PFC: 0.99 typical
- Surge protection
- IP67 compliant
- Protection: OVP, OCP, SCP, OTP
- Compliance to worldwide safety regulations for lighting
- Suitable for dry/damp locations
- CUL / CE
- 5-year warranty



223 × 95 × 46mm

Electrical Specifications

Input voltage range	90~305 VAC
Frequency	47~63 Hz
Power factor	0.99 at 110 VAC 0.95 at 220 VAC (typical)
Inrush current	65A MAX (25℃, at 220VAC, cold start)
Input current	2.3A MAX at 110 VAC 1.1A MAX at 220 VAC
Efficiency	93% (typical) at 220 VAC maximum load
Maximum power	200W
Line regulation	± 1%
Load regulation	± 2%
Leakage current	1mA MAX
Protection	over voltage, over current, short circuit: auto recovery; over temperature

Environmental Specifications

Operating temperature	-35℃ ~ +70℃
Storage temperature	-40℃ ~ +85℃
Maximum case temperature	90℃
Humidity	5% ~ 95%RH
Cooling method	convection
Isolation voltage	input / output 3000VAC
MTBF	300,000 hours full load at 25℃ ambient
Life time	100,000 hours at 25℃ ambient
Dimension (L x W x H)	223 × 95 × 46 (mm)

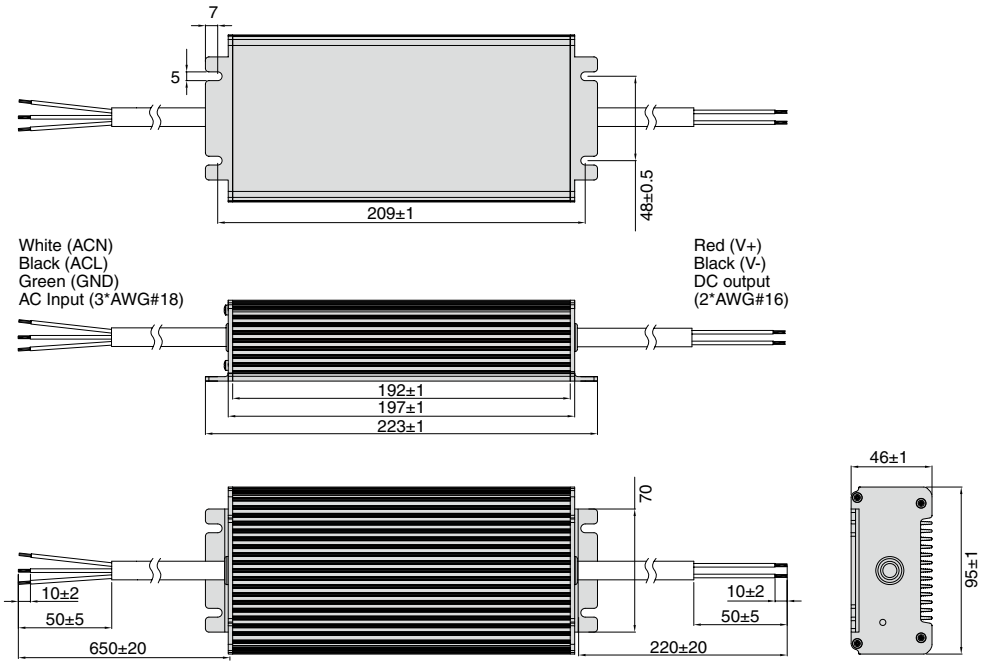
Safety & EMC Compliance

CUL	UL 8750, UL1012
CE	EN 61347-1, EN61347-2-13
Conducted emissions	FCC Level B / EN55015
Radiated emissions	FCC Level B / EN55015
Harmonic current emissions	EN61000-3-2
Voltage fluctuations and flicker	EN61000-3-3
Electrostatic discharge	EN61000-4-2
RFE field susceptibility	EN61000-4-3
Electrical fast transient	EN61000-4-4
Surge immunity test	EN61000-4-5
Conducted radio frequency	EN61000-4-6
Power frequency magnetic field test	EN61000-4-8
Voltage dips	EN61000-4-11
Electromagnetic immunity	EN61547

Model Specifications - constant voltage

part number	output voltage	MAX output current	voltage accuracy	efficiency (typical)	
				110VAC	220VAC
MU200A012AP	12 VDC	16.67A	± 5%	90.0%	92.0%
MU200A024AP	24 VDC	8.33 A	± 5%	90.0%	92.0%
MU200A036AP	36 VDC	5.56 A	± 5%	90.5%	92.5%
MU200A042AP	42 VDC	4.76 A	± 5%	90.5%	92.5%
MU200A048AP	48 VDC	4.17 A	± 5%	90.5%	92.5%
MU200A050AP	50 VDC	4.00 A	± 5%	90.5%	92.5%
MU200A052AP	52 VDC	3.84 A	± 5%	91.0%	93.0%
MU200A054AP	54 VDC	3.70 A	± 5%	91.0%	93.0%
MU200A081AP	81 VDC	2.47 A	± 5%	91.0%	93.0%
MU200A105AP	105VDC	1.9 A	± 5%	91.0%	93.0%

Mechanical Outline (unit: mm)



General other series - MT240H100AQ_0-10V

Features

- Input voltage range: 249~ 528 VAC
- Built-in active PFC function: 0.99 typical
- High efficiency: 90% typical
- IP67 design for outdoor installations
- Dimming function: 0 ~ 10VDC/ 10V PWM
- Full protection function: OVP, OTP, SCP, OCP
- Suitable for dry/damp environment
- FCC Part 15 Class B
- 5-year warranty

223 × 95 × 46mm

Electrical Specifications

Voltage Range	
Frequency Range	47~63 Hz
Power factor	0.99Type(277VAC)； 0.95Type(480VAC)
AC Current	＜1.0A at 277VAC input
Inrush Current	＜65A at 480VAC input 25℃ cold start
Leakage Current	＜0.75mA at 480VAC input
Line regulation	±5%
Load regulation	±5%
Turn-on Delay Time	<1.5s at 277VAC~480VAC,full load
Protection	Over Voltage Protection,Over Current Protection,Short Circuit Protection,Over Temperature Protection

Environmental Specifications

Operating temperature	-40 ~+70℃
Working Humidity	20% ~ 95% RH
Storage Temp., Humidity	-40~+85℃ , 10%~95% RH
Vibration	2G（10～500HZ）， 12 min/circle， period for 72 min each along X、Y、Z axes
MTBF	300,000 hours, measured at full load, 25℃ ambient temperature
Dimension	223 x 95 x 46 (mm)（LxWxH）

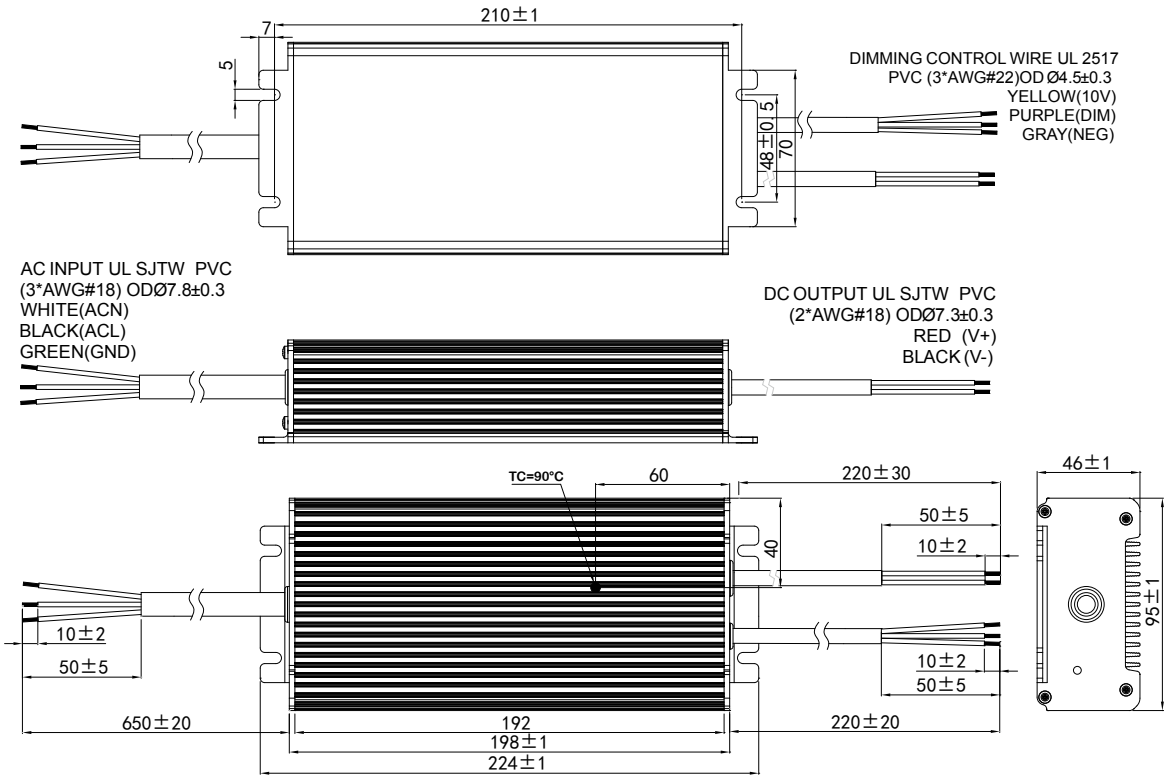
Safety & EMC Compliance

Safety Standard	UL8750,CSA-C22.2 No. 107.1
Withstand Voltage	I/P-O/P : 3.75KVAC , I/P-FG : 2KVAC, O/P-FG :1.5KVAC
Isolation Resistance	I/P-O/P:100M Ohms/500VDC/25℃/70%RH
EMC Emission	FCC Part 15 Class B
EMC Immunity	EN61000-4-2,3,4,5,6,8,11，EN61547;Surge Immunity Test:AC line to AC line ±4KV,AC line to earth: ±6kV

Model Specifications

Part Number	Output Current	Output Voltage Range	Current Accuracy	Efficiency (Typ)	
				277VAC	480VAC
MT240H100AQ_0-10V	1000mA	120V~240V	± 5%	92%	93%

Mechanical Outline (unit: mm)



General other series - MU240A100AQD Class II Series

Features

- Input voltage range: 90-305 VAC
- High efficiency: 93% typical
- Active PFC: 0.96 typical
- IP67 compliant
- Dimming function: 0 ~ 10V dimming
- Full protection function: OVP, OLP, SCP, OTP
- UL/CUL, CE
- 5-year warranty

223 × 95 × 46mm

Electrical Specifications

Voltage Range	90 ~ 305 VAC
Frequency Range	47~63 Hz
Power factor	0.98(Min.), 0.99(Typ.) at 110Vac input, 0.97(Min.), 0.98(Typ.) at 220Vac input, 100% load
AC Current	<2.6A MAX at 110Vac, 1.3A MAX at 220Vac
Inrush Current	<65A MAX 25℃, at 230Vac, cold start
Leakage Current	<0.25mA MAX at 230Vac 50Hz input
Line regulation	±1%
Load regulation	±3%
Turn-on Delay Time	<3.0s, measured at 120Vac input; 1.5s, measured at 220Vac input
Protection	Over Voltage Protection,Short Circuit Protection,Over Load Protection,Over Temperature

Environmental Specifications

Operating temperature	-40℃ ~ +60℃
Working Humidity	5%~95%RH
Storage Temp., Humidity	-40~+85℃, 5%-%RH
Vibration	2G,5G, 1 octave/min, period for 1h each along X、Y、Z axes
MTBF	300,000 hours, measured at full load, 25℃ ambient temperature
Dimension	223x95x46 mm（LxWxH）

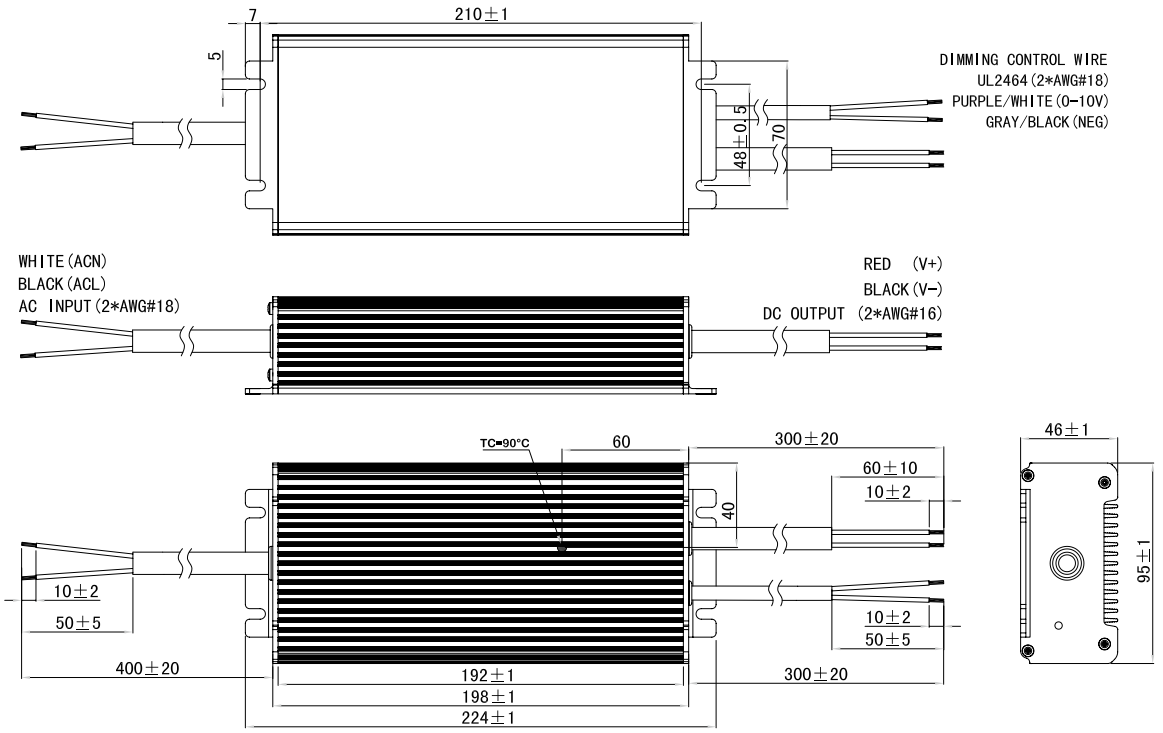
Safety & EMC Compliance

Safety Standard	UL8750, UL1012, CSA-C22.2 No. 107.1,EN61347-1,EN61347-2-13
Withstand Voltage	I/P-O/P:3kVAC, I/P-FG:1.5kVAC, O/P-FG:1.5kVAC
Isolation Resistance	I/P-O/P, I/P-FG:100M Ohms/500VDC/25℃/70%RH
EMC Emission	EN55015/FCC Part 15 Class B
EMC Immunity	EN61000-4-2,5 (Surge: L,N-FG ±4kV, L-N ±2kV)

Model Specifications

Part Number	Output Voltage Range	Rated Current	Rated Power	Current Accuracy	Efficiency (Typ)	
					110VAC	220VAC
MU240A100AQD	168-240VDC	1000mA	240W	±5%	90%	93%

Mechanical Outline (unit: mm)



General other series - MU320HxxxAQ_CP / Constant Power

Features

- Input voltage range: 90-305 VAC
- Built-in active PFC function: 0.99 typical
- High efficiency: 94% typical
- IP67 design for indoor or outdoor installations
- Dimming function: Constant current/ 0 ~ 10V dimming/ clock dimming (CLK)/ PWM dimming
- Full protection function: OVP, OTP, SCP
- Compliance to worldwide safety regulations for lighting
- C-UL in process
- 5-year warranty

251x90x44.5 mm

Electrical Specifications

Voltage Range	90 ~ 305 VAC
Frequency Range	47~63 Hz
Power factor	0.98(Min.), 0.99(Typ.) at 110Vac input, 0.95(Min.), 0.98(Typ.) at 220Vac input, 100% load
THD	8%(Typ.) at 110Vac input, 10%(Typ.) at 220Vac input, 100% load
AC Current	4A MAX at 100Vac, 1.7A MAX at 220Vac
Inrush Current	65A MAX (25℃, at 230Vac, cold start)
Leakage Current	0.75mA MAX at 277Vac 50Hz input
Line regulation	±1%
Load regulation	±3%
Turn-on Delay Time	1.0s, measured at 120Vac input; 0.5s, measured at 220Vac input
Protection	Over Voltage Protection,Short Circuit Protection,Over Temperature Protection

Environmental Specifications

Operating temperature	-40~+70℃, refer to the derating curve for detail
Operating Humidity	20~95%RH, non-condensing
Storage Temp., Humidity	-40~+85℃, 10%-95%RH
Vibration	5-55Hz, 2G 5min/cycle, period for 30min each along X、Y、Z axes
MTBF	300,000 hours, measured at full load, 25℃ ambient temperature, MIL-HDBK-217F
Dimension	251x90x44.5 mm（LxWxH）

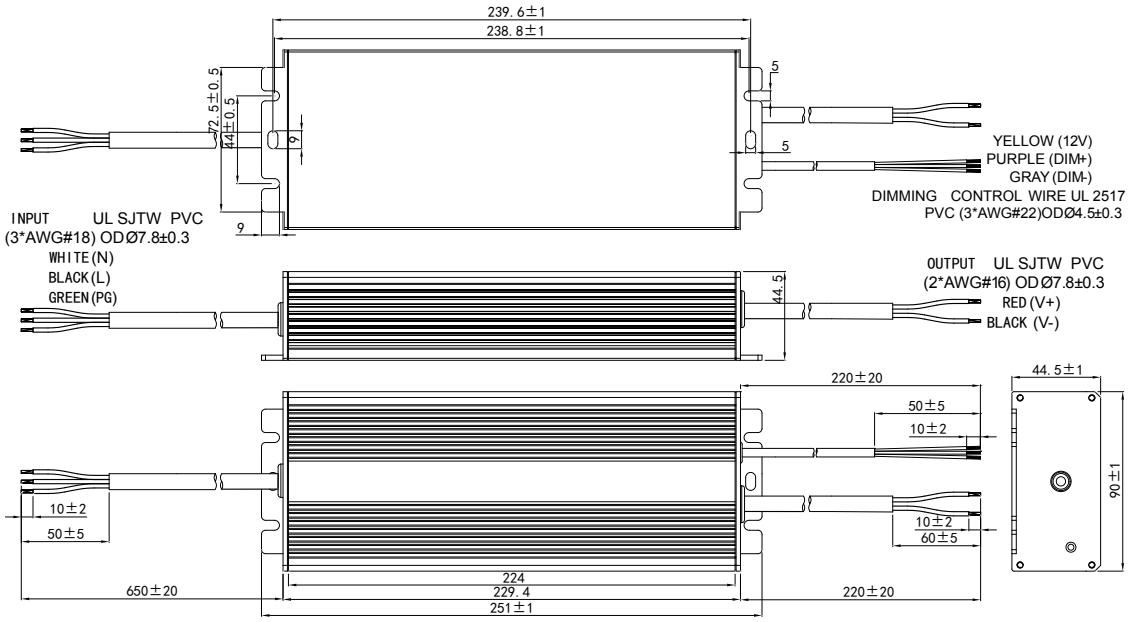
Safety & EMC Compliance

Safety Standard	UL8750, UL1012, CAN/CSA-C22.2No.107.1-01, EN61347-1, EN61347-2-13
Withstand Voltage	I/P-O/P:3.75kVAC, I/P-FG:1.5kV, O/P-FG:1.5kV
Isolation Resistance	I/P-O/P, I/P-FG, O/P-FG:100M Ohms/500VDC/25℃/70%RH
EMC Emission	EN55015/FCC Part 15 Class B, EN61000-3-2 Class C, EN61000-3-3
EMC Immunity	EN61000-4-2,3,4,5,6,8,11, EN61547 (Surge: L,N-FG 6kV, L-N 4kV)

Model Specifications

Part Number	Output Voltage Range	Rated Current	Rated Power	Rated Voltage Range	Current Accuracy	Efficiency (Typ)	
						110VAC	220VAC
MU320H105AQ_CP	183-457VDC	700-1050mA	320(Max.)	305-457VDC	± 5%	91%	94%
MU320H150AQ_CP	128-320VDC	1000-1500mA	320(Max.)	214-320VDC	± 5%	91%	94%
MU320H210AQ_CP	91-288VDC	1400-2100mA	320(Max.)	153-288VDC	± 5%	90%	93%
MU320H300AQ_CP	64-160VDC	2000-3000mA	320(Max.)	107-160VDC	± 5%	90%	93%
MU320H420AQ_CP	46-114VDC	2800-4200mA	320(Max.)	76-114VDC	± 5%	90%	93%
MU320H600AQ_CP	32-80VDC	4000-6000mA	320(Max.)	53-80VDC	± 5%	90%	93%
MU320H900AQ_CP	22-54VDC	5950-9000mA	320(Max.)	35.5-54VDC	± 5%	90%	93%
MU320H1330AQ_CP	14-36VDC	8900-13300mA	320(Max.)	24-36VDC	± 5%	90%	93%

Mechanical Outline (unit: mm)



DALI Intelligent Series - MU050AxxxAQ_DALI / STB

Features

- Input voltage: 90~ 305VAC
- Built-in active PFC function: 0.99 typical
- High efficency: 87% typical
- IP67 design for indoor or outdoor installations
- Support DALI dimming function, follow DALI IEC62386 Standard with turn-off function
- Full protection function: OVP, OTP, SCP, OCP
- Compliance to worldwide safety regulations for lighting
- Suitable for dry/damp locations
- 5 Years Warranty

203 x 63.5 x 40 mm

Electrical Specifications

Voltage Range	90 ~ 305 VAC
Frequency Range	47~63 Hz
Power Factor	0.99(typ.) at 110Vac input, 0.95(typ.) at 220Vac input
AC Current	0.7A at 100Vac input, 0.35A at 220Vac input
Inrush Current	15A at 230Vac input 25℃ cold start
Leakage Current	0.75mA at 277Vac 50Hz input
Line Regulation	± 3%
Load Regulation	± 3%
Setup, Rise Time	3s, measured at 110Vac input; 1.5s, measured at 220Vac input
Hold Up Time	/
Protection	Over Voltage Protection,Short Circuit Protection,Over Temperature Protection, Over Current Protection

Environmental Specifications

Working Temp.	-40~+70℃
Working Humidity	20%~95%RH
Storage Temp., Humidity	-40~+80℃, 10%-95%RH
Vibration	10~500Hz, 5G 12min/cycle, period for 72min each along X、Y、Z axes
MTBF	300,000 hours, measured at full load, 25℃ ambient temperature MIL-HDBK-217F(25℃)
Dimension	203 x 63.5 x 40 mm（LxWxH）

Safety & EMC Compliance

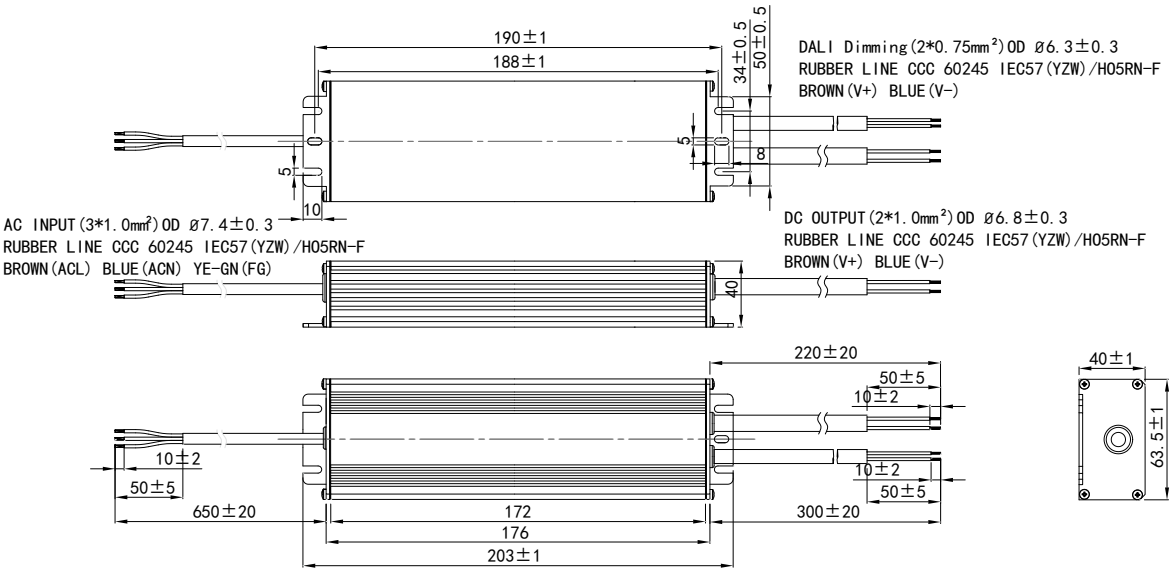
Safety Standard	UL8750, UL1012, CSA-C22.2 No. 107.1, EN61347-1, EN61347-2-13
Withstand Voltage	I/P-O/P:3.75KVac, I/P-FG:1.875KVac, O/P-FG:1.5KV, O/P-DIMMING: 1.875KV;
Isolation Resistance	I/P-O/P, I/P-FG, O/P-FG:100M Ohms/500Vdc/25℃/70%RH
EMC Emission	EN55015/FCC Part 15 Class B, EN61000-3-2 Class C, EN61000-3-3
EMC Immunity	EN61000-4-2,3,4,5,6,8,11, EN61547 (Surge: L-N 2KV, L/N-Earth 4KV)

Model Specifications

Model		DC Voltage	Rated Current	Rated Power	Voltage Range	Current Accuracy	Efficiency (Typ)	
							110VAC	220VAC
MU050A035AQ_DALI	MU050A035AQ_STB	142V	350mA	49.7V	85~142V	5%	86%	87%
MU050A070AQ_DALI	MU050A070AQ_STB	71V	700mA	49.7V	44~71V	5%	86%	87%

Mechanical Outline (unit: mm)

DALI



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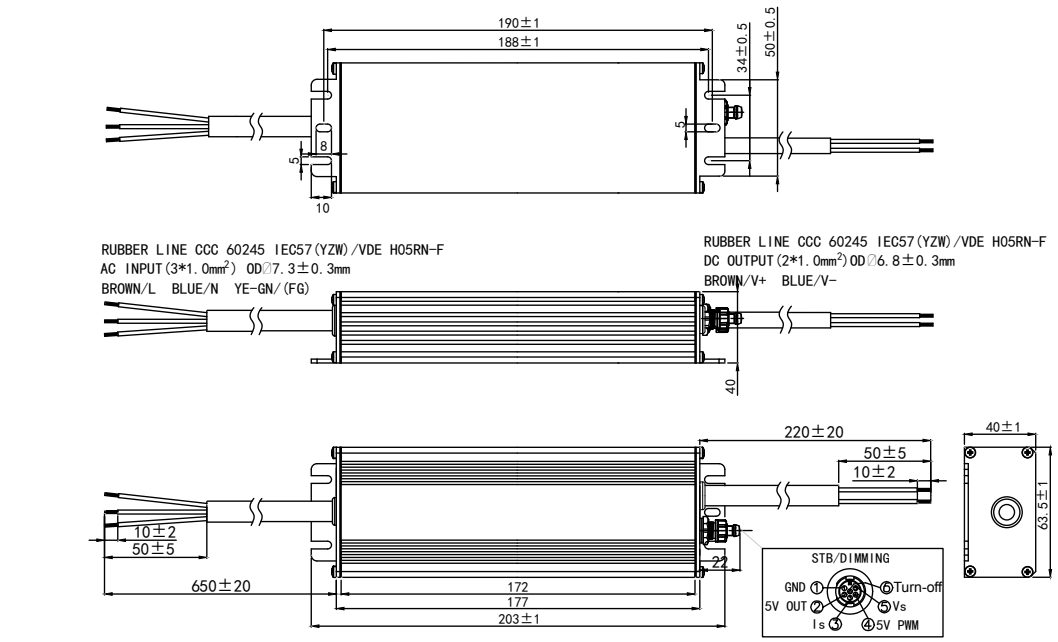


DALI Intelligent Series - MU060AxxxAQ_DALI / STB

Features

- Input voltage: 90~ 305VAC
- Built-in active PFC function: 0.99 typical
- High efficency: 87% typical
- IP67 design for indoor or outdoor installations
- Support DALI dimming function, follow DALI IEC62386 Standard with turn-off function
- Full protection function: OVP, OTP, SCP, OCP
- Compliance to worldwide safety regulations for lighting
- Suitable for dry/damp locations
- 5 Years Warranty

203 x 63.5 x 40 mm

Electrical Specifications

Voltage Range	90 ~ 305 VAC
Frequency Range	47~63 Hz
Power Factor	0.99 Typical (>0.90, at 100~277Vac input, with 80%~100% load conditions)
THD	< 20%, at 100 ~ 277Vac input, with 80% ~ 100% load conditions
AC Current	0.75A at 100Vac input, 0.38A at 220Vac input
Inrush Current	50A at 230Vac input 25℃ cold start
Leakage Current	0.75mA at 277Vac 50Hz input
Line Regulation	± 3%
Load Regulation	± 3%
Setup, Rise Time	3s, measured at 110Vac input; 1.5s, measured at 220Vac input
Hold Up Time	10ms at 220Vac 100% load
Protection	Over Voltage Protection,Short Circuit Protection,Over Temperature Protection, Over Current Protection

Environmental Specifications

Working Temp.	-40~+70℃
Working Humidity	20%~95%RH, non-condensing
Storage Temp., Humidity	-40~+80℃, 10%-95%RH
Vibration	10~500Hz, 5G 12min/cycle, period for 72min each along X、Y、Z axes
MTBF	300,000 hours, measured at full load, 25℃ ambient temperature MIL-HDBK-217F(25℃)
Dimension	203 x 63.5 x 40 mm（LxWxH）

Safety & EMC Compliance

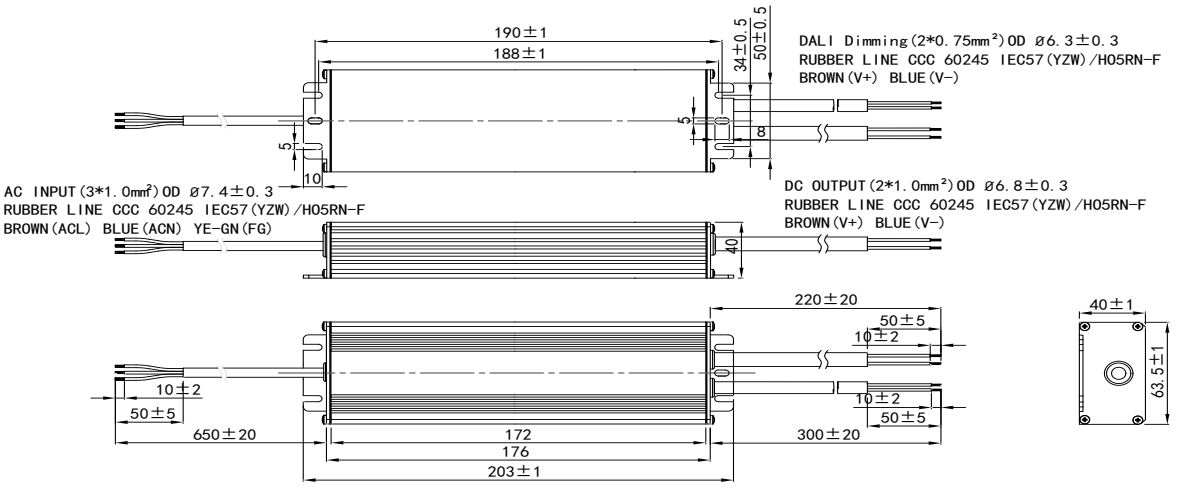
Safety Standard	UL8750, UL1012, CSA-C22.2 No. 107.1, EN61347-1, EN61347-2-13
Withstand Voltage	I/P-O/P:3.75KVac, I/P-FG:1.875KVac, O/P-FG:1.5KV, O/P-DIMMING: 1.875KV;
Isolation Resistance	I/P-O/P, I/P-FG, O/P-FG:100M Ohms/500Vdc/25℃/70%RH
EMC Emission	EN55015/FCC Part 15 Class B, EN61000-3-2 Class C, EN61000-3-3
EMC Immunity	EN61000-4-2,3,4,5,6,8,11, EN61547 (Surge: L-N 2KV, L/N-Earth 4KV)

Model Specifications

Model		DC Voltage	Rated Current	Rated Power	Voltage Range	Current Accuracy	Efficiency (Typ)	
							110VAC	220VAC
MU060A070AQ_DALI	MU060A070AQ_STB	86V	700mA	60V	43~86V	5%	86%	88%
MU060A150AQ_DALI	MU060A150AQ_STB	40V	1500mA	60V	24~40V	5%	85%	87%

Mechanical Outline (unit: mm)

DALI



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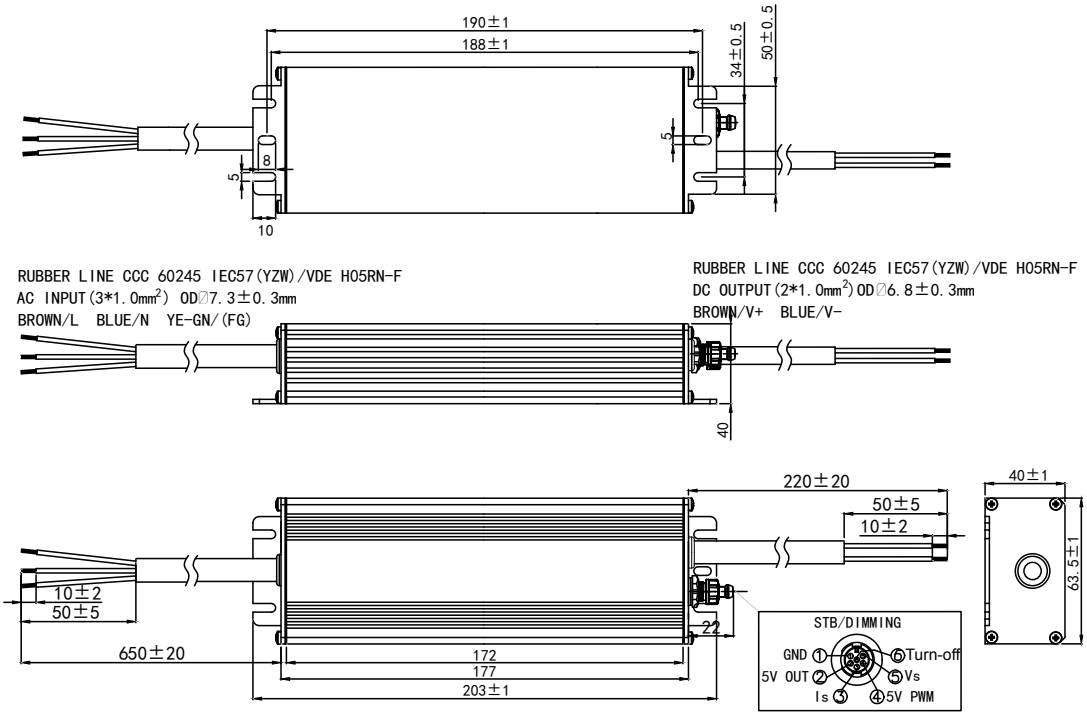


DALI Intelligent Series - MU084AxxxAQ_DALI / STB

Features

- Input voltage: 90~ 305VAC
- Built-in active PFC function: 0.99 typical
- High efficiency: 88% typical
- IP67 design for indoor or outdoor installations
- Support DALI dimming function, follow DALI IEC62386 Standard with turn-off function
- Full protection function: OVP, OTP, SCP, OVP
- Compliance to worldwide safety regulations for lighting
- Suitable for dry/damp locations
- 5 Years Warranty

241 x 67.5 x 37 mm

Electrical Specifications

Voltage Range	90 ~ 305 VAC
Frequency Range	47~63 Hz
Power Factor	0.99 Typical (>0.90, at 100~277Vac input, with 80%~100% load conditions)
THD	< 20%, at 100 ~ 277Vac input, with 80% ~ 100% load conditions
AC Current	0.75A at 110Vac input, 0.38A at 220Vac input
Inrush Current	50A at 230Vac input 25℃ cold start
Leakage Current	1mA at 277Vac 60Hz input
Line Regulation	±1%
Load Regulation	±3%
Setup, Rise Time	3s, measured at 110Vac input; 1.5s, measured at 220Vac input
Hold Up Time	10ms at 220Vac 100% load
Protection	Over Voltage Protection,Short Circuit Protection,Over Temperature Protection, Over Current Protection

Environmental Specifications

Working Temp.	-40~+70℃
Working Humidity	20%~95%RH, non-condensing
Storage Temp., Humidity	-40~+80℃, 10%-95%RH
Vibration	10~500Hz, 5G 12min/cycle, period for 72min each along X、Y、Z axes
MTBF	300,000 hours, measured at full load, 25℃ ambient temperature MIL-HDBK-217F(25℃)
Dimension	241 x 67.5 x 37 mm（LxWxH）

Safety & EMC Compliance

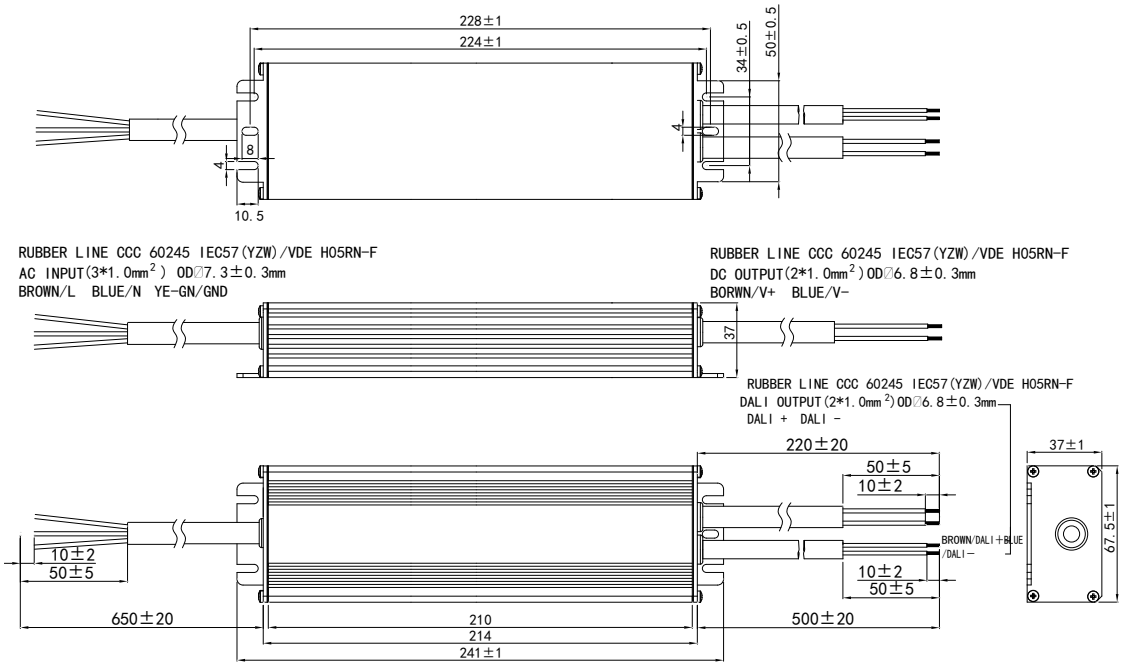
Safety Standard	UL8750, UL1012, CSA-C22.2 No. 107.1, EN61347-1, EN61347-2-13
Withstand Voltage	I/P-O/P:3.75KVac, I/P-FG:1.875KVac, O/P-FG:1.5KV, O/P-DIMMING: 1.875KV;
Isolation Resistance	I/P-O/P, I/P-FG, O/P-FG:100M Ohms/500Vdc/25℃/70%RH
EMC Emission	EN55015/FCC Part 15 Class B, EN61000-3-2 Class C, EN61000-3-3
EMC Immunity	EN61000-4-2,3,4,5,6,8,11, EN61547 (Surge: L-N 2KV, L/N-Earth 4KV)

Model Specifications

Model		DC Voltage	Rated Current	Rated Power	Voltage Range	Current Accuracy	Efficiency (Typ)	
							110VAC	220VAC
MU084A035AQ_DALI	MU084A035AQ_STB	240V	350mA	84V	120~240V	5%	86%	88%

Mechanical Outline (unit: mm)

DALI



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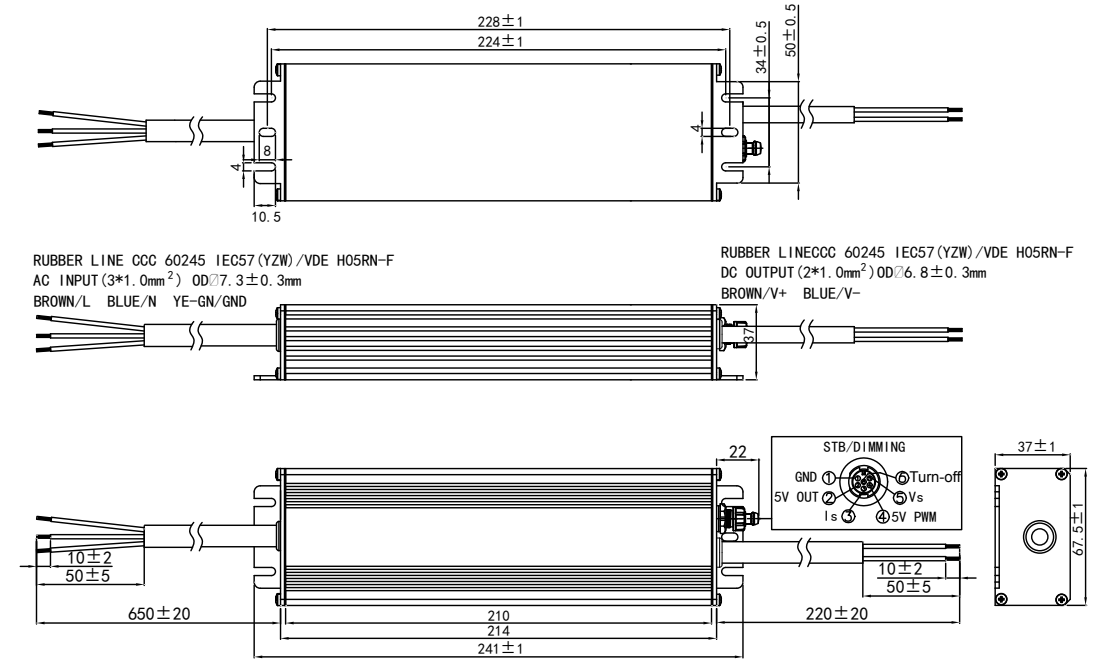


DALI Intelligent Series - MU100AxxxAQ_DALI / STB

Features

- Input voltage: 90~ 305VAC
- Built-in active PFC function: 0.99 typical
- High efficency: 88% typical
- IP67 design for indoor or outdoor installations
- Support DALI dimming function, follow DALI IEC62386 Standard with turn-off function
- Full protection function: OVP, OTP, SCP, OCP
- Compliance to worldwide safety regulations for lighting
- Suitable for dry/damp locations
- 5 Years Warranty

241 x 67.5 x 37 mm

Electrical Specifications

Voltage Range	90 ~ 305 VAC
Frequency Range	47~63 Hz
Power Factor	0.99 Typical (>0.90, at 100~277Vac input, with 80%~100% load conditions)
THD	< 20%, at 100 ~ 277Vac input, with 80% ~ 100% load conditions
AC Current	1.3A at 110Vac input; 0.65A at 220Vac input
Inrush Current	50A at 230Vac input 25℃ cold start
Leakage Current	1mA at 277Vac 60Hz input
Line Regulation	±1%
Load Regulation	±3%
Setup, Rise Time	3s, measured at 110Vac input; 1.5s, measured at 220Vac input
Hold Up Time	10ms at 220Vac 100% load
Protection	Over Voltage Protection,Short Circuit Protection,Over Temperature Protection, Over Current Protection

Environmental Specifications

Working Temp.	-40~+70℃
Working Humidity	20%~95%RH, non-condensing
Storage Temp., Humidity	-40~+80℃, 10%-95%RH
Vibration	10~500Hz, 5G 12min/cycle, period for 72min each along X、Y、Z axes
MTBF	300,000 hours, measured at full load, 25℃ ambient temperature MIL-HDBK-217F(25℃)
Dimension	241 x 67.5 x 37 mm（LxWxH）

Safety & EMC Compliance

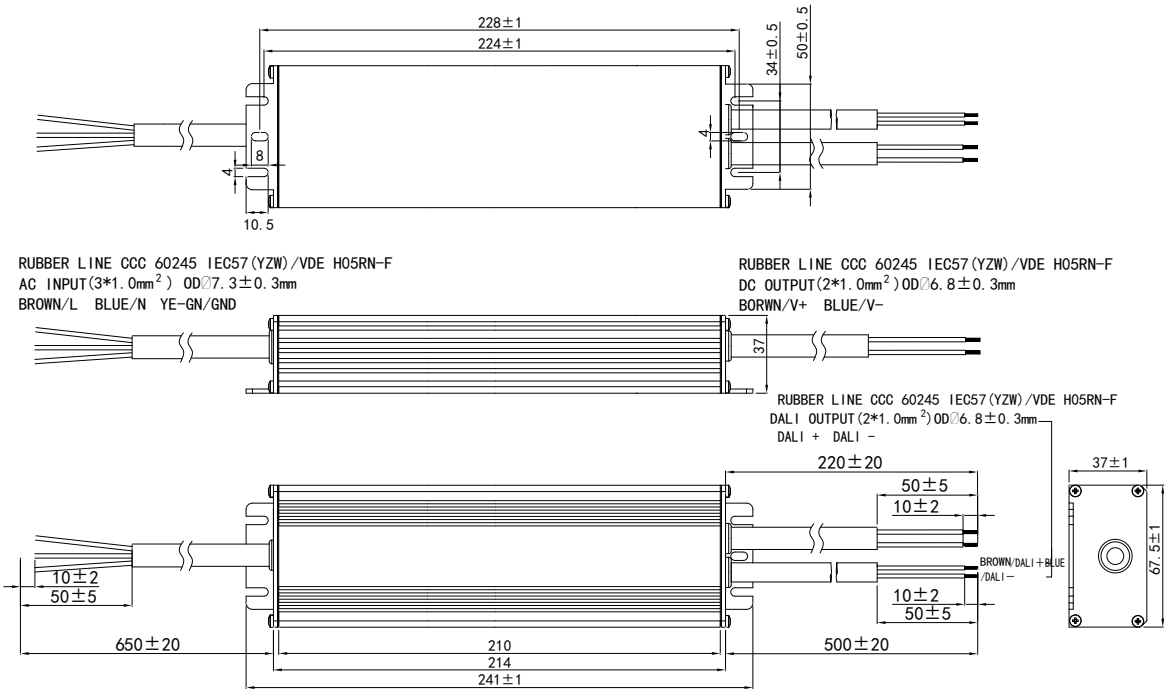
Safety Standard	UL8750, UL1012, CSA-C22.2 No. 107.1, EN61347-1, EN61347-2-13
Withstand Voltage	I/P-O/P:3.75KVac, I/P-FG:1.875KVac, O/P-FG:1.5KV, O/P-DIMMING: 1.875KV;
Isolation Resistance	I/P-O/P, I/P-FG, O/P-FG:100M Ohms/500Vdc/25℃/70%RH
EMC Emission	EN55015/FCC Part 15 Class B, EN61000-3-2 Class C, EN61000-3-3
EMC Immunity	EN61000-4-2,3,4,5,6,8,11, EN61547 (Surge: L-N 2KV, L/N-Earth 4KV)

Model Specifications

Model		DC Voltage	Rated Current	Rated Power	Voltage Range	Current Accuracy	Efficiency (Typ)	
							110VAC	220VAC
MU100A030AQ_DALI	MU100A030AQ_STB	343V	300mA	103W	205~343V	5%	86%	88%
MU100A035AQ_DALI	MU100A035AQ_STB	286V	350mA	100W	143~286V	5%	86%	88%
MU100A070AQ_DALI	MU100A070AQ_STB	143V	700mA	100W	84~143V	5%	86%	88%
MU100A097AQ_DALI	MU100A097AQ_STB	105V	970mA	102W	84~105V	5%	86%	88%

Mechanical Outline (unit: mm)

DALI



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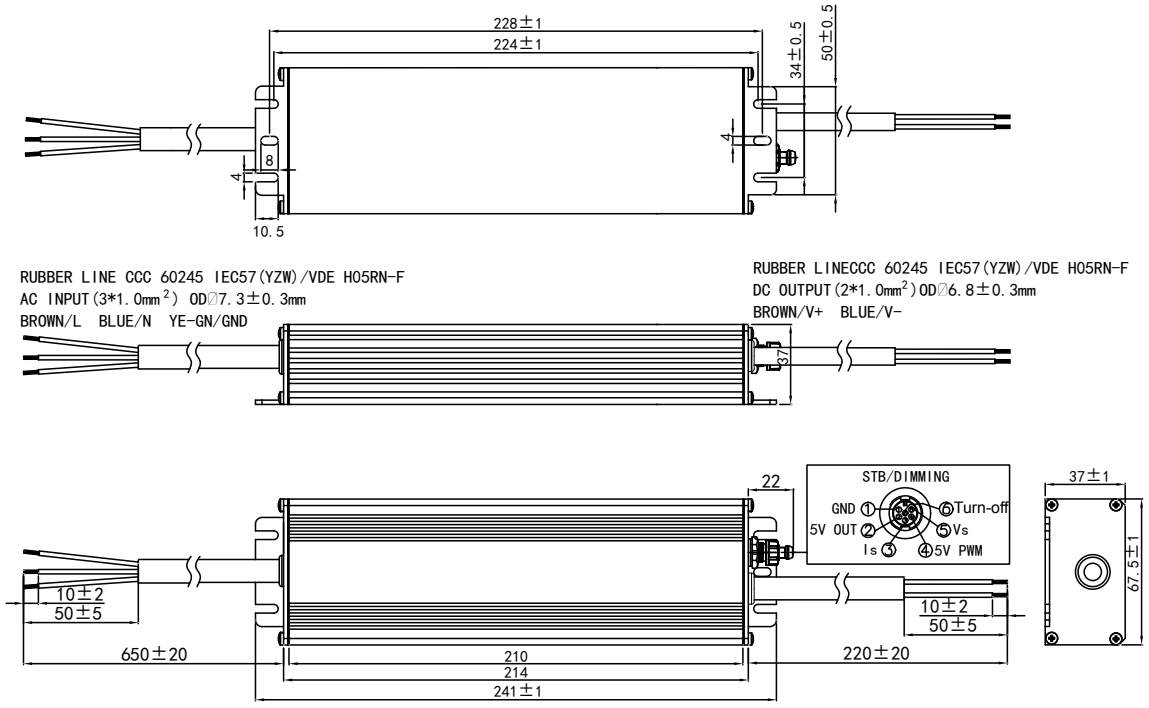
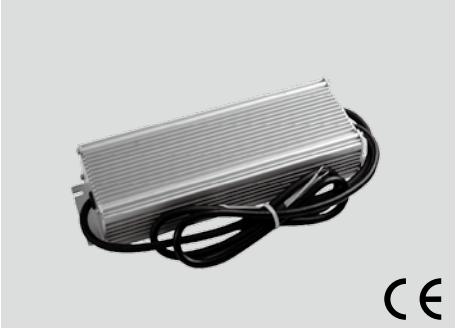


DALI Intelligent Series - MU150AxxxAQ_DALI / STB

Features

- Input voltage: 90~ 305VAC
- Built-in active PFC function: 0.99 typical
- High efficency: 90% typical
- IP67 design for indoor or outdoor installations
- Support DALI dimming function, follow DALI IEC62386 Standard with turn-off function
- Full protection function: OVP, OTP, SCP, OCP
- Compliance to worldwide safety regulations for lighting
- Suitable for dry/damp locations
- 5 Years Warranty



232 x 86 x 43 mm

Electrical Specifications

Voltage Range	90 ~ 305 VAC
Frequency Range	47~63 Hz
Power Factor	0.99 Typical (>0.90, at 100~277Vac input, with 80%~100% load conditions)
THD	< 20%, at 100 ~ 277Vac input, with 80% ~ 100% load conditions
AC Current	2A at 110Vac input; 1A at 220Vac input
Inrush Current	65A at 230Vac input 25℃ cold start
Leakage Current	1mA at 277Vac 60Hz input
Line Regulation	±1%
Load Regulation	±3%
Setup, Rise Time	3s, measured at 110Vac input; 1.5s, measured at 220Vac input
Hold Up Time	10ms at 220Vac 100% load
Protection	Over Voltage Protection,Short Circuit Protection,Over Temperature Protection, Over Current Protection

Environmental Specifications

Working Temp.	-40~+70℃
Working Humidity	20%~95%RH, non-condensing
Storage Temp., Humidity	-40~+80℃, 10%-95%RH
Vibration	10~500Hz, 5G 12min/cycle, period for 72min each along X、Y、Z axes
MTBF	300,000 hours, measured at full load, 25℃ ambient temperature MIL-HDBK-217F(25℃)
Dimension	232 x 86 x 43 mm（LxWxH）

Safety & EMC Compliance

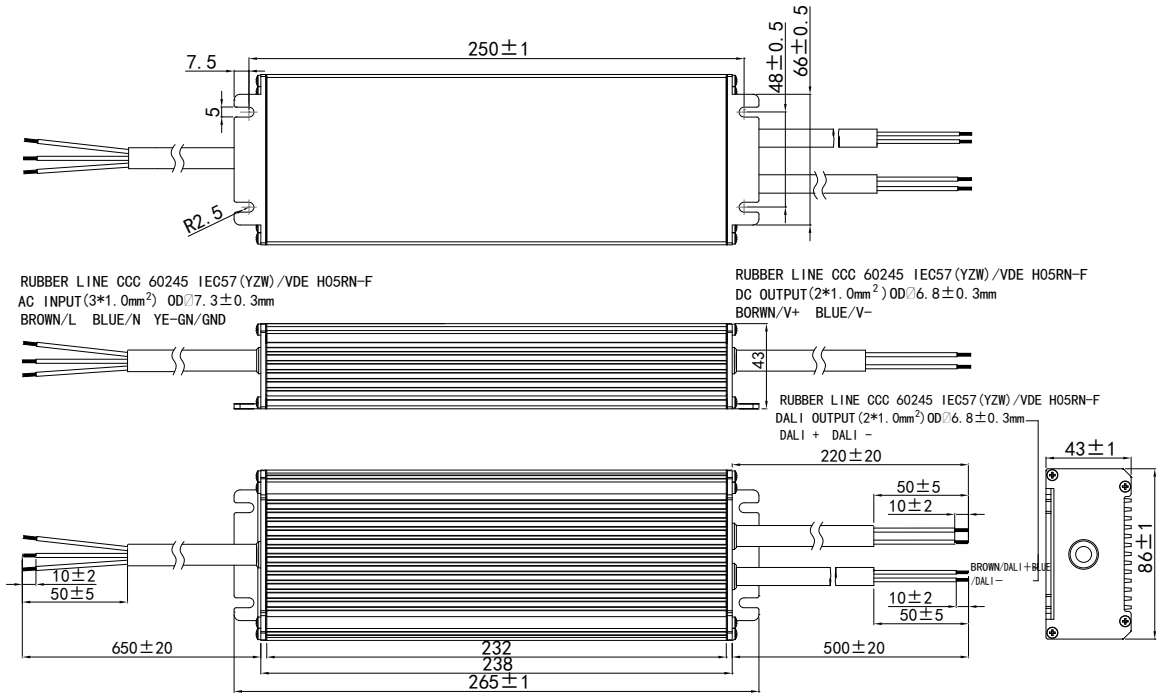
Safety Standard	UL8750, UL1012, CSA-C22.2 No. 107.1, EN61347-1, EN61347-2-13
Withstand Voltage	I/P-O/P:3.75KVac, I/P-FG:1.875KVac, O/P-FG:1.5KV, O/P-DIMMING: 1.875KV;
Isolation Resistance	I/P-O/P, I/P-FG, O/P-FG:100M Ohms/500Vdc/25℃/70%RH
EMC Emission	EN55015/FCC Part 15 Class B, EN61000-3-2 Class C, EN61000-3-3
EMC Immunity	EN61000-4-2,3,4,5,6,8,11, EN61547 (Surge: L-N 2KV, L/N-Earth 4KV)

Model Specifications

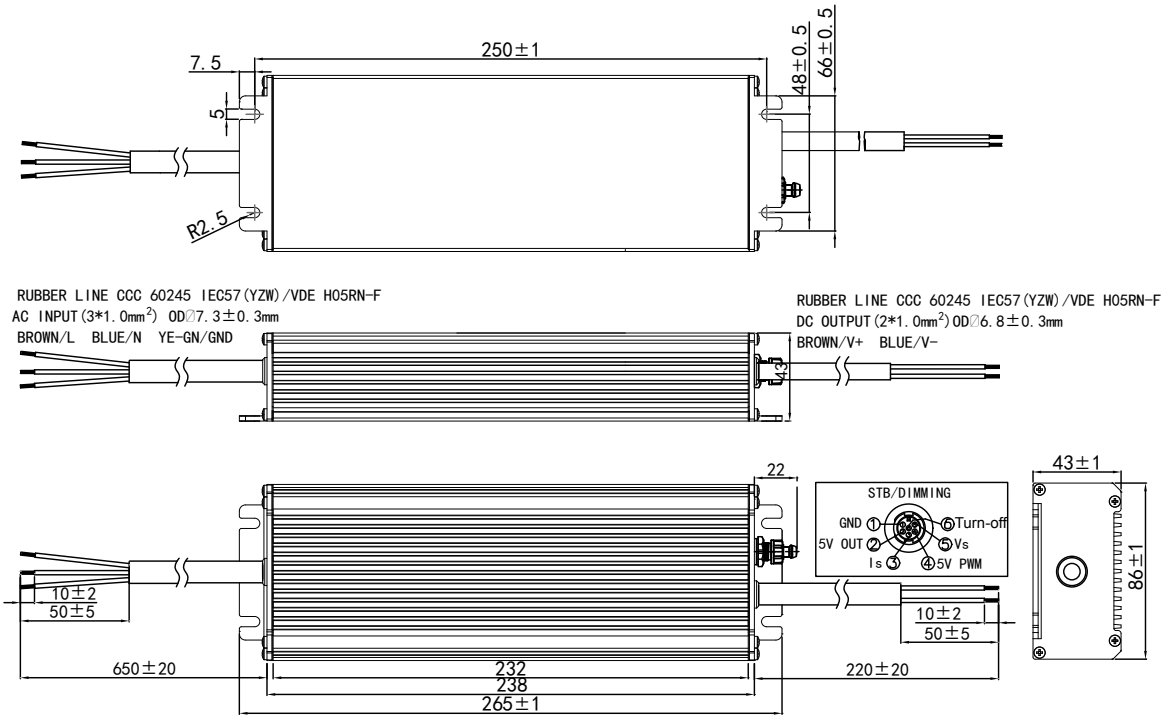
Model		DC Voltage	Rated Current	Rated Power	Voltage Range	Current Accuracy	Efficiency (Typ)	
							110VAC	220VAC
MU150A030AQ_DALI	MU150A030AQ_STB	428V	300mA	128.4W	256~428V	5%	88%	90%
MU150A070AQ_DALI	MU150A070AQ_STB	214V	700mA	149.8W	128~214V	5%	88%	90%
MU150A140AQ_DALI	MU150A140AQ_STB	105V	1400mA	150W	84~105V	5%	88%	90%

Mechanical Outline (unit: mm)

DALI



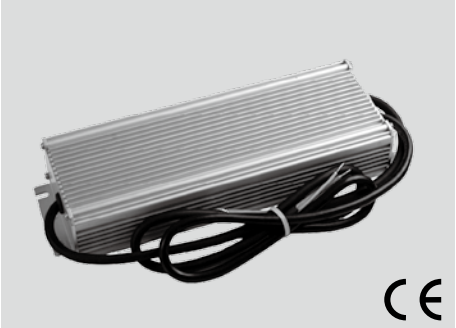
Standby



DALI Intelligent Series - MU200AxxxAQ_DALI / STB

Features

- Input voltage: 90~ 305VAC
- Built-in active PFC function: 0.99 typical
- High efficency: 92% typical
- IP67 design for indoor or outdoor installations
- Support DALI dimming function, follow DALI IEC62386 Standard with turn-off function
- Full protection function: OVP, OTP, SCP, OCP
- Compliance to worldwide safety regulations for lighting
- Suitable for dry/damp locations
- 5 Years Warranty



232 x 95 x 46 mm

Electrical Specifications

Voltage Range	90 ~ 305 VAC
Frequency Range	47~63 Hz
Power Factor	0.99 Typical (>0.90, at 100~277Vac input, with 80%~100% load conditions)
THD	< 20%, at 100 ~ 277Vac input, with 80% ~ 100% load conditions
AC Current	2.4A at 110Vac input; 1.2A at 220Vac input
Inrush Current	65A at 230Vac input 25℃ cold start
Leakage Current	1mA at 277Vac 60Hz input
Line Regulation	±1%
Load Regulation	±3%
Setup, Rise Time	3s, measured at 110Vac input; 1.5s, measured at 220Vac input
Hold Up Time	10ms at 220Vac 100% load
Protection	Over Voltage Protection,Short Circuit Protection,Over Temperature Protection, Over Current Protection

Environmental Specifications

Working Temp.	-40~+70℃
Working Humidity	20%~95%RH, non-condensing
Storage Temp., Humidity	-40~+80℃, 10%-95%RH
Vibration	10~500Hz, 5G 12min/cycle, period for 72min each along X、Y、Z axes
MTBF	300,000 hours, measured at full load, 25℃ ambient temperature MIL-HDBK-217F(25℃)
Dimension	232 x 95 x 46 mm（LxWxH）

Safety & EMC Compliance

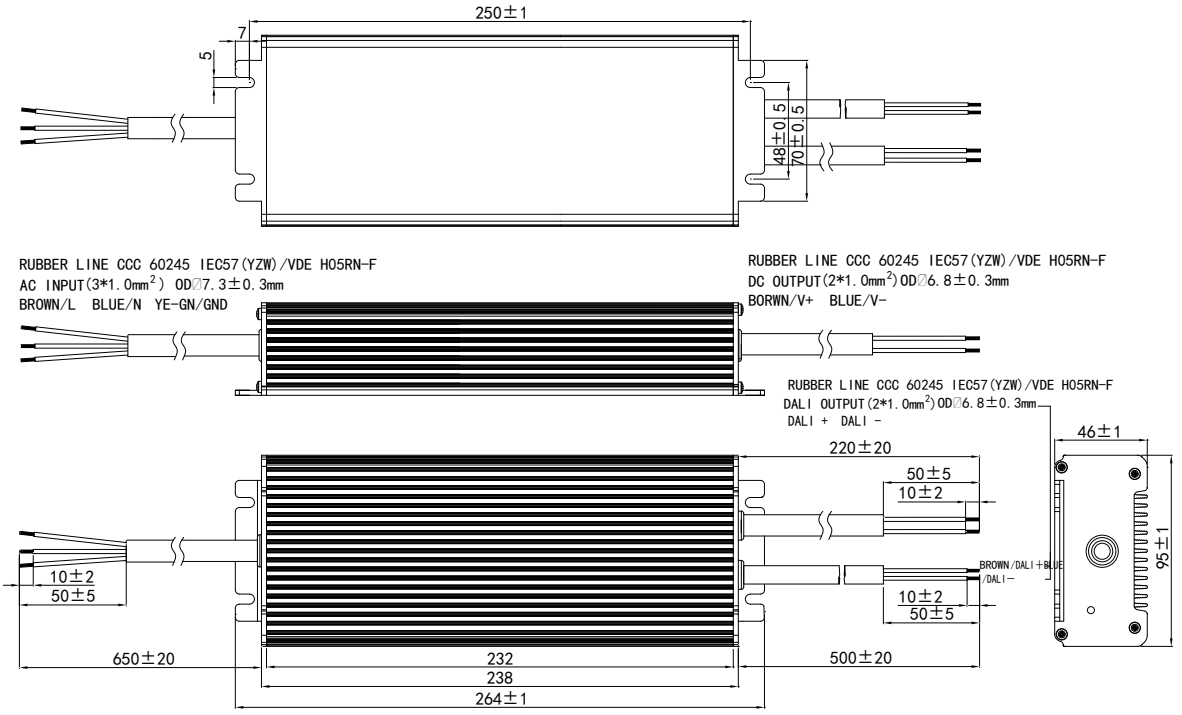
Safety Standard	UL8750, UL1012, CSA-C22.2 No. 107.1, EN61347-1, EN61347-2-13
Withstand Voltage	I/P-O/P:3.75KVac, I/P-FG:1.875KVac, O/P-FG:1.5KV, O/P-DIMMING: 1.875KV;
Isolation Resistance	I/P-O/P, I/P-FG, O/P-FG:100M Ohms/500Vdc/25℃/70%RH
EMC Emission	EN55015/FCC Part 15 Class B, EN61000-3-2 Class C, EN61000-3-3
EMC Immunity	EN61000-4-2,3,4,5,6,8,11, EN61547 (Surge: L-N 2KV, L/N-Earth 4KV)

Model Specifications

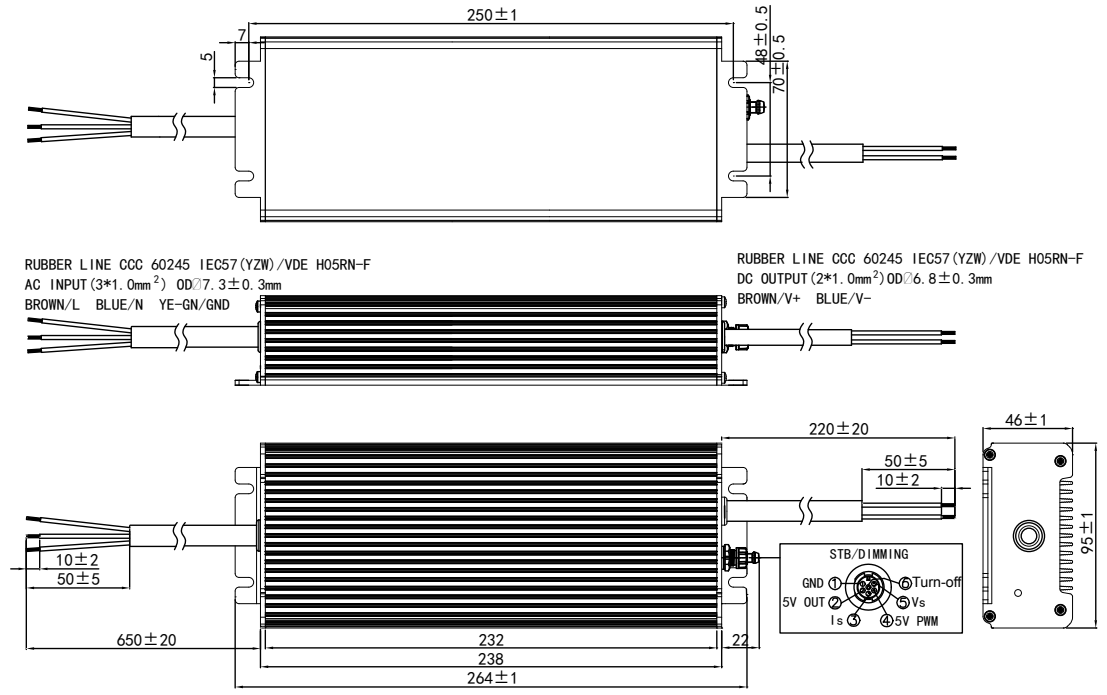
Model		DC Voltage	Rated Current	Rated Power	Voltage Range	Current Accuracy	Efficiency (Typ)	
							110VAC	220VAC
MU200A035AQ_DALI	MU200A035AQ_STB	571V	350mA	200W	343~571V	5%	90%	92%
MU200A045AQ_DALI	MU200A045AQ_STB	467V	450mA	210W	266~467V	5%	90%	92%
MU200A055AQ_DALI	MU200A055AQ_STB	309V	550mA	170W	226~309V	5%	90%	92%
MU200A060AQ_DALI	MU200A060AQ_STB	333V	600mA	200W	226~333V	5%	90%	92%

Mechanical Outline (unit: mm)

DALI



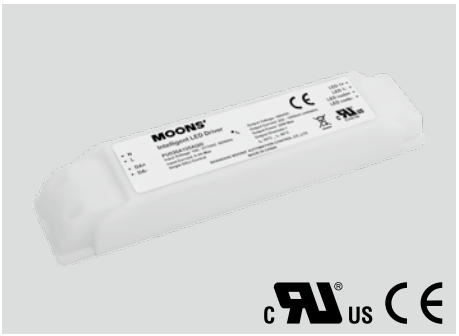
Standby



30W Intelligent Series - PU030A105AQI0 (DALI,1ch)

Features

- Adjustable current range from 200mA to 1050mA
- Flicker-free dimming from 100%to0.1%,Logarithmic dimming curve
- DALI dimming control,1ch
- High performance, high reliability
- CUL / CE
- 5-year warranty



210 × 40.45 × 33.5mm

Electrical Specifications

Input voltage range	100~277VAC
Frequency	47~63Hz
Input current	0.4A(MAX)
Rated power	30W
Power factor	0.95 at 110VAC; 0.92 at 220VAC (typical)
Efficiency	87%(typical)
Output voltage range	2.5~50VDC
Output current range	200mA~1050mA (settable)
Protections	Over voltage, short circuit, over temperature: auto recovery

Environmental Specifications

Operating temperature	-20℃ ~ +60℃
Storage temperature	-40℃ ~ +85℃
Maximum case temp.	85℃
Cooling method	Convection
Life Time	50,000 hours at 50ºC ambient
Reference dimension (L x W x H)	210 × 40.45 × 33.5 (mm)

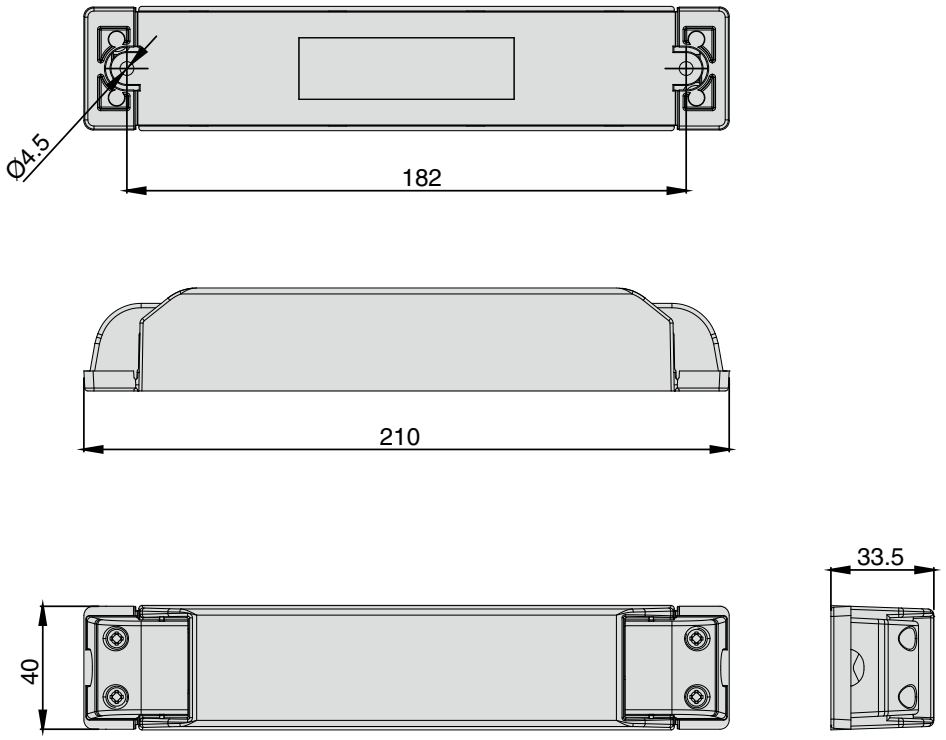
Safety & EMC Compliance

CUL	UL8750, UL1310, CAN/CSA-C22.2 No.223-M91
CE	EN 61347.1; EN61347-2-13
Conducted emissions	EN55015 ; FCC part15 ClassB;
Radiated emissions	EN55015 ; FCC part15 ClassB;
Harmonic current emission	IEC / EN61000-3-2 Class C
Electromagnetic immunity	IEC / EN61547

Function Description

- Adjustable current output:
  The current output can programmed in 1mA steps from 200 mA to 1050 mA.
  This programming can be done at the factory or in the customers place of business.
  This permits optimization of the the current for the LED light engine and conformance to Energy Star Requirements.
- Resolution: 20 bit resolution Max
- Dimming: Supports a wide range of dimming from 0.1% to 100% with linear or Logarithmic dimming curve & flicker-free at all levels.
- High Efficiency: 87% (typical)
- Interface: LED Code
- Temperature Management: By connecting a 47kΩ NTC thermistor, temperature feedback is provided to insure that normal LED operating temperatures are maintained.

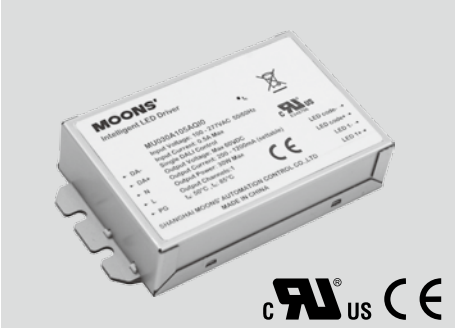
Mechanical Outline (unit: mm)



30W Intelligent Series - MU030A105AQI0 (DALI,1ch)

Features

- Adjustable current range from 200mA to 1050mA
- Flicker-free dimming from 100%to0.1%, Logarithmic dimming curve
- DALI dimming control,1ch
- High performance, high reliability
- CUL / CE
- 5-year warranty



130 × 72 × 28mm

Electrical Specifications

Input voltage range	100~277VAC
Frequency	47~63Hz
Input current	0.4A(MAX)
Rated power	30W
Power factor	0.95 at 110VAC; 0.92 at 220VAC (typical)
Efficiency	87%(typical)
Output voltage range	2.5~50VDC
Output current range	200mA~1050mA (settable)
Protections	Over voltage, short circuit, over temperature: auto recovery

Environmental Specifications

Operating temperature	-20℃ ~ +60℃
Storage temperature	-40℃ ~ +85℃
Maximum case temp.	85℃
Cooling method	Convection
Life Time	50,000 hours at 50ºC ambient
Reference dimension (L x W x H)	130 × 72 × 28 (mm)

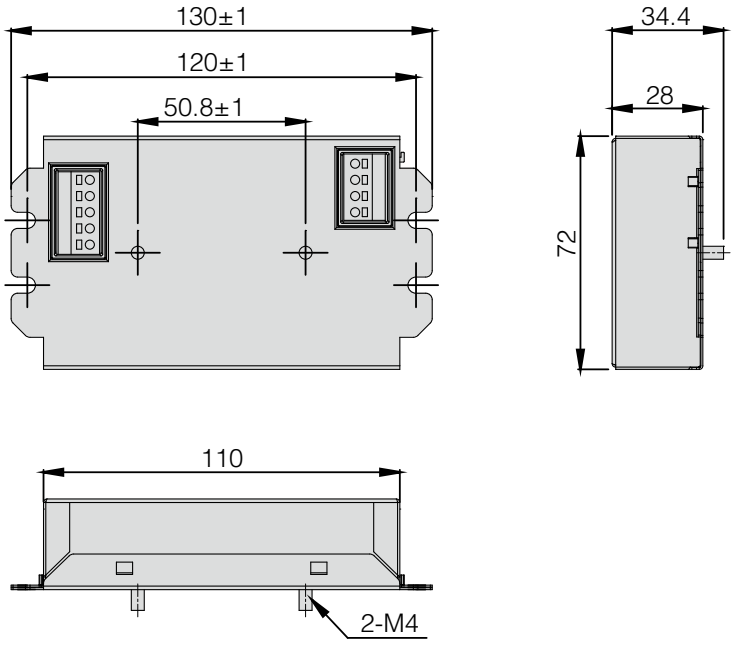
Safety & EMC Compliance

CUL	UL8750, UL1310, CAN/CSA-C22.2 No.223-M91
CE	EN 61347.1; EN61347-2-13
Conducted emissions	EN55015 ; FCC part15 ClassB;
Radiated emissions	EN55015 ; FCC part15 ClassB;
Harmonic current emission	IEC / EN61000-3-2 Class C
Electromagnetic immunity	IEC / EN61547

Function Description

- Adjustable current output:
  The current output can programmed in 1mA steps from 200 mA to 1050 mA.
  This programming can be done at the factory or in the customers place of business.
  This permits optimization of the the current for the LED light engine and conformance to Energy Star Requirements.
- Resolution: 20 bit resolution Max
- Dimming: Supports a wide range of dimming from 0.1% to 100% with linear or Logarithmic dimming curve & flicker-free at all levels.
- High Efficiency: 87% (typical)
- Interface: LED Code
- Temperature Management: By connecting a 47kΩ NTC thermistor, temperature feedback is provided to insure that normal LED operating temperatures are maintained.

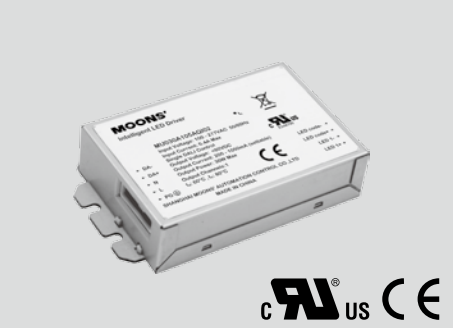
Mechanical Outline (unit: mm)



30W Intelligent Series - MU030A105AQI02 (DALI,1ch)

Features

- Adjustable current range from 200mA to 1050mA
- Flicker-free dimming from 100%to0.1%,Logarithmic dimming curve
- DALI dimming control,1ch
- High performance, high reliability
- CUL / CE
- 5-year warranty



130 × 72 × 28mm

Electrical Specifications

Input voltage range	100~277VAC
Frequency	47~63Hz
Input current	0.4A(MAX)
Rated power	30W
Power factor	0.95 at 110VAC; 0.92 at 220VAC (typical)
Efficiency	87%(typical)
Output voltage range	2.5~50VDC
Output current range	200mA~1050mA (settable)
Protections	Over voltage, short circuit, over temperature: auto recovery

Environmental Specifications

Operating temperature	-20℃ ~ +60℃
Storage temperature	-40℃ ~ +85℃
Maximum case temp.	85℃
Cooling method	Convection
Life Time	50,000 hours at 50ºC ambient
Reference dimension (L x W x H)	130 × 72 × 28 (mm)

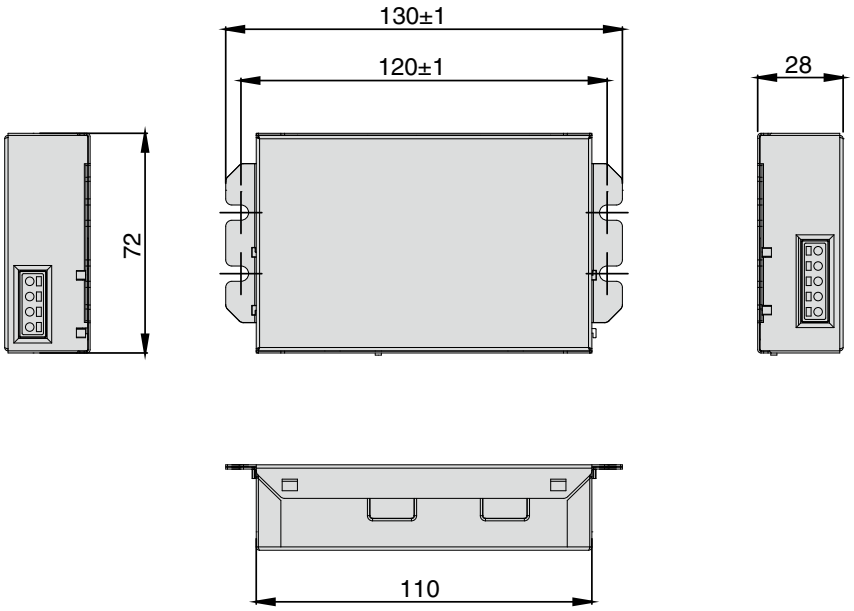
Safety & EMC Compliance

CUL	UL8750, UL1310, CAN/CSA-C22.2 No.223-M91
CE	EN 61347.1; EN61347-2-13
Conducted emissions	EN55015 ; FCC part15 ClassB;
Radiated emissions	EN55015 ; FCC part15 ClassB;
Harmonic current emission	IEC / EN61000-3-2 Class C
Electromagnetic immunity	IEC / EN61547

Function Description

- Adjustable current output:
  The current output can programmed in 1mA steps from 200 mA to 1050 mA.
  This programming can be done at the factory or in the customers place of business.
  This permits optimization of the the current for the LED light engine and conformance to Energy Star Requirements.
- Resolution: 20 bit resolution Max
- Dimming: Supports a wide range of dimming from 0.1% to 100% with linear or Logarithmic dimming curve & flicker-free at all levels.
- High Efficiency: 87% (typical)
- Interface: LED Code
- Temperature Management: By connecting a 47kΩ NTC thermistor, temperature feedback is provided to insure that normal LED operating temperatures are maintained.

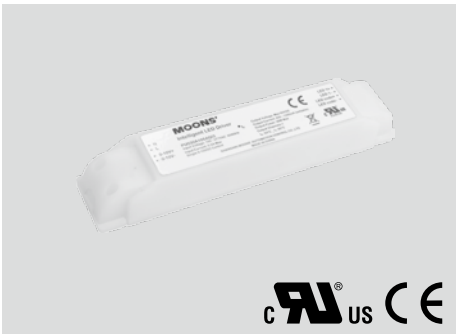
Mechanical Outline (unit: mm)



30W Intelligent Series - PU030A105AQI3 (0-10V,1ch)

Features

- Adjustable current range from 200mA to 1050mA
- Flicker-free dimming from 100%to0.1%,Logarithmic dimming curve
- Isolated 0-10V dimming control,1ch
- High performance, high reliability
- CUL / CE
- 5-year warranty



210 × 40.45 × 33.5mm

Electrical Specifications

Input voltage range	100~277VAC
Frequency	47~63Hz
Input current	0.4A(MAX)
Rated power	30W
Power factor	0.95 at 110VAC; 0.92 at 220VAC (typical)
Efficiency	87%(typical)
Output voltage range	2.5~50VDC
Output current range	200mA~1050mA (settable)
Protections	Over voltage, short circuit, over temperature: auto recovery

Environmental Specifications

Operating temperature	-20℃ ~ +60℃
Storage temperature	-40℃ ~ +85℃
Maximum case temp.	85℃
Cooling method	Convection
Life Time	50,000 hours at 50ºC ambient
Reference dimension (L x W x H)	210 × 40.45 × 33.5 (mm)

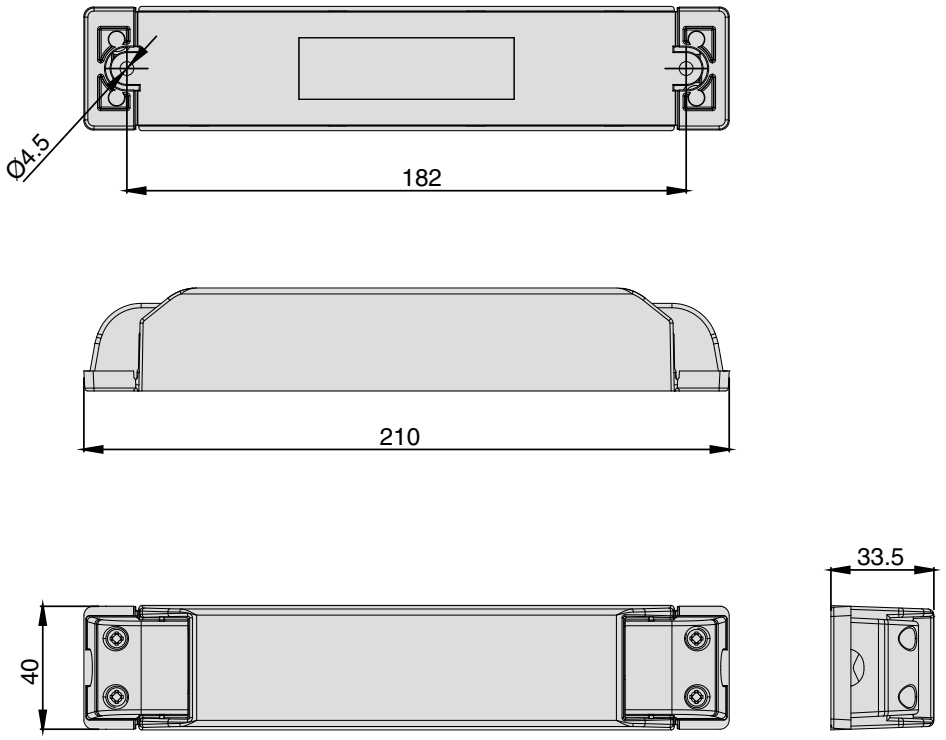
Safety & EMC Compliance

CUL	UL8750, UL1310, CAN/CSA-C22.2 No.223-M91
CE	EN 61347.1; EN61347-2-13
Conducted emissions	EN55015 ; FCC part15 ClassB;
Radiated emissions	EN55015 ; FCC part15 ClassB;
Harmonic current emission	IEC / EN61000-3-2 Class C
Electromagnetic immunity	IEC / EN61547

Function Description

- Adjustable current output:
  The current output can programmed in 1mA steps from 200 mA to 1050 mA.
  This programming can be done at the factory or in the customers place of business.
  This permits optimization of the the current for the LED light engine and conformance to Energy Star Requirements.
- Resolution: 20 bit resolution Max
- Dimming: Supports a wide range of dimming from 0.1% to 100% with linear or Logarithmic dimming curve & flicker-free at all levels.
- High Efficiency: 87% (typical)
- Interface: LED Code
- Temperature Management: By connecting a 47kΩ NTC thermistor, temperature feedback is provided to insure that normal LED operating temperatures are maintained.

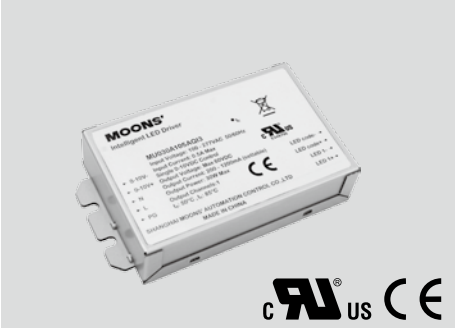
Mechanical Outline (unit: mm)



30W Intelligent Series - MU030A105AQI3 (0-10V,1ch)

Features

- Adjustable current range from 200mA to 1050mA
- Flicker-free dimming from 100%to0.1%,Logarithmic dimming curve
- Isolated 0-10V dimming control,1ch
- High performance, high reliability
- CUL / CE
- 5-year warranty



130 × 72 × 28mm

Electrical Specifications

Input voltage range	100~277VAC
Frequency	47~63Hz
Input current	0.4A(MAX)
Rated power	30W
Power factor	0.95 at 110VAC; 0.92 at 220VAC (typical)
Efficiency	87%(typical)
Output voltage range	2.5~50 VDC
Output current range	200mA~1050mA (settable)
Protections	Over voltage, short circuit, over temperature: auto recovery

Environmental Specifications

Operating temperature	-20℃ ~ +60℃
Storage temperature	-40℃ ~ +85℃
Maximum case temp.	85℃
Cooling method	Convection
Life Time	50,000 hours at 50ºC ambient
Reference dimension (L x W x H)	130 × 72 × 28 (mm)

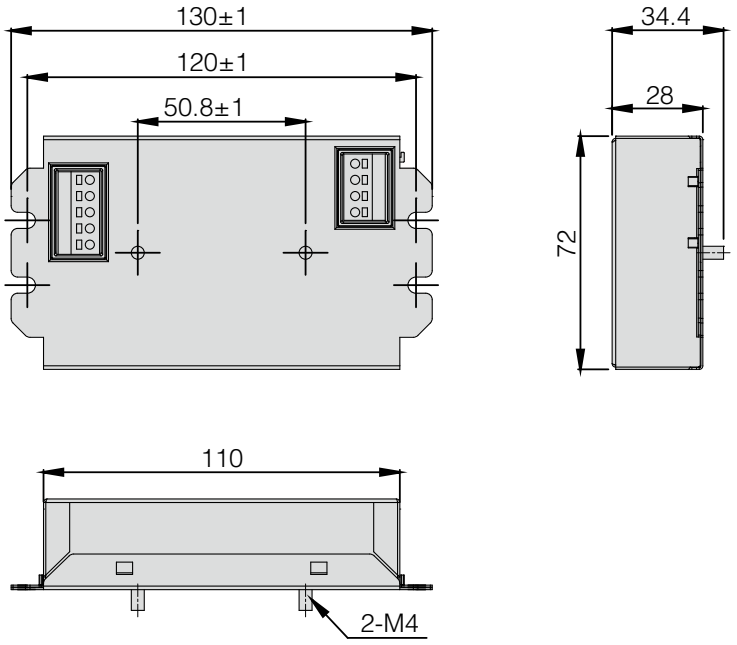
Safety & EMC Compliance

CUL	UL8750, UL1310, CAN/CSA-C22.2 No.223-M91
CE	EN 61347.1; EN61347-2-13
Conducted emissions	EN55015 ; FCC part15 ClassB;
Radiated emissions	EN55015 ; FCC part15 ClassB;
Harmonic current emission	IEC / EN61000-3-2 Class C
Electromagnetic immunity	IEC / EN61547

Function Description

- Adjustable current output:
  The current output can programmed in 1mA steps from 200 mA to 1050 mA.
  This programming can be done at the factory or in the customers place of business.
  This permits optimization of the the current for the LED light engine and conformance to Energy Star Requirements.
- Resolution: 20 bit resolution Max
- Dimming: Supports a wide range of dimming from 0.1% to 100% with linear or Logarithmic dimming curve & flicker-free at all levels.
- High Efficiency: 87% (typical)
- Interface: LED Code
- Temperature Management: By connecting a 47kΩ NTC thermistor, temperature feedback is provided to insure that normal LED operating temperatures are maintained.

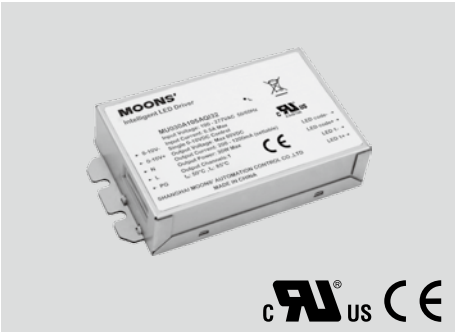
Mechanical Outline (unit: mm)



30W Intelligent Series - MU030A105AQI32 (0-10V,1ch)

Features

- Adjustable current range from 200mA to 1050mA.
- Flicker-free dimming from 100%to0.1%,Logarithmic dimming curve
- Isolated 0-10V dimming control, 1ch
- High performance, high reliability
- CUL / CE
- 5-year warranty



130 × 72 × 28mm

Electrical Specifications

Input voltage range	100~277VAC
Frequency	47~63Hz
Input current	0.4A(MAX)
Rated power	30W
Power factor	0.95 at 110VAC; 0.92 at 220VAC (typical)
Efficiency	87%(typical)
Output voltage range	2.5~50VDC
Output current range	200mA~1050mA (settable)
Protections	Over voltage, short circuit, over temperature: auto recovery

Environmental Specifications

Operating temperature	-20℃ ~ +60℃
Storage temperature	-40℃ ~ +85℃
Maximum case temp.	85℃
Cooling method	Convection
Life Time	50,000 hours at 50ºC ambient
Reference dimension (L x W x H)	130 × 72 × 28 (mm)

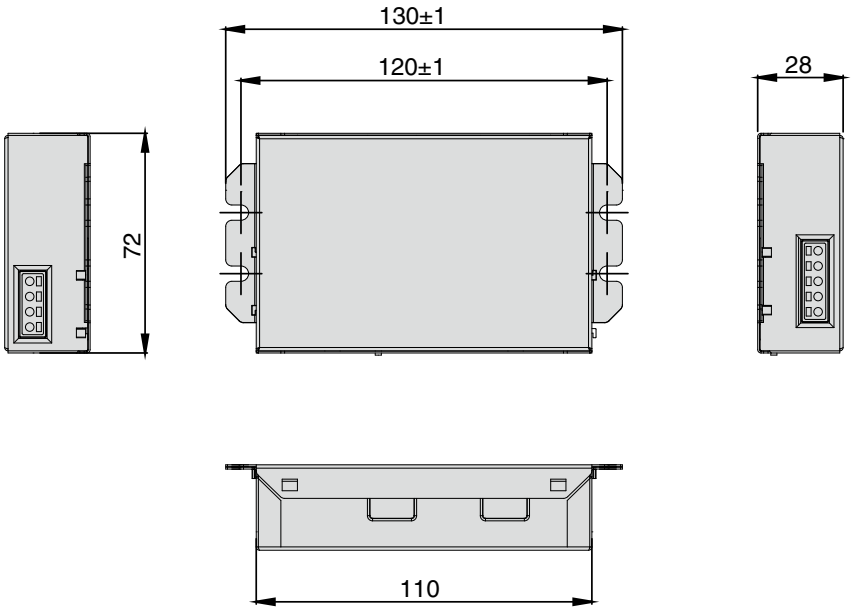
Safety & EMC Compliance

CUL	UL8750, UL1310, CAN/CSA-C22.2 No.223-M91
CE	EN 61347.1; EN61347-2-13
Conducted emissions	EN55015 ; FCC part15 ClassB;
Radiated emissions	EN55015 ; FCC part15 ClassB;
Harmonic current emission	IEC / EN61000-3-2 Class C
Electromagnetic immunity	IEC / EN61547

Function Description

- Adjustable current output:
  The current output can programmed in 1mA steps from 200 mA to 1050 mA.
  This programming can be done at the factory or in the customers place of business.
  This permits optimization of the the current for the LED light engine and conformance to Energy Star Requirements.
- Resolution: 20 bit resolution Max
- Dimming: Supports a wide range of dimming from 0.1% to 100% with linear or Logarithmic dimming curve & flicker-free at all levels.
- High Efficiency: 87% (typical)
- Interface: LED Code
- Temperature Management: By connecting a 47Ω NTC thermistor, temperature feedback is provided to insure that normal LED operating temperatures are maintained.

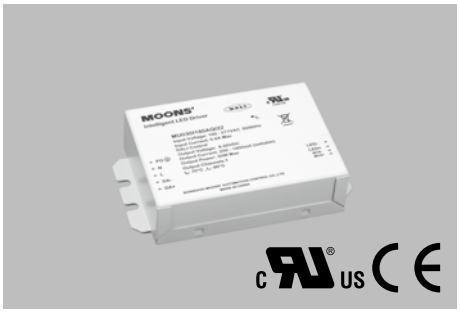
Mechanical Outline (unit: mm)



30W Intelligent Series - MU030I180AQI22 (DALI,1ch)

Features

- Compliant with Class 2 Power supply safety standards
- Constant current LED driver
- Support DALI type 6
- 1 LED channel, output current can be changed from 200mA to 1800mA
- Constant power maximum is 30W
- Normal life time is 50000 hours（at the case's temperature of 77℃）
- Dimming range 0.1%~100%
- Protection compliant with IP20
- 5-year warranty



126 × 76 × 30mm

Electrical Specifications

Input voltage range	100 - 277 V
Frequency	50 / 60 HZ
Input current	<10A
Rated power	30W
Power factor	>0.95（230V,50HZ,full loaded）
Effiency	84 - 86 %（230V,50HZ,full loaded）
Output voltage range	8 - 50 V
Output current range	200-1800mA
Protections	Thermal protection,short-circuit protection,no-load protection,over-power protection

Environmental Specifications

Operating temperature	-25℃ - +67℃
Storage temperature	-40℃ - +85℃
Maximum case temperature	89℃
Cooling method	Convection
Life time	50,000 hours at tc 77℃ ambient
Reference dimension(LxWxH)	126 × 76 × 30 mm

Safety & EMC Compliance

CUL	UL8750,UL1310,CAN/CSA-C22.2 NO.223-M91
CE	EN61347-1,EN61347-2-13
Conducted Emissions	FCC Part15 Class B /EN55015
Radiated Emissions	FCC Part15 Class B /EN55015
Harmonic Current Emissions	EN 61000-3-2
Voltage Fluctuations and Flicker	EN 61000-3-3
Electrostatic Discharge	EN 61000-4-2
RFE Field Susceptibility	EN 61000-4-3
Electrical Fast Transient	EN 61000-4-4
Conducted Radio Frequency	EN 61000-4-6
Power Frequency Magnetic Field Test	EN 61000-4-8
Voltage Dips	EN 61000-4-11
Electromagnetic Immunity	EN61547

Function Description

- DALI type 6

DA+ and DA- are both the interfaces of DALI.

- SwitchDIM (with memory function)---push dimming

SwitchDIM means that you can use two lines to connect L and N to DA+ and DA- respectively, and add a switch in series to either of the two lines to complete the function of ON/OFF and dimming. Short press(<0.6s) can turn on/off the driver, and long press can adjust the dimming level. When several drivers are connected together and controlled by one switch, press the switch for 10s, all the drivers are dimmed to 50% at the same time.

- MCS technology

Connect Smartkey to the driver through MCS(Multifunctional Configuration Settings) ports. With MOONS' Configuarator software, you can set the MAX current of the driver(each step is 1 mA),dimming curve type, the number of DALI address, scene modes etc.Please refer to specification of Smartkey to get specific information.

- Temperature Detection

In order to protect the LED, the temperature of LED is detected by a NTC. When the temperature exceeds the point which can be set by Smartkey, the output current can be decreased automatically, but not less than 25%.

- Constant Output Power

The driver can satisfy the curve of constant output power within a large range of output current and voltage.

- Protection

Thermal Protection

When the temperature of the inside PCB exceeds 110℃ , output current will be decreased to 50%. And it cannot recover until the temperture drops to 70℃ .

Short-circuit Protection

Once the output short-circuits, the output will be cut off automatically. Then the driver will try to restart every 10s.

No-load Protection

The driver operating with no load will not be damaged, and it will try to restart every 10s. So the driver supports hot plugin.

If the total power exceeds 45W, the output current of each channel will decrease to 50%.

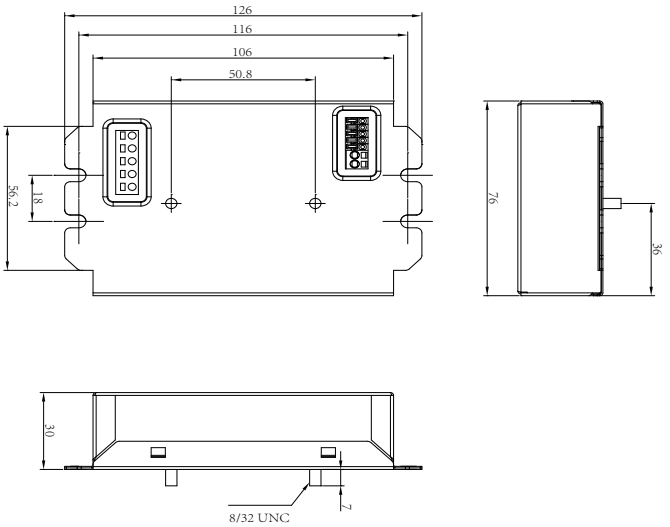
- DALI Signal Abnormality

If the signal of DALI is abnormal, including open-circuit and short-circuit, the output will recover to the preset maxium value.

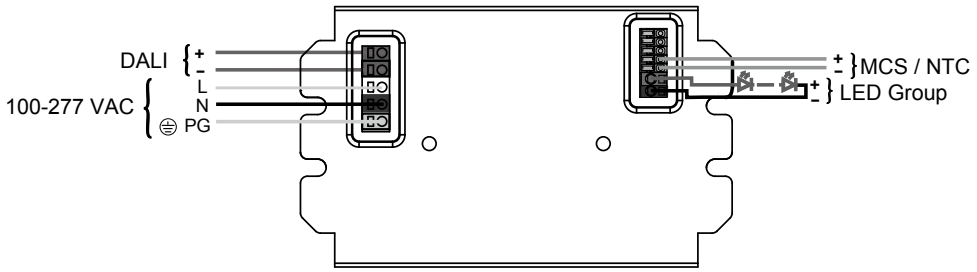
- Online Update

Connect Smartkey to PC through a USB port, then connect Smartkey to the driver correctly to update. Please refer to the specification of Smartkey.

Mechanical Outline (unit: mm)



Schematic Diagram



30W Intelligent Series - MU030I180AQI2 (DALI,1ch)

Features

- Compliant with Class 2 Power supply safety standards
- Constant current LED driver
- Support DALI type 6
- 1 LED channel, output current can be changed from 200mA to 1800mA
- Constant power maximum is 30W
- Normal life time is 50000 hours（at the case's temperature of 77℃）
- Dimming range 0.1%~100%
- Protection compliant with IP20
- 5-year warranty

126 × 76 × 30mm

Electrical Specifications

Input voltage range	100 - 277 V
Frequency	50 / 60 HZ
Input current	<10A
Rated power	30W
Power factor	>0.95（230V,50HZ,full loaded）
Effiency	84 - 86 %（230V,50HZ,full loaded）
Output voltage range	8 - 50 V
Output current range	200-1800mA
Protections	Thermal protection,short-circuit protection,no-load protection,over-power protection

Environmental Specifications

Operating temperature	-25℃ - +67℃
Storage temperature	-40℃ - +85℃
Maximum case temperature	89℃
Cooling method	Convection
Life time	50,000 hours at tc 77℃ ambient
Reference dimension(LxWxH)	126 × 76 × 30 mm

Safety & EMC Compliance

CUL	UL8750,UL1310,CAN/CSA-C22.2 NO.223-M91
CE	EN61347-1,EN61347-2-13
Conducted Emissions	FCC Part15 Class B /EN55015
Radiated Emissions	FCC Part15 Class B /EN55015
Harmonic Current Emissions	EN 61000-3-2
Voltage Fluctuations and Flicker	EN 61000-3-3
Electrostatic Discharge	EN 61000-4-2
RFE Field Susceptibility	EN 61000-4-3
Electrical Fast Transient	EN 61000-4-4
Conducted Radio Frequency	EN 61000-4-6
Power Frequency Magnetic Field Test	EN 61000-4-8
Voltage Dips	EN 61000-4-11
Electromagnetic Immunity	EN61547

Function Description

• DALI type 6

DA+ and DA- are both the interfaces of DALI.

• SwitchDIM (with memory function)---push dimming

SwitchDIM means that you can use two lines to connect L and N to DA+ and DA- respectively, and add a switch in series to either of the two lines to complete the function of ON/OFF and dimming. Short press(<0.6s) can turn on/off the driver, and long press can adjust the dimming level. When several drivers are connected together and controlled by one switch, press the switch for 10s, all the drivers are dimmed to 50% at the same time.

• MCS technology

Connect Smartkey to the driver through MCS(Multifunctional Configuration Settings) ports. With MOONS' Configuarator software, you can set the MAX current of the driver(each step is 1 mA),dimming curve type, the number of DALI address, scene modes etc.Please refer to specification of Smartkey to get specific information.

• Temperature Detection

In order to protect the LED, the temperature of LED is detected by a NTC. When the temperature exceeds the point which can be set by Smartkey, the output current can be decreased automatically, but not less than 25%.

• Constant Output Power

The driver can satisfy the curve of constant output power within a large range of output current and voltage.

• Protection

Thermal Protection

When the temperature of the inside PCB exceeds 110℃ , output current will be decreased to 50%. And it cannot recover until the temperture drops to 70℃ .

Short-circuit Protection

Once the output short-circuits, the output will be cut off automatically. Then the driver will try to restart every 10s.

No-load Protection

The driver operating with no load will not be damaged, and it will try to restart every 10s. So the driver supports hot plugin.

If the total power exceeds 45W, the output current of each channel will decrease to 50%.

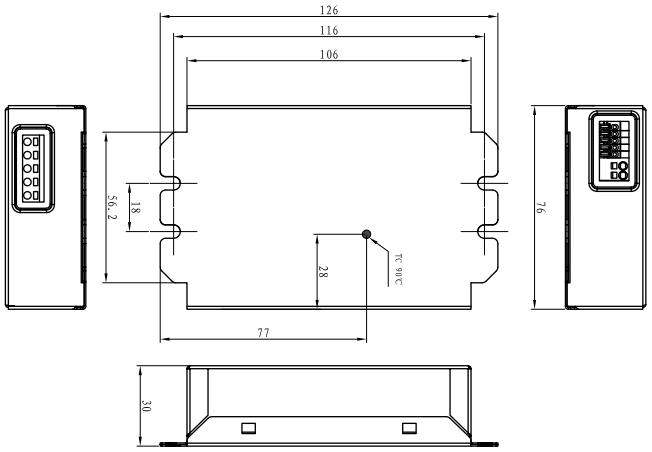
• DALI Signal Abnormality

If the signal of DALI is abnormal, including open-circuit and short-circuit, the output will recover to the preset maxium value.

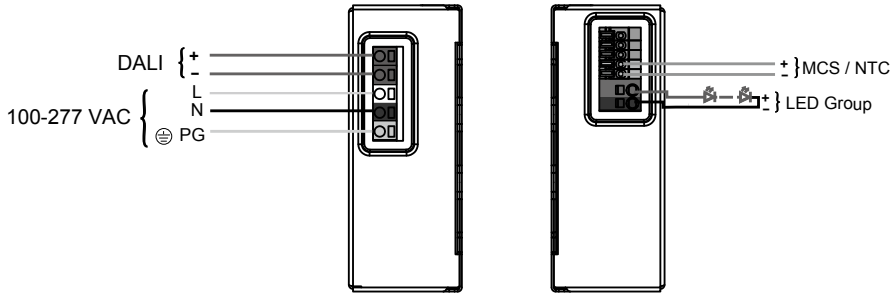
• Online Update

Connect Smartkey to PC through a USB port, then connect Smartkey to the driver correctly to update. Please refer to the specification of Smartkey.

Mechanical Outline (unit: mm)



Schematic Diagram



30W Intelligent Series - MU030I180AQI12 (0-10V,1ch)

Features

- Compliant with Class 2 Power supply safety standards
- Constant current LED driver
- Support isolated 0-10V dimming
- 1 LED channel, output current can be changed from 200mA to 1800mA
- Constant power maximum is 30W
- Normal life time is 50000 hours（at the case's temperature of 77℃）
- Dimming range 0.1%~100%
- Protection compliant with IP20
- 5-year warranty

126 × 76 × 30mm

Electrical Specifications

Input voltage range	100 - 277 V
Frequency	50 / 60 HZ
Input current	<10A
Rated power	30W
Power factor	>0.95（230V,50HZ,full loaded）
Maxium input power	<40W
Effiency	84 - 86 %（230V,50HZ,full loaded）
Output voltage range	8 - 50 V
Output current	200-1800mA
Protections	Thermal protection,short-circuit protection,no-load protection,over-power protection

Environmental Specifications

Operating temperature	-25℃ - +67℃
Storage temperature	-40℃ - +85℃
Maximum case temperature	89℃
Cooling method	Convection
Life time	50,000 hours at tc 77℃ ambient
Reference dimension(LxWxH)	126 × 76 × 30 mm

Safety & EMC Compliance

CUL	UL8750,UL1310,CAN/CSA-C22.2 NO.223-M91
CE	EN61347-1,EN61347-2-13
Conducted Emissions	FCC Part15 Class B /EN55015
Radiated Emissions	FCC Part15 Class B /EN55015
Harmonic Current Emissions	EN 61000-3-2
Voltage Fluctuations and Flicker	EN 61000-3-3
Electrostatic Discharge	EN 61000-4-2
RFE Field Susceptibility	EN 61000-4-3
Electrical Fast Transient	EN 61000-4-4
Conducted Radio Frequency	EN 61000-4-6
Power Frequency Magnetic Field Test	EN 61000-4-8
Voltage Dips	EN 61000-4-11
Electromagnetic Immunity	EN61547

Function Description

• MCS technology

Connect Smartkey to the driver through MCS(Multifunctional Configuration Settings) ports. With MOONS' Configuarator software, you can set the MAX current of the driver(each step is 1 mA),dimming curve type, etc.
Please refer to specification of Smartkey to get specific information.

• Temperature Detection

In order to protect the LED, the temperature of LED is detected by a NTC. When the temperature exceeds the point which can be set by Smartkey, the output current can be decreased automatically, but not less than 25%.

• Constant Output Power

The driver can satisfy the curve of constant output power within a large range of output current and voltage.

• Protection

Thermal Protection

When the temperature of the inside PCB exceeds 110℃ , output current will be decreased to 50%. And it cannot recover until the temperture drops to 70℃ .

Short-circuit Protection

Once the output short-circuits, the output will be cut off automatically. Then the driver will try to restart every 10s.

No-load Protection

The driver operating with no load will not be damaged, and it will try to restart every 10s. So the driver supports hot plugin.

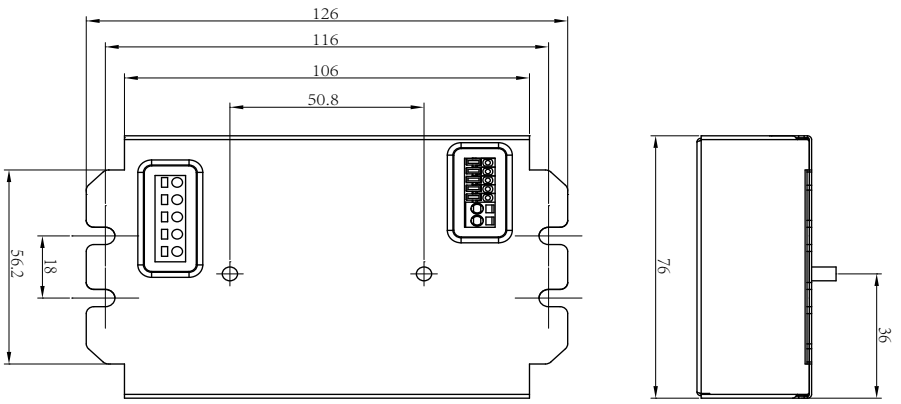
Over-Power Protection

If the total power exceeds 45W, the output current of each channel will decrease to 50%.

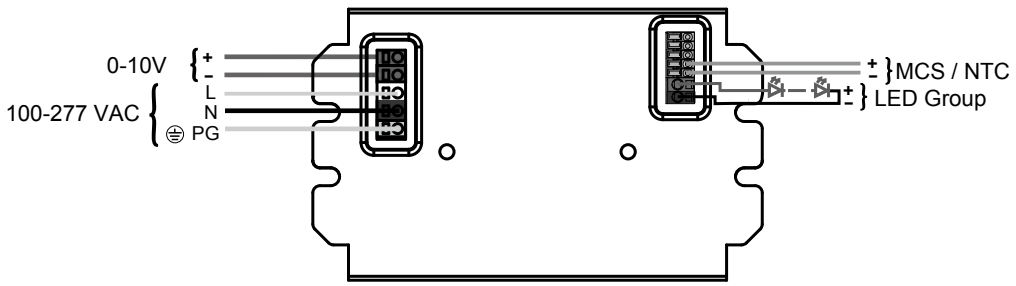
• Online Update

Use smart key to connect PC and the driver to update the firmware.
Please refer to the specification of Smart key.

Mechanical Outline (unit: mm)



Schematic Diagram



30W Intelligent Series - MU030I180AQI1 (0-10V,1ch)

Features

- Compliant with Class 2 Power supply safety standards
- Constant current LED driver
- Support isolated 0-10V dimming
- 1 LED channel, output current can be changed from 200mA to 1800mA
- Constant power maximum is 30W
- Normal life time is 50000 hours（at the case's temperature of 77℃）
- Dimming range 0.1%~100%
- Protection compliant with IP20
- 5-year warranty

126×76×30mm

Electrical Specifications

Input voltage range	100 - 277 V
Frequency	50 / 60 HZ
Input current	<10A
Rated power	30W
Power factor	>0.95（230V,50HZ,full loaded）
Maxium input power	<40W
Effiency	84 - 86 %（230V,50HZ,full loaded）
Output voltage range	8 - 50 V
Output current	200-1800mA
Protections	Thermal protection,short-circuit protection,no-load protection,over-power protection

Environmental Specifications

Operating temperature	-25℃ - +67℃
Storage temperature	-40℃ - +85℃
Maximum case temperature	89℃
Cooling method	Convection
Life time	50,000 hours at tc 77℃ ambient
Reference dimension(LxWxH)	126×76×30 mm

Safety & EMC Compliance

CUL	UL8750,UL1310,CAN/CSA-C22.2 NO.223-M91
CE	EN61347-1,EN61347-2-13
Conducted Emissions	FCC Part15 Class B / EN55015
Radiated Emissions	FCC Part15 Class B / EN55015
Harmonic Current Emissions	EN 61000-3-2
Voltage Fluctuations and Flicker	EN 61000-3-3
Electrostatic Discharge	EN 61000-4-2
RFE Field Susceptibility	EN 61000-4-3
Electrical Fast Transient	EN 61000-4-4
Conducted Radio Frequency	EN 61000-4-6
Power Frequency Magnetic Field Test	EN 61000-4-8
Voltage Dips	EN 61000-4-11
Electromagnetic Immunity	EN61547

Function Description

• MCS technology

Connect Smartkey to the driver through MCS(Multifunctional Configuration Settings) ports. With MOONS' Configuarator software, you can set the MAX current of the driver(each step is 1 mA),dimming curve type, etc. Please refer to specification of Smartkey to get specific information.

• Temperature Detection

In order to protect the LED, the temperature of LED is detected by a NTC. When the temperature exceeds the point which can be set by Smartkey, the output current can be decreased automatically, but not less than 25%.

• Constant Output Power

The driver can satisfy the curve of constant output power within a large range of output current and voltage.

• Protection

Thermal Protection

When the temperature of the inside PCB exceeds 110℃ , output current will be decreased to 50%. And it cannot recover until the temperture drops to 70℃ .

Short-circuit Protection

Once the output short-circuits, the output will be cut off automatically. Then the driver will try to restart every 10s.

No-load Protection

The driver operating with no load will not be damaged, and it will try to restart every 10s. So the driver supports hot plugin.

Over-Power Protection

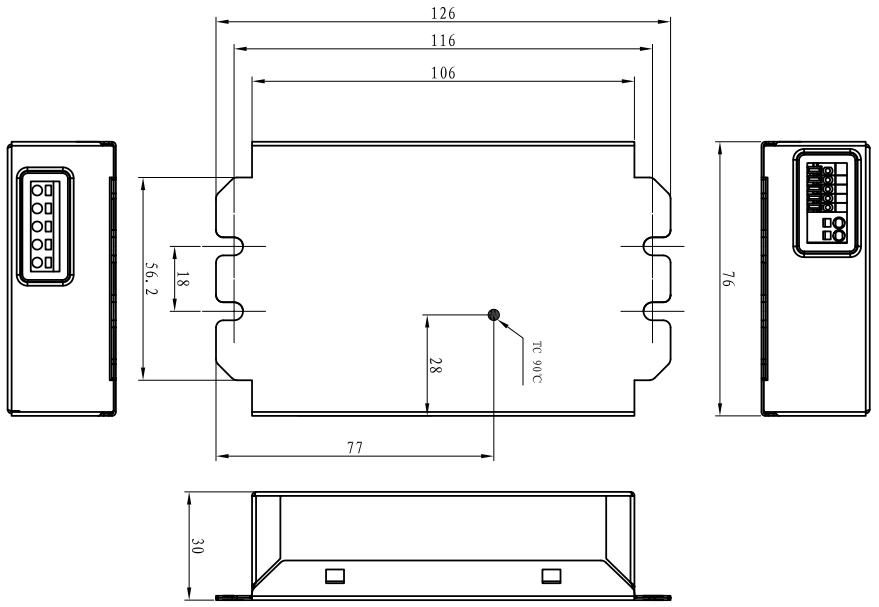
If the total power exceeds 45W, the output current of each channel will decrease to 50%.

• Online Update

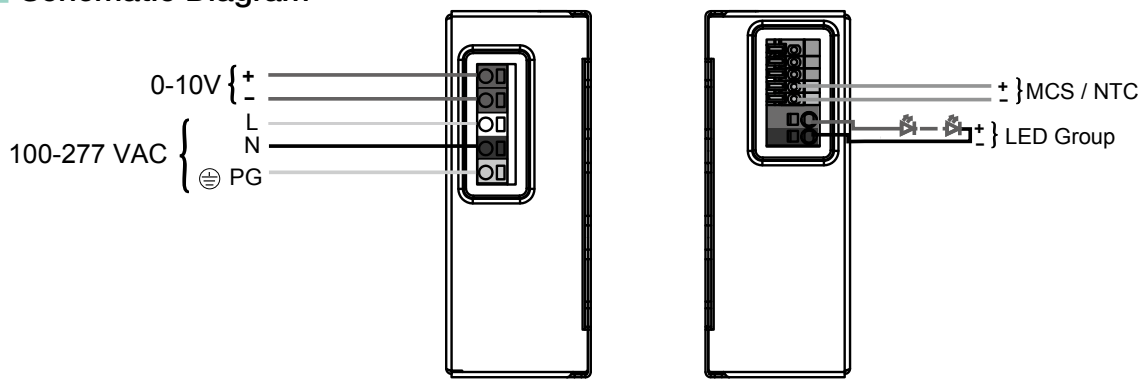
Use smart key to connect PC and the driver to update the firmware.

Please refer to the specification of Smart key.

Mechanical Outline (unit: mm)



Schematic Diagram



30W Intelligent Series - MU030I180AQI52 (DMX,1ch)

Features

- Compliant with Class 2 Power supply safety standards
- Constant current LED driver
- Support DMX/RDM dimming
- 1 LED channel, output current can be changed from 200mA to 1800mA
- Constant power maximum is 30W
- Normal life time is 50000 hours（at the case's temperature of 77℃）
- Dimming range 0.1%~100%
- Protection compliant with IP20
- 5-year warranty

126 × 76 × 30mm

Electrical Specifications

Input voltage range	100 - 277 V
Frequency	50 / 60 HZ
Input current	<10A
Rated power	30W
Power factor	>0.95（230V,50HZ,full loaded）
Effiency	84 - 86 %（230V,50HZ,full loaded）
Output voltage range	8 - 50 V
Output current range	200-1800mA
Protections	Thermal protection,short-circuit protection,no-load protection,over-power protection

Environmental Specifications

Operating temperature	-25℃ - +67℃
Storage temperature	-40℃ - +85℃
Maximum case temperature	89℃
Cooling method	Convection
Life time	50,000 hours at tc 77℃ ambient
Reference dimension(LxWxH)	126 × 76 × 30 mm

Safety & EMC Compliance

CUL	UL8750,UL1310,CAN/CSA-C22.2 NO.223-M91
CE	EN61347-1,EN61347-2-13
Conducted Emissions	FCC Part15 Class B / EN55015
Radiated Emissions	FCC Part15 Class B /EN55015
Harmonic Current Emissions	EN 61000-3-2
Voltage Fluctuations and Flicker	EN 61000-3-3
Electrostatic Discharge	EN 61000-4-2
RFE Field Susceptibility	EN 61000-4-3
Electrical Fast Transient	EN 61000-4-4
Conducted Radio Frequency	EN 61000-4-6
Power Frequency Magnetic Field Test	EN 61000-4-8
Voltage Dips	EN 61000-4-11
Electromagnetic Immunity	EN61547

Function Description

• DMX/RDM

DMX+ 、 DMX-、Shield are the interfaces of DMX/RDM.

• MCS technology

Connect Smartkey to the driver through MCS(Multifunctional Configuration Settings) ports. With MOONS' Configuarator software, you can set the MAX current of the driver(each step is 1 mA),dimming curve type, the number of DMX address, scene modes etc.Please refer to specification of Smartkey to get specific information.

• Temperature Detection

In order to protect the LED, the temperature of LED is detected by a NTC. When the temperature exceeds the point which can be set by Smartkey, the output current can be decreased automatically, but not less than 25%.

• Constant Output Power

The driver can satisfy the curve of constant output power within a large range of output current and voltage.

• Protection

Thermal Protection

When the temperature of the inside PCB exceeds 110℃ , output current will be decreased to 50%. And it cannot recover until the temperture drops to 70℃ .

Short-circuit Protection

Once the output short-circuits, the output will be cut off automatically. Then the driver will try to restart every 10s.

No-load Protection

The driver operating with no load will not be damaged, and it will try to restart every 10s. So the driver supports hot plugin.

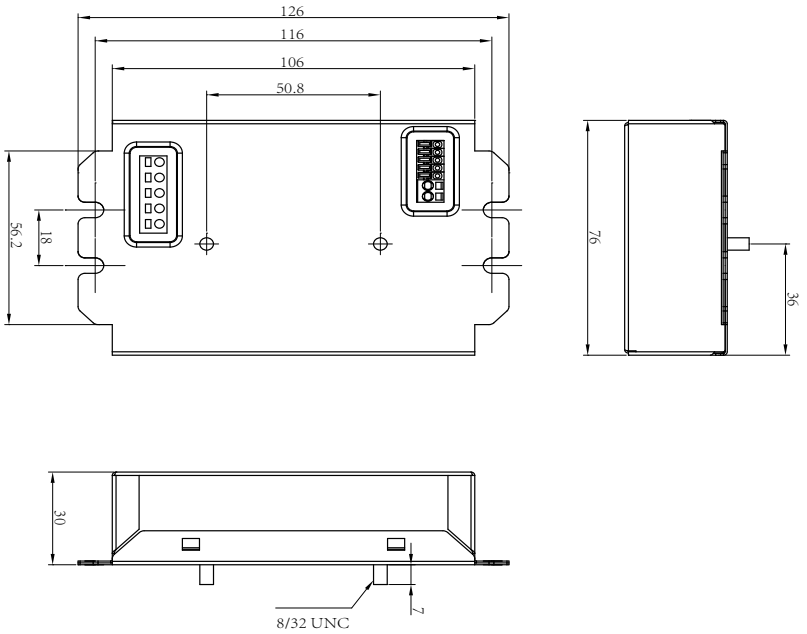
Over-Power Protection

If the total power exceeds 45W, the output current of each channel will decrease to 50%.

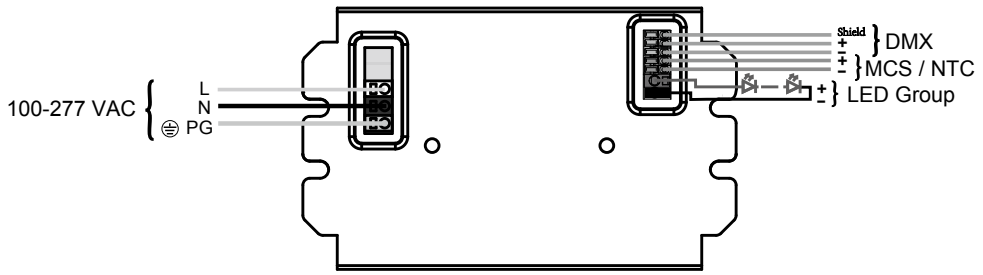
• Online Update

Connect Smartkey to PC through a USB port, then connect Smartkey to the driver correctly to update. Please refer to the specification of Smartkey.

Mechanical Outline (unit: mm)



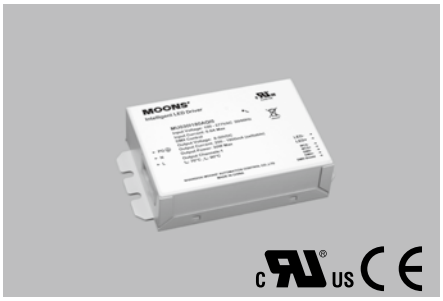
Schematic Diagram



30W Intelligent Series - MU030I180AQI5 (DMX,1ch)

Features

- Compliant with Class 2 Power supply safety standards
- Constant current LED driver
- Support DMX/RDM dimming
- 1 LED channel, output current can be changed from 200mA to 1800mA
- Constant power maximum is 30W
- Normal life time is 50000 hours（at the case's temperature of 77℃）
- Dimming range 0.1%~100%
- Protection compliant with IP20
- 5-year warranty



126 × 76 × 30mm

Electrical Specifications

Input voltage range	100 - 277 V
Frequency	50 / 60 HZ
Input current	<10A
Rated power	30W
Power factor	>0.95（230V,50HZ,full loaded）
Effiency	84 - 86 %（230V,50HZ,full loaded）
Output voltage range	8 - 50 V
Output current range	200-1800mA
Protections	Thermal protection,short-circuit protection,no-load protection,over-power protection

Environmental Specifications

Operating temperature	-25℃ - +67℃
Storage temperature	-40℃ - +85℃
Maximum case temperature	89℃
Cooling method	Convection
Life time	50,000 hours at tc 77℃ ambient
Reference dimension(LxWxH)	126 × 76 × 30 mm

Safety & EMC Compliance

CUL	UL8750,UL1310,CAN/CSA-C22.2 NO.223-M91
CE	EN61347-1,EN61347-2-13
Conducted Emissions	FCC Part15 Class B / EN55015
Radiated Emissions	FCC Part15 Class B / EN55015
Harmonic Current Emissions	EN 61000-3-2
Voltage Fluctuations and Flicker	EN 61000-3-3
Electrostatic Discharge	EN 61000-4-2
RFE Field Susceptibility	EN 61000-4-3
Electrical Fast Transient	EN 61000-4-4
Conducted Radio Frequency	EN 61000-4-6
Power Frequency Magnetic Field Test	EN 61000-4-8
Voltage Dips	EN 61000-4-11
Electromagnetic Immunity	EN61547

Function Description

- DMX/RDM

DMX+ 、 DMX-、Shield are the interfaces of DMX/RDM.

- MCS technology

Connect Smartkey to the driver through MCS(Multifunctional Configuration Settings) ports. With MOONS' Configuarator software, you can set the MAX current of the driver(each step is 1 mA),dimming curve type, the number of DMX address, scene modes etc.Please refer to specification of Smartkey to get specific information.

- Temperature Detection

In order to protect the LED, the temperature of LED is detected by a NTC. When the temperature exceeds the point which can be set by Smartkey, the output current can be decreased automatically, but not less than 25%.

- Constant Output Power

The driver can satisfy the curve of constant output power within a large range of output current and voltage.

- Protection

Thermal Protection

When the temperature of the inside PCB exceeds 110℃ , output current will be decreased to 50%. And it cannot recover until the temperture drops to 70℃ .

Short-circuit Protection

Once the output short-circuits, the output will be cut off automatically. Then the driver will try to restart every 10s.

No-load Protection

The driver operating with no load will not be damaged, and it will try to restart every 10s. So the driver supports hot plugin.

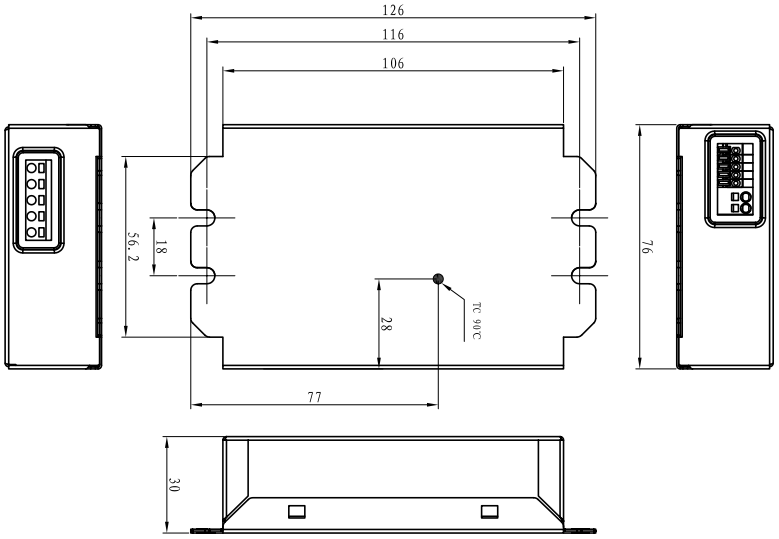
Over-Power Protection

If the total power exceeds 45W, the output current of each channel will decrease to 50%.

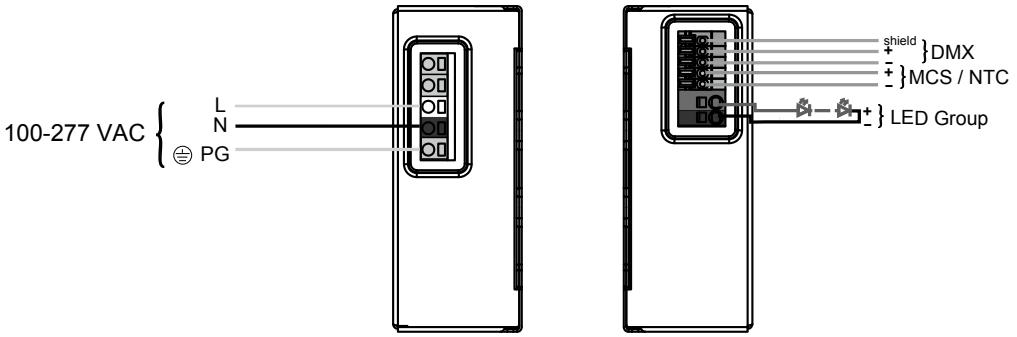
- Online Update

Connect Smartkey to PC through a USB port, then connect Smartkey to the driver correctly to update. Please refer to the specification of Smartkey.

Mechanical Outline (unit: mm)



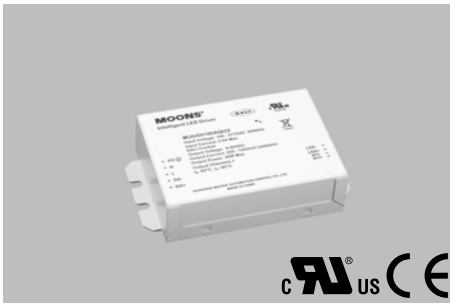
Schematic Diagram



40W Intelligent Series - MU040I180AQI22 (DALI,1ch)

Features

- Compliant with Class 2 Power supply safety standards
- Constant current LED driver
- Support DALI type 6
- 1 LED channel, output current can be changed from 200mA to 1800mA
- Constant power maximum is 40W
- Normal life time is 50000 hours（at the case's temperature of 75℃）
- Dimming range 1%~100%
- Protection compliant with IP20
- 5-year warranty



126 × 76 × 30mm

Electrical Specifications

Input voltage range	100 - 277 V
Frequency	50 / 60 HZ
Input current	<12A
Rated power	40W
Power factor	>0.95（230V,50HZ,full loaded）
Effiency	86 - 88 %（230V,50HZ,full loaded）
Output voltage range	8 - 50 V
Output current range	200-1800mA
Protections	Thermal protection,short-circuit protection,no-load protection,over-power protection

Environmental Specifications

Operating temperature	-25℃ - +63℃
Storage temperature	-40℃ - +85℃
Maximum case temperature	86℃
Cooling method	Convection
Life time	50,000 hours at tc 75℃ ambient
Reference dimension(LxWxH)	126 × 76 × 30 mm

Safety & EMC Compliance

CUL	UL8750,UL1310,CAN/CSA-C22.2 NO.223-M91
CE	EN61347-1,EN61347-2-13
Conducted Emissions	FCC Part15 Class B /EN55015
Radiated Emissions	FCC Part15 Class B /EN55015
Harmonic Current Emissions	EN 61000-3-2
Voltage Fluctuations and Flicker	EN 61000-3-3
Electrostatic Discharge	EN 61000-4-2
RFE Field Susceptibility	EN 61000-4-3
Electrical Fast Transient	EN 61000-4-4
Conducted Radio Frequency	EN 61000-4-6
Power Frequency Magnetic Field Test	EN 61000-4-8
Voltage Dips	EN 61000-4-11
Electromagnetic Immunity	EN61547

Function Description

- DALI type 6

DA+ and DA- are both the interfaces of DALI.

- SwitchDIM (with memory function)---push dimming

SwitchDIM means that you can use two lines to connect L and N to DA+ and DA- respectively, and add a switch in series to either of the two lines to complete the function of ON/OFF and dimming. Short press(<0.6s) can turn on/off the driver, and long press can adjust the dimming level. When several drivers are connected together and controlled by one switch, press the switch for 10s, all the drivers are dimmed to 50% at the same time.

- MCS technology

Connect Smartkey to the driver through MCS(Multifunctional Configuration Settings) ports. With MOONS' Configuarator software, you can set the MAX current of the driver(each step is 1 mA),dimming curve type, the number of DALI address, scene modes etc.Please refer to specification of Smartkey to get specific information.

- Temperature Detection

In order to protect the LED, the temperature of LED is detected by a NTC. When the temperature exceeds the point which can be set by Smartkey, the output current can be decreased automatically, but not less than 25%.

- Constant Output Power

The driver can satisfy the curve of constant output power within a large range of output current and voltage.

- Protection

Thermal Protection

When the temperature of the inside PCB exceeds 110℃ , output current will be decreased to 50%. And it cannot recover until the temperture drops to 70℃ .

Short-circuit Protection

Once the output short-circuits, the output will be cut off automatically. Then the driver will try to restart every 10s.

No-load Protection

The driver operating with no load will not be damaged, and it will try to restart every 10s. So the driver supports hot plugin.

Over-Power Protection

If the total power exceeds 55W, the output current of each channel will decrease to 50%.

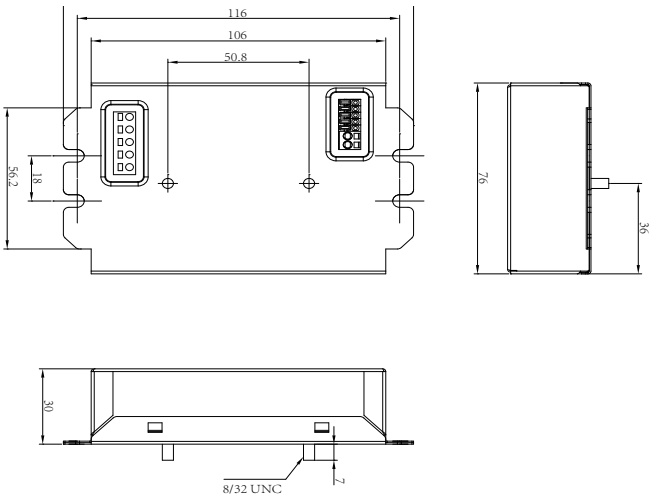
- DALI Signal Abnormality

If the signal of DALI is abnormal, including open-circuit and short-circuit, the output will recover to the preset maxium value.

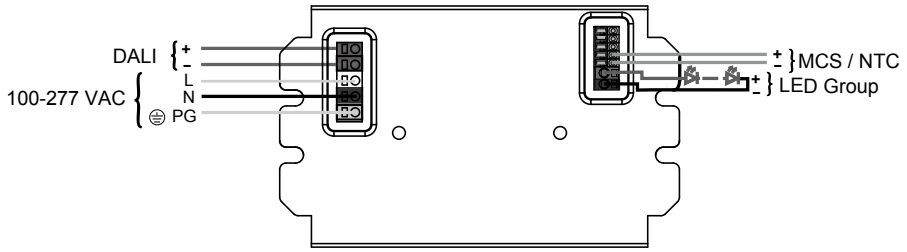
- Online Update

Connect Smartkey to PC through a USB port, then connect Smartkey to the driver correctly to update.
Please refer to the specification of Smartkey.

Mechanical Outline (unit: mm)



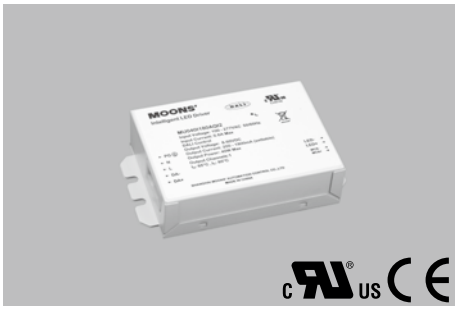
Schematic Diagram



40W Intelligent Series - MU040I180AQI2 (DALI,1ch)

Features

- Compliant with Class 2 Power supply safety standards
- Constant current LED driver
- Support DALI type 6
- 1 LED channel, output current can be changed from 200mA to 1800mA
- Constant power maximum is 40W
- Normal life time is 50000 hours（at the case's temperature of 75℃）
- Dimming range 1%~100%
- Protection compliant with IP20
- 5-year warranty



126 × 76 × 30mm

Electrical Specifications

Input voltage range	100 - 277 V
Frequency	50 / 60 HZ
Input current	<12A
Rated power	40W
Power factor	>0.95（230V,50HZ,full loaded）
Effiency	86 - 88 %（230V,50HZ,full loaded）
Output voltage range	8 - 50 V
Output current range	200-1800mA
Protections	Thermal protection,short-circuit protection,no-load protection,over-power protection

Environmental Specifications

Operating temperature	-25℃ - +63℃
Storage temperature	-40℃ - +85℃
Maximum case temperature	86℃
Cooling method	Convection
Life time	50,000 hours at tc 75℃ ambient
Reference dimension(LxWxH)	126 × 76 × 30 mm

Safety & EMC Compliance

CUL	UL8750,UL1310,CAN/CSA-C22.2 NO.223-M91
CE	EN61347-1,EN61347-2-13
Conducted Emissions	FCC Part15 Class B /EN55015
Radiated Emissions	FCC Part15 Class B /EN55015
Harmonic Current Emissions	EN 61000-3-2
Voltage Fluctuations and Flicker	EN 61000-3-3
Electrostatic Discharge	EN 61000-4-2
RFE Field Susceptibility	EN 61000-4-3
Electrical Fast Transient	EN 61000-4-4
Conducted Radio Frequency	EN 61000-4-6
Power Frequency Magnetic Field Test	EN 61000-4-8
Voltage Dips	EN 61000-4-11
Electromagnetic Immunity	EN61547

Function Description

- DALI type 6

DA+ and DA- are both the interfaces of DALI.

- SwitchDIM (with memory function)---push dimming

SwitchDIM means that you can use two lines to connect L and N to DA+ and DA- respectively, and add a switch in series to either of the two lines to complete the function of ON/OFF and dimming. Short press(<0.6s) can turn on/off the driver, and long press can adjust the dimming level. When several drivers are connected together and controlled by one switch, press the switch for 10s, all the drivers are dimmed to 50% at the same time.

- MCS technology

Connect Smartkey to the driver through MCS(Multifunctional Configuration Settings) ports. With MOONS' Configuarator software, you can set the MAX current of the driver(each step is 1 mA),dimming curve type, the number of DALI address, scene modes etc.Please refer to specification of Smartkey to get specific information.

- Temperature Detection

In order to protect the LED, the temperature of LED is detected by a NTC. When the temperature exceeds the point which can be set by Smartkey, the output current can be decreased automatically, but not less than 25%.

- Constant Output Power

The driver can satisfy the curve of constant output power within a large range of output current and voltage.

- Protection

Thermal Protection

When the temperature of the inside PCB exceeds 110℃ , output current will be decreased to 50%. And it cannot recover until the temperture drops to 70℃ .

Short-circuit Protection

Once the output short-circuits, the output will be cut off automatically. Then the driver will try to restart every 10s.

No-load Protection

The driver operating with no load will not be damaged, and it will try to restart every 10s. So the driver supports hot plugin.

Over-Power Protection

If the total power exceeds 55W, the output current of each channel will decrease to 50%.

- DALI Signal Abnormality

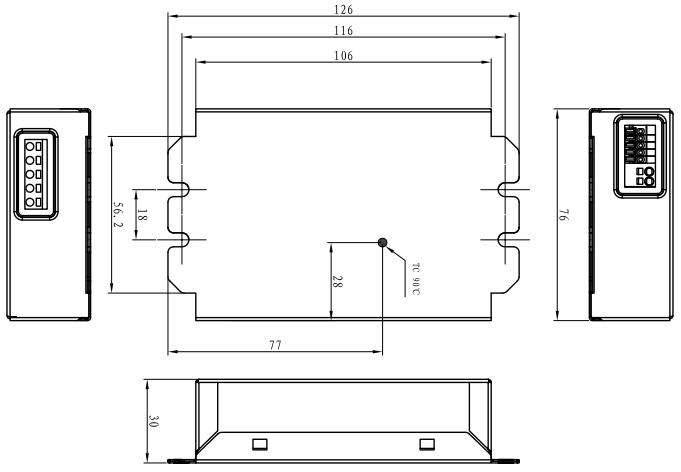
If the signal of DALI is abnormal, including open-circuit and short-circuit, the output will recover to the preset maxium value.

- Online Update

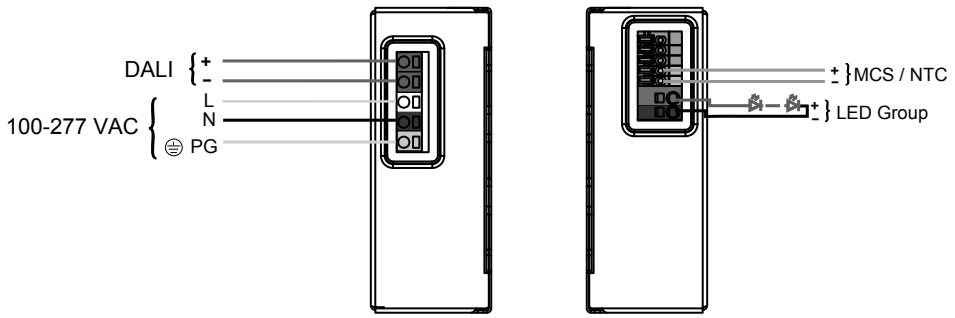
Connect Smartkey to PC through a USB port, then connect Smartkey to the driver correctly to update.

Please refer to the specification of Smartkey.

Mechanical Outline (unit: mm)



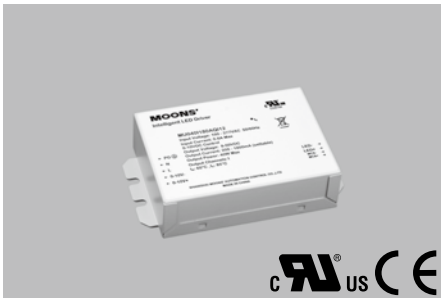
Schematic Diagram



40W Intelligent Series - MU040I180AQI12 (0-10v,1ch)

Features

- Compliant with Class 2 Power supply safety standards
- Constant current LED driver
- Support isolated 0-10V dimming
- 1 LED channel, output current can be changed from 200mA to 1800mA
- Constant power maximum is 40W
- Normal life time is 50000 hours（at the case's temperature of 75℃）
- Dimming range 0.1%~100%
- Protection compliant with IP20
- 5-year warranty



126 × 76 × 30mm

Electrical Specifications

Input voltage range	100 - 277 V
Frequency	50 / 60 HZ
Input current	<12A
Rated power	40W
Power factor	>0.95（230V,50HZ,full loaded）
Effiency	86 - 88 %（230V,50HZ,full loaded）
Output voltage range	8 - 50 V
Output current range	200-1800mA
Protections	Thermal protection,short-circuit protection,no-load protection,over-power protection

Environmental Specifications

Operating temperature	-25℃ - +63℃
Storage temperature	-40℃ - +85℃
Maximum case temperature	86℃
Cooling method	Convection
Life time	50,000 hours at tc 75℃ ambient
Reference dimension(LxWxH)	126 × 76 × 30 mm

Safety & EMC Compliance

CUL	UL8750,UL1310,CAN/CSA-C22.2 NO.223-M91
CE	EN61347-1,EN61347-2-13
Conducted Emissions	FCC Part15 Class B /EN55015
Radiated Emissions	FCC Part15 Class B /EN55015
Harmonic Current Emissions	EN 61000-3-2
Voltage Fluctuations and Flicker	EN 61000-3-3
Electrostatic Discharge	EN 61000-4-2
RFE Field Susceptibility	EN 61000-4-3
Electrical Fast Transient	EN 61000-4-4
Conducted Radio Frequency	EN 61000-4-6
Power Frequency Magnetic Field Test	EN 61000-4-8
Voltage Dips	EN 61000-4-11
Electromagnetic Immunity	EN61547

Function Description

• MCS technology

Connect Smartkey to the driver through MCS(Multifunctional Configuration Settings) ports. With MOONS' Configuarator software, you can set the MAX current of the driver(each step is 1 mA),dimming curve type, etc.
Please refer to specification of Smartkey to get specific information.

• Temperature Detection

In order to protect the LED, the temperature of LED is detected by a NTC. When the temperature exceeds the point which can be set by Smartkey, the output current can be decreased automatically, but not less than 25%.

• Constant Output Power

The driver can satisfy the curve of constant output power within a large range of output current and voltage.

• Protection

Thermal Protection

When the temperature of the inside PCB exceeds 110℃ , output current will be decreased to 50%. And it cannot recover until the temperture drops to 70℃ .

Short-circuit Protection

Once the output short-circuits, the output will be cut off automatically. Then the driver will try to restart every 10s.

No-load Protection

The driver operating with no load will not be damaged, and it will try to restart every 10s. So the driver supports hot plugin.

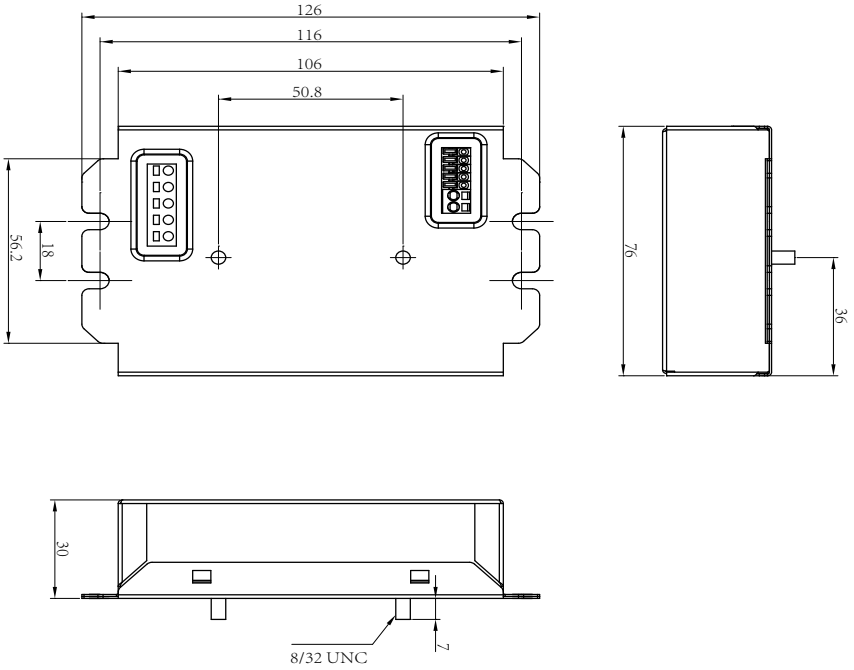
Over-Power Protection

If the total power exceeds 45W, the output current of each channel will decrease to 50%.

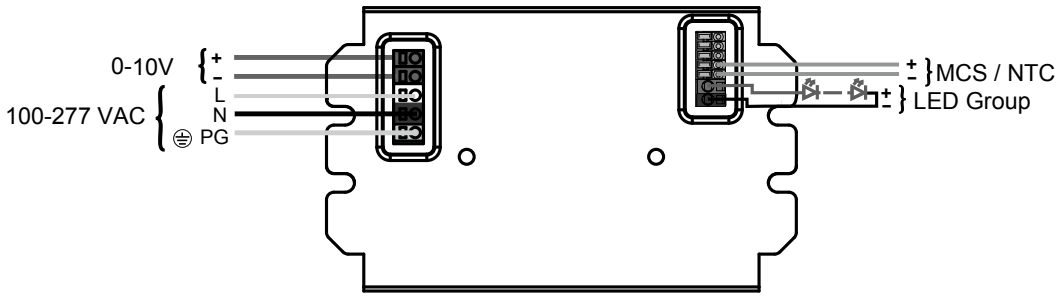
• Online Update

Use smart key to connect PC and the driver to update the firmware
Please refer to the specification of Smart key

Mechanical Outline (unit: mm)



Schematic Diagram



40W Intelligent Series - MU040I180AQI1 (0-10v,1ch)

Features

- Compliant with Class 2 Power supply safety standards
- Constant current LED driver
- Support isolated 0-10V dimming
- 1 LED channel, output current can be changed from 200mA to 1800mA
- Constant power maximum is 40W
- Normal life time is 50000 hours（at the case's temperature of 75℃）
- Dimming range 0.1%~100%
- Protection compliant with IP20
- 5-year warranty

126 × 76 × 30mm

Electrical Specifications

Input voltage range	100 - 277 V
Frequency	50 / 60 HZ
Input current	<12A
Rated power	40W
Power factor	>0.95（230V,50HZ,full loaded）
Effiency	86 - 88 %（230V,50HZ,full loaded）
Output voltage range	8 - 50 V
Output current range	200-1800mA
Protections	Thermal protection,short-circuit protection,no-load protection,over-power protection

Environmental Specifications

Operating temperature	-25℃ - +63℃
Storage temperature	-40℃ - +85℃
Maximum case temperature	86℃
Cooling method	Convection
Life time	50,000 hours at tc 75℃ ambient
Reference dimension(LxWxH)	126 × 76 × 30 mm

Safety & EMC Compliance

CUL	UL8750,UL1310,CAN/CSA-C22.2 NO.223-M91
CE	EN61347-1,EN61347-2-13
Conducted Emissions	FCC Part15 Class B /EN55015
Radiated Emissions	FCC Part15 Class B /EN55015
Harmonic Current Emissions	EN 61000-3-2
Voltage Fluctuations and Flicker	EN 61000-3-3
Electrostatic Discharge	EN 61000-4-2
RFE Field Susceptibility	EN 61000-4-3
Electrical Fast Transient	EN 61000-4-4
Conducted Radio Frequency	EN 61000-4-6
Power Frequency Magnetic Field Test	EN 61000-4-8
Voltage Dips	EN 61000-4-11
Electromagnetic Immunity	EN61547

Function Description

• MCS technology

Connect Smartkey to the driver through MCS(Multifunctional Configuration Settings) ports. With MOONS' Configuarator software, you can set the MAX current of the driver(each step is 1 mA),dimming curve type, etc.
Please refer to specification of Smartkey to get specific information.

• Temperature Detection

In order to protect the LED, the temperature of LED is detected by a NTC. When the temperature exceeds the point which can be set by Smartkey, the output current can be decreased automatically, but not less than 25%.

• Constant Output Power

The driver can satisfy the curve of constant output power within a large range of output current and voltage.

• Protection

Thermal Protection

When the temperature of the inside PCB exceeds 110℃ , output current will be decreased to 50%. And it cannot recover until the temperture drops to 70℃ .

Short-circuit Protection

Once the output short-circuits, the output will be cut off automatically. Then the driver will try to restart every 10s.

No-load Protection

The driver operating with no load will not be damaged, and it will try to restart every 10s. So the driver supports hot plugin.

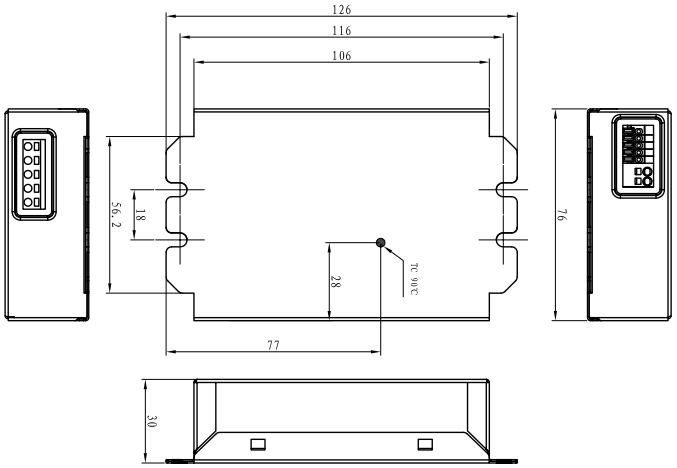
Over-Power Protection

If the total power exceeds 45W, the output current of each channel will decrease to 50%.

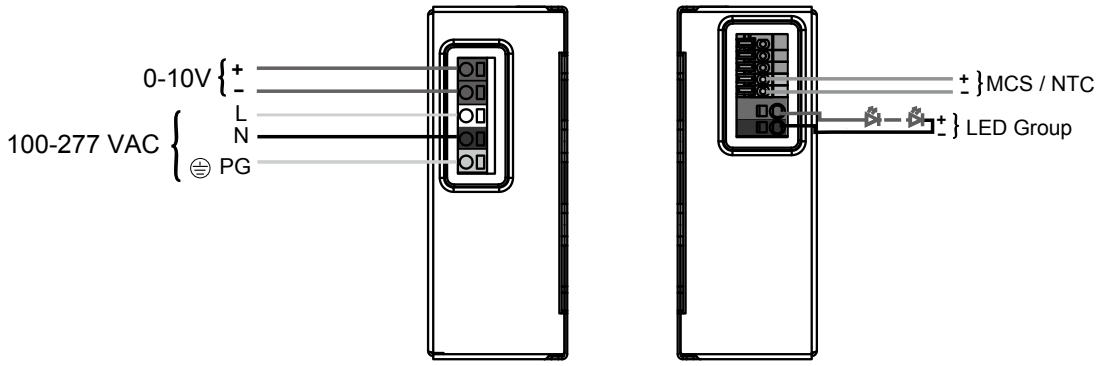
• Online Update

Use smart key to connect PC and the driver to update the firmware
Please refer to the specification of Smart key

Mechanical Outline (unit: mm)



Schematic Diagram



40W Intelligent Series - MU040I180AQI52 (DMX,1ch)

Features

- Compliant with Class 2 Power supply safety standards
- Constant current LED driver
- Support DMX/RDM dimming
- 1 LED channel, output current can be changed from 200mA to 1800mA
- Constant power maximum is 40W
- Normal life time is 50000 hours（at the case's temperature of 75℃）
- Dimming range 0.1%~100%
- Protection compliant with IP20
- 5-year warranty

126 × 76 × 30mm

Electrical Specifications

Input voltage range	100 - 277 V
Frequency	50 / 60 HZ
Input current	<12A
Rated power	40W
Power factor	>0.95（230V,50HZ,full loaded）
Effiency	86 - 88 %（230V,50HZ,full loaded）
Output voltage range	8 - 50 V
Output current range	200-1800mA
Protections	Thermal protection,short-circuit protection,no-load protection,over-power protection

Environmental Specifications

Operating temperature	-25℃ - +63℃
Storage temperature	-40℃ - +85℃
Maximum case temperature	86℃
Cooling method	Convection
Life time	50,000 hours at tc 75℃ ambient
Reference dimension(LxWxH)	126 × 76 × 30 mm

Safety & EMC Compliance

CUL	UL8750,UL1310,CAN/CSA-C22.2 NO.223-M91
CE	EN61347-1,EN61347-2-13
Conducted Emissions	FCC Part15 Class B /EN55015
Radiated Emissions	FCC Part15 Class B /EN55015
Harmonic Current Emissions	EN 61000-3-2
Voltage Fluctuations and Flicker	EN 61000-3-3
Electrostatic Discharge	EN 61000-4-2
RFE Field Susceptibility	EN 61000-4-3
Electrical Fast Transient	EN 61000-4-4
Conducted Radio Frequency	EN 61000-4-6
Power Frequency Magnetic Field Test	EN 61000-4-8
Voltage Dips	EN 61000-4-11
Electromagnetic Immunity	EN61547

Function Description

- DMX/RDM

DMX+ 、 DMX-、Shield are the interfaces of DMX/RDM.

- MCS technology

Connect Smartkey to the driver through MCS(Multifunctional Configuration Settings) ports. With MOONS' Configuarator software, you can set the MAX current of the driver(each step is 1 mA),dimming curve type, the number of DMX address, scene modes etc.Please refer to specification of Smartkey to get specific information.

- Temperature Detection

In order to protect the LED, the temperature of LED is detected by a NTC. When the temperature exceeds the point which can be set by Smartkey, the output current can be decreased automatically, but not less than 25%.

- Constant Output Power

The driver can satisfy the curve of constant output power within a large range of output current and voltage.

- Protection

Thermal Protection

When the temperature of the inside PCB exceeds 110℃ , output current will be decreased to 50%. And it cannot recover until the temperture drops to 70℃ .

Short-circuit Protection

Once the output short-circuits, the output will be cut off automatically. Then the driver will try to restart every 10s.

No-load Protection

The driver operating with no load will not be damaged, and it will try to restart every 10s. So the driver supports hot plugin.

Over-Power Protection

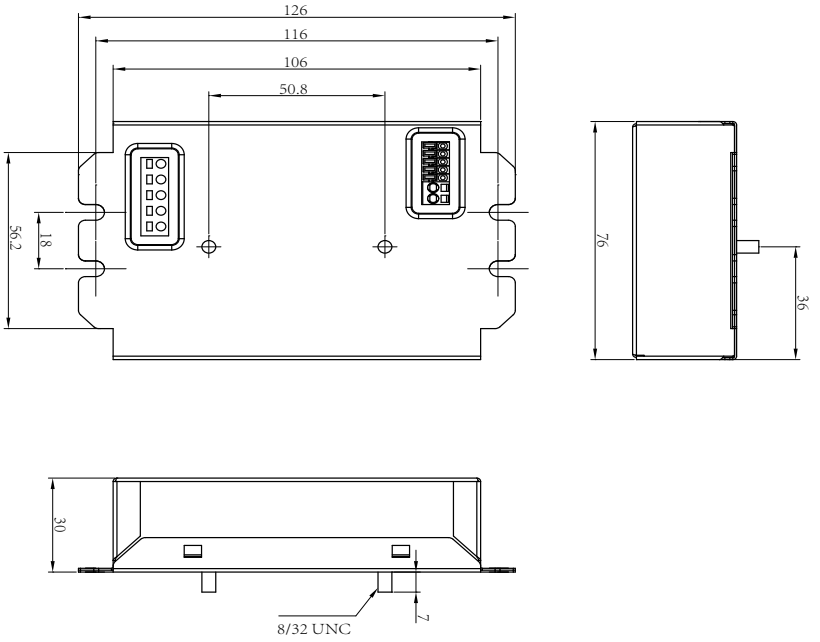
If the total power exceeds 55W, the output current of each channel will decrease to 50%.

- Online Update

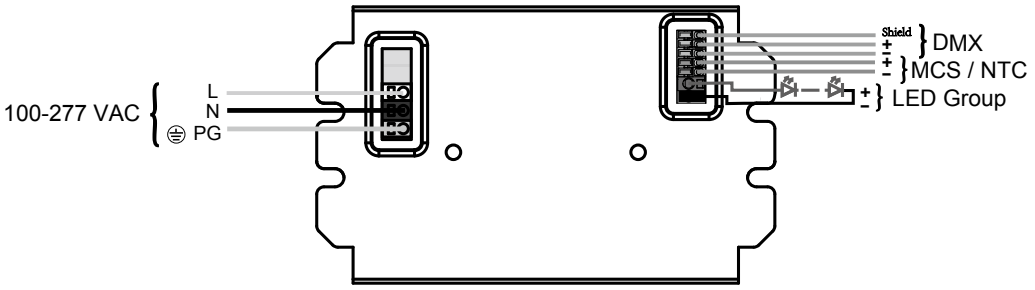
Connect Smartkey to PC through a USB port, then connect Smartkey to the driver correctly to update.

Please refer to the specification of Smartkey.

Mechanical Outline (unit: mm)



Schematic Diagram



40W Intelligent Series - MU040I180AQI5 (DMX,1ch)

Features

- Compliant with Class 2 Power supply safety standards
- Constant current LED driver
- Support DMX/RDM dimming
- 1 LED channel, output current can be changed from 200mA to 1800mA
- Constant power maximum is 40W
- Normal life time is 50000 hours（at the case's temperature of 75℃）
- Dimming range 0.1%~100%
- Protection compliant with IP20
- 5-year warranty

126 × 76 × 30mm

Electrical Specifications

Input voltage range	100 - 277 V
Frequency	50 / 60 HZ
Input current	<12A
Rated power	40W
Power factor	>0.95（230V,50HZ,full loaded）
Effiency	86 - 88 %（230V,50HZ,full loaded）
Output voltage range	8 - 50 V
Output current range	200-1800mA
Protections	Thermal protection,short-circuit protection,no-load protection,over-power protection

Environmental Specifications

Operating temperature	-25℃ - +63℃
Storage temperature	-40℃ - +85℃
Maximum case temperature	86℃
Cooling method	Convection
Life time	50,000 hours at tc 75℃ ambient
Reference dimension(LxWxH)	126 × 76 × 30 mm

Safety & EMC Compliance

CUL	UL8750,UL1310,CAN/CSA-C22.2 NO.223-M91
CE	EN61347-1,EN61347-2-13
Conducted Emissions	FCC Part15 Class B /EN55015
Radiated Emissions	FCC Part15 Class B /EN55015
Harmonic Current Emissions	EN 61000-3-2
Voltage Fluctuations and Flicker	EN 61000-3-3
Electrostatic Discharge	EN 61000-4-2
RFE Field Susceptibility	EN 61000-4-3
Electrical Fast Transient	EN 61000-4-4
Conducted Radio Frequency	EN 61000-4-6
Power Frequency Magnetic Field Test	EN 61000-4-8
Voltage Dips	EN 61000-4-11
Electromagnetic Immunity	EN61547

Function Description

- DMX/RDM

DMX+ 、 DMX-、Shield are the interfaces of DMX/RDM.

- MCS technology

Connect Smartkey to the driver through MCS(Multifunctional Configuration Settings) ports. With MOONS' Configuarator software, you can set the MAX current of the driver(each step is 1 mA),dimming curve type, the number of DMX address, scene modes etc.Please refer to specification of Smartkey to get specific information.

- Temperature Detection

In order to protect the LED, the temperature of LED is detected by a NTC. When the temperature exceeds the point which can be set by Smartkey, the output current can be decreased automatically, but not less than 25%.

- Constant Output Power

The driver can satisfy the curve of constant output power within a large range of output current and voltage.

- Protection

Thermal Protection

When the temperature of the inside PCB exceeds 110℃ , output current will be decreased to 50%. And it cannot recover until the temperture drops to 70℃ .

Short-circuit Protection

Once the output short-circuits, the output will be cut off automatically. Then the driver will try to restart every 10s.

No-load Protection

The driver operating with no load will not be damaged, and it will try to restart every 10s. So the driver supports hot plugin.

Over-Power Protection

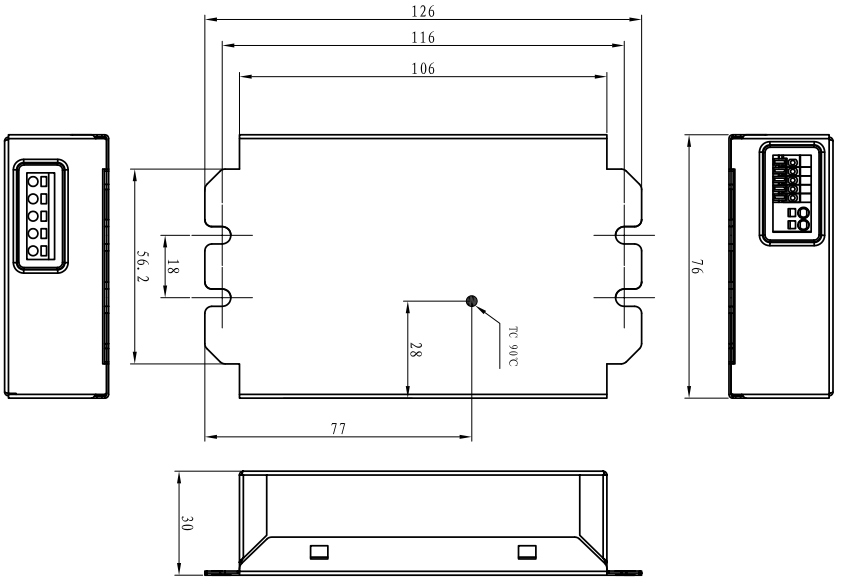
If the total power exceeds 55W, the output current of each channel will decrease to 50%.

- Online Update

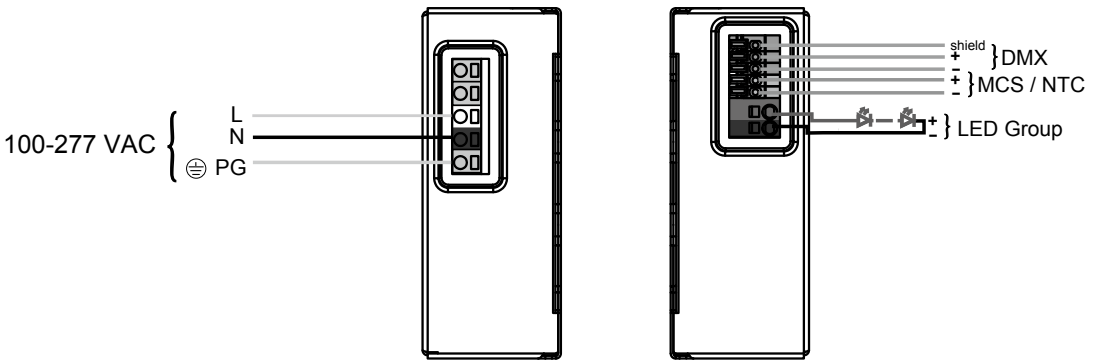
Connect Smartkey to PC through a USB port, then connect Smartkey to the driver correctly to update.

Please refer to the specification of Smartkey.

Mechanical Outline (unit: mm)



Schematic Diagram



50W Intelligent Series - MU050A105AQI0 (DALI，1ch)

Features

- Adjustable current range from 200mA to 1050mA
- Flicker-free dimming from 100%to0.1%,Logarithmic dimming curve
- DALI dimming control, 1ch
- Compact size, high performance, high reliability
- CUL / CE / PSE / VDE
- 5-year warranty

130 × 76 × 30mm

Electrical Specifications

Input voltage range	100~277VAC
Frequency	43-67Hz
Input current	0.7A(MAX)
Rated power	50W
Power factor	0.98 at 110VAC; 0.94 at 220VAC (typical)
Efficiency	89% (typical) at 220 VAC; 87% (typical) at 110 VAC
Output voltage range	2.5~50VDC
Output current range	200mA~1050mA (settable)
Protections	Over voltage, short circuit, over temperature: auto recovery

Environmental Specifications

Operating temperature	-20℃ ~ +50℃
Storage temperature	-40℃ ~ +85℃
Maximum case temp.	85℃
Cooling method	Convection
Life Time	50,000 hours at 50ºC ambient
Reference dimension (L x W x H)	130 × 76 × 30 (mm)

Safety & EMC Compliance

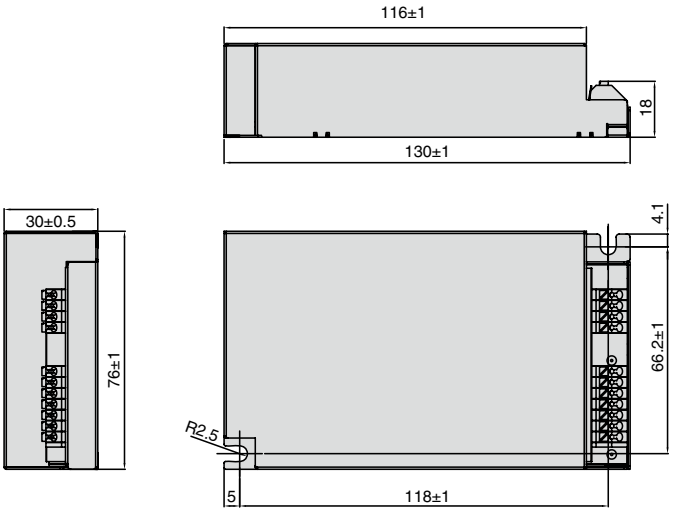
CUL	UL8750, UL1310
CE	EN61347-1, EN61347-2-13
PSE	J61347-1, J61347-2-13, J55015
Conducted emissions	FCC Level B / EN55015
Radiated emissions	FCC Level B / EN55015
Electromagnetic immunity	EN61547

Function Description

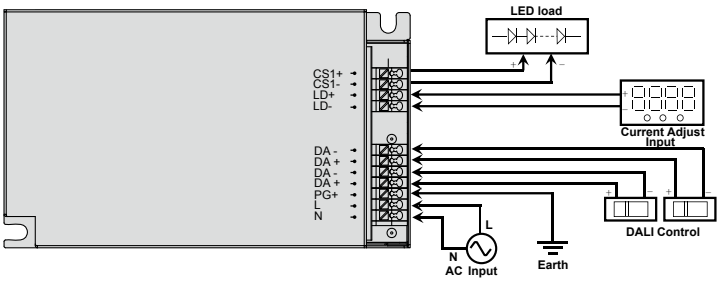
- Adjustable current output：
  The current output can programmed in 1 mA steps from 200 mA to 1050 mA.
  This programming can be done at the factory or in the customers place of business.
  This permits optimization of the the current for the LED light engine and conformance to Energy Star Requirements.
- Resolution：20 bit resolution
- Dimming：Supports a wide range of dimming from 0.1% to 100% with linear orLogarithmic dimming curve & flicker-free at all levels.
- High Efficiency：89% over a wide power range
- Interface：LED Code
- Temperature Management：By connecting a 47kΩ NTC thermistor, temperature feedback is provided to insure that normal LED operating temperatures are maintained.

Mechanical Outline (unit: mm)

Model Specifications-MU050A105AQI0 (DALI，1ch)



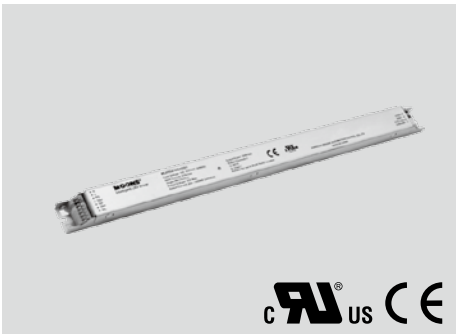
Schematic Diagram



50W Intelligent Series - MU050A105AQI01(DALI,1ch)

Features

- Adjustable current range from 200mA to 1050mA
- Flicker-free dimming from 100%to0.1%,Logarithmic dimming curve
- DALI dimming control, 1ch
- Slim size, high performance, high reliability
- CUL / CE
- 5-year warranty



440 × 30 × 21mm

Electrical Specifications

Input voltage range	100~277VAC
Frequency	47~63Hz
Input current	0.7A(MAX)
Rated power	50W
Power factor	0.99 at 110VAC; 0.98 at 220VAC (typical)
Efficiency	87% (typical)
Output voltage range	2.5~50VDC
Output current range	200mA~1050mA (settable)
Protections	Over voltage, short circuit, over temperature: auto recovery

Environmental Specifications

Operating temperature	-20℃ ~ +60℃
Storage temperature	-40℃ ~ +85℃
Maximum case temp.	85℃
Cooling method	Convection
Life Time	50,000 hours at 50ºC ambient
Reference dimension (L x W x H)	444 × 30 × 21 (mm)

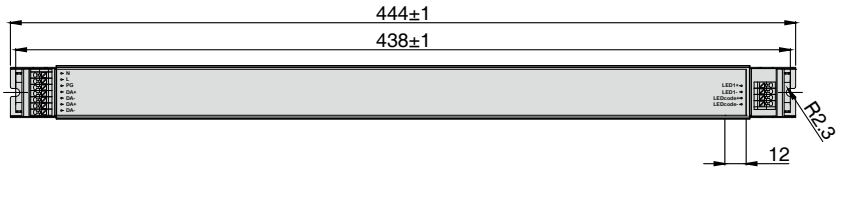
Safety & EMC Compliance

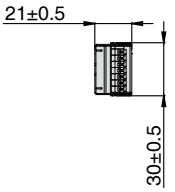
UL / CUL	UL8750, UL1310, CAN/CSA-C22.2 No.223-M91
CE	EN 61347.1; EN61347-2-13
Conducted emissions	CISPR15 Class B; EN55015 ; FCC part15 ClassB;
Radiated emissions	CISPR15 Class B; EN55015 ; FCC part15 ClassB;
Harmonic current emission	IEC / EN61000-3-2 Class C
Electromagnetic immunity	IEC / EN61547

Function Description

- Adjustable current output:
  The current output can programmed in 1mA steps from 200 mA to 1050 mA.
  This programming can be done at the factory or in the customers place of business.
  This permits optimization of the the current for the LED light engine and conformance to Energy Star Requirements.
- Resolution: 20 bit resolution Max
- Dimming: Supports a wide range of dimming from 0.1% to 100% with linear or Logarithmic dimming curve & flicker-free at all levels.
- High Efficiency: 87% (typical)
- Interface: LED Code
- Temperature Management: By connecting a 47kΩ NTC thermistor, temperature feedback is provided to insure that normal LED operating temperatures are maintained.

Mechanical Outline (unit: mm)





Schematic Diagram

50W Intelligent Series - MU050A105BQI0 (DALI，2chs)

Features

- Adjustable current range from 200mA to 1050mA
- Flicker-free dimming from 100%to0.1%,Logarithmic dimming curve
- DALI dimming control, 2chs
- Compact size, high performance, high reliability
- CUL / CE / PSE / VDE
- 5-year warranty

130 × 76 × 30mm

Electrical Specifications

Input voltage range	100~277VAC
Frequency	43~67Hz
Input current	0.7A(MAX)
Rated power	50W
Power factor	0.98 at 110VAC; 0.94 at 220VAC (typical)
Efficiency	89% (typical) at 220 VAC; 87% (typical) at 110 VAC
Output voltage range	2.5~50VDC
Output current range	200mA~1050mA (settable)
Protections	Over voltage, short circuit, over temperature: auto recovery

Environmental Specifications

Operating temperature	-20℃ ~ +50℃
Storage temperature	-40℃ ~ +85℃
Maximum case temp.	85℃
Cooling method	Convection
Life Time	50,000 hours at 50ºC ambient
Reference dimension (L x W x H)	130 × 76 × 30 (mm)

Safety & EMC Compliance

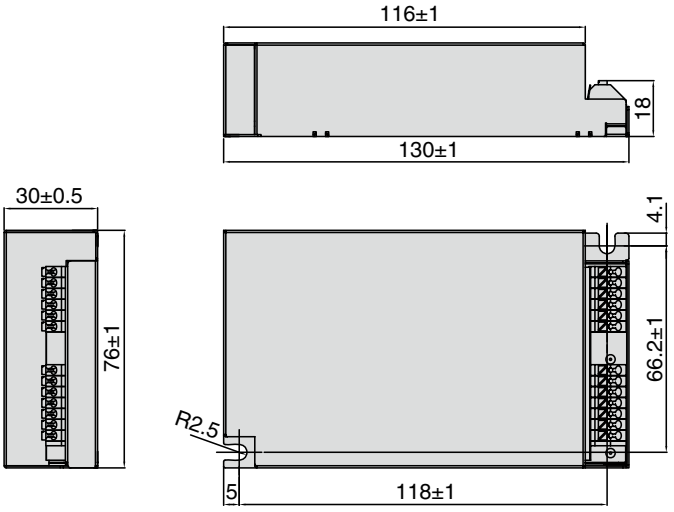
CUL	UL8750, UL1310
CE	EN61347-1, EN61347-2-13
PSE	J61347-1, J61347-2-13, J55015
Conducted emissions	FCC Level B / EN55015
Radiated emissions	FCC Level B / EN55015
Electromagnetic immunity	EN61547

Function Description

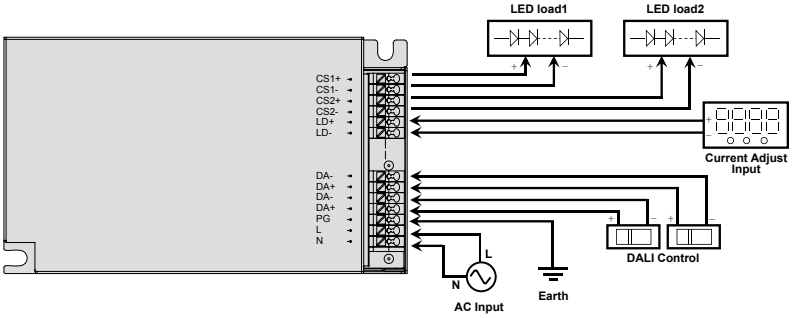
- Adjustable current output：
  The current output can programmed in 1 mA steps from 200 mA to 1050 mA.
  This programming can be done at the factory or in the customers place of business.
  This permits optimization of the the current for the LED light engine and conformance to Energy Star Requirements.
- Resolution：20 bit resolution
- Dimming: Supports a wide range of dimming from 0.1% to 100% with linear or Logarithmic dimming curve & flicker-free at all levels.
- High Efficiency：89% over a wide power range
- Interface：LED Code
- Temperature Management：By connecting a 47kΩ NTC thermistor, temperature feedback is provided to insure that normal LED operating temperatures are maintained.

Mechanical Outline (unit: mm)

Model Specifications-MU050A105BQI0 (DALI，2chs)



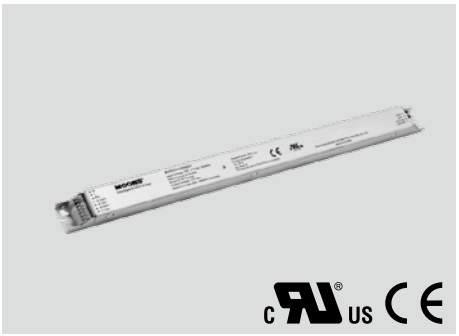
Schematic Diagram



50W Intelligent Series - MU050A105BQI01(DALI,2chs)

Features

- Adjustable current range from 200mA to 1050mA
- Flicker-free dimming from 100%to0.1%,Logarithmic dimming curve
- DALI dimming control, 2chs
- Slim size, high performance, high reliability
- CUL / CE
- 5-year warranty



444 × 30 × 21mm

Electrical Specifications

Input voltage range	100~277VAC
Frequency	47~63Hz
Input current	0.7A(MAX)
Rated power	50W
Power factor	0.95 at 110VAC; 0.92 at 220VAC (typical)
Efficiency	87% (typical)
Output voltage range	2.5~50VDC
Output current range	200mA~1050mA (settable)
Protections	Over voltage, short circuit, over temperature: auto recovery

Environmental Specifications

Operating temperature	-20℃ ~ +60℃
Storage temperature	-40℃ ~ +85℃
Maximum case temp.	85℃
Cooling method	Convection
Life Time	50,000 hours at 50ºC ambient
Reference dimension (L x W x H)	444 × 30 × 21 (mm)

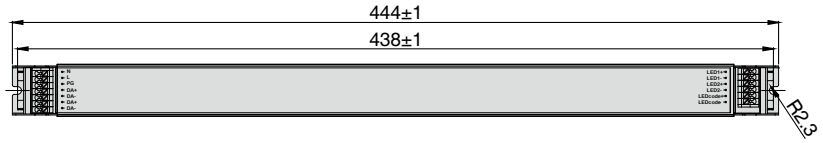
Safety & EMC Compliance

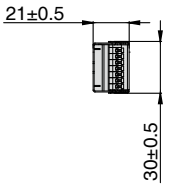
UL / CUL	UL8750, UL1310, CAN/CSA-C22.2 No.223-M91
CE	EN 61347.1; EN61347-2-13
Conducted emissions	CISPR15 Class B; EN55015 ; FCC part15 ClassB;
Radiated emissions	CISPR15 Class B; EN55015 ; FCC part15 ClassB;
Harmonic current emission	IEC / EN61000-3-2 Class C
Electromagnetic immunity	IEC / EN61547

Function Description

- Adjustable current output:
  The current output can programmed in 1mA steps from 200 mA to 1050 mA.
  This programming can be done at the factory or in the customers place of business.
  This permits optimization of the the current for the LED light engine and conformance to Energy Star Requirements.
- Resolution: 20 bit resolution Max
- Dimming: Supports a wide range of dimming from 0.1% to 100% with linear or Logarithmic dimming curve & flicker-free at all levels.
- High Efficiency: 87% (typical)
- Interface: LED Code
- Temperature Management: By connecting a 47kΩ NTC thermistor, temperature feedback is provided to insure that normal LED operating temperatures are maintained.

Mechanical Outline (unit: mm)





Schematic Diagram

50W Intelligent Series - MU050A105BQI2 (DALI, 2chs) each channel is independent

Features

- Adjustable current range from 200mA to 1050mA
- Flicker-free dimming from 100%to0.1%,Logarithmic dimming curve
- DALI dimming control,2chs
- Compact size, high performance, high reliability
- CUL / CE / PSE
- 5-year warranty

130 × 76 × 30mm

Electrical Specifications

Input voltage range	100~277VAC
Frequency	43~67Hz
Input current	0.7A(MAX)
Rated power	50W
Power factor	0.98 at 110VAC; 0.94 at 220VAC (typical)
Efficiency	89% (typical) at 220 VAC; 87% (typical) at 110 VAC
Output voltage range	2.5~50VDC
Output current range	200mA~1050mA (settable)
Protections	Over voltage, short circuit, over temperature: auto recovery

Environmental Specifications

Operating temperature	-20℃ ~ +50℃
Storage temperature	-40℃ ~ +85℃
Maximum case temp.	85℃
Cooling method	Convection
Life Time	50,000 hours at 50ºC ambient
Reference dimension (L x W x H)	130 × 76 × 30 (mm)

Safety & EMC Compliance

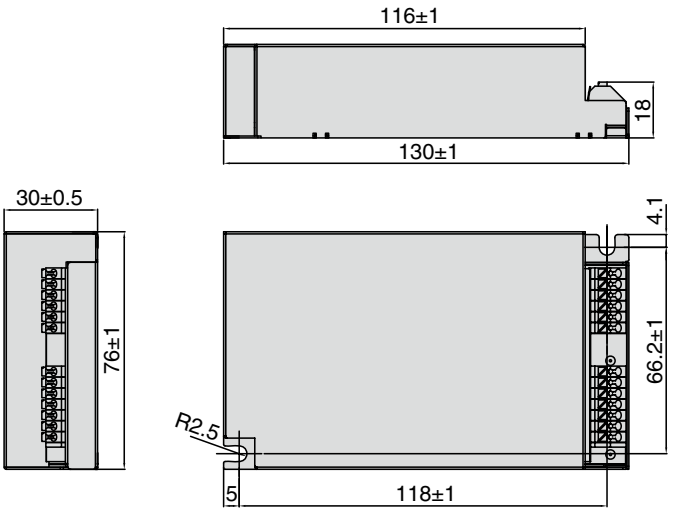
CUL	UL8750, UL1310
CE	EN61347-1, EN61347-2-13
PSE	J61347-1, J61347-2-13, J55015
Conducted emissions	FCC Level B / EN55015
Radiated emissions	FCC Level B / EN55015
Electromagnetic immunity	EN61547

Function Description

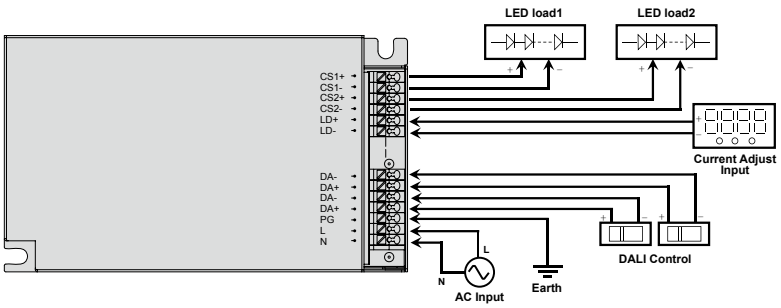
- Adjustable current output:
  The current output can programmed in 1 mA steps from 200 mA to 1050 mA.
  This programming can be done at the factory or in the customers place of business.
  This permits optimization of the the current for the LED light engine and conformance to Energy Star Requirements.
- Resolution: 20 bit resolution
- Dimming: Supports a wide range of dimming from 0.1% to 100% with linear or Logarithmic dimming curve & flicker-free at all levels.
- High Efficiency: 89% over a wide power range
- Interface: LED Code
- Temperature Management: By connecting a 47kΩ NTC thermistor, temperature feedback is provided to insure that normal LED operating temperatures are maintained.

Mechanical Outline (unit: mm)

Model Specifications-MU050A105BQI2 (DALI，2chs, each channel is independent)



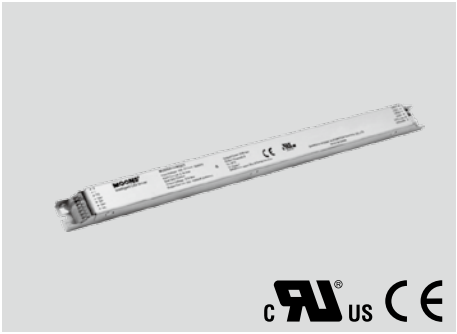
Schematic Diagram



50W Intelligent Series - MU050A105BQI21 (DALI,2chs,each channel is independent)

Features

- Adjustable current range from 200mA to 1050mA
- Flicker-free dimming from 100% to 0.1%, Logarithmic dimming curve
- DALI dimming control, 2chs
- Slim size, high performance, high reliability
- CUL / CE
- 5-year warranty



444 × 30 × 21mm

Electrical Specifications

Input voltage range	100~277VAC
Frequency	47~63Hz
Input current	0.7A(MAX)
Rated power	50W
Power factor	0.95 at 110VAC; 0.92 at 220VAC (typical)
Efficiency	87% (typical)
Output voltage range	2.5~50VDC
Output current range	200mA~1050mA (settable)
Protections	Over voltage, short circuit, over temperature: auto recovery

Environmental Specifications

Operating temperature	-20℃ ~ +60℃
Storage temperature	-40℃ ~ +85℃
Maximum case temp.	85℃
Cooling method	Convection
Life Time	50,000 hours at 50ºC ambient
Reference dimension (L x W x H)	444 × 30 × 21 (mm)

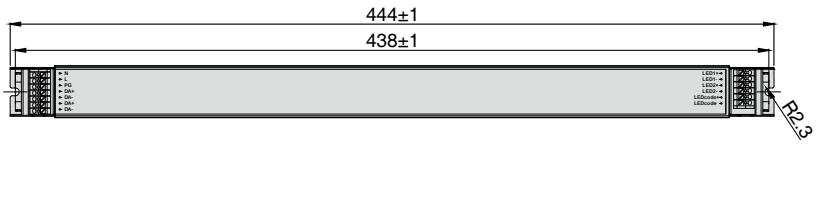
Safety & EMC Compliance

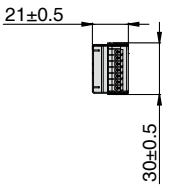
UL / CUL	UL8750, UL1310, CAN/CSA-C22.2 No.223-M91
CE	EN 61347.1; EN61347-2-13
Conducted emissions	CISPR15 Class B; EN55015 ; FCC part15 ClassB;
Radiated emissions	CISPR15 Class B; EN55015 ; FCC part15 ClassB;
Harmonic current emission	IEC / EN61000-3-2 Class C
Electromagnetic immunity	IEC / EN61547

Function Description

- Adjustable current output:
  The current output can programmed in 1mA steps from 200 mA to 1050 mA.
  This programming can be done at the factory or in the customers place of business.
  This permits optimization of the the current for the LED light engine and conformance to Energy Star Requirements.
- Resolution: 20 bit resolution Max
- Dimming: Supports a wide range of dimming from 0.1% to 100% with linear or Logarithmic dimming curve & flicker-free at all levels.
- High Efficiency: 87% (typical)
- Interface: LED Code
- Temperature Management: By connecting a 47kΩ NTC thermistor, temperature feedback is provided to insure that normal LED operating temperatures are maintained.

Mechanical Outline (unit: mm)





Schematic Diagram

50W Intelligent Series - MU050A105AQI3 (0-10V, 1ch)

Features

- Adjustable current range from 200mA to 1050mA
- Flicker-free dimming from 100%to0.1%,Logarithmic dimming curve
- Isolated 0-10V dimming control,1ch
- Compact size, high performance, high reliability
- CUL / CE
- 5-year warranty

130 × 76 × 30mm

Electrical Specifications

Input voltage range	100~277VAC
Frequency	43~67Hz
Input current	0.7A(MAX)
Rated power	50W
Power factor	0.98 at 110VAC; 0.94 at 220VAC (typical)
Efficiency	89% (typical) at 220 VAC; 87% (typical) at 110 VAC
Output voltage range	2.5~50VDC
Output current range	200mA~1050mA (settable)
Protections	Over voltage, short circuit, over temperature: auto recovery

Environmental Specifications

Operating temperature	-20℃ ~ +50℃
Storage temperature	-40℃ ~ +85℃
Maximum case temp.	85℃
Cooling method	Convection
Life Time	50,000 hours at 50ºC ambient
Reference dimension (L x W x H)	130 × 76 × 30 (mm)

Safety & EMC Compliance

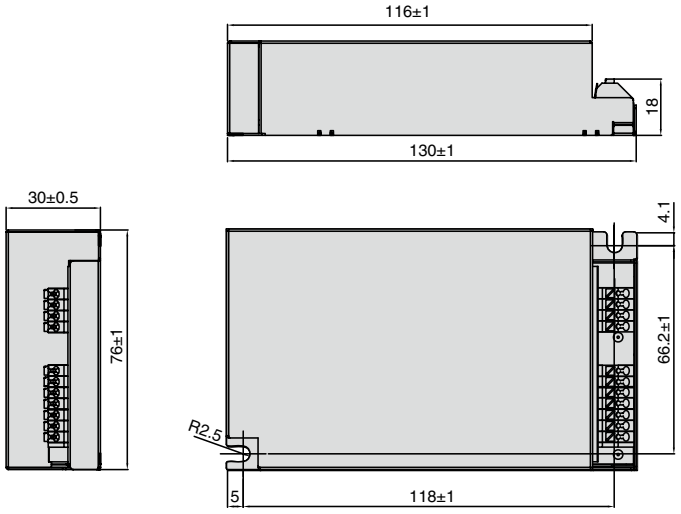
CUL	UL8750, UL1310
CE	EN61347-1, EN61347-2-13
Conducted emissions	FCC Level B / EN55015
Radiated emissions	FCC Level B / EN55015
Electromagnetic immunity	EN61547

Function Description

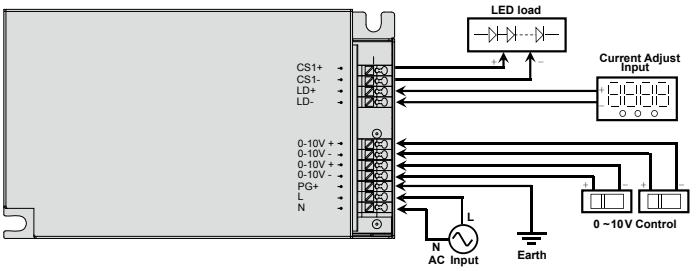
- Adjustable current output：
  The current output can programmed in 1 mA steps from 200 mA to 1050 mA.
  This programming can be done at the factory or in the customers place of business.
  This permits optimization of the the current for the LED light engine and conformance to Energy Star Requirements.
- Resolution：20 bit resolution
- Dimming: Supports a wide range of dimming from 0.1% to 100% with linear or Logarithmic dimming curve & flicker-free at all levels.
- High Efficiency：89% over a wide power range
- Interface：LED Code
- Temperature Management：By connecting a 47kΩ NTC thermistor, temperature feedback is provided to insure that normal LED operating temperatures are maintained.

Mechanical Outline (unit: mm)

Model Specifications-MU050A105AQI3 (0-10V, 1ch, isolated)



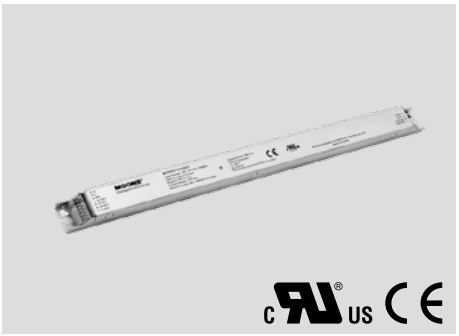
Schematic Diagram



50W Intelligent Series - MU050A105AQI31(0-10V,1ch)

Features

- Adjustable current range from 200mA to 1050mA
- Flicker-free dimming from 100% to 0.1%,Logarithmic dimming curve
- Isolated 0-10V dimming control, 1ch
- Slim size, high performance, high reliability
- CUL / CE
- 5-year warranty



440 × 30 × 21mm

Electrical Specifications

Input voltage range	100~277VAC
Frequency	47~63 Hz
Input current	0.7A(MAX)
Rated power	50W
Power factor	0.95 at 110VAC; 0.92 at 220VAC (typical)
Efficiency	87% (typical)
Output voltage range	2.5~50VDC
Output current range	200mA~1050mA (settable)
Protections	Over voltage, short circuit, over temperature: auto recovery

Environmental Specifications

Operating temperature	-20℃ ~ +60℃
Storage temperature	-40℃ ~ +85℃
Maximum case temp.	85℃
Cooling method	Convection
Life Time	50,000 hours at 50ºC ambient
Reference dimension (L x W x H)	444 × 30 × 21 (mm)

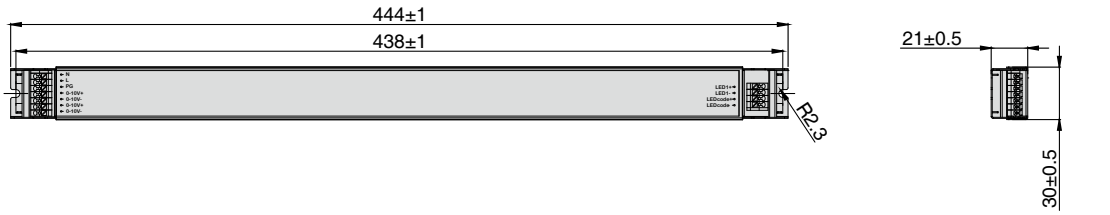
Safety & EMC Compliance

UL / CUL	UL8750, UL1310, CAN/CSA-C22.2 No.223-M91
CE	EN 61347.1; EN61347-2-13
Conducted emissions	CISPR15 Class B; EN55015 ; FCC part15 ClassB;
Radiated emissions	CISPR15 Class B; EN55015 ; FCC part15 ClassB;
Harmonic current emission	IEC / EN61000-3-2 Class C
Electromagnetic immunity	IEC / EN61547

Function Description

- Adjustable current output:
  The current output can programmed in 1mA steps from 200 mA to 1050 mA.
  This programming can be done at the factory or in the customers place of business.
  This permits optimization of the the current for the LED light engine and conformance to Energy Star Requirements.
- Resolution: 20 bit resolution Max
- Dimming: Supports a wide range of dimming from 0.1% to 100% with linear or Logarithmic dimming curve& flicker-free at all levels.
- High Efficiency: 87% (typical)
- Interface: LED Code
- Temperature Management: By connecting a 47kΩ NTC thermistor, temperature feedback is provided to insure that normal LED operating temperatures are maintained.

Mechanical Outline (unit: mm)

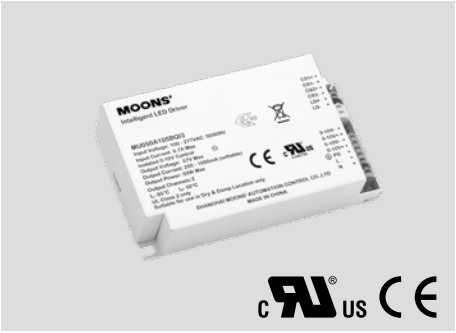


Schematic Diagram

50W Intelligent Series - MU050A105BQI3(0-10V, 2chs)

Features

- Adjustable current range from 200mA to 1050mA
- Flicker-free dimming from 100% to 0.1%, Logarithmic dimming curve
- Isolated 0-10V dimming control, 2chs
- Compact size, high performance, high reliability
- CUL / CE
- 5-year warranty



130 × 76 × 30mm

Electrical Specifications

Input voltage range	100~277VAC
Frequency	43~67Hz
Input current	0.7A(MAX)
Rated power	50W
Power factor	0.98 at 110VAC; 0.94 at 220VAC (typical)
Efficiency	89% (typical) at 220 VAC; 87% (typical) at 110 VAC
Output voltage range	2.5~50VDC
Output current range	200mA~1050mA (settable)
Protections	Over voltage, short circuit, over temperature: auto recovery

Environmental Specifications

Operating temperature	-20℃ ~ +50℃
Storage temperature	-40℃ ~ +85℃
Maximum case temp.	85℃
Cooling method	Convection
Life Time	50,000 hours at 50ºC ambient
Reference dimension (L x W x H)	130 × 76 × 30 (mm)

Safety & EMC Compliance

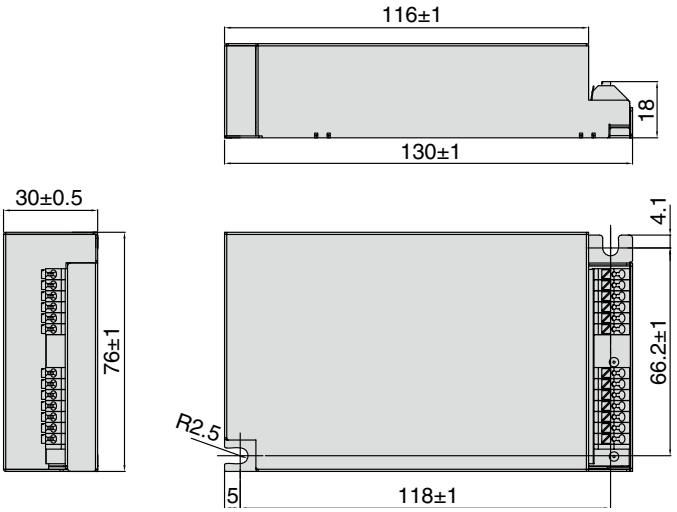
CUL	UL8750, UL1310
CE	EN61347-1, EN61347-2-13
Conducted emissions	FCC Level B / EN55015
Radiated emissions	FCC Level B / EN55015
Electromagnetic immunity	EN61547

Function Description

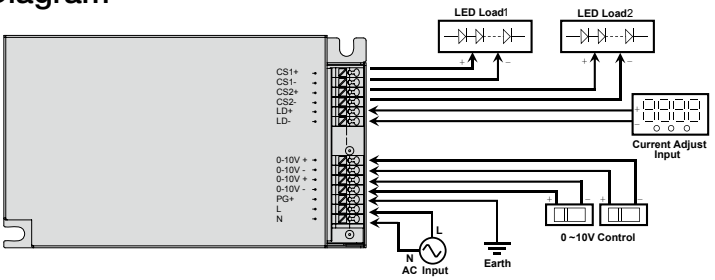
- Adjustable current output：
  The current output can programmed in 1 mA steps from 200 mA to 1050 mA.
  This programming can be done at the factory or in the customers place of business.
  This permits optimization of the the current for the LED light engine and conformance to Energy Star Requirements.
- Resolution：20 bit resolution
- Dimming：Supports a wide range of dimming from 0.1% to 100% with linear or Logarithmic dimming curve & flicker-free at all levels.
- High Efficiency：89% over a wide power range
- Interface：LED Code
- Temperature Management：By connecting a 47kΩ NTC thermistor, temperature feedback is provided to insure that normal LED operating temperatures are maintained.

Mechanical Outline (unit: mm)

Model Specifications-MU050A105BQI3 (0-10V, 2chs, isolated)



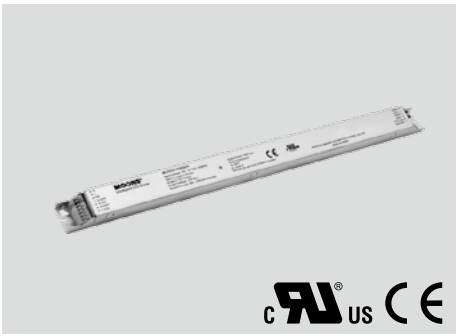
Schematic Diagram



50W Intelligent Series - MU050A105BQI31(0-10V, 2chs)

Features

- Adjustable current range from 200mA to 1050mA
- Flicker-free dimming from 100% to 0.1%,Logarithmic dimming curve
- Isolated 0-10V dimming control, 2chs
- Slim size, high performance, high reliability
- CUL / CE
- 5-year warranty



444 × 30 × 21mm

Electrical Specifications

Input voltage range	100~277VAC
Frequency	47~63Hz
Input current	0.7A(MAX)
Rated power	50W
Power factor	0.95 at 110VAC; 0.92 at 220VAC (typical)
Efficiency	87% (typical)
Output voltage range	2.5~50VDC
Output current range	200mA~1050mA (settable)
Protections	Over voltage, short circuit, over temperature: auto recovery

Environmental Specifications

Operating temperature	-20℃ ~ +60℃
Storage temperature	-40℃ ~ +85℃
Maximum case temp.	85℃
Cooling method	Convection
Life Time	50,000 hours at 50ºC ambient
Reference dimension (L x W x H)	444 × 30 × 21 (mm)

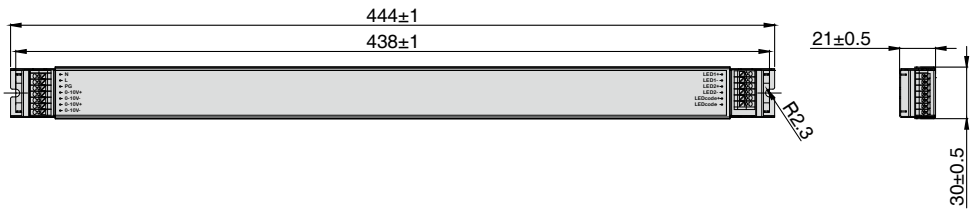
Safety & EMC Compliance

UL / CUL	UL8750, UL1310, CAN/CSA-C22.2 No.223-M91
CE	EN 61347.1; EN61347-2-13
Conducted emissions	CISPR15 Class B; EN55015 ; FCC part15 ClassB;
Radiated emissions	CISPR15 Class B; EN55015 ; FCC part15 ClassB;
Harmonic current emission	IEC / EN61000-3-2 Class C
Electromagnetic immunity	IEC / EN61547

Function Description

- Adjustable current output:
  The current output can programmed in 1mA steps from 200 mA to 1050 mA.
  This programming can be done at the factory or in the customers place of business.
  This permits optimization of the the current for the LED light engine and conformance to Energy Star Requirements.
- Resolution: 20 bit resolution Max
- Dimming: Supports a wide range of dimming from 0.1% to 100% with linear or Logarithmic dimming curve & flicker-free at all levels.
- High Efficiency: 87% (typical)
- Interface: LED Code
- Temperature Management: By connecting a 47kΩ NTC thermistor, temperature feedback is provided to insure that normal LED operating temperatures are maintained.

Mechanical Outline (unit: mm)



Schematic Diagram

50W Intelligent Series - MU050A105CQI6 (DMX，3chs)

Features

- Adjustable current range from 200mA to 1050mA
- Flicker-free dimming from 100% to 0.1%, gamma-corrected curve
- DMX dimming control,3chs
- Compact size, high performance, high reliability
- CUL / CE / PSE / VDE
- 5-year warranty

130 × 76 × 30mm

Electrical Specifications

Input voltage range	100~277VAC
Frequency	43~67Hz
Input current	0.7A(MAX)
Rated power	50W
Power factor	0.98 at 110VAC; 0.94 at 220VAC (typical)
Efficiency	89% (typical) at 220 VAC; 87% (typical) at 110 VAC
Output voltage range	2.5~50VDC
Output current range	200mA~1050mA (settable)
Protections	Over voltage, short circuit, over temperature: auto recovery

Environmental Specifications

Operating temperature	-20℃ ~ +60℃
Storage temperature	-40℃ ~ +85℃
Maximum case temp.	85℃
Cooling method	Convection
Life Time	50,000 hours at 50ºC ambient
Reference dimension (L x W x H)	130 × 76 × 30 (mm)

Safety & EMC Compliance

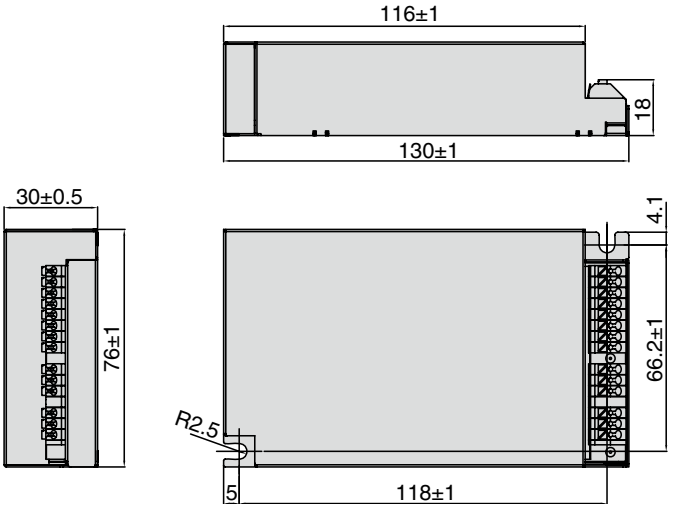
CUL	UL8750, UL1310
CE	EN61347-1, EN61347-2-13
PSE	J61347-1, J61347-2-13, J55015
Conducted emissions	FCC Level B / EN55015
Radiated emissions	FCC Level B / EN55015
Electromagnetic immunity	EN61547

Function Description

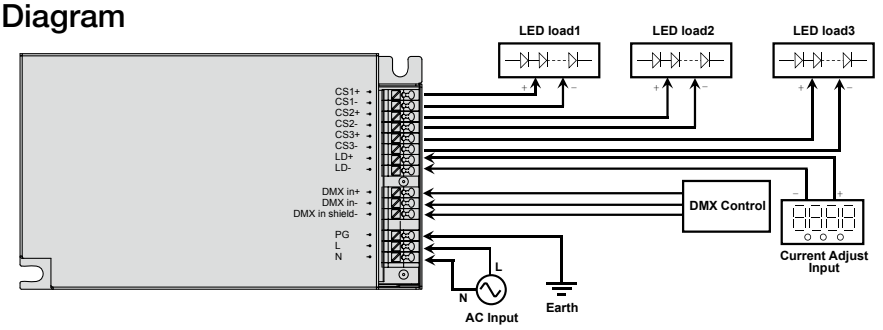
- Adjustable current output：
  The current output can programmed in 1 mA steps from 200 mA to 1050 mA.
  This programming can be done at the factory or in the customers place of business.
  This permits optimization of the the current for the LED light engine and conformance to Energy Star Requirements.
- Resolution：20 bit resolution
- Dimming：Supports a wide range of dimming from 0.1% to 100% with linear or gamma corrected dimming curve & flicker-free at all levels.
- High Efficiency：89% over a wide power range
- Interface：LED Code
- Temperature Management：By connecting a 47kΩ NTC thermistor, temperature feedback is provided to insure that normal LED operating temperatures are maintained.

Mechanical Outline (unit: mm)

Model Specifications-MU050A105CQI6 (DMX，3chs)



Schematic Diagram



50W Intelligent Series - MU050A105DQI61(DMX,4chs)

Features

- Adjustable current range from 200mA to 1050mA
- Flicker-free dimming from 100% to 0.1%, gamma-corrected curve
- DMX dimming control,4chs
- Slim size, high performance, high reliability
- CUL / CE
- 5-year warranty

444 × 30 × 21mm

Electrical Specifications

Input voltage range	100~277VAC
Frequency	47~63Hz
Input current	0.7A(MAX)
Rated power	50W
Power factor	0.95 at 110VAC; 0.92 at 220VAC (typical)
Efficiency	87% (typical)
Output voltage range	2.5~50VDC
Output current range	200mA~1050mA (settable)
Protections	Over voltage, short circuit, over temperature: auto recovery

Environmental Specifications

Operating temperature	-20℃ ~ +60℃
Storage temperature	-40℃ ~ +85℃
Maximum case temp.	85℃
Cooling method	Convection
Life Time	50,000 hours at 50ºC ambient
Reference dimension (L x W x H)	444 × 30 × 21 (mm)

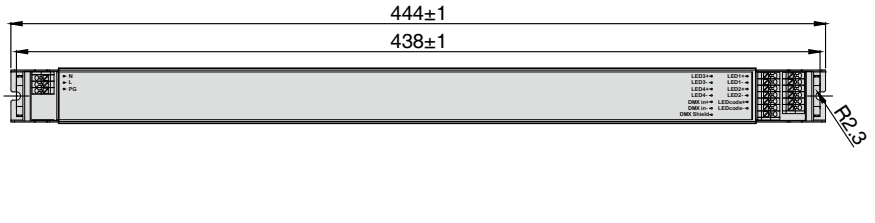
Safety & EMC Compliance

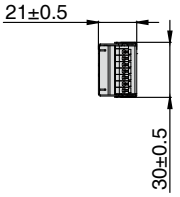
UL / CUL	UL8750, UL1310, CAN/CSA-C22.2 No.223-M91
CE	EN 61347.1; EN61347-2-13
Conducted emissions	CISPR15 Class B; EN55015 ; FCC part15 ClassB;
Radiated emissions	CISPR15 Class B; EN55015; FCC part15 ClassB;
Harmonic current emission	IEC / EN61000-3-2 Class C
Electromagnetic immunity	IEC / EN61547

Function Description

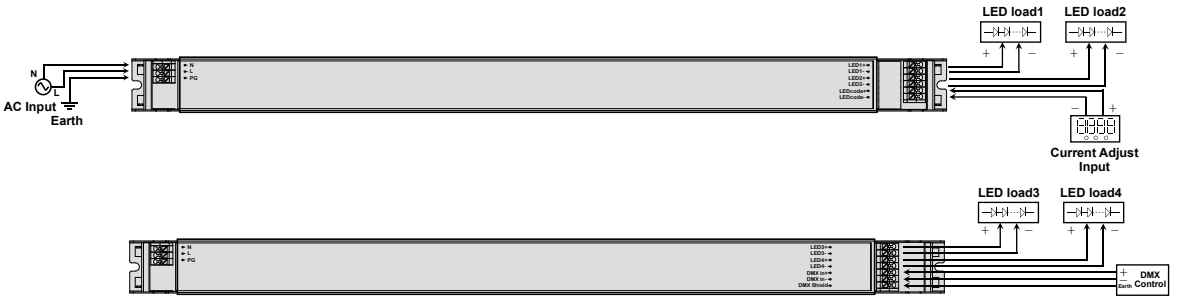
- Adjustable current output:
  The current output can programmed in 1mA steps from 200 mA to 1050 mA.
  This programming can be done at the factory or in the customers place of business.
  This permits optimization of the the current for the LED light engine and conformance to Energy Star Requirements.
- Resolution: 20 bit resolution Max
- Dimming: Supports a wide range of dimming from 0.1% to 100% with linear or gamma corrected dimming curve & flicker-free at all levels.
- High Efficiency: 87% (typical)
- Interface: LED Code
- Temperature Management: By connecting a 47kΩ NTC thermistor, temperature feedback is provided to insure that normal LED operating temperatures are maintained.

Mechanical Outline (unit: mm)





Schematic Diagrams



50W Intelligent Series - MU050I150BQI8 (DALI DT8, 2chs)

Features

- Comply with Class 2 Power supply safety standards
- Comply with IEC62386-102(2.0), IEC62386-207 and IEC62386-209
- Constant current LED driver
- Support DALI type 8 colour temperature adjustment
- Support DALI type 6 and the number of DALI address configurable (1/2 addresses)
- 2 LED channels, output current can be changed from 200mA to 1500mA
- Constant power maximum is 50W
- Normal life time is 50000 hours（at the case's temperature of 72℃）
- Dimming range 0.1%~100%
- Push Dimming for intensity and colour control.
- Protection comply with IP20
- 5-year warranty

130 × 76 × 30mm

Electrical Specifications

Input voltage range	100 - 277 V
Frequency	50 / 60 HZ
Input current	<15A
Rated power	50W
Power factor	>0.95（230V,50HZ,full loaded）
Effiency	88 - 90 %（230V,50HZ,full loaded）
Output voltage range	8 - 50 V
Output current range	200-1500mA
Protections	Thermal protection,short-circuit protection,no-load protection,over-power protection

Environmental Specifications

Operating temperature	-25℃ - +49℃
Storage temperature	-40℃ - +85℃
Maximum case temperature	84℃
Cooling method	Convection
Life time	50,000 hours at tc 72℃ ambient
Reference dimension(LxWxH)	130 × 76 × 30 mm

Safety & EMC Compliance

CUL	UL8750, UL1310, CAN/CSA-C22.2 No.223-M91
CE	EN 61347-1, EN61347-2-13
Conducted Emissions	FCC Part15 Class B / EN55015
Radiated Emissions	FCC Part15 Class B / EN55015
Harmonic Current Emissions	EN61000-3-2
Voltage Fluctuations and Flicker	EN61000-3-3
Electrostatic Discharge	EN61000-4-2
RFE Field Susceptibility	EN61000-4-3
Electrical Fast Transient	EN61000-4-4
Conducted Radio Frequency	EN61000-4-6
Power Frequency Magnetic Field Test	EN61000-4-8
Voltage Dips	EN61000-4-11
Electromagnetic Immunity	EN61547

Function Description

- Alternative DALI device type(default type 8).

You can select DALI type 6 or type 8 with Smartkey and DALI Configuarator.

- DALI device type 8 software for tunable white(2500k-6500k).

You can set the CT range(coldest and warmest) with Smartkey and DALI Configuarator.

- DALI device type 6

You can set dual DALI addressable or solo DALI addressable output channels with Smartkey and DALI Configuarator.

- Switch DIM (with memory function)---push dimming

SwitchDIM means that you can use two lines to connect L and N to DA+ and DA- respectively, and add a switch in series to either of the two lines to complete the function of ON/OFF and dimming. Short press(<0.6s) can turn on/off the driver, and long press can adjust the dimming level. When several drivers are connected together and controlled by one switch, press the switch for 10s, all the drivers are dimmed to 50% at the same time.

- Color DIM(Switch-Control for the colour temperature)---push dimming

The control of Colour temperature is initiated with a press and hold of the light level up to the maximum, holding it at maximum level. After a holding period of 6 seconds on full intensity the driver starts to change the colour temperature of the white light.

- MCS technology

Connect Smartkey to the driver through MCS(Multifunctional Configuration Settings) ports. With MOONS' Configuarator software, you can set the MAX current of the driver(each step is 1 mA),dimming curve type, the number of DALI address, scene modes etc.Please refer to specification of Smartkey to get specific information.

- Temperature Detection

In order to protect the LED, the temperature of LED is detected by a NTC. When the temperature exceeds the point which can be set by Smartkey, the output current can be decreased automatically, but not less than 25%.

- Constant Output Power

The driver can satisfy the curve of constant output power within a large range of output current and voltage.

- Protection

Thermal Protection

When the temperature of the inside PCB exceeds 110℃ , output current will be decreased to 50%. And it cannot recover until the temperture drops to 70℃ .

Short-circuit Protection

Once the output short-circuits, the output will be cut off automatically. Then the driver will try to restart every 10s.

No-load Protection

The driver operating with no load will not be damaged, and it will try to restart every 10s. So the driver supports hot plugin.

Over-Power Protection

If the total power of two channels exceeds 60W, the output current of each channel will decrease to 50%.

- DALI Signal Abnormality

If the signal of DALI is abnormal, including open-circuit and short-circuit, the output will recover to the preset maxium value.

- Online Update

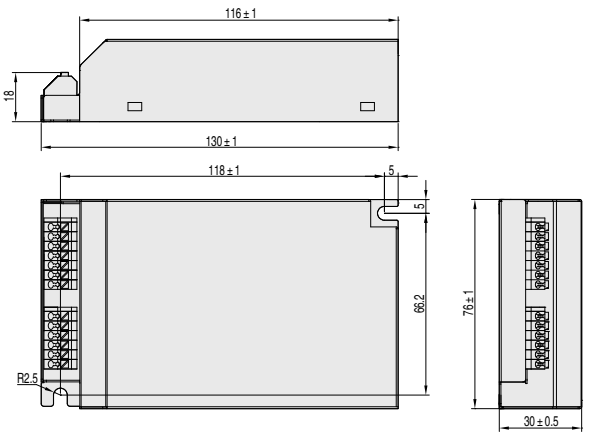
Use smart key to connect PC and the driver to update the firmware.

Please refer to the specification of Smart key.

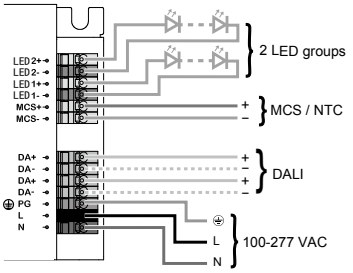
- Daisy-Chain

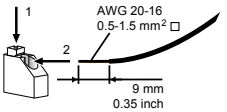
DALI dimming ports has 2 groups of DA+ and DA-, which support daisy-chain.

Mechanical Outline (unit: mm)



Schematic Diagram





Solid or stranded copper wires only.

50W Intelligent Series - MU050I150BQI2 (DALI, 2chs)

Features

- Compliant with Class 2 Power supply safety standards
- Constant current LED driver
- Default DALI type 6, 2 addresses
- 2 LED channels, output current can be changed from 200mA to 1500mA
- Constant power maximum is 50W
- Normal life time is 50000 hours（at the case's temperature of 72℃）
- Dimming range 0.1%~100%
- Protection compliant with IP20
- 5-year warranty

130 × 76 × 30mm

Electrical Specifications

Input voltage range	100 - 277 V
Frequency	50 / 60 HZ
Input current	<15A
Rated power	50W
Power factor	>0.95（230V,50HZ,full loaded）
Effiency	88 - 90 %（230V,50HZ,full loaded）
Output voltage range	8 - 50 V
Output current range	200-1500mA
Protections	Thermal protection,short-circuit protection,no-load protection,over-power protection

Environmental Specifications

Operating temperature	-25℃ - +49℃
Storage temperature	-40℃ - +85℃
Maximum case temperature	84℃
Cooling method	Convection
Life time	50,000 hours at tc 72℃ ambient
Reference dimension(LxWxH)	130 × 76 × 30 mm

Safety & EMC Compliance

CUL	UL8750, UL1310, CAN/CSA-C22.2 No.223-M91
CE	EN 61347-1, EN61347-2-13
Conducted Emissions	FCC Part15 Class B / EN55015
Radiated Emissions	FCC Part15 Class B / EN55015
Harmonic Current Emissions	EN61000-3-2
Voltage Fluctuations and Flicker	EN61000-3-3
Electrostatic Discharge	EN61000-4-2
RFE Field Susceptibility	EN61000-4-3
Electrical Fast Transient	EN61000-4-4
Conducted Radio Frequency	EN61000-4-6
Power Frequency Magnetic Field Test	EN61000-4-8
Voltage Dips	EN61000-4-11
Electromagnetic Immunity	EN61547

Function Description

- DALI type 6

DA+ and DA- are both the interfaces of DALI.You can set dual DALI addressable or solo DALI addressable output channels with Smartkey and DALI Configuarator.

- SwitchDIM (with memory function)---push dimming

SwitchDIM means that you can use two lines to connect L and N to DA+ and DA- respectively, and add a switch in series to either of the two lines to complete the function of ON/OFF and dimming. Short press(<0.6s) can turn on/off the driver, and long press can adjust the dimming level. When several drivers are connected together and controlled by one switch, press the switch for 10s, all the drivers are dimmed to 50% at the same time.

- MCS technology

Connect Smartkey to the driver through MCS(Multifunctional Configuration Settings) ports. With MOONS' Configuarator software, you can set the MAX current of the driver(each step is 1 mA),dimming curve type, the number of DALI address, scene modes etc.Please refer to specification of Smartkey to get specific information.

- Temperature Detection

In order to protect the LED, the temperature of LED is detected by a NTC. When the temperature exceeds the point which can be set by Smartkey, the output current can be decreased automatically, but not less than 25%.

- Constant Output Power

The driver can satisfy the curve of constant output power within a large range of output current and voltage.

- Protection

Thermal Protection

When the temperature of the inside PCB exceeds 110℃ , output current will be decreased to 50%. And it cannot recover until the temperture drops to 70℃ .

Short-circuit Protection

Once the output short-circuits, the output will be cut off automatically. Then the driver will try to restart every 10s.

No-load Protection

The driver operating with no load will not be damaged, and it will try to restart every 10s. So the driver supports hot plugin.

Over-Power Protection

If the total power of two channels exceeds 60W, the output current of each channel will decrease to 50%.

- DALI Signal Abnormality

If the signal of DALI is abnormal, including open-circuit and short-circuit, the output will recover to the preset maxium value.

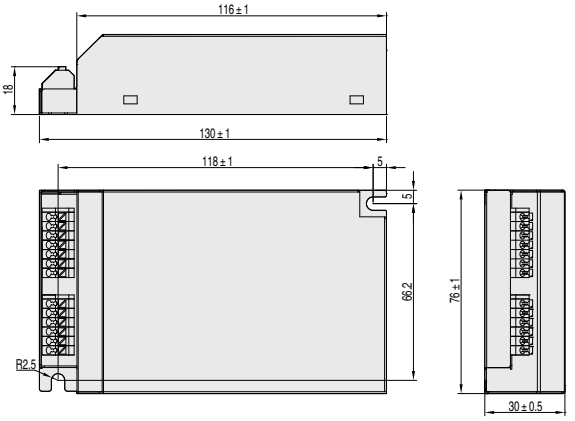
- Online Update

Use smart key to connect PC and the driver to update the firmware.
Please refer to the specification of Smart key.

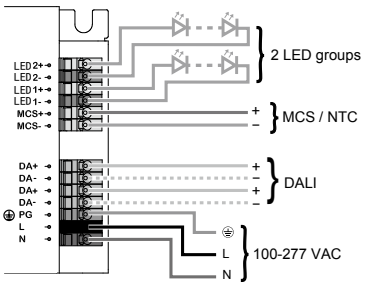
- Daisy-Chain

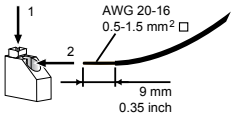
DALI dimming ports has 2 groups of DA+ and DA-, which support daisy-chain.

Mechanical Outline (unit: mm)



Schematic Diagram





Solid or stranded copper wires only.

50W Intelligent Series - MU050I180AQI3 (DALI,1ch,Aux Output)

Features

- Compliant with Class 2 Power supply safety standards
- Constant current LED driver
- Support DALI type 6
- 1 LED channel, output current can be changed from 200mA to 1800mA
- Auxiliary Output Voltage 12V,MAX Output Current 150mA
- Constant power maximum is 50W
- Normal life time is 50000 hours（at the case's temperature of 72℃）
- Dimming range 0.1%~100%
- Protection compliant with IP20
- 5-year warranty

130 × 76 × 30mm

Electrical Specifications

Input voltage range	100 - 277 V
Frequency	50 / 60 HZ
Input current	<15A
Rated power	50W
Power factor	>0.95（230V,50HZ,full loaded）
Effiency	88 - 90 %（230V,50HZ,full loaded）
Output voltage range	8 - 50 V
Output current range	200-1800mA
Protections	Thermal protection,short-circuit protection,no-load protection,over-power protection

Environmental Specifications

Operating temperature	-25℃ - +49℃
Storage temperature	-40℃ - +85℃
Maximum case temperature	84℃
Cooling method	Convection
Life time	50,000 hours at tc 72℃ ambient
Reference dimension(LxWxH)	130 × 76 × 30 mm

Safety & EMC Compliance

CUL	UL8750, UL1310, CAN/CSA-C22.2 No.223-M91
CE	EN 61347-1, EN61347-2-13
Conducted Emissions	FCC Part15 Class B / EN55015
Radiated Emissions	FCC Part15 Class B / EN55015
Harmonic Current Emissions	EN61000-3-2
Voltage Fluctuations and Flicker	EN61000-3-3
Electrostatic Discharge	EN61000-4-2
RFE Field Susceptibility	EN61000-4-3
Electrical Fast Transient	EN61000-4-4
Conducted Radio Frequency	EN61000-4-6
Power Frequency Magnetic Field Test	EN61000-4-8
Voltage Dips	EN61000-4-11
Electromagnetic Immunity	EN61547

Function Description

- DALI type 6

DA+ and DA- are both the interfaces of DALI.

- SwitchDIM (with memory function)---push dimming

SwitchDIM means that you can use two lines to connect L and N to DA+ and DA- respectively, and add a switch in series to either of the two lines to complete the function of ON/OFF and dimming. Short press(<0.6s) can turn on/off the driver, and long press can adjust the dimming level. When several drivers are connected together and controlled by one switch, press the switch for 10s, all the drivers are dimmed to 50% at the same time.

- MCS technology

Connect Smartkey to the driver through MCS(Multifunctional Configuration Settings) ports. With MOONS' Configuarator software, you can set the MAX current of the driver(each step is 1 mA),dimming curve type, the number of DALI address, scene modes etc.Please refer to specification of Smartkey to get specific information.

- Temperature Detection

In order to protect the LED, the temperature of LED is detected by a NTC. When the temperature exceeds the point which can be set by Smartkey, the output current can be decreased automatically, but not less than 25%.

- Constant Output Power

The driver can satisfy the curve of constant output power within a large range of output current and voltage.

- Protection

Thermal Protection

When the temperature of the inside PCB exceeds 110℃ , output current will be decreased to 50%. And it cannot recover until the temperture drops to 70℃ .

Short-circuit Protection

Once the output short-circuits, the output will be cut off automatically. Then the driver will try to restart every 10s.

No-load Protection

The driver operating with no load will not be damaged, and it will try to restart every 10s. So the driver supports hot plugin.

Over-Power Protection

If the total power of two channels exceeds 60W, the output current of each channel will decrease to 50%.

- DALI Signal Abnormality

If the signal of DALI is abnormal, including open-circuit and short-circuit, the output will recover to the preset maxium value.

- Online Update

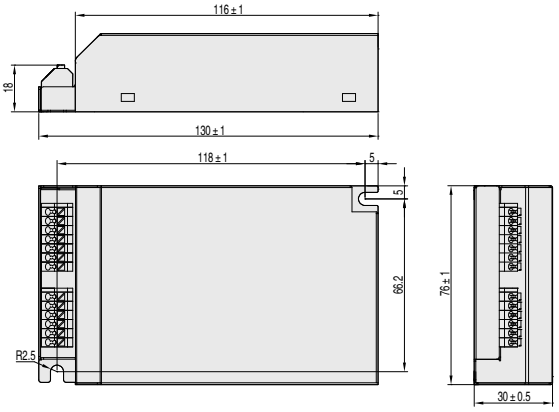
Use smart key to connect PC and the driver to update the firmware.

Please refer to the specification of Smart key.

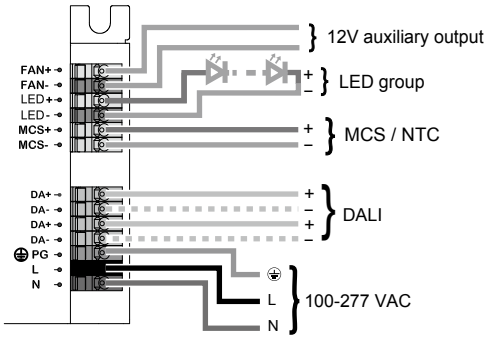
- Daisy-Chain

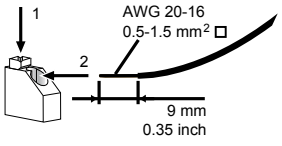
DALI dimming ports has 2 groups of DA+ and DA-, which support daisy-chain.

Mechanical Outline (unit: mm)



Schematic Diagram





Solid or stranded copper wires only.

50W Intelligent Series - MU050I180AQI2 (DALI , 1ch)

Features

- Compliant with Class 2 Power supply safety standards
- Constant current LED driver
- Support DALI type 6
- 1 LED channel, output current can be changed from 200mA to 1800mA
- Constant power maximum is 50W
- Normal life time is 50000 hours（at the case's temperature of 72℃）
- Dimming range 0.1%~100%
- Protection compliant with IP20
- 5-year warranty

130 × 76 × 30mm

Electrical Specifications

Input voltage range	100 - 277 V
Frequency	50 / 60 HZ
Input current	<15A
Rated power	50W
Power factor	>0.95（230V,50HZ,full loaded）
Effiency	88 - 90 %（230V,50HZ,full loaded）
Output voltage range	8 - 50 V
Output current range	200-1800mA
Protections	Thermal protection,short-circuit protection,no-load protection,over-power protection

Environmental Specifications

Operating temperature	-25℃ - +49℃
Storage temperature	-40℃ - +85℃
Maximum case temperature	84℃
Cooling method	Convection
Life time	50,000 hours at tc 72℃ ambient
Reference dimension(LxWxH)	130 × 76 × 30 mm

Safety & EMC Compliance

CUL	UL8750, UL1310, CAN/CSA-C22.2 No.223-M91
CE	EN 61347-1, EN61347-2-13
Conducted Emissions	FCC Part15 Class B / EN55015
Radiated Emissions	FCC Part15 Class B / EN55015
Harmonic Current Emissions	EN61000-3-2
Voltage Fluctuations and Flicker	EN61000-3-3
Electrostatic Discharge	EN61000-4-2
RFE Field Susceptibility	EN61000-4-3
Electrical Fast Transient	EN61000-4-4
Conducted Radio Frequency	EN61000-4-6
Power Frequency Magnetic Field Test	EN61000-4-8
Voltage Dips	EN61000-4-11
Electromagnetic Immunity	EN61547

Function Description

- DALI type 6

DA+ and DA- are both the interfaces of DALI.

- SwitchDIM (with memory function)---push dimming

SwitchDIM means that you can use two lines to connect L and N to DA+ and DA- respectively, and add a switch in series to either of the two lines to complete the function of ON/OFF and dimming. Short press(<0.6s) can turn on/off the driver, and long press can adjust the dimming level. When several drivers are connected together and controlled by one switch, press the switch for 10s, all the drivers are dimmed to 50% at the same time.

- MCS technology

Connect Smartkey to the driver through MCS(Multifunctional Configuration Settings) ports. With MOONS' Configuarator software, you can set the MAX current of the driver(each step is 1 mA),dimming curve type, the number of DALI address, scene modes etc.Please refer to specification of Smartkey to get specific information.

- Temperature Detection

In order to protect the LED, the temperature of LED is detected by a NTC. When the temperature exceeds the point which can be set by Smartkey, the output current can be decreased automatically, but not less than 25%.

- Constant Output Power

The driver can satisfy the curve of constant output power within a large range of output current and voltage.

- Protection

Thermal Protection

When the temperature of the inside PCB exceeds 110℃ , output current will be decreased to 50%. And it cannot recover until the temperture drops to 70℃ .

Short-circuit Protection

Once the output short-circuits, the output will be cut off automatically. Then the driver will try to restart every 10s.

No-load Protection

The driver operating with no load will not be damaged, and it will try to restart every 10s. So the driver supports hot plugin.

Over-Power Protection

If the total power exceeds 60W, the output current of each channel will decrease to 50%.

- DALI Signal Abnormality

If the signal of DALI is abnormal, including open-circuit and short-circuit, the output will recover to the preset maxium value.

- Online Update

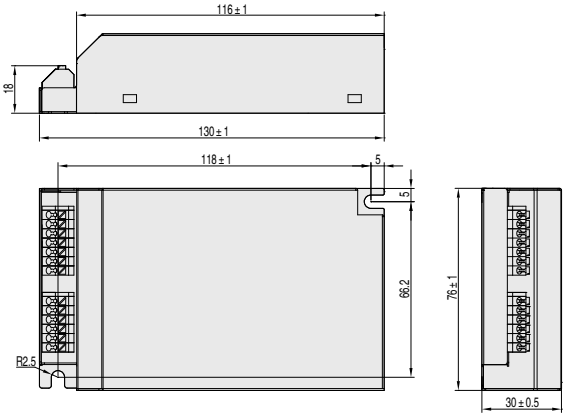
Use smart key to connect PC and the driver to update the firmware.

Please refer to the specification of Smart key.

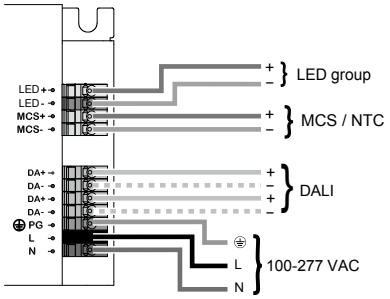
- Daisy-Chain

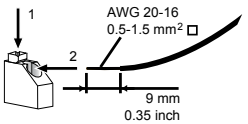
DALI dimming ports has 2 groups of DA+ and DA-, which support daisy-chain.

Mechanical Outline (unit: mm)



Schematic Diagram





Solid or stranded copper wires only.

50W Intelligent Series - MU050I180AQI22 (DALI , 1ch)

Features

- Compliant with Class 2 Power supply safety standards
- Constant current LED driver
- Support DALI type 6
- 1 LED channel, output current can be changed from 200mA to 1800mA
- Constant power maximum is 50W
- Normal life time is 50000 hours（at the case's temperature of 78℃）
- Dimming range 0.1%~100%
- Protection compliant with IP20
- 5-year warranty

130 × 76 × 30mm

Electrical Specifications

Input voltage range	100 - 277 V
Frequency	50 / 60 HZ
Input current	<15A
Rated power	50W
Power factor	>0.95（230V,50HZ,full loaded）
Effiency	88 - 90 %（230V,50HZ,full loaded）
Output voltage range	8 - 50 V
Output current range	200-1800mA
Protections	Thermal protection,short-circuit protection,no-load protection,over-power protection

Environmental Specifications

Operating temperature	-25 - 58℃
Storage temperature	-40℃ ~ +85℃
Maximum case temperature	85℃
Cooling method	Convection
Life time	50,000 hours at tc 78℃ ambient
Reference dimension(LxWxH)	126 × 76 × 30 mm

Safety & EMC Compliance

CUL	UL8750, UL1310, CAN/CSA-C22.2 No.223-M91
CE	EN 61347-1, EN61347-2-13
Conducted Emissions	FCC Part15 Class B / EN55015
Radiated Emissions	FCC Part15 Class B / EN55015
Harmonic Current Emissions	EN61000-3-2
Voltage Fluctuations and Flicker	EN61000-3-3
Electrostatic Discharge	EN61000-4-2
RFE Field Susceptibility	EN61000-4-3
Electrical Fast Transient	EN61000-4-4
Conducted Radio Frequency	EN61000-4-6
Power Frequency Magnetic Field Test	EN61000-4-8
Voltage Dips	EN61000-4-11
Electromagnetic Immunity	EN61547

Function Description

• DALI type 6

DA+ and DA- are both the interfaces of DALI.

• SwitchDIM (with memory function)---push dimming

SwitchDIM means that you can use two lines to connect L and N to DA+ and DA- respectively, and add a switch in series to either of the two lines to complete the function of ON/OFF and dimming. Short press(<0.6s) can turn on/off the driver, and long press can adjust the dimming level. When several drivers are connected together and controlled by one switch, press the switch for 10s, all the drivers are dimmed to 50% at the same time.

• MCS technology

Connect Smartkey to the driver through MCS(Multifunctional Configuration Settings) ports. With MOONS' Configuarator software, you can set the MAX current of the driver(each step is 1 mA),dimming curve type, the number of DALI address, scene modes etc.Please refer to specification of Smartkey to get specific information.

• Temperature Detection

In order to protect the LED, the temperature of LED is detected by a NTC. When the temperature exceeds the point which can be set by Smartkey, the output current can be decreased automatically, but not less than 25%.

• Constant Output Power

The driver can satisfy the curve of constant output power within a large range of output current and voltage.

• Protection

Thermal Protection

When the temperature of the inside PCB exceeds 110℃ , output current will be decreased to 50%. And it cannot recover until the temperture drops to 70℃ .

Short-circuit Protection

Once the output short-circuits, the output will be cut off automatically. Then the driver will try to restart every 10s.

No-load Protection

The driver operating with no load will not be damaged, and it will try to restart every 10s. So the driver supports hot plugin.

Over-Power Protection

If the total power exceeds 60W, the output current of each channel will decrease to 50%.

• DALI Signal Abnormality

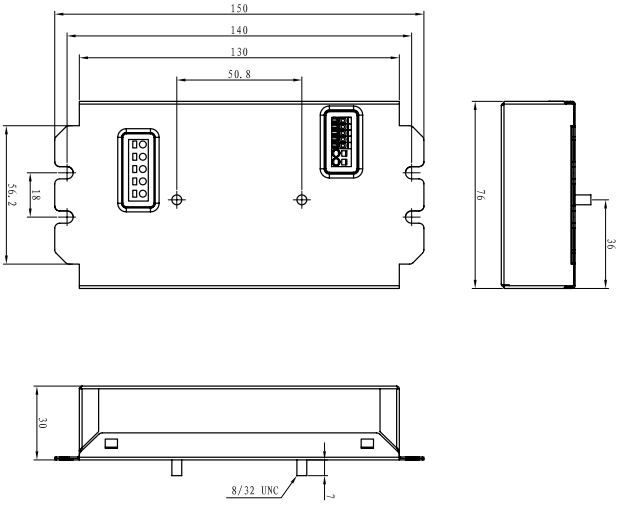
If the signal of DALI is abnormal, including open-circuit and short-circuit, the output will recover to the preset maxium value.

• Online Update

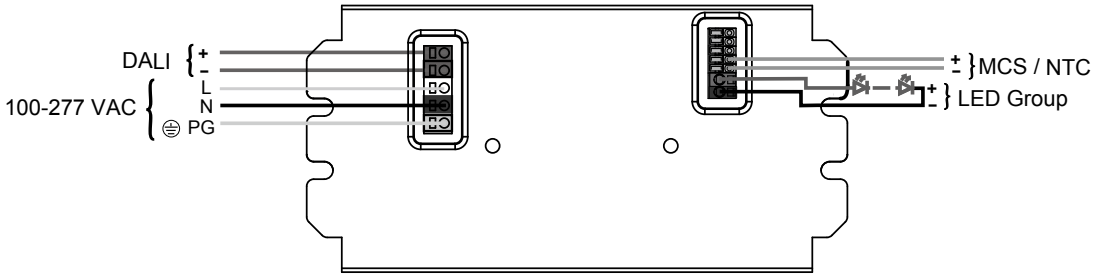
Use smart key to connect PC and the driver to update the firmware.

Please refer to the specification of Smart key.

Mechanical Outline (unit: mm)



Schematic Diagram



50W Intelligent Series - MU050I105DQI81 (DALI DT8, 4chs)

Features

- Compliant with Class 2 Power supply safety standards
- Comply with IEC62386-102(2.0), IEC62386-207 and IEC62386-209
- Constant current LED driver
- Support DALI type 8 RGBW adjustment
- Support DALI type 6 and the number of DALI address configurable (1/2/4 addresses)
- 4 LED channels, output current can be changed from 200mA to 1050mA
- Constant power maximum is 50W
- Normal life time is 50000 hours（at the case's temperature of 72℃）
- Dimming range 0.1%~100%
- Protection compliant with IP20
- 5-year warranty

444 × 30 × 21mm

Electrical Specifications

Input voltage range	100 - 277 V
Frequency	50 / 60 HZ
Input current	<15A
Rated power	50W
Power factor	>0.95（230V,50HZ,full loaded）
Effiency	85 - 87 %（230V,50HZ,full loaded）
Output voltage range	8 - 50 V
Output current range	200-1050mA
Protections	Thermal protection,short-circuit protection,no-load protection,over-power protection

Environmental Specifications

Operating temperature	-25 - 60℃
Storage temperature	-40℃ ~ +85℃
Maximum case temperature	85℃
Cooling method	Convection
Life time	50,000 hours at 50ºC ambient
Reference dimension(LxWxH)	444 × 30 × 21mm

Safety & EMC Compliance

CUL	UL8750, UL1310, CAN/CSA-C22.2 No.223-M91
CE	EN 61347-1, EN61347-2-13
Conducted Emissions	FCC Part15 Class B / EN55015
Radiated Emissions	FCC Part15 Class B / EN55015
Harmonic Current Emissions	EN61000-3-2
Voltage Fluctuations and Flicker	EN61000-3-3
Electrostatic Discharge	EN61000-4-2
RFE Field Susceptibility	EN61000-4-3
Electrical Fast Transient	EN61000-4-4
Conducted Radio Frequency	EN61000-4-6
Power Frequency Magnetic Field Test	EN61000-4-8
Voltage Dips	EN61000-4-11
Electromagnetic Immunity	EN61547

Function Description

- Alternative DALI device type(default type 8).

You can select DALI type 6 or type 8 with Smartkey and DALI Configuarator.

- DALI device type 8 software for tunable white(2500k-6500k).

You can set the CT range(coldest and warmest) with Smartkey and DALI Configuarator.

- DALI device type 6

You can set dual DALI addressable or solo DALI addressable output channels with Smartkey and DALI Configuarator.

- Switch DIM (with memory function)---push dimming

SwitchDIM means that you can use two lines to connect L and N to DA+ and DA- respectively, and add a switch in series to either of the two lines to complete the function of ON/OFF and dimming. Short press(<0.6s) can turn on/off the driver, and long press can adjust the dimming level. When several drivers are connected together and controlled by one switch, press the switch for 10s, all the drivers are dimmed to 50% at the same time.

- MCS technology

Connect Smartkey to the driver through MCS(Multifunctional Configuration Settings) ports. With MOONS' Configuarator software, you can set the MAX current of the driver(each step is 1 mA),dimming curve type, the number of DALI address, scene modes etc.Please refer to specification of Smartkey to get specific information.

- Temperature Detection

In order to protect the LED, the temperature of LED is detected by a NTC. When the temperature exceeds the point which can be set by Smartkey, the output current can be decreased automatically, but not less than 25%.

- Constant Output Power

The driver can satisfy the curve of constant output power within a large range of output current and voltage.

- Protection

Thermal Protection

When the temperature of the inside PCB exceeds 110℃ , output current will be decreased to 50%. And it cannot recover until the temperture drops to 70℃ .

Short-circuit Protection

Once the output short-circuits, the output will be cut off automatically. Then the driver will try to restart every 10s.

No-load Protection

The driver operating with no load will not be damaged, and it will try to restart every 10s. So the driver supports hot plugin.

Over-Power Protection

If the total power of two channels exceeds 60W, the output current of each channel will decrease to 50%.

- DALI Signal Abnormality

If the signal of DALI is abnormal, including open-circuit and short-circuit, the output will recover to the preset maxium value.

- Online Update

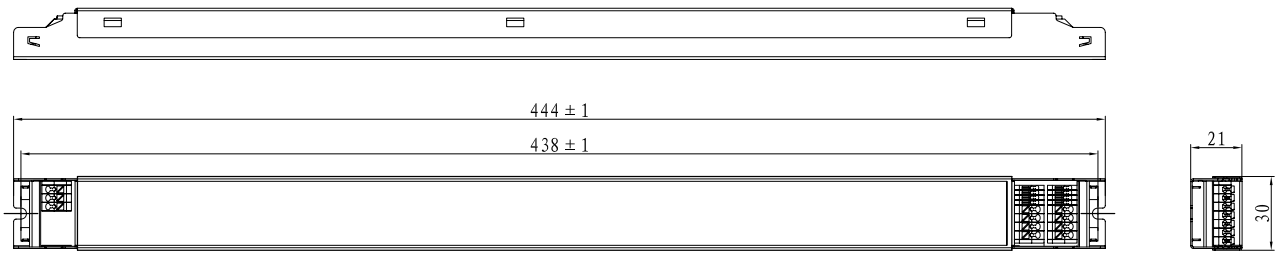
Use smart key to connect PC and the driver to update the firmware.

Please refer to the specification of Smart key.

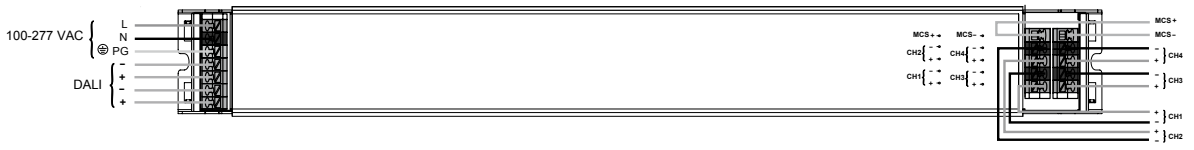
- Daisy-Chain

DALI dimming ports has 2 groups of DA+ and DA-, which support daisy-chain.

Mechanical Outline (unit: mm)



Schematic Diagram



50W Intelligent Series - MU050I150BQI81 (DALI DT8,2chs)

Features

- Comply with Class 2 Power supply safety standards
- Comply with IEC62386-102(2.0), IEC62386-207 and IEC62386-209
- Constant current LED driver
- Support DALI type 8 colour temperature adjustment
- Support DALI type 6 and the number of DALI address configurable (1/2 addresses)
- 2 LED channels, output current can be changed from 200mA to 1500mA
- Constant power maximum is 50W
- Normal life time is 50000 hours（at the case's temperature of 72℃）
- Dimming range 0.1%~100%
- Push Dimming for intensity and colour control.
- Protection comply with IP20
- 5-year warranty

403 × 30 × 21mm

Electrical Specifications

Input voltage range	100 - 277 V
Frequency	50 / 60 HZ
Input current	<15A
Rated power	50W
Power factor	>0.95（230V,50HZ,full loaded）
Effiency	85 - 87 %（230V,50HZ,full loaded）
Output voltage range	8 - 50 V
Output current range	200-1500mA
Protections	Thermal protection,short-circuit protection,no-load protection,over-power protection

Environmental Specifications

Operating temperature	-25 - 60℃
Storage temperature	-40℃ ~ +85℃
Maximum case temperature	85℃
Cooling method	Convection
Life time	50,000 hours at 50°C ambient
Reference dimension(LxWxH)	403 × 30 × 21mm

Safety & EMC Compliance

CUL	UL8750, UL1310, CAN/CSA-C22.2 No.223-M91
CE	EN 61347-1, EN61347-2-13
Conducted Emissions	FCC Part15 Class B / EN55015
Radiated Emissions	FCC Part15 Class B / EN55015
Harmonic Current Emissions	EN61000-3-2
Voltage Fluctuations and Flicker	EN61000-3-3
Electrostatic Discharge	EN61000-4-2
RFE Field Susceptibility	EN61000-4-3
Electrical Fast Transient	EN61000-4-4
Conducted Radio Frequency	EN61000-4-6
Power Frequency Magnetic Field Test	EN61000-4-8
Voltage Dips	EN61000-4-11
Electromagnetic Immunity	EN61547

Function Description

- Alternative DALI device type(default type 8).

You can select DALI type 6 or type 8 with Smartkey and DALI Configuarator.

- DALI device type 8 software for tunable white(2500k-6500k).

You can set the CT range(coldest and warmest) with Smartkey and DALI Configuarator.

- DALI device type 6

You can set dual DALI addressable or solo DALI addressable output channels with Smartkey and DALI Configuarator.

- Switch DIM (with memory function)---push dimming

SwitchDIM means that you can use two lines to connect L and N to DA+ and DA- respectively, and add a switch in series to either of the two lines to complete the function of ON/OFF and dimming. Short press(<0.6s) can turn on/off the driver, and long press can adjust the dimming level. When several drivers are connected together and controlled by one switch, press the switch for 10s, all the drivers are dimmed to 50% at the same time.

- Color DIM(Switch-Control for the colour temperature)---push dimming

The control of Colour temperature is initiated with a press and hold of the light level up to the maximum, holding it at maximum level. After a holding period of 6 seconds on full intensity the driver starts to change the colour temperature of the white light.

- MCS technology

Connect Smartkey to the driver through MCS(Multifunctional Configuration Settings) ports. With MOONS' Configuarator software, you can set the MAX current of the driver(each step is 1 mA),dimming curve type, the number of DALI address, scene modes etc.Please refer to specification of Smartkey to get specific information.

- Temperature Detection

In order to protect the LED, the temperature of LED is detected by a NTC. When the temperature exceeds the point which can be set by Smartkey, the output current can be decreased automatically, but not less than 25%.

- Constant Output Power

The driver can satisfy the curve of constant output power within a large range of output current and voltage.

- Protection

Thermal Protection

When the temperature of the inside PCB exceeds 110℃ , output current will be decreased to 50%. And it cannot recover until the temperture drops to 70℃ .

Short-circuit Protection

Once the output short-circuits, the output will be cut off automatically. Then the driver will try to restart every 10s.

No-load Protection

The driver operating with no load will not be damaged, and it will try to restart every 10s. So the driver supports hot plugin.

Over-Power Protection

If the total power of two channels exceeds 60W, the output current of each channel will decrease to 50%.

- DALI Signal Abnormality

If the signal of DALI is abnormal, including open-circuit and short-circuit, the output will recover to the preset maxium value.

- Online Update

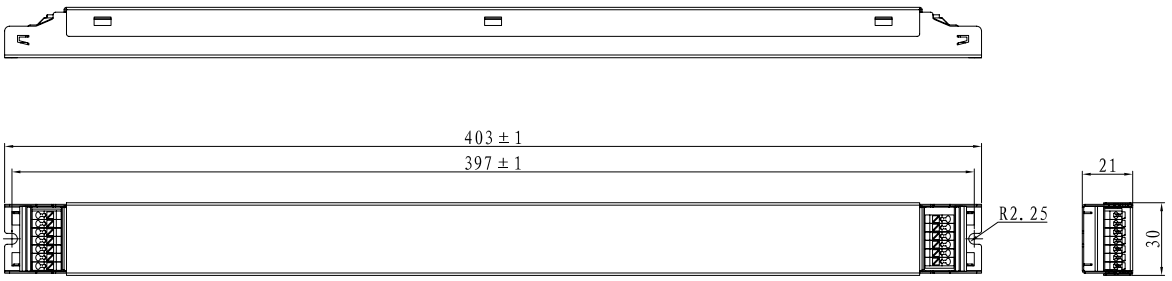
Use smart key to connect PC and the driver to update the firmware.

Please refer to the specification of Smart key.

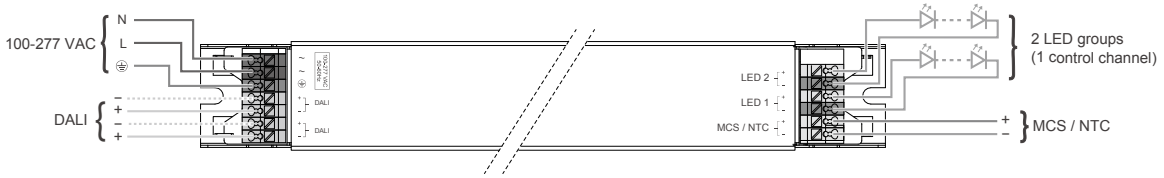
- Daisy-Chain

DALI dimming ports has 2 groups of DA+ and DA-, which support daisy-chain.

Mechanical Outline (unit: mm)



Schematic Diagram



50W Intelligent Series - MU050I150BQI21 (DALI, 2chs)

Features

- Compliant with Class 2 Power supply safety standards
- Constant current LED driver
- Default DALI type 6, 2 addresses
- 2 LED channels, output current can be changed from 200mA to 1500mA
- Constant power maximum is 50W
- Normal life time is 50000 hours（at the case's temperature of 72℃）
- Dimming range 0.1%~100%
- Protection compliant with IP20
- 5-year warranty

403 × 30 × 21mm

Electrical Specifications

Input voltage range	100 - 277 V
Frequency	50 / 60 HZ
Input current	<15A
Rated power	50W
Power factor	>0.95（230V,50HZ,full loaded）
Effiency	85 - 87 %（230V,50HZ,full loaded）
Output voltage range	8 - 50 V
Output current range	200-1500mA
Protections	Thermal protection,short-circuit protection,no-load protection,over-power protection

Environmental Specifications

Operating temperature	-25 - 60℃
Storage temperature	-40℃ ~ +85℃
Maximum case temperature	85℃
Cooling method	Convection
Life time	50,000 hours at 50ºC ambient
Reference dimension(LxWxH)	403 × 30 × 21mm

Safety & EMC Compliance

CUL	UL8750, UL1310, CAN/CSA-C22.2 No.223-M91
CE	EN 61347-1, EN61347-2-13
Conducted Emissions	FCC Part15 Class B / EN55015
Radiated Emissions	FCC Part15 Class B / EN55015
Harmonic Current Emissions	EN61000-3-2
Voltage Fluctuations and Flicker	EN61000-3-3
Electrostatic Discharge	EN61000-4-2
RFE Field Susceptibility	EN61000-4-3
Electrical Fast Transient	EN61000-4-4
Conducted Radio Frequency	EN61000-4-6
Power Frequency Magnetic Field Test	EN61000-4-8
Voltage Dips	EN61000-4-11
Electromagnetic Immunity	EN61547

Function Description

• DALI type 6

DA+ and DA- are both the interfaces of DALI.You can set dual DALI addressable or solo DALI addressable output channels with Smartkey and DALI Configuarator.

• SwitchDIM (with memory function)---push dimming

SwitchDIM means that you can use two lines to connect L and N to DA+ and DA- respectively, and add a switch in series to either of the two lines to complete the function of ON/OFF and dimming. Short press(<0.6s) can turn on/off the driver, and long press can adjust the dimming level. When several drivers are connected together and controlled by one switch, press the switch for 10s, all the drivers are dimmed to 50% at the same time.

• MCS technology

Connect Smartkey to the driver through MCS(Multifunctional Configuration Settings) ports. With MOONS' Configuarator software, you can set the MAX current of the driver(each step is 1 mA),dimming curve type, the number of DALI address, scene modes etc.Please refer to specification of Smartkey to get specific information.

• Temperature Detection

In order to protect the LED, the temperature of LED is detected by a NTC. When the temperature exceeds the point which can be set by Smartkey, the output current can be decreased automatically, but not less than 25%.

• Constant Output Power

The driver can satisfy the curve of constant output power within a large range of output current and voltage.

• Protection

Thermal Protection

When the temperature of the inside PCB exceeds 110℃ , output current will be decreased to 50%. And it cannot recover until the temperture drops to 70℃ .

Short-circuit Protection

Once the output short-circuits, the output will be cut off automatically. Then the driver will try to restart every 10s.

No-load Protection

The driver operating with no load will not be damaged, and it will try to restart every 10s. So the driver supports hot plugin.

Over-Power Protection

If the total power of two channels exceeds 60W, the output current of each channel will decrease to 50%.

• DALI Signal Abnormality

If the signal of DALI is abnormal, including open-circuit and short-circuit, the output will recover to the preset maxium value.

• Online Update

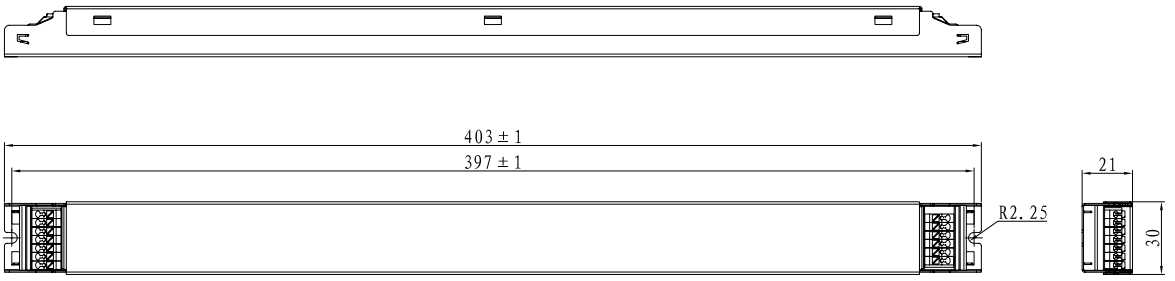
Use smart key to connect PC and the driver to update the firmware.

Please refer to the specification of Smart key.

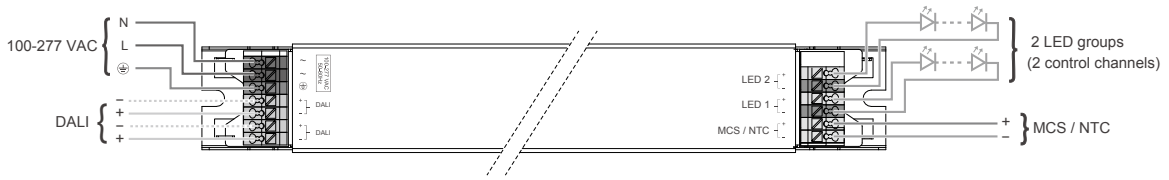
• Daisy-Chain

DALI dimming ports has 2 groups of DA+ and DA-, which support daisy-chain.

Mechanical Outline (unit: mm)



Schematic Diagram



50W Intelligent Series - MU050I180AQI31 (DALI,1ch ,Aux Output)

Features

- Compliant with Class 2 Power supply safety standards
- Constant current LED driver
- Support DALI type 6
- 1 LED channel, output current can be changed from 200mA to 1800mA
- Auxiliary Output Voltage 12V,MAX Output Current 150mA
- Constant power maximum is 50W
- Normal life time is 50000 hours（at the case's temperature of 72℃）
- Dimming range 0.1%~100%
- Protection compliant with IP20
- 5-year warranty

403 × 30 × 21mm

Electrical Specifications

Input voltage range	100 - 277 V
Frequency	50 / 60 HZ
Input current	<15A
Rated power	50W
Power factor	>0.95（230V,50HZ,full loaded）
Effiency	85 - 87 %（230V,50HZ,full loaded）
Output voltage range	8 - 50 V
Output current range	200-1800mA
Protections	Thermal protection,short-circuit protection,no-load protection,over-power protection

Environmental Specifications

Operating temperature	-25 - 60℃
Storage temperature	-40℃ ~ +85℃
Maximum case temperature	85℃
Cooling method	Convection
Life time	50,000 hours at 50ºC ambient
Reference dimension(LxWxH)	403 × 30 × 21mm

Safety & EMC Compliance

CUL	UL8750, UL1310, CAN/CSA-C22.2 No.223-M91
CE	EN 61347-1, EN61347-2-13
Conducted Emissions	FCC Part15 Class B / EN55015
Radiated Emissions	FCC Part15 Class B / EN55015
Harmonic Current Emissions	EN61000-3-2
Voltage Fluctuations and Flicker	EN61000-3-3
Electrostatic Discharge	EN61000-4-2
RFE Field Susceptibility	EN61000-4-3
Electrical Fast Transient	EN61000-4-4
Conducted Radio Frequency	EN61000-4-6
Power Frequency Magnetic Field Test	EN61000-4-8
Voltage Dips	EN61000-4-11
Electromagnetic Immunity	EN61547

Function Description

• DALI type 6

DA+ and DA- are both the interfaces of DALI.

• SwitchDIM (with memory function)---push dimming

SwitchDIM means that you can use two lines to connect L and N to DA+ and DA- respectively, and add a switch in series to either of the two lines to complete the function of ON/OFF and dimming. Short press(<0.6s) can turn on/off the driver, and long press can adjust the dimming level. When several drivers are connected together and controlled by one switch, press the switch for 10s, all the drivers are dimmed to 50% at the same time.

• MCS technology

Connect Smartkey to the driver through MCS(Multifunctional Configuration Settings) ports. With MOONS' Configuarator software, you can set the MAX current of the driver(each step is 1 mA),dimming curve type, the number of DALI address, scene modes etc.Please refer to specification of Smartkey to get specific information.

• Temperature Detection

In order to protect the LED, the temperature of LED is detected by a NTC. When the temperature exceeds the point which can be set by Smartkey, the output current can be decreased automatically, but not less than 25%.

• Constant Output Power

The driver can satisfy the curve of constant output power within a large range of output current and voltage.

• Protection

Thermal Protection

When the temperature of the inside PCB exceeds 110℃ , output current will be decreased to 50%. And it cannot recover until the temperture drops to 70℃ .

Short-circuit Protection

Once the output short-circuits, the output will be cut off automatically. Then the driver will try to restart every 10s.

No-load Protection

The driver operating with no load will not be damaged, and it will try to restart every 10s. So the driver supports hot plugin.

Over-Power Protection

If the total power of two channels exceeds 60W, the output current of each channel will decrease to 50%.

• DALI Signal Abnormality

If the signal of DALI is abnormal, including open-circuit and short-circuit, the output will recover to the preset maxium value.

• Online Update

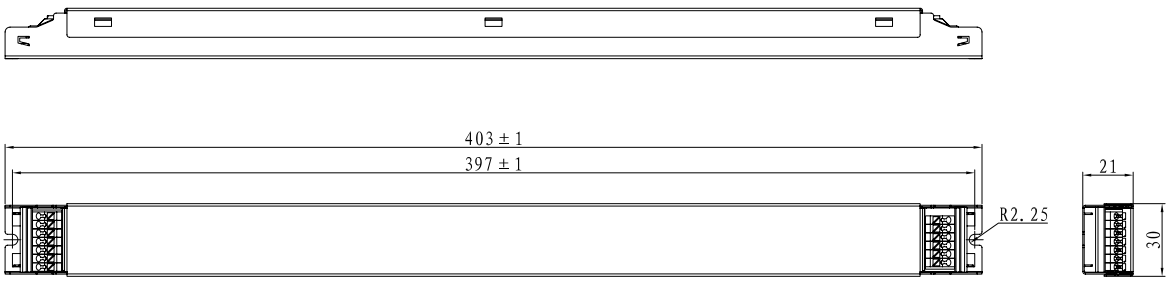
Use smart key to connect PC and the driver to update the firmware.

Please refer to the specification of Smart key.

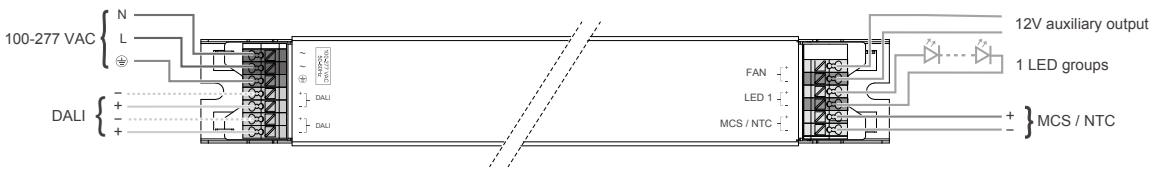
• Daisy-Chain

DALI dimming ports has 2 groups of DA+ and DA-, which support daisy-chain.

Mechanical Outline (unit: mm)



Schematic Diagram



50W Intelligent Series - MU050I180AQI21 (DALI , 1ch)

Features

- Compliant with Class 2 Power supply safety standards
- Constant current LED driver
- Support DALI type 6
- 1 LED channel, output current can be changed from 200mA to 1800mA
- Constant power maximum is 50W
- Normal life time is 50000 hours（at the case's temperature of 72℃）
- Dimming range 0.1%~100%
- Protection compliant with IP20
- 5-year warranty

403 × 30 × 21mm

Electrical Specifications

Input voltage range	100 - 277 V
Frequency	50 / 60 HZ
Input current	<15A
Rated power	50W
Power factor	>0.95（230V,50HZ,full loaded）
Effiency	85 - 87 %（230V,50HZ,full loaded）
Output voltage range	8 - 50 V
Output current range	200-1800mA
Protections	Thermal protection,short-circuit protection,no-load protection,over-power protection

Environmental Specifications

Operating temperature	-25 - 60℃
Storage temperature	-40℃ ~ +85℃
Maximum case temperature	85℃
Cooling method	Convection
Life time	50,000 hours at 50ºC ambient
Reference dimension(LxWxH)	403 × 30 × 21mm

Safety & EMC Compliance

CUL	UL8750, UL1310, CAN/CSA-C22.2 No.223-M91
CE	EN 61347-1, EN61347-2-13
Conducted Emissions	FCC Part15 Class B / EN55015
Radiated Emissions	FCC Part15 Class B / EN55015
Harmonic Current Emissions	EN61000-3-2
Voltage Fluctuations and Flicker	EN61000-3-3
Electrostatic Discharge	EN61000-4-2
RFE Field Susceptibility	EN61000-4-3
Electrical Fast Transient	EN61000-4-4
Conducted Radio Frequency	EN61000-4-6
Power Frequency Magnetic Field Test	EN61000-4-8
Voltage Dips	EN61000-4-11
Electromagnetic Immunity	EN61547

Function Description

• DALI type 6

DA+ and DA- are both the interfaces of DALI.

• SwitchDIM (with memory function)---push dimming

SwitchDIM means that you can use two lines to connect L and N to DA+ and DA- respectively, and add a switch in series to either of the two lines to complete the function of ON/OFF and dimming. Short press(<0.6s) can turn on/off the driver, and long press can adjust the dimming level. When several drivers are connected together and controlled by one switch, press the switch for 10s, all the drivers are dimmed to 50% at the same time.

• MCS technology

Connect Smartkey to the driver through MCS(Multifunctional Configuration Settings) ports. With MOONS' Configuarator software, you can set the MAX current of the driver(each step is 1 mA),dimming curve type, the number of DALI address, scene modes etc.Please refer to specification of Smartkey to get specific information.

• Temperature Detection

In order to protect the LED, the temperature of LED is detected by a NTC. When the temperature exceeds the point which can be set by Smartkey, the output current can be decreased automatically, but not less than 25%.

• Constant Output Power

The driver can satisfy the curve of constant output power within a large range of output current and voltage.

• Protection

Thermal Protection

When the temperature of the inside PCB exceeds 110℃ , output current will be decreased to 50%. And it cannot recover until the temperture drops to 70℃ .

Short-circuit Protection

Once the output short-circuits, the output will be cut off automatically. Then the driver will try to restart every 10s.

No-load Protection

The driver operating with no load will not be damaged, and it will try to restart every 10s. So the driver supports hot plugin.

Over-Power Protection

If the total power exceeds 60W, the output current of each channel will decrease to 50%.

• DALI Signal Abnormality

If the signal of DALI is abnormal, including open-circuit and short-circuit, the output will recover to the preset maxium value.

• Online Update

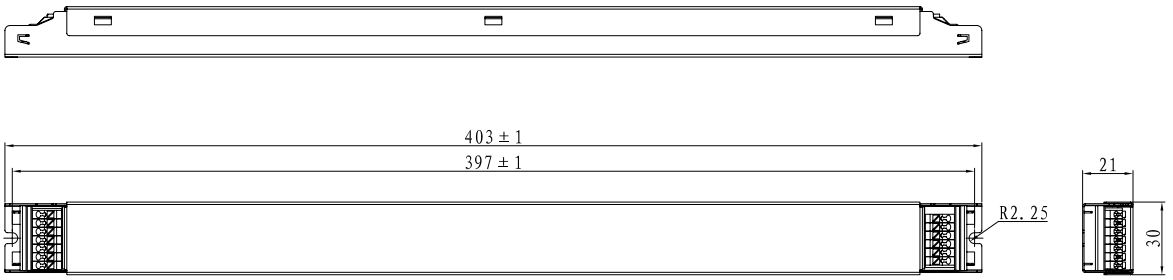
Use smart key to connect PC and the driver to update the firmware.

Please refer to the specification of Smart key.

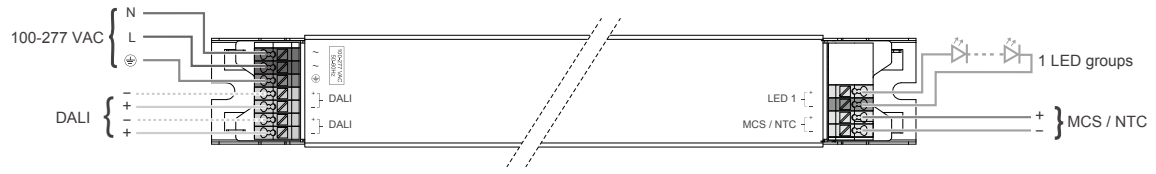
• Daisy-Chain

DALI dimming ports has 2 groups of DA+ and DA-, which support daisy-chain.

Mechanical Outline (unit: mm)



Schematic Diagram



50W Intelligent Series - MU050I150BQI1 (0-10V, 2chs)

Features

- Compliant with Class 2 Power supply safety standards
- Constant current LED driver
- Support isolated 0-10V dimming
- 2 LED channels, output current can be changed from 200mA to 1500mA
- Constant power maximum is 50W
- Normal life time is 50000 hours（at the case's temperature of 72℃）
- Dimming range 0.1%~100%
- Protection compliant with IP20
- 5-year warranty

130 × 76 × 30mm

Electrical Specifications

Input voltage range	100 - 277 V
Frequency	50 / 60 HZ
Input current	<15A
Rated power	50W
Power factor	>0.95（230V,50HZ,full loaded）
Effiency	88 - 90 %（230V,50HZ,full loaded）
Output voltage range	8 - 50 V
Output current range	200-1500mA
Protections	Thermal protection,short-circuit protection,no-load protection,over-power protection

Environmental Specifications

Operating temperature	-25℃ - +49℃
Storage temperature	-40℃ - +85℃
Maximum case temperature	84℃
Cooling method	Convection
Life time	50,000 hours at tc 72℃ ambient
Reference dimension(LxWxH)	130 × 76 × 30 mm

Safety & EMC Compliance

CUL	UL8750, UL1310, CAN/CSA-C22.2 No.223-M91
CE	EN 61347-1, EN61347-2-13
Conducted Emissions	FCC Part15 Class B / EN55015
Radiated Emissions	FCC Part15 Class B / EN55015
Harmonic Current Emissions	EN61000-3-2
Voltage Fluctuations and Flicker	EN61000-3-3
Electrostatic Discharge	EN61000-4-2
RFE Field Susceptibility	EN61000-4-3
Electrical Fast Transient	EN61000-4-4
Conducted Radio Frequency	EN61000-4-6
Power Frequency Magnetic Field Test	EN61000-4-8
Voltage Dips	EN61000-4-11
Electromagnetic Immunity	EN61547

Function Description

• MCS technology

Connect Smartkey to the driver through MCS(Multifunctional Configuration Settings) ports. With MOONS' Configuarator software, you can set the MAX current of the driver(each step is 1 mA),dimming curve type, etc.
Please refer to specification of Smartkey to get specific information.

• Temperature Detection

In order to protect the LED, the temperature of LED is detected by a NTC. When the temperature exceeds the point which can be set by Smartkey, the output current can be decreased automatically, but not less than 25%.

• Constant Output Power

The driver can satisfy the curve of constant output power within a large range of output current and voltage.

• Protection

Thermal Protection

When the temperature of the inside PCB exceeds 110℃ , output current will be decreased to 50%. And it cannot recover until the temperture drops to 70℃ .

Short-circuit Protection

Once the output short-circuits, the output will be cut off automatically. Then the driver will try to restart every 10s.

No-load Protection

The driver operating with no load will not be damaged, and it will try to restart every 10s. So the driver supports hot plugin.

Over-Power Protection

If the total power of two channels exceeds 60W, the output current of each channel will decrease to 50%.

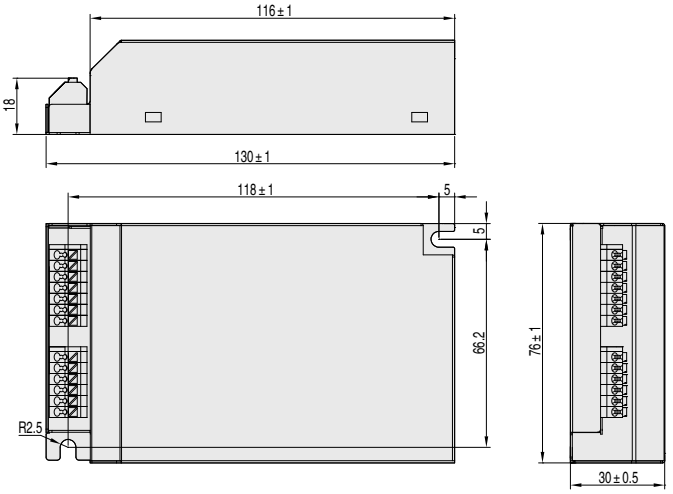
• Online Update

Use smart key to connect PC and the driver to update the firmware.
Please refer to the specification of Smart key.

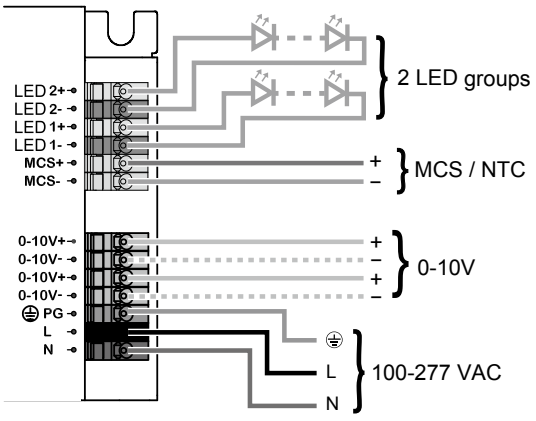
• Daisy-Chain

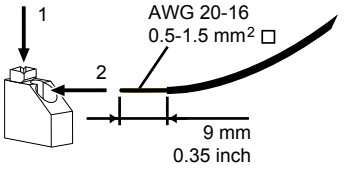
0-10V dimming ports has 2 groups of 0-10V+ and 0-10V-, which support daisy-chain.

Mechanical Outline (unit: mm)



Schematic Diagram





Solid or stranded copper wires only.

50W Intelligent Series - MU050I180AQI4 (0-10V, 1ch,Aux Output)

Features

- Compliant with Class 2 Power supply safety standards
- Constant current LED driver
- Support isolated 0-10V dimming
- 1 LED channel, output current can be changed from 200mA to 1800mA
- Auxiliary Output Voltage 12V,MAX Output Current 150mA
- Constant power maximum is 50W
- Normal life time is 50000 hours（at the case's temperature of 72℃）
- Dimming range 0.1%~100%
- Protection compliant with IP20
- 5-year warranty

130 × 76 × 30mm

Electrical Specifications

Input voltage range	100 - 277 V
Frequency	50 / 60 HZ
Input current	<15A
Rated power	50W
Power factor	>0.95（230V,50HZ,full loaded）
Effiency	88 - 90 %（230V,50HZ,full loaded）
Output voltage range	8 - 50 V
Output current range	200-1800mA
Protections	Thermal protection,short-circuit protection,no-load protection,over-power protection

Environmental Specifications

Operating temperature	-25℃ - +49℃
Storage temperature	-40℃ - +85℃
Maximum case temperature	84℃
Cooling method	Convection
Life time	50,000 hours at tc 72℃ ambient
Reference dimension(LxWxH)	130 × 76 × 30 mm

Safety & EMC Compliance

CUL	UL8750, UL1310, CAN/CSA-C22.2 No.223-M91
CE	EN 61347-1, EN61347-2-13
Conducted Emissions	FCC Part15 Class B / EN55015
Radiated Emissions	FCC Part15 Class B / EN55015
Harmonic Current Emissions	EN61000-3-2
Voltage Fluctuations and Flicker	EN61000-3-3
Electrostatic Discharge	EN61000-4-2
RFE Field Susceptibility	EN61000-4-3
Electrical Fast Transient	EN61000-4-4
Conducted Radio Frequency	EN61000-4-6
Power Frequency Magnetic Field Test	EN61000-4-8
Voltage Dips	EN61000-4-11
Electromagnetic Immunity	EN61547

Function Description

• MCS technology

Connect Smartkey to the driver through MCS(Multifunctional Configuration Settings) ports. With MOONS' Configuarator software, you can set the MAX current of the driver(each step is 1 mA),dimming curve type, etc.
Please refer to specification of Smartkey to get specific information.

• Temperature Detection

In order to protect the LED, the temperature of LED is detected by a NTC. When the temperature exceeds the point which can be set by Smartkey, the output current can be decreased automatically, but not less than 25%.

• Constant Output Power

The driver can satisfy the curve of constant output power within a large range of output current and voltage.

• Protection

Thermal Protection

When the temperature of the inside PCB exceeds 110℃ , output current will be decreased to 50%. And it cannot recover until the temperture drops to 70℃ .

Short-circuit Protection

Once the output short-circuits, the output will be cut off automatically. Then the driver will try to restart every 10s.

No-load Protection

The driver operating with no load will not be damaged, and it will try to restart every 10s. So the driver supports hot plugin.

Over-Power Protection

If the total power exceeds 60W, the output current of each channel will decrease to 50%.

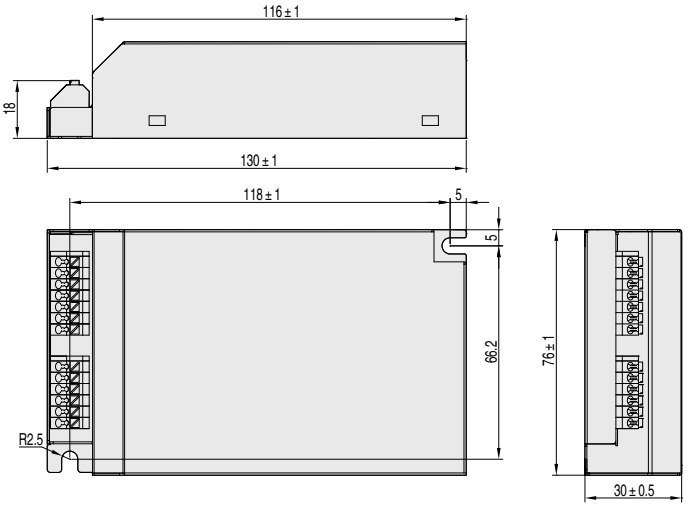
• Online Update

Use smart key to connect PC and the driver to update the firmware.
Please refer to the specification of Smart key.

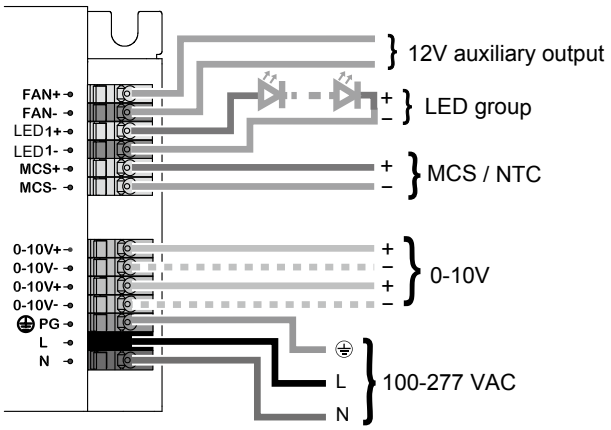
• Daisy-Chain

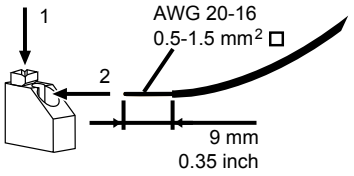
0-10V dimming ports has 2 groups of 0-10V+ and 0-10V-, which support daisy-chain.

Mechanical Outline (unit: mm)



Schematic Diagram





Solid or stranded copper wires only.

50W Intelligent Series - MU050I180AQI1 (0-10V, 1ch)

Features

- Compliant with Class 2 Power supply safety standards
- Constant current LED driver
- Support isolated 0-10V dimming
- 1 LED channel, output current can be changed from 200mA to 1800mA
- Constant power maximum is 50W
- Normal life time is 50000 hours（at the case's temperature of 72℃）
- Dimming range 0.1%~100%
- Protection compliant with IP20
- 5-year warranty

130 × 76 × 30mm

Electrical Specifications

Input voltage range	100 - 277 V
Frequency	50 / 60 HZ
Input current	<15A
Rated power	50W
Power factor	>0.95（230V,50HZ,full loaded）
Effiency	88 - 90 %（230V,50HZ,full loaded）
Output voltage range	8 - 50 V
Output current range	200-1800mA
Protections	Thermal protection,short-circuit protection,no-load protection,over-power protection

Environmental Specifications

Operating temperature	-25℃ - +49℃
Storage temperature	-40℃ - +85℃
Maximum case temperature	84℃
Cooling method	Convection
Life time	50,000 hours at tc 72℃ ambient
Reference dimension(LxWxH)	130 × 76 × 30 mm

Safety & EMC Compliance

CUL	UL8750, UL1310, CAN/CSA-C22.2 No.223-M91
CE	EN 61347-1, EN61347-2-13
Conducted Emissions	FCC Part15 Class B / EN55015
Radiated Emissions	FCC Part15 Class B / EN55015
Harmonic Current Emissions	EN61000-3-2
Voltage Fluctuations and Flicker	EN61000-3-3
Electrostatic Discharge	EN61000-4-2
RFE Field Susceptibility	EN61000-4-3
Electrical Fast Transient	EN61000-4-4
Conducted Radio Frequency	EN61000-4-6
Power Frequency Magnetic Field Test	EN61000-4-8
Voltage Dips	EN61000-4-11
Electromagnetic Immunity	EN61547

Function Description

• MCS technology

Connect Smartkey to the driver through MCS(Multifunctional Configuration Settings) ports. With MOONS' Configuarator software, you can set the MAX current of the driver(each step is 1 mA),dimming curve type, etc.
Please refer to specification of Smartkey to get specific information.

• Temperature Detection

In order to protect the LED, the temperature of LED is detected by a NTC. When the temperature exceeds the point which can be set by Smartkey, the output current can be decreased automatically, but not less than 25%.

• Constant Output Power

The driver can satisfy the curve of constant output power within a large range of output current and voltage.

• Protection

Thermal Protection

When the temperature of the inside PCB exceeds 110℃ , output current will be decreased to 50%. And it cannot recover until the temperture drops to 70℃ .

Short-circuit Protection

Once the output short-circuits, the output will be cut off automatically. Then the driver will try to restart every 10s.

No-load Protection

The driver operating with no load will not be damaged, and it will try to restart every 10s. So the driver supports hot plugin.

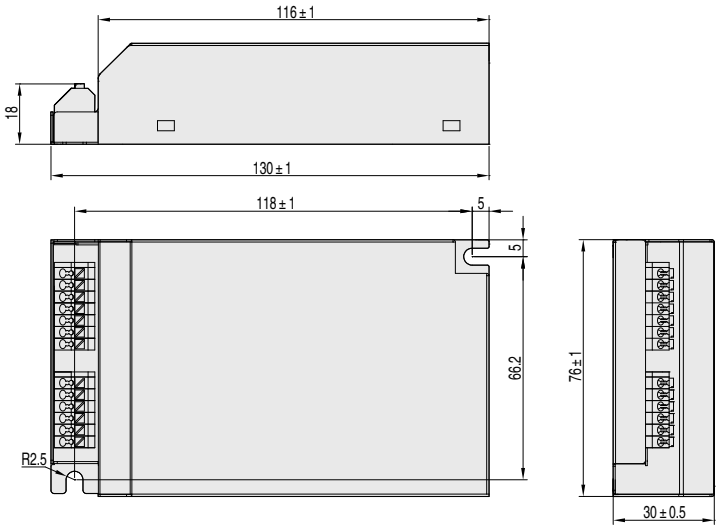
Over-Power Protection

If the total power exceeds 60W, the output current of each channel will decrease to 50%.
Use smart key to connect PC and the driver to update the firmware.
Please refer to the specification of Smart key.

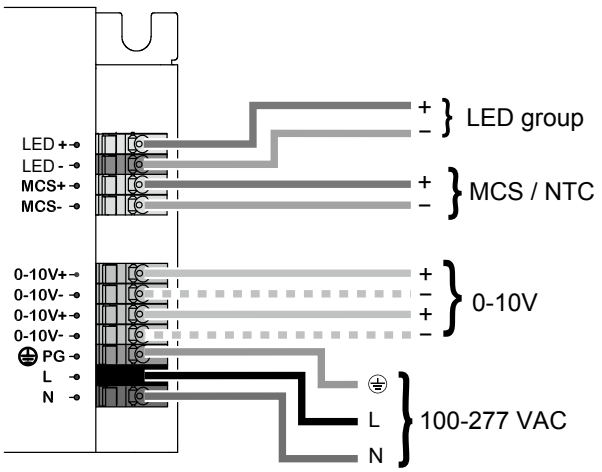
• Daisy-Chain

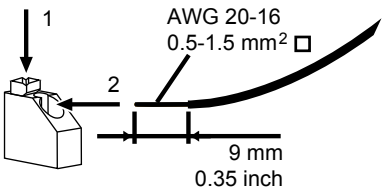
0-10V dimming ports has 2 groups of 0-10V+ and 0-10V-, which support daisy-chain.

Mechanical Outline (unit: mm)



Schematic Diagram





Solid or stranded copper wires only.

50W Intelligent Series - MU050I180AQI12 (0-10V, 1ch)

Features

- Compliant with Class 2 Power supply safety standards
- Constant current LED driver
- Support isolated 0-10V dimming
- 1 LED channel, output current can be changed from 200mA to 1800mA
- Constant power maximum is 50W
- Normal life time is 50000 hours（at the case's temperature of 78℃）
- Dimming range 0.1%~100%
- Protection compliant with IP20
- 5-year warranty

130 × 76 × 30mm

Electrical Specifications

Input voltage range	100 - 277 V
Frequency	50 / 60 HZ
Input current	<15A
Rated power	50W
Power factor	>0.95（230V,50HZ,full loaded）
Effiency	88 - 90 %（230V,50HZ,full loaded）
Output voltage range	8 - 50 V
Output current range	200-1800mA
Protections	Thermal protection,short-circuit protection,no-load protection,over-power protection

Environmental Specifications

Operating temperature	-25 - 58℃
Storage temperature	-40℃ ~ +85℃
Maximum case temperature	85℃
Cooling method	Convection
Life time	50,000 hours at tc 78℃ ambient
Reference dimension(LxWxH)	126 × 76 × 30 mm

Safety & EMC Compliance

CUL	UL8750, UL1310, CAN/CSA-C22.2 No.223-M91
CE	EN 61347-1, EN61347-2-13
Conducted Emissions	FCC Part15 Class B / EN55015
Radiated Emissions	FCC Part15 Class B / EN55015
Harmonic Current Emissions	EN61000-3-2
Voltage Fluctuations and Flicker	EN61000-3-3
Electrostatic Discharge	EN61000-4-2
RFE Field Susceptibility	EN61000-4-3
Electrical Fast Transient	EN61000-4-4
Conducted Radio Frequency	EN61000-4-6
Power Frequency Magnetic Field Test	EN61000-4-8
Voltage Dips	EN61000-4-11
Electromagnetic Immunity	EN61547

Function Description

• MCS technology

Connect Smartkey to the driver through MCS(Multifunctional Configuration Settings) ports. With MOONS' Configuarator software, you can set the MAX current of the driver(each step is 1 mA),dimming curve type, etc.
Please refer to specification of Smartkey to get specific information.

• Temperature Detection

In order to protect the LED, the temperature of LED is detected by a NTC. When the temperature exceeds the point which can be set by Smartkey, the output current can be decreased automatically, but not less than 25%.

• Constant Output Power

The driver can satisfy the curve of constant output power within a large range of output current and voltage.

• Protection

Thermal Protection

When the temperature of the inside PCB exceeds 110℃ , output current will be decreased to 50%. And it cannot recover until the temperture drops to 70℃ .

Short-circuit Protection

Once the output short-circuits, the output will be cut off automatically. Then the driver will try to restart every 10s.

No-load Protection

The driver operating with no load will not be damaged, and it will try to restart every 10s. So the driver supports hot plugin.

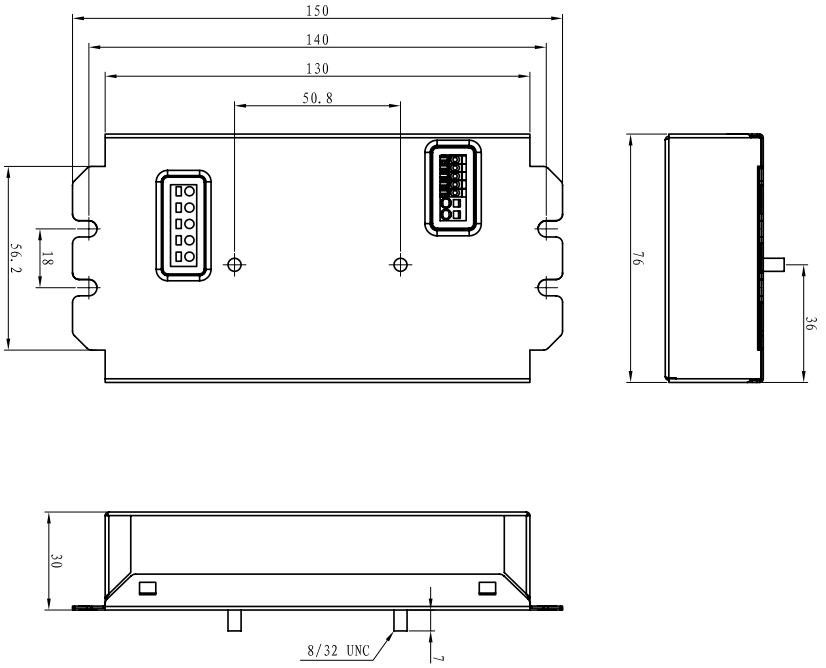
Over-Power Protection

If the total power of two channels exceeds 60W, the output current of each channel will decrease to 50%.

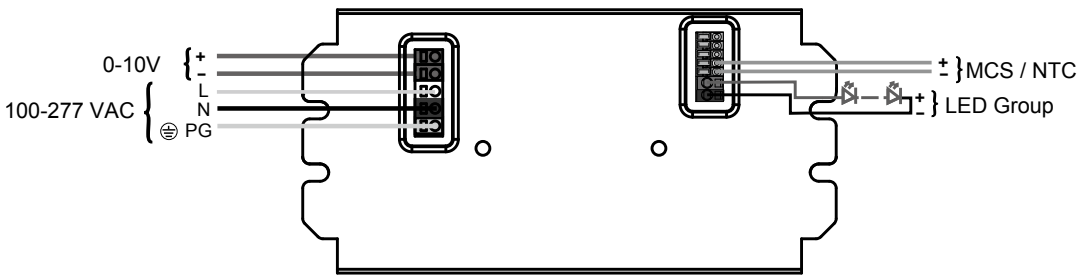
• Online Update

Use smart key to connect PC and the driver to update the firmware.
Please refer to the specification of Smart key.

Mechanical Outline (unit: mm)



Schematic Diagram



50W Intelligent Series - MU050I150BQI11 (0-10V, 2chs)

Features

- Compliant with Class 2 Power supply safety standards
- Constant current LED driver
- Support isolated 0-10V dimming
- 2 LED channels, output current can be changed from 200mA to 1500mA
- Constant power maximum is 50W
- Normal life time is 50000 hours（at the case's temperature of 72℃）
- Dimming range 0.1%~100%
- Protection compliant with IP20
- 5-year warranty

403 × 30 × 21mm

Electrical Specifications

Input voltage range	100 - 277 V
Frequency	50 / 60 HZ
Input current	<15A
Rated power	50W
Power factor	>0.95（230V,50HZ,full loaded）
Effiency	85 - 87 %（230V,50HZ,full loaded）
Output voltage range	8 - 50 V
Output current range	200-1500mA
Protections	Thermal protection,short-circuit protection,no-load protection,over-power protection

Environmental Specifications

Operating temperature	-25 - 60℃
Storage temperature	-40℃ ~ +85℃
Maximum case temperature	85℃
Cooling method	Convection
Life time	50,000 hours at 50°C ambient
Reference dimension(LxWxH)	403 × 30 × 21mm

Safety & EMC Compliance

CUL	UL8750, UL1310, CAN/CSA-C22.2 No.223-M91
CE	EN 61347-1, EN61347-2-13
Conducted Emissions	FCC Part15 Class B / EN55015
Radiated Emissions	FCC Part15 Class B / EN55015
Harmonic Current Emissions	EN61000-3-2
Voltage Fluctuations and Flicker	EN61000-3-3
Electrostatic Discharge	EN61000-4-2
RFE Field Susceptibility	EN61000-4-3
Electrical Fast Transient	EN61000-4-4
Conducted Radio Frequency	EN61000-4-6
Power Frequency Magnetic Field Test	EN61000-4-8
Voltage Dips	EN61000-4-11
Electromagnetic Immunity	EN61547

Function Description

• MCS technology

Connect Smartkey to the driver through MCS(Multifunctional Configuration Settings) ports. With MOONS' Configuarator software, you can set the MAX current of the driver(each step is 1 mA),dimming curve type, etc.
Please refer to specification of Smartkey to get specific information.

• Temperature Detection

In order to protect the LED, the temperature of LED is detected by a NTC. When the temperature exceeds the point which can be set by Smartkey, the output current can be decreased automatically, but not less than 25%.

• Constant Output Power

The driver can satisfy the curve of constant output power within a large range of output current and voltage.

• Protection

Thermal Protection

When the temperature of the inside PCB exceeds 110℃ , output current will be decreased to 50%. And it cannot recover until the temperture drops to 70℃ .

Short-circuit Protection

Once the output short-circuits, the output will be cut off automatically. Then the driver will try to restart every 10s.

No-load Protection

The driver operating with no load will not be damaged, and it will try to restart every 10s. So the driver supports hot plugin.

Over-Power Protection

If the total power of two channels exceeds 60W, the output current of each channel will decrease to 50%.

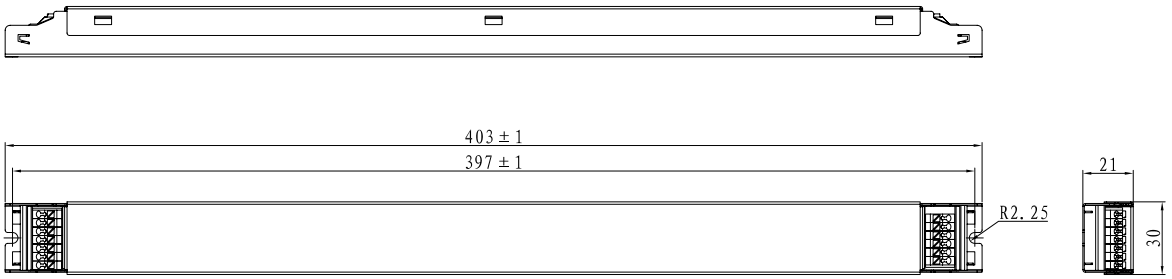
• Online Update

Use smart key to connect PC and the driver to update the firmware.
Please refer to the specification of Smart key.

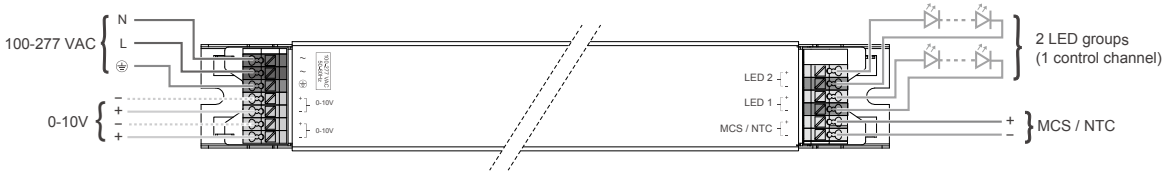
• Daisy-Chain

0-10V dimming ports has 2 groups of 0-10V+ and 0-10V-, which support daisy-chain.

Mechanical Outline (unit: mm)



Schematic Diagram



50W Intelligent Series - MU050I180AQI41 (0-10V, 1ch,Aux Output)

Features

- Compliant with Class 2 Power supply safety standards
- Constant current LED driver
- Support isolated 0-10V dimming
- 1 LED channel, output current can be changed from 200mA to 1800mA
- Auxiliary Output Voltage 12V,MAX Output Current 150mA
- Constant power maximum is 50W
- Normal life time is 50000 hours（at the case's temperature of 72℃）
- Dimming range 0.1%~100%
- Protection compliant with IP20
- 5-year warranty

403 × 30 × 21mm

Electrical Specifications

Input voltage range	100 - 277 V
Frequency	50 / 60 HZ
Input current	<15A
Rated power	50W
Power factor	>0.95（230V,50HZ,full loaded）
Effiency	85 - 87 %（230V,50HZ,full loaded）
Output voltage range	8 - 50 V
Output current range	200-1800mA
Protections	Thermal protection,short-circuit protection,no-load protection,over-power protection

Environmental Specifications

Operating temperature	-25 - 60℃
Storage temperature	-40℃ ~ +85℃
Maximum case temperature	85℃
Cooling method	Convection
Life time	50,000 hours at 50ºC ambient
Reference dimension(LxWxH)	403 × 30 × 21mm

Safety & EMC Compliance

CUL	UL8750, UL1310, CAN/CSA-C22.2 No.223-M91
CE	EN 61347-1, EN61347-2-13
Conducted Emissions	FCC Part15 Class B / EN55015
Radiated Emissions	FCC Part15 Class B / EN55015
Harmonic Current Emissions	EN61000-3-2
Voltage Fluctuations and Flicker	EN61000-3-3
Electrostatic Discharge	EN61000-4-2
RFE Field Susceptibility	EN61000-4-3
Electrical Fast Transient	EN61000-4-4
Conducted Radio Frequency	EN61000-4-6
Power Frequency Magnetic Field Test	EN61000-4-8
Voltage Dips	EN61000-4-11
Electromagnetic Immunity	EN61547

Function Description

• MCS technology

Connect Smartkey to the driver through MCS(Multifunctional Configuration Settings) ports. With MOONS' Configuarator software, you can set the MAX current of the driver(each step is 1 mA),dimming curve type, etc.
Please refer to specification of Smartkey to get specific information.

• Temperature Detection

In order to protect the LED, the temperature of LED is detected by a NTC. When the temperature exceeds the point which can be set by Smartkey, the output current can be decreased automatically, but not less than 25%.

• Constant Output Power

The driver can satisfy the curve of constant output power within a large range of output current and voltage.

• Protection

Thermal Protection
When the temperature of the inside PCB exceeds 110℃ , output current will be decreased to 50%. And it cannot recover until the temperture drops to 70℃ .
Short-circuit Protection
Once the output short-circuits, the output will be cut off automatically. Then the driver will try to restart every 10s.
No-load Protection
The driver operating with no load will not be damaged, and it will try to restart every 10s. So the driver supports hot plugin.
Over-Power Protection
If the total power exceeds 60W, the output current of each channel will decrease to 50%.

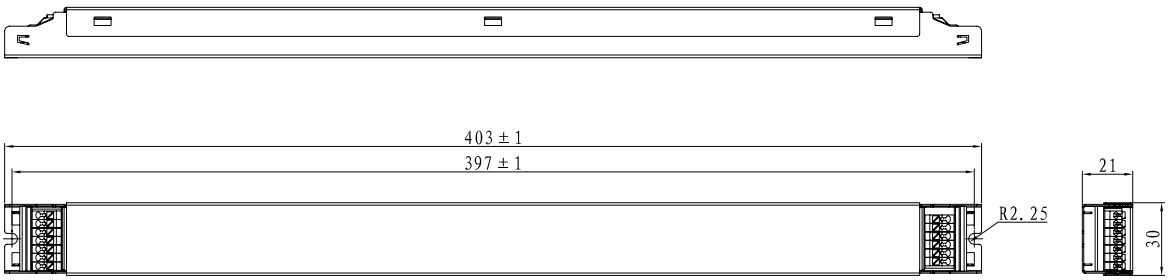
• Online Update

Use smart key to connect PC and the driver to update the firmware.
Please refer to the specification of Smart key.

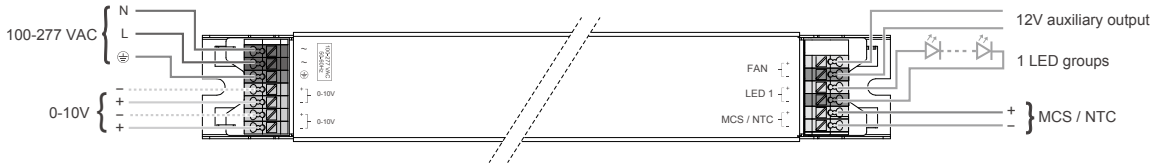
• Daisy-Chain

0-10V dimming ports has 2 groups of 0-10V+ and 0-10V-, which support daisy-chain.

Mechanical Outline (unit: mm)



Schematic Diagram



50W Intelligent Series - MU050I180AQI11 (0-10V, 1ch)

Features

- Compliant with Class 2 Power supply safety standards
- Constant current LED driver
- Support isolated 0-10V dimming
- 1 LED channel, output current can be changed from 200mA to 1800mA
- Constant power maximum is 50W
- Normal life time is 50000 hours（at the case's temperature of 72℃）
- Dimming range 0.1%~100%
- Protection compliant with IP20
- 5-year warranty

403 × 30 × 21mm

Electrical Specifications

Input voltage range	100 - 277 V
Frequency	50 / 60 HZ
Input current	<15A
Rated power	50W
Power factor	>0.95（230V,50HZ,full loaded）
Effiency	85 - 87 %（230V,50HZ,full loaded）
Output voltage range	8 - 50 V
Output current range	200-1800mA
Protections	Thermal protection,short-circuit protection,no-load protection,over-power protection

Environmental Specifications

Operating temperature	-25 - 60℃
Storage temperature	-40℃ ~ +85℃
Maximum case temperature	85℃
Cooling method	Convection
Life time	50,000 hours at 50°C ambient
Reference dimension(LxWxH)	403 × 30 × 21mm

Safety & EMC Compliance

CUL	UL8750, UL1310, CAN/CSA-C22.2 No.223-M91
CE	EN 61347-1, EN61347-2-13
Conducted Emissions	FCC Part15 Class B / EN55015
Radiated Emissions	FCC Part15Class B / EN55015
Harmonic Current Emissions	EN61000-3-2
Voltage Fluctuations and Flicker	EN61000-3-3
Electrostatic Discharge	EN61000-4-2
RFE Field Susceptibility	EN61000-4-3
Electrical Fast Transient	EN61000-4-4
Conducted Radio Frequency	EN61000-4-6
Power Frequency Magnetic Field Test	EN61000-4-8
Voltage Dips	EN61000-4-11
Electromagnetic Immunity	EN61547

Function Description

• MCS technology

Connect Smartkey to the driver through MCS(Multifunctional Configuration Settings) ports. With MOONS' Configuarator software, you can set the MAX current of the driver(each step is 1 mA),dimming curve type, etc.

Please refer to specification of Smartkey to get specific information.

• Temperature Detection

In order to protect the LED, the temperature of LED is detected by a NTC. When the temperature exceeds the point which can be set by Smartkey, the output current can be decreased automatically, but not less than 25%.

• Constant Output Power

The driver can satisfy the curve of constant output power within a large range of output current and voltage.

• Protection

Thermal Protection

When the temperature of the inside PCB exceeds 110℃ , output current will be decreased to 50%. And it cannot recover until the temperture drops to 70℃ .

Short-circuit Protection

Once the output short-circuits, the output will be cut off automatically. Then the driver will try to restart every 10s.

No-load Protection

The driver operating with no load will not be damaged, and it will try to restart every 10s. So the driver supports hot plugin.

Over-Power Protection

If the total power exceeds 60W, the output current of each channel will decrease to 50%.

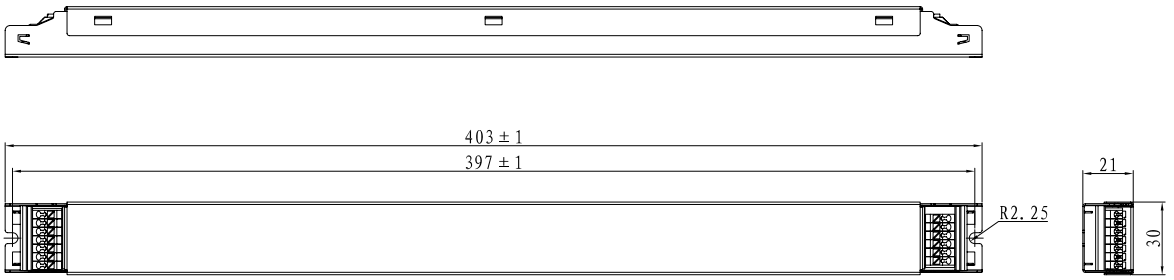
Use smart key to connect PC and the driver to update the firmware.

Please refer to the specification of Smart key.

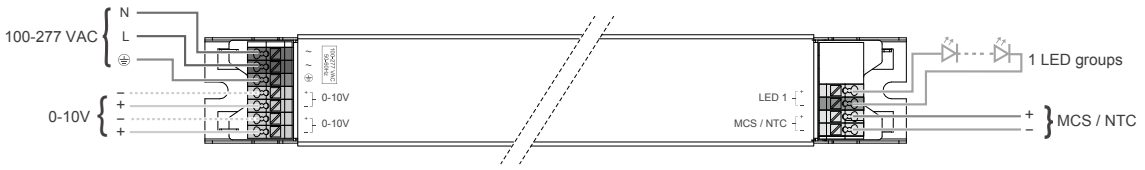
• Daisy-Chain

0-10V dimming ports has 2 groups of 0-10V+ and 0-10V-, which support daisy-chain.

Mechanical Outline (unit: mm)



Schematic Diagram



50W Intelligent Series - MU050I180AQI52 (DMX, 1ch)

Features

- Compliant with Class 2 Power supply safety standards
- Constant current LED driver
- Support DMX/RDM dimming
- 1 LED channel, output current can be changed from 200mA to 1800mA
- Constant power maximum is 50W
- Normal life time is 50000 hours（at the case's temperature of 78℃）
- Dimming range 0.1%~100%
- Protection compliant with IP20
- 5-year warranty

130 × 76 × 30mm

Electrical Specifications

Input voltage range	100 - 277 V
Frequency	50 / 60 HZ
Input current	<15A
Rated power	50W
Power factor	>0.95（230V,50HZ,full loaded）
Effiency	88 - 90 %（230V,50HZ,full loaded）
Output voltage range	8 - 50 V
Output current range	200-1800mA
Protections	Thermal protection,short-circuit protection,no-load protection,over-power protection

Environmental Specifications

Operating temperature	-25 - 58℃
Storage temperature	-40℃ ~ +85℃
Maximum case temperature	85℃
Cooling method	Convection
Life time	50,000 hours at tc 78℃ ambient
Reference dimension(LxWxH)	126 × 76 × 30 mm

Safety & EMC Compliance

CUL	UL8750, UL1310, CAN/CSA-C22.2 No.223-M91
CE	EN 61347-1, EN61347-2-13
Conducted Emissions	FCC Part15 Class B / EN55015
Radiated Emissions	FCC Part15 Class B / EN55015
Harmonic Current Emissions	EN61000-3-2
Voltage Fluctuations and Flicker	EN61000-3-3
Electrostatic Discharge	EN61000-4-2
RFE Field Susceptibility	EN61000-4-3
Electrical Fast Transient	EN61000-4-4
Conducted Radio Frequency	EN61000-4-6
Power Frequency Magnetic Field Test	EN61000-4-8
Voltage Dips	EN61000-4-11
Electromagnetic Immunity	EN61547

Function Description

• DMX/RDM

DMX+ 、 DMX-、Shield are the interfaces of DMX/RDM.

• MCS technology

Connect Smartkey to the driver through MCS(Multifunctional Configuration Settings) ports. With MOONS' Configuarator software, you can set the MAX current of the driver(each step is 1 mA),dimming curve type, the number of DMX address, scene modes etc.Please refer to specification of Smartkey to get specific information.

• Temperature Detection

In order to protect the LED, the temperature of LED is detected by a NTC. When the temperature exceeds the point which can be set by Smartkey, the output current can be decreased automatically, but not less than 25%.

• Constant Output Power

The driver can satisfy the curve of constant output power within a large range of output current and voltage.

• Protection

Thermal Protection

When the temperature of the inside PCB exceeds 110℃ , output current will be decreased to 50%. And it cannot recover until the temperture drops to 70℃ .

Short-circuit Protection

Once the output short-circuits, the output will be cut off automatically. Then the driver will try to restart every 10s.

No-load Protection

The driver operating with no load will not be damaged, and it will try to restart every 10s. So the driver supports hot plugin.

Over-Power Protection

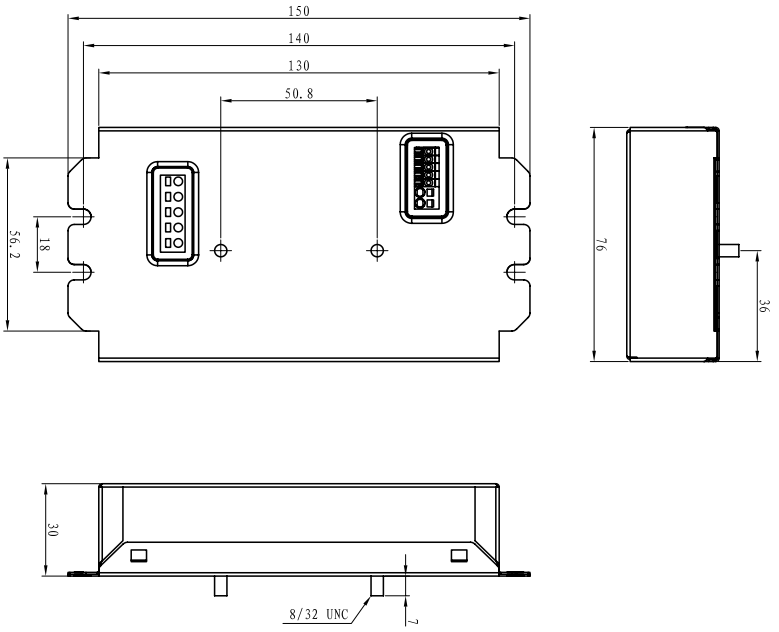
If the total power exceeds 60W, the output current of each channel will decrease to 50%.

• Online Update

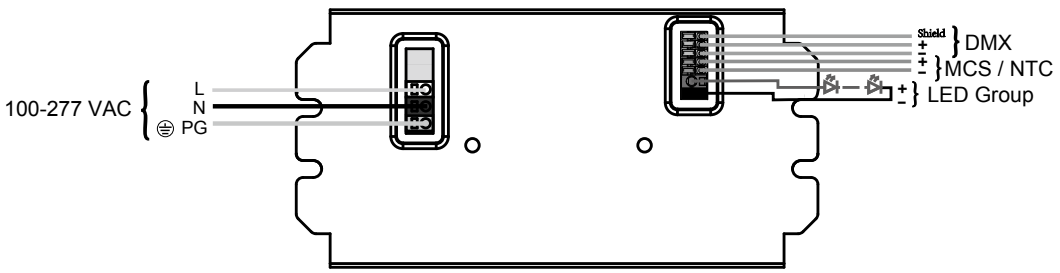
Connect Smartkey to PC through a USB port, then connect Smartkey to the driver correctly to update.

Please refer to the specification of Smartkey.

Mechanical Outline (unit: mm)



Schematic Diagram



96W Intelligent Series - MU096I200AQI22（DALI,1ch）

Features

- Compliant with Class 2 Power supply safety standards
- Constant current LED driver
- Support DALI type 6
- 1 LED channel, output current can be changed from 200mA to 2000mA
- Constant power maximum is 96W
- Normal life time is 50000 hours（at the case's temperature of 70℃）
- Dimming range 0.1%~100%
- Protection compliant with IP20
- 5-year warranty

178.8 × 83.4 × 31.6 mm

Electrical Specifications

Input Voltage Range	100~277 VAC
Frequency Range	47~63 Hz
Input current	1.2A MAX at 100VAC
Rated power	96W
Power factor	>0.9% at 230V,50HZ,full load
Efficiency	85%(typical) at 230V,50HZ,full load
Output volatge range	36~48VDC
Output current	2000mA
Protections	Thermal Protection,Short-circuit Protection,No-load Protection,Over-Power Protection

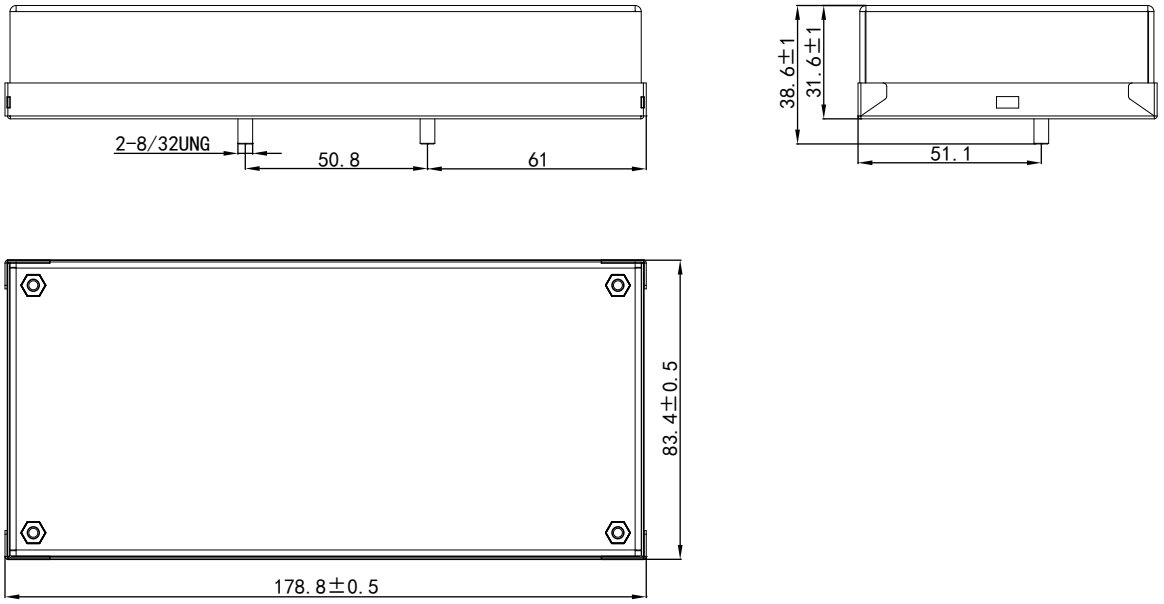
Environmental Specifications

Operating temperature	-25 ~+50℃
Storage temperature	-40 ~+85℃
Cooling method	Convection
Maximum case temperature	85℃
Life Time	50000 hours（at the case's temperature of 70℃）
Reference dimension	178.8 × 83.4 × 31.6 (mm)（LxWxH）

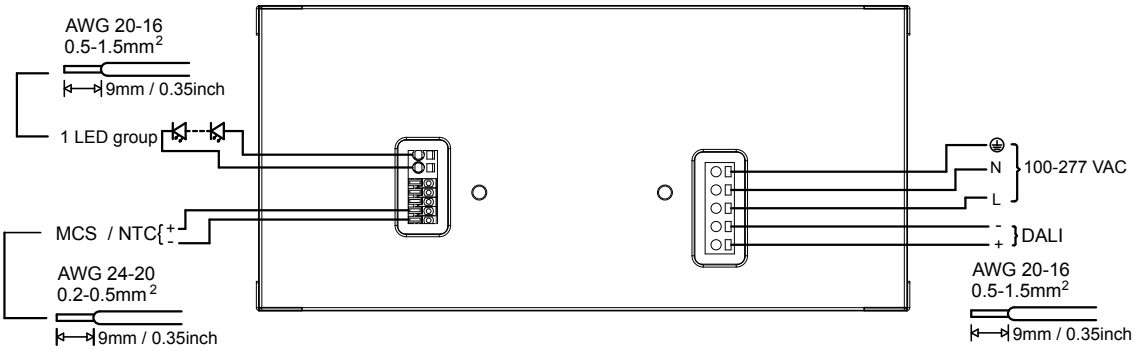
Safety & EMC Compliance

CUL	UL8750,UL1310
Withstand Voltage	I/P-O/P : 3.75KVAC , I/P-FG : 1.875KVAC, O/P-FG :0.5KVAC
CE	EN61347-1,EN61347-2-13
Conducted emissions	EN55015,FCC Part 15ClassB
Radiated emissions	EN55015,FCC Part 15ClassB
Harmonic current emission	IEC62386-101/102/207
Electromagnetic immunity	EN61000-3-3;EN61000-4-2,3,4,5,6,8,11;EN61547

Mechanical Specification (mm)



Schematic Diagram



96W Intelligent Series - MU096I200AQI52（DMX/RDM,1ch）

Features

- Compliant with Class 2 Power supply safety standards
- Constant current LED driver
- Support DMX/RDM dimming
- 1 LED channel, output current can be changed from 200mA to 2000mA
- Constant power maximum is 96W
- Normal life time is 50000 hours（at the case's temperature of 70℃）
- Dimming range 0.1%~100%
- Protection compliant with IP20
- 5-year warranty

178.8 × 83.4 × 31.6 mm

Electrical Specifications

Input Voltage Range	100~277 VAC
Frequency Range	47~63 Hz
Input current	1.2A MAX at 100VAC
Rated power	96W
Power factor	>0.9 at 230V,50HZ,full load
Efficiency	85%(typical) at 230V,50HZ,full load
Output volatge range	36~48VDC
Output current	2000mA
Protections	Thermal Protection,Short-circuit Protection,No-load Protection,Over-Power Protection

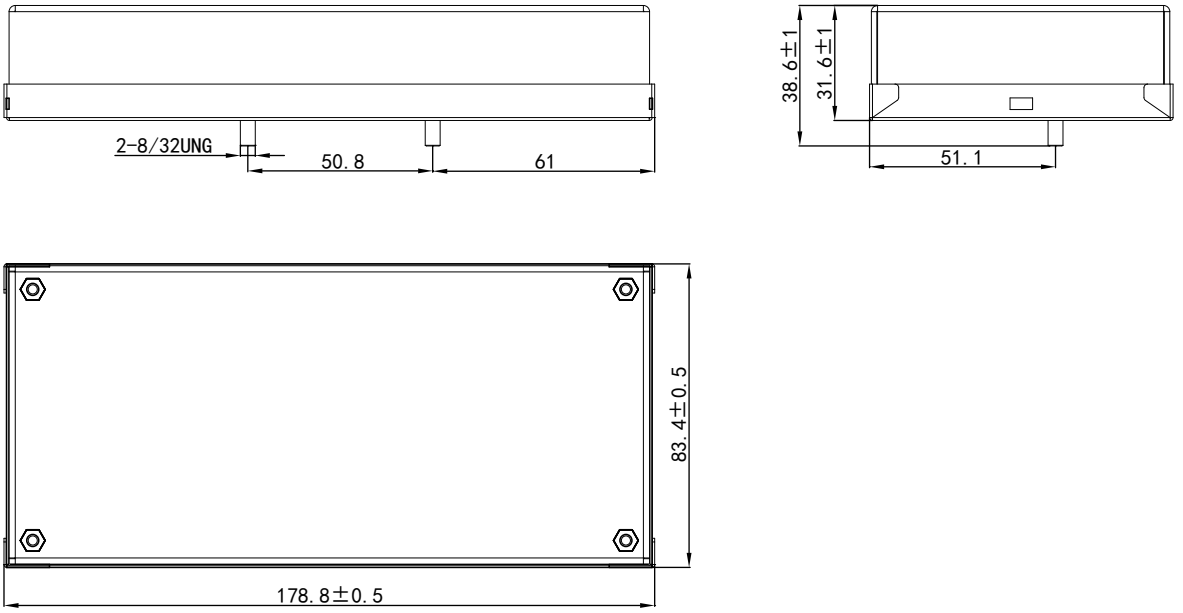
Environmental Specifications

Operating temperature	-25 ~+50℃
Storage temperature	-40 ~+85℃
Cooling method	Convection
Maximum case temperature	85℃
Life Time	50000 hours（at the case's temperature of 70℃）
Reference dimension	178.8 × 83.4 × 31.6 (mm)（LxWxH）

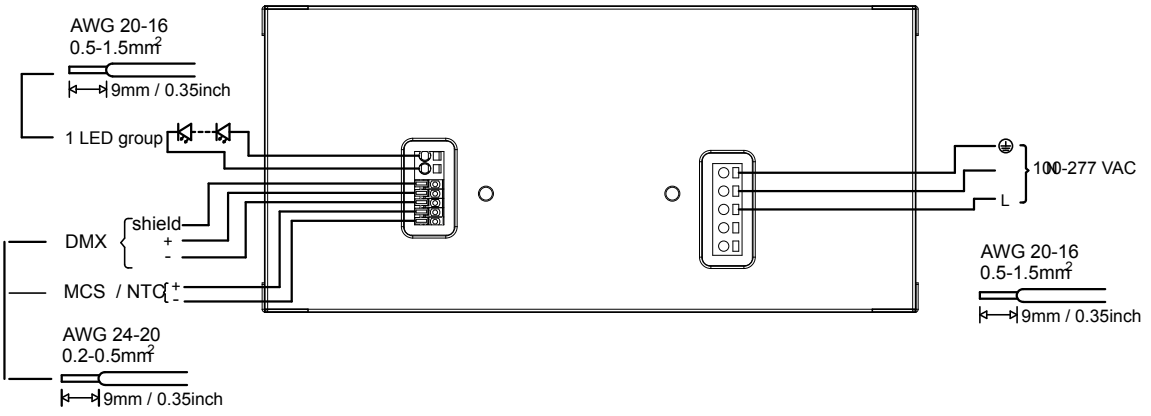
Safety & EMC Compliance

CUL	UL8750,UL1310
Withstand Voltage	I/P-O/P : 3.75KVAC , I/P-FG : 1.875KVAC, O/P-FG :0.5KVAC
CE	EN61347-1,EN61347-2-13
Conducted emissions	EN55015,FCC Part 15ClassB
Radiated emissions	EN55015,FCC Part 15ClassB
Harmonic current emission	IEC62386-101/102/207
Electromagnetic immunity	EN61000-3-3;EN61000-4-2,3,4,5,6,8,11;EN61547

Mechanical Specification (mm)



Schematic Diagram



Intelligent Other Series - MU096I024AP(DALI,1ch)

Features

- Input voltage: 90-305Vac.
- High efficiency: 88% typical
- Active PFC: 0.99 typical
- 5%-100%, continuously adjustable
- Built-in DALI capability, 1ch
- Surge protection
- IP20 compliant
- Protections: OVP, SCP, OTP
- Safety compliant: UL8750,UL1310,CSA-C22.2 No.107.1, IEC61347-1, IEC61347-2-13
- EMI: FCC Part 15 Class B,EN55015 Class B
- 5-year warranty

300 × 61.8 × 30.5mm

Electrical Specifications

Input voltage range	90~305 VAC
Frequency	47~63 Hz
Power factor	0.99 at 110VAC 0.95 at 220VAC (typical)
Inrush current	65 A Max (25° C, at 220 VAC, cold start)
Input current	1.2A Max at 110VAC 0.6A Max at 220VAC
Efficiency	88% (typical) at 220VAC maximum load
Maximum power	96W
Line regulation	±1%
Load regulation	±3%
Leakage current	0.75mA Max
Protections	Over Voltage, Short Circuit, Over Temperature

Environment Specifications

Operating temperature	-40° C~ +50° C
Storage temperature	-40° C~ +85° C
Maximum case temp	90° C
Humidity	10% ~ 95%
Cooling method	Convection
Isolation voltage	I/P-O/P 3750 VAC, I/P-FG 1875 VAC, O/P-FG 500 VAC
MTBF	300,000 hours full load at 25ºC ambient
Life time	50,000 hours at 40ºC ambient
Reference dimension (L*W*H)	300*61.8*30.5 (mm)

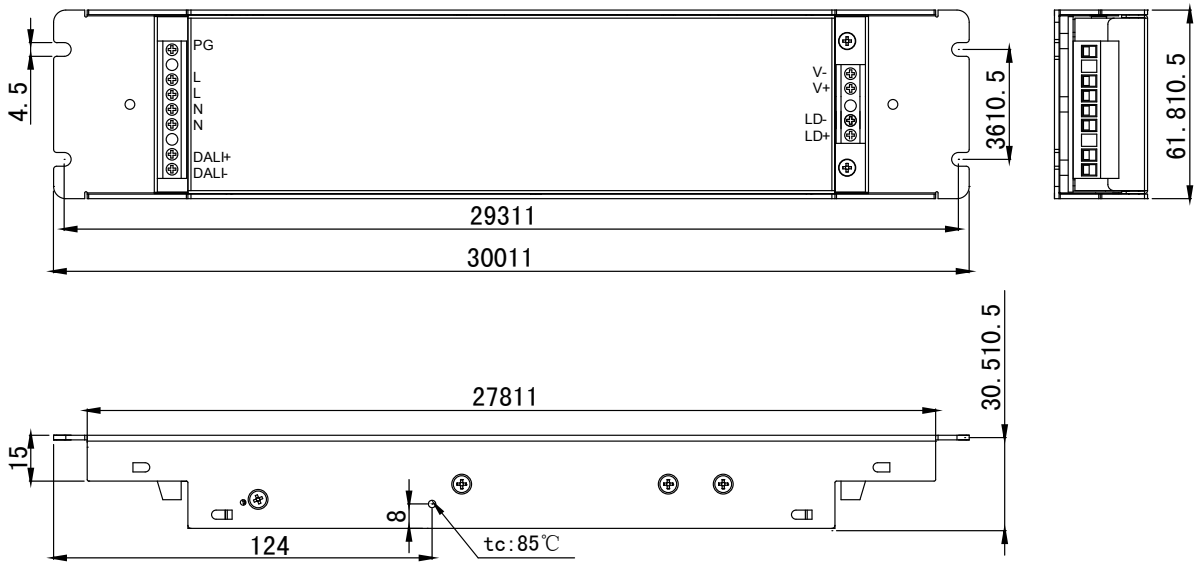
Safety & EMC Compliance

CUL	UL8750, UL1310, CSA-C22.2 No.107.1
CE	EN61347-1, EN61347-2-13
Conducted emissions	FCC Part15 Class B / EN55015
Radiated emissions	FCC Part15 Class B / EN55015
Harmonic current emissions	EN61000-3-2
Voltage fluctuations and flicker	EN61000-3-3
Electrostatic discharge	EN61000-4-2
RFE field susceptibility	EN61000-4-3
Electrical fast transient	EN61000-4-4
Surge immunity test	EN61000-4-5
Conducted radio frequency	EN61000-4-6
Power frequency magnetic field test	EN61000-4-8
Voltage dips	EN61000-4-11
Electromagnetic immunity	EN61547

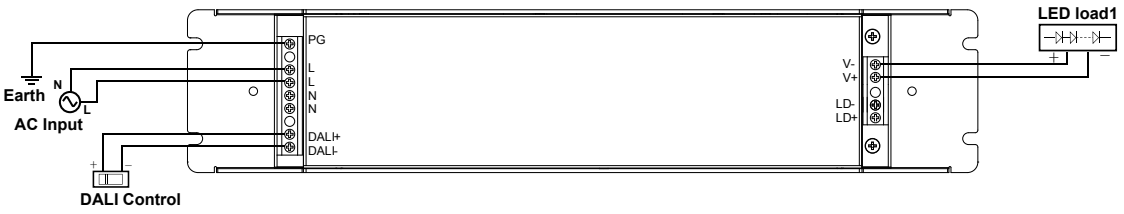
Model Specifications - Constant Voltage

Part Nmuber	Output Current	Output Voltage	Voltage Accuracy	Efficiency (typical)	
				110Vac	220Vac
MU096I024AP_DALI	0-4000mA	24VDC	±3%	86%	88%

Mechanical Outline (unit: mm)



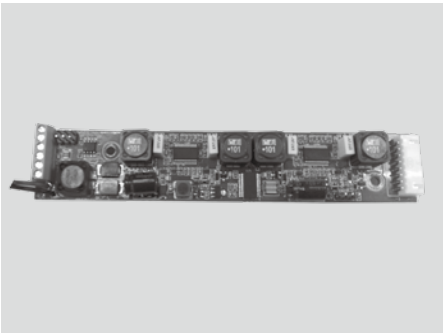
Schematic Diagram



Intelligent Other Series - DMX/RDM DC-DC Module (4chs output)

Features

- Compliant with American National Standard E1.11 – 2004（USITT DMX512-A）
- Compliant with E1.20 - 20xx and ANSI E1.37-1 – 2012
- Dimming range 0.1%~100%
- 4 LED channels, output current can be changed from 200mA to 700mA
- Input voltage: 20~60VDC
- High efficiency: 95% Typ.
- Full protection function: OPP, OTP, OVP,SCP
- Support daisy-chain,built-in ten scene modes
- 5-year warranty



28x150x17 mm

Electrical Specifications

Input Voltage Range	20 ~ 60 VDC (6V<Vin-Vo<20V)
Maximum Input current	2A
Efficiency	97%(typical), 95%(minimum) at Vin=55VDC and 100%load
Output Voltage	8-48VDC
Output Current	200~700mA
Output channel	4 channels
Total Output Power	50W
Maximum power per channel	34W
Operating Mode	Continuous operating
Starting Time	0.1s
Protection	Over Power Protection,Over Temperature Protection,Over Voltage Protection,Short Circuit Protection
Communication	DMX/RDM

Environmental Specifications

Working temperature	Ta: -35 ~+50℃, Tc: Max. 75℃
Working humidity	90% RH
Life time	more than 50,000 hours, 50℃ ambient temperature
MTBF	more than 300,000 hours, measured at full load, 25℃ ambient temperature
Dimension	28 x 150 x17mm（LxWxH）

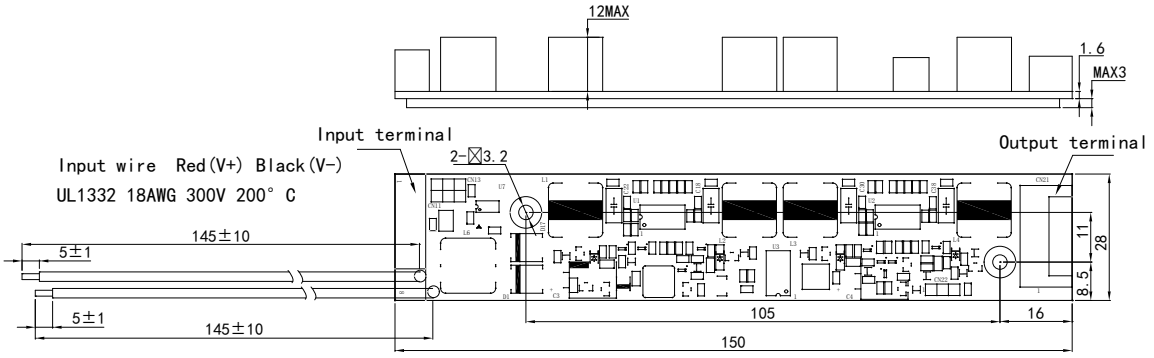
Safety & EMC Compliance

Safety Standard	IEC61347.1;IEC61347-2-13
EMC	CISPR15; IEC61000-3-2;IEC61000-3-3 ;IEC61547;

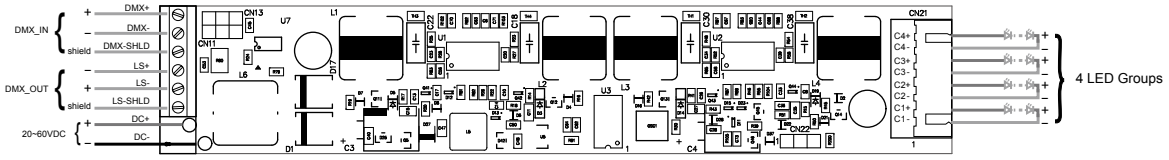
Model Specifications

Model	Input Voltage Range	Output Current	Total Output Power	Output Voltage Range
DMX/RDM DC-DC	20~60VDC	200~700mA	50W	8~48VDC

Mechanical Outline (unit: mm)



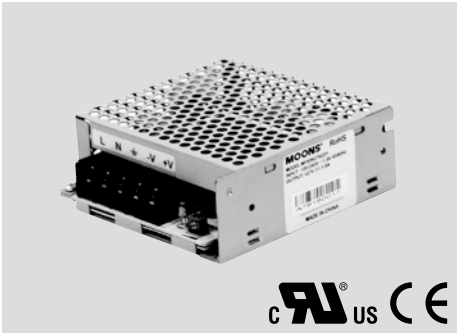
Schematic Diagram



MF50N Series

Features

- Universal AC input / full range: 90-264VAC or 125-370VDC
- Safety: CE / CUL
- EMI: compliance to FCC-B, EN55011 / EN55022-B, CISPR22-B
- EMS: compliance to EN61000-4-2, 3, 4, 5, 6, 8, 11
- Protections: SCP, OCP, OVP
- LED indicator for power on
- Terminal block: vertical terminal / horizontal terminal / connector modes available (horizontal terminal is standard)
- Compact size, high performance, high reliability
- 2-year warranty



single output
99.5 × 97 × 36mm

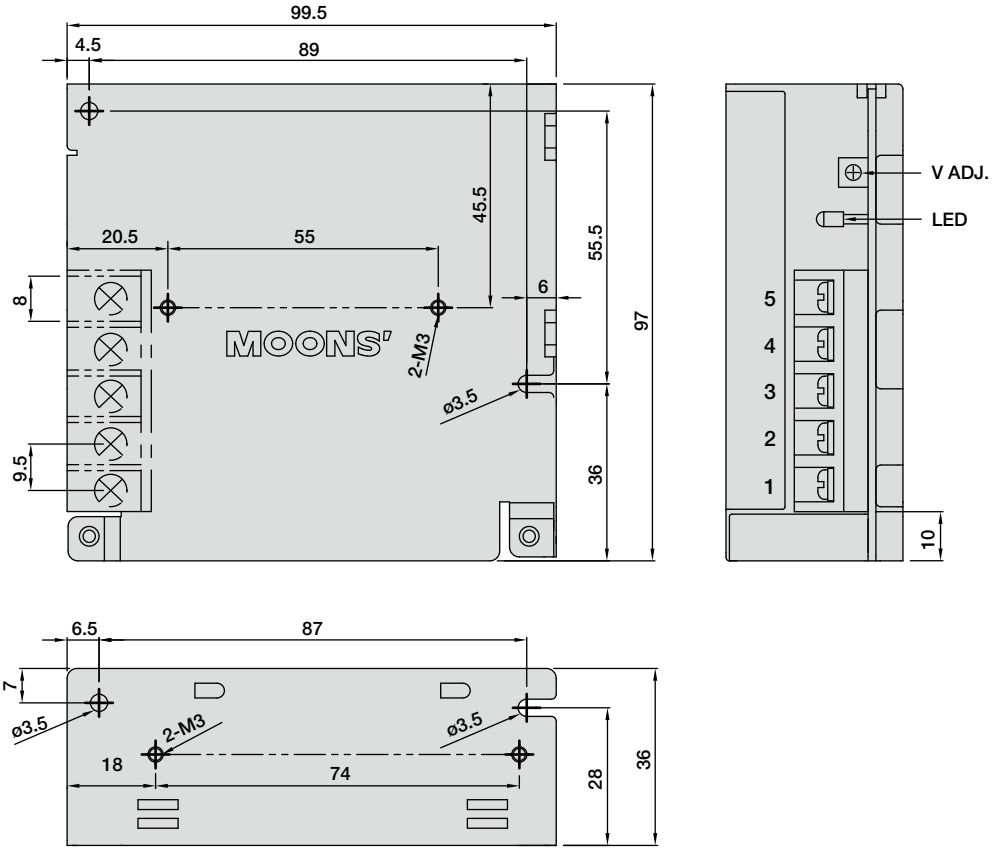
General Specifications

	MF50N 3AG	MF50N 5AG	MF50N 7AG	MF50N 12AG	MF50N 15AG	MF50N 24AG	MF50N 27AG	MF50N 36AG	MF50N 48AG
Rated output voltage	3.3V	5V	7.5V	12V	15V	24V	27V	36V	48V
Output current range	0~10A	0~10A	0~6.7A	0~4.2A	0~3.4A	0~2.1A	0~1.9A	0~1.4A	0~1.1A
Rated output power	33W	50W	50.2W	50.4W	51W	50.4W	51.3W	50.4W	52.8W
Output voltage Adj. range	3.3~3.8V	4.75~5.5V	6.75~8.25V	11.0~13.2V	13.5~16.5V	21.6~26.4V	24.3~29.0V	32.4~39.6V	43.2~52.8V
Ripple & noise (p-p) *1, *2	50mV		80mV	100mV		150mV			
Line regulation *2	± 0.3%								
Load regulation *2	± 1.0%		± 0.3%						
Output voltage tolerance *2	± 1%								
Hold time (typical) *1	16ms / 50ms								
Input voltage Range	90 ~ 264VAC (47 ~ 63Hz) or 125 ~ 370VDC								
Input AC current (typical) *1	1.3A / 0.8A								
Inrush current (typical) *1	18A / 36A (cold start)								
Efficiency (typical) *1	74% / 75%	78% / 79%	80% / 82%	81% / 83%	83% / 84%	85% / 86%	84% / 85%	85% / 86%	85% / 86%
Leakage current (typical) *1	0.5mA / 0.75mA (MAX 1.0mA)								
Over current protection *3	105% ~ 150%								
Over voltage protection *3	4.0~4.8V	5.7~7.5V	8.5~11.0V	14.0~17.0V	17.2~20.3V	27.6~32.4V	29.0~35.0V	41.4~48.6V	55.2~62.5V
Hold time (typical) *1	< 0.03% /℃ (0~50℃)								
Operating temperature	- 20 °C ~ + 70 °C (Refer to output derating curve)								
Operating humidity	20 ~ 90 %RH (Non-condensing)								
Storage temperature	- 30℃ ~ +85℃								
Storage humidity	10 ~ 95%RH (Non-condensing)								
Cooling method	Cooling by free air convection								
Withstand voltage	Input / output: 3.0kVAC (20mA); input - FG: 2.0kVAC (20mA); output - FG: 500VAC (50mA), 1 minute								
Isolation resistance	>100MΩ output - FG:500VDC Ta=25℃ and 70%RH								
Vibration	10-55Hz, 10min. 1 cycle, 2G constant; X, Y, Z axes, 1 hour each								
Safety	Compliance to UL60950-1, CSA60950-1, EN60950-1, GB4943								
Emi conduction & radiation *4	Compliance to FCC- B, EN55011 / EN55022-B, VCCI-B								
Ems immunity *4	Compliance to EN61000-4-2, 3, 4, 5, 6, 8, 11								
Weight (typical)	400g								
Reference Dimension (L x W x H)	99.5 × 97 × 36 (mm)								

Note:
*1 All parameters not specially mentioned are measured at 115 / 230VAC input, rated load and 25℃ of ambient temperature.
*2 Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.
*3 Protection type: Hiccup mode, recovers automatically after fault condition is removed.
*4 The power supply is considered as a component to be installed into a final equipment which should be re-confirmed to meets EMC directives.

Mechanical Outline (unit: mm)

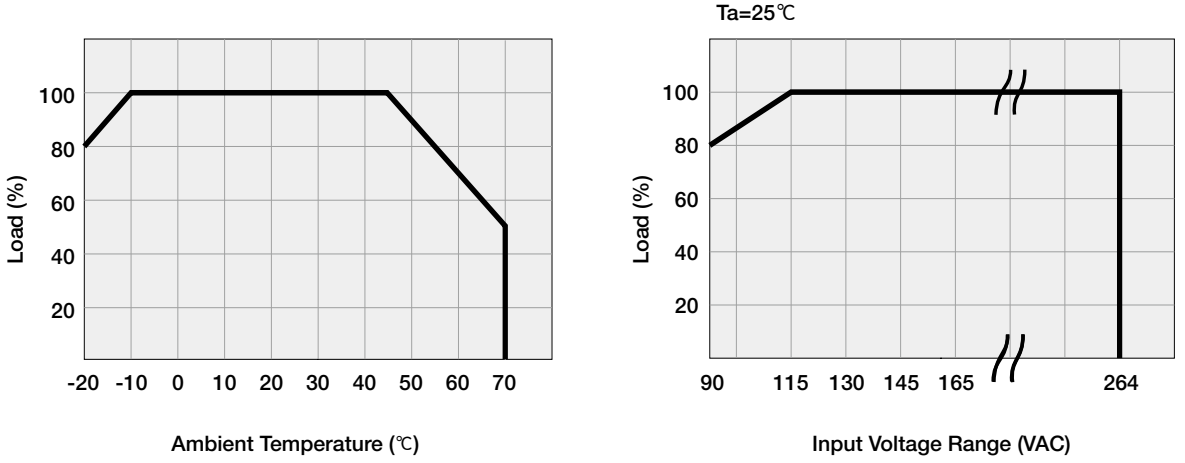
Model Number: MF50N24AG-H



- Pin Configuration

Pin No.	Output
1	Input / L
2	Input / N
3	FG ⏚
4	Output -V
5	Output +V

Derating Curve



MF100A Series

Features

- Universal AC input / full range: 84-264VAC or 120-370VDC
- Active PFC filter build-in, PF>0.95, compliance to EN61000-3-2
- Safety: CUL / TUV / CB / CE
- Protections: SCP, OCP, OVP
- LED indicator for power on
- Terminal block: vertical terminal / horizontal terminal / connector modes available (vertical terminal is standard)
- Remote ON / OFF control (optional)
- Compact size, high performance, high reliability
- 2-year warranty

single output
170 × 99 × 44mm

General Specifications

	MF100A 3AG	MF100A 5AG	MF100A 7AG	MF100A 12AG	MF100A 15AG	MF100A 24AG	MF100A 27AG	MF100A 36AG	MF100A 48AG
Rated output voltage	3.3 V	5 V	7.5 V	12 V	15 V	24 V	27 V	36 V	48 V
Output current range	0~20 A	0~20 A	0~13.4 A	0~8.5 A	0~6.7 A	0~4.3 A	0~3.8 A	0~2.9 A	0~2.1 A
Rated output power	66 W	100 W	100 W	102 W	100 W	103 W	102 W	104 W	101 W
Output voltage Adj. range *1	2.97~3.63 V	4.5~5.5 V	6.75~8.25 V	10.8~13.2 V	13.5~16.5 V	21.6~26.4 V	24.3~29.7 V	32.4~39.6 V	43.2~52.8 V
Ripple & noise (p-p) *1, *2	100 mV	100 mV	100 mV	100 mV	100 mV	150 mV	170 mV	190 mV	240 mV
Line regulation *2	20 mV	20 mV	30 mV	48 mV	60 mV	96 mV	112 mV	120 mV	150 mV
Load regulation *2	40 mV	40 mV	60 mV	96 mV	120 mV	120 mV	120 mV	120 mV	120 mV
Output voltage tolerance *2	±1 %								
Hold-up time (typical) *1	16ms / 20ms								
Input voltage range	85 ~ 264 VAC (47-63Hz) or 120 ~ 370 VDC								
Input current (typical) *1	0.9A / 0.5A	1.2A / 0.6A							
Inrush current (typical) *1	20A /40A (cold start)								
Power factor (typical)	0.98 / 0.93	0.99 / 0.95							
Efficiency (typical) *1	70% / 71%	75% / 77%	78% / 81%	79% / 82%	80% / 83%	81% / 84%	81% / 84%	81%/ 84%	81% / 84%
Leakage current (typical) *1	0.25mA / 0.5mA (MAX 0.75mA)								
Over current protection *3	105% - 150%								
Over voltage protection *4	3.79~4.95 V	5.75~6.95 V	8.62~10.13 V	13.8~16.2 V	17.2~20.3 V	27.6~32.4 V	31.2~36.8 V	41.4~48.6 V	55.2~64.8 V
Temperature coefficient	< 0.02% /℃								
Operating temperature	- 20 ~ + 70℃ (Refer to output derating curve)								
Operating humidity	20 ~ 90 %RH (Non-condensing)								
Storage temperature	- 30 ~ +85℃								
Storage humidity	10 ~ 95%RH (Non-condensing)								
Cooling method	Cooling by free air convection / external colling fan								
Withstand voltage	Input / output: 3.0kVAC (20mA); input - FG : 2.0kVAC (20mA); output - FG : 500VAC (20mA), 1 minute								
Isolation resistance	>100MΩ output - FG:500VDC Ta=25℃ and 70%RH								
Vibration	10 - 55Hz, 10min. 1 cycle, 2G constant; X, Y, Z axes 1 hour each								
Safety standards	UL60950-1, CSA60950-1, EN60950-1, GB4943								
EMI conduction & radiation *5	Compliance to FCC-Class B, EN55011/EN55022-B, CISPR22 Class B								
EMS immunity *5	Compliance to EN61000-4-2, 3, 4, 5, 6, 8, 11								
Optional function	Remote ON/OFF control								
Weight (typical)	550 g								
Reference Dimension (L x W x H)	170 × 99 × 44 (mm)								

Note:

*1 All parameters not specially mentioned are measured at 115 / 230VAC input, rated load and 25℃ of ambient temperature.

*2 Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.

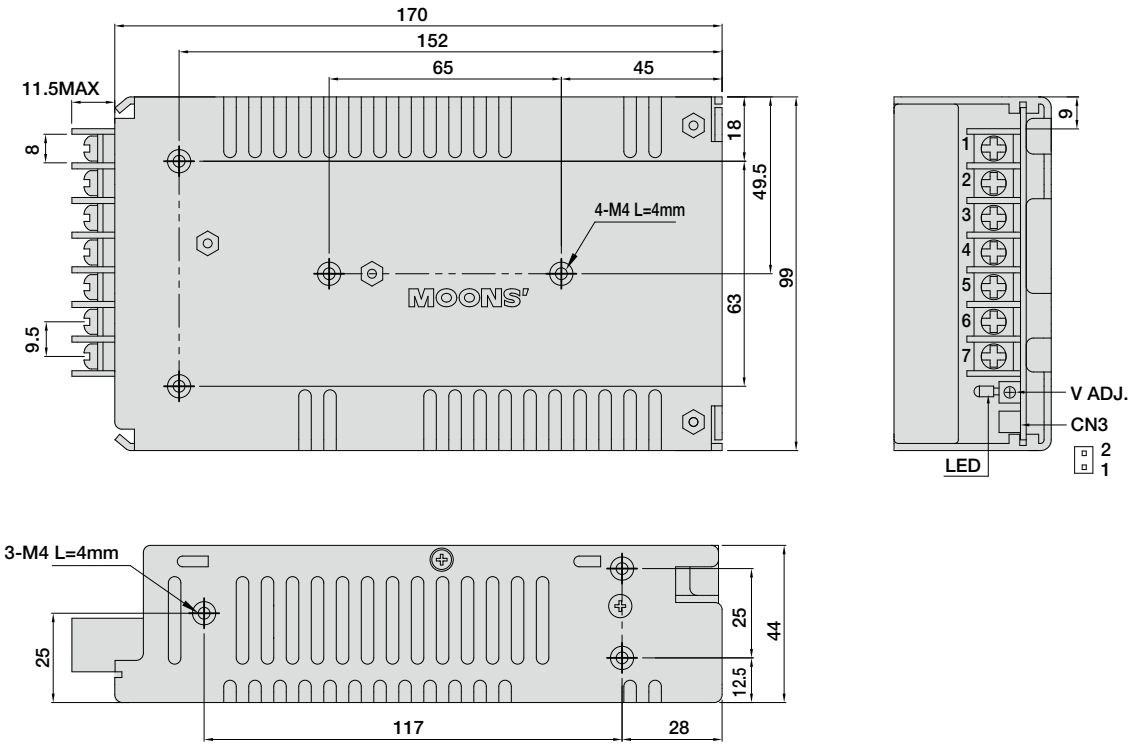
*3 OCP type: constant current limiting, recovers automatically after fault condition is removed (hiccup mode customizable)

*4 OVP type: shutdown output voltage, re-power on to recover.

*5 The power supply is considered as a component to be installed into a final equipment which should be re-confirmed to meets EMC directives.

Mechanical Outline (unit: mm)

Model Number: MF100A24AG-V



- Pin Configuration

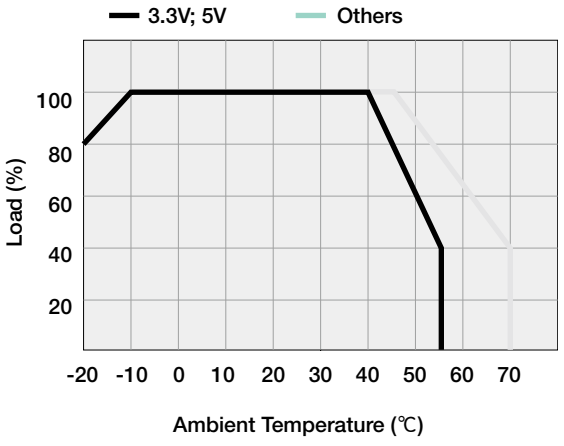
Pin No.	Output
1	AC / L
2	AC/ N
3	FG ⏚
4,5	DC output - V
6,7	DC output +V

- CN3: JST S2B-XH or Equivalence(Optional)

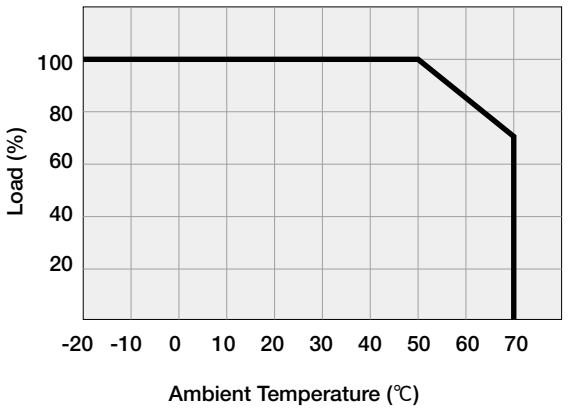
Pin No.	Output	Matching Conn.	Maching Pin.
1	RC+	JST XHP or equivalent	JST SXH-001T-P0.6 or equivalent
2	RC-		

Derating Curve

- Convection



- Force-air Cooling (at 18 CFM or 1.2 m/s)



MF150A Series

Features

- Universal AC input / full range: 85-264VAC or 120-370VDC
- Active PFC filter build-in, PF>0.95, compliance to EN61000-3-2
- Safety: CUL / TUV / CB / CE
- Protections: SCP, OCP, OVP, OTP
- LED indicator for power on
- Terminal block: vertical terminal / horizontal terminal / connector modes available (vertical terminal is standard)
- Peak current for motor applications: models 24V, 27V, 36V, 48V (optional)
- Remote ON / OFF control (optional)
- Compact size, high performance, high reliability
- 2-year warranty

single output
170 × 99 × 50mm

General Specifications

	MF150A 3AG	MF150A 5AG	MF150A 7AG	MF150A 12AG	MF150A 15AG	MF150A 24AG	MF150A 27AG	MF150A 36AG	MF150A 48AG
Rated output voltage	3.3V	5V	7.5V	12V	15V	24V	27V	36V	48V
Output current range	0~24A	0~24A	0~16A	0~12.5A	0~10A	0~6.3A	0~5.6A	0~4.2A	0~3.2A
Peak output current (optional)	-	-	-	-	-	9.5A	8.1A	6.3A	4.8A
Rated output power	79W	120W	120W	150W	150W	151W	151W	151W	154W
Output voltage Adj. range *1	2.97~3.63V	4.5~5.5V	6.75~8.25V	10.8~13.2V	13.5~16.5V	21.6~26.4V	24.3~29.7V	32.4~39.6V	43.2~52.8V
Ripple & noise (p-p) *1, *2	100mV	100mV	100mV	100mV	100mV	150mV	170mV	190mV	240mV
Line regulation *2	20mV	20mV	30mV	48mV	60mV	96mV	112mV	120mV	150mV
Load regulation *2	40mV	40mV	60mV	96mV	120mV	120mV	120mV	120mV	120mV
Output Voltage Tolerance *2	±1 %								
Hold-up time (typical) *1	16ms / 20ms								
Input voltage range	85 ~ 264VAC (47-63Hz) or 120 ~ 370VDC								
Input current (typical) *1	1.3A /0.7A	1.8A / 0.9A							
Inrush current (typical)	20A / 40A (cold start)								
Power factor (typical)	0.98 /0.93	0.99 / 0.95							
Efficiency (typical) *1	71% / 73%	76% / 79%	79% / 81%	81% / 84%	81% / 84%	81% / 84%	81% / 84%	82% / 85%	83% / 86%
Leakage current (typical) *1	0.25mA / 0.5mA (MAX 0.75mA)								
Over current protection *3	105% - 150%								
Over voltage protection *4	3.79~4.95V	5.75~6.95V	8.62~10.13V	13.8~16.2V	17.2~20.3V	27.6~32.4V	31.2~36.8V	41.4~48.6V	55.2~64.8V
Temperature coefficient	< 0.02% /℃								
Operating temperature	- 20 ~ + 70℃ (Refer to output derating curve)								
Operating humidity	20 ~ 90 %RH (Non-condensing)								
Storage temperature	- 30 ~ +85℃								
Storage humidity	10 ~ 95%RH (Non-condensing)								
Cooling method	Cooling by free air convection / external colling fan								
Withstand voltage	Input / output: 3.0kVAC (20mA); input - FG: 2.0kVAC (20mA); output - FG : 500VAC (20mA) , 1 minute								
Isolation resistance	>100 MΩ output - FG: 500VDC Ta=25℃ and 70%RH								
Vibration	10 - 55Hz, 10min. 1 cycle, 2G constant, X, Y, Z axes 1 hour each								
Safety standards	UL60950-1, CSA60950-1, EN60950-1, GB4943								
EMI conduction & radiation *5	Compliance to FCC-Class B, EN55011/EN55022-B, CISPR22 Class B								
EMS immunity *5	Compliance to EN61000-4-2, 3, 4, 5, 6, 8, 11								
Optional function	Remote ON/OFF control, peak current output, over-temperature protection								
Weight (typical)	620g								
Reference Dimension (L x W x H)	170 × 99 × 50 (mm)								

Note:

*1 All parameters not specially mentioned are measured at 115 / 230VAC input, rated load and 25℃ of ambient temperature.

*2 Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.

*3 OCP type: constant current limiting, recovers automatically after fault condition is removed (hiccup mode customizable)

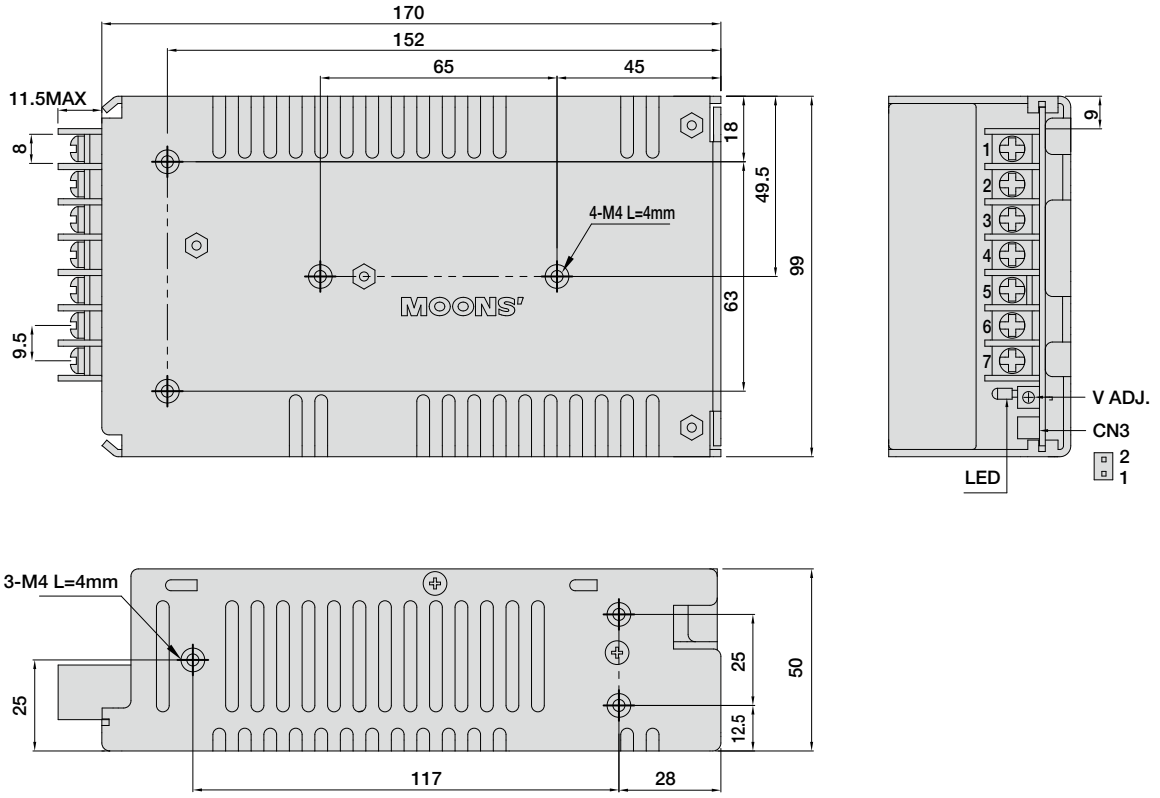
*4 OVP type: shutdown output voltage, re-power on to recover.

*5 The power supply is considered as a component to be installed into a final equipment which should be re-confirmed to meets EMC directives.

*6 Operating time at peak output current is less than 10 sec.
With Average Output Power.(Duty≤0.35)

Mechanical Outline (unit: mm)

Model Number: MF150A24AG-V



- Pin Configuration

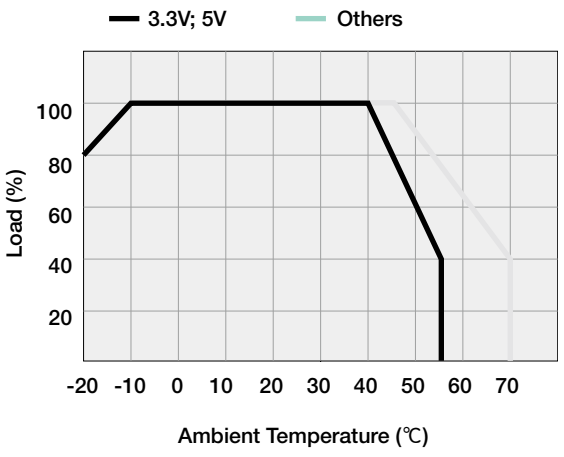
Pin no.	Output
1	AC input / L
2	AC input / N
3	FG ⏚
4,5	DC output - V
6,7	DC output +V

- CN3: JST S2B-XH or Equivalent (optional)

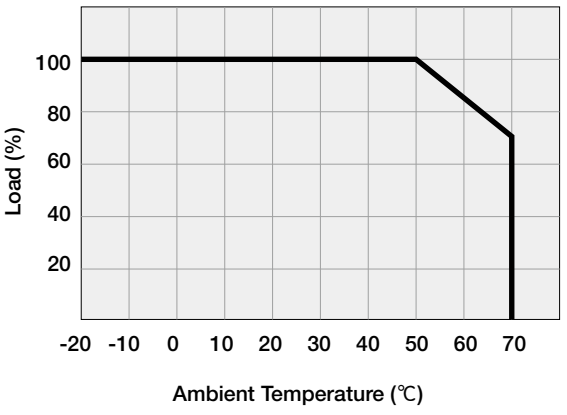
Pin No.	Assignment	Output	Maching Pin.
1	RC+	JST XHP or equivalent	JST SXH-001T-P0.6 or equivalent
2	RC-		

Derating Curve

- Convection



- Force-air Cooling (at 18 CFM or 1.2 m/s)



MF320A Series

Features

- Universal AC input / full range: 85-264VAC or 120-370VDC
- Active PFC filter build-in, PF>0.95, compliance to EN61000-3-2
- Safety: CUL / TUV / CB / CE
- Protections: SCP, OCP, OVP, OTP
- LED indicator for power on
- Terminal block: vertical terminal / horizontal terminal / connector modes available (vertical terminal is standard)
- Peak current for motor applications: models 24V, 27V, 30V, 36V, 48V (optional)
- Remote ON / OFF control (optional)
- Compact size, high performance, high reliability
- 2-year warranty

single output
199 × 99 × 52mm

General Specifications

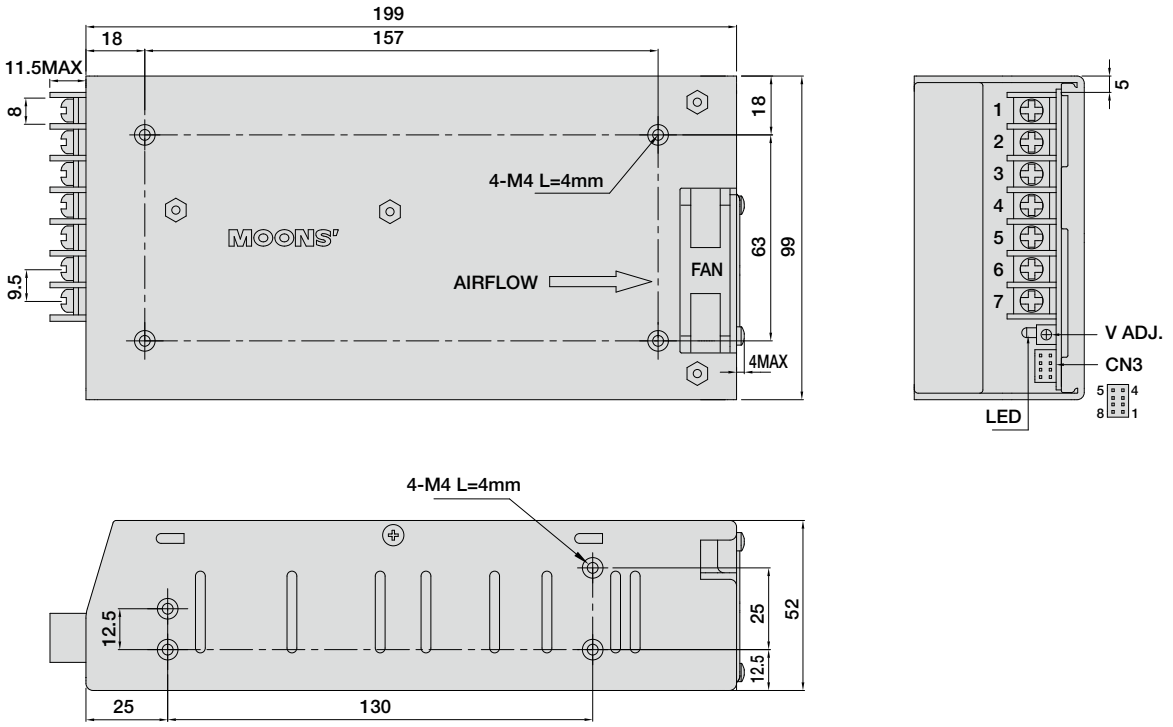
	MF320A 5AG	MF320A 7AG	MF320A 12AG	MF320A 15AG	MF320A 24AG	MF320A 27AG	MF320A 30AG	MF320A 36AG	MF320A 48AG
Rated output voltage	5V	7.5V	12V	15V	24V	27V	30V	36V	48V
Output current range	0~50A	0~40A	0~26A	0~21A	0~13A	0~12A	0~10.8A	0~9A	0~6.7A
Peak output current (optional)	-	-	-	-	17.3A	17A	13A	11.5A	8.7A
Rated output power	250W	300W	312W	315W	312W	324W	324W	324W	321W
Output voltage Adj. range *1	3.0~5.5V	6.75~8.25V	10.8~13.2V	13.5~16.5V	21.6~26.4V	24.3~29.7V	27.0~33.0V	30.0~40.0V	43.2~52.8V
Ripple & noise (p-p) *1, *2	100mV	100mV	100mV	120mV	150mV	150mV	200mV	200mV	240mV
Line regulation *2	20mV	30mV	48mV	48mV	48mV	54mV	60mV	72mV	96mV
Load regulation *2	40mV	60mV	96mV	120mV	120mV	150mV	180mV	180mV	240mV
Output voltage tolerance *2	±1 %								
Hold-up time (typical) *1	16ms / 20ms								
Input voltage range	85 ~ 264VAC (47-63Hz) or 120 ~ 370VDC								
Input current (typical) *1	3.2A / 1.6A	3.6A / 1.8A							
Inrush current (typical) *1	20A / 40A (cold start)								
Power factor (typical) *1	0.99 / 0.95								
Efficiency (typical) *1	74% / 78%	79% / 83%	82% / 86%			83% / 87%			
Leakage current (typical) *1	0.25mA / 0.5mA (MAX 0.75)								
Over current protection *3	105% - 150%								
Over voltage protection *4	5.75~6.95V	8.62~10.13	13.8~16.2V	17.2~20.3V	27.6~32.4V	31.1~36.5V	34.5~40.5V	41.4~48.6V	55.2~64.8V
Over temp. Protection *4	90℃ ± 5 (Detect on heatsink of power transistor)								
Temperature coefficient	< 0.02% /℃ (0-50℃)								
Operating temperature	- 20 ~ + 70℃ (Refer to output derating curve)								
Operating humidity	20 ~ 90%RH (Non-condensing)								
Storage temperature	- 30 ~ +85℃								
Storage humidity	10 ~ 95%RH (Non-condensing)								
Cooling method	built-in DC fan								
Withstand voltage	Input / output: 3.0kVAC (10mA); input - FG: 2.0kVAC (10mA); output - FG: 500VAC (10mA), 1 minute								
Isolation resistance	>100MΩ output - FG:500VDC Ta=25℃ and 70%RH								
Vibration	10 - 55Hz, 10min. 1 cycle, 2G constant, X, Y, Z axes 1 hour each								
Safety standards	UL60950-1, CSA60950-1, EN60950-1, GB4943								
EMI conduction & radiation *5	Compliance to FCC-Class B, EN55011/EN55022-B, CISPR22 Class B								
EMS immunity *5	Compliance to EN61000-4-2, 3, 4, 5, 6, 8, 11								
Optional function	Remote ON/OFF control, line drop compensation, peak current output, output failure alarm								
Weight (typical)	900g								
Reference Dimension (L x W x H)	199 × 99 × 52 (mm)								

Note:

*1 All parameters not specially mentioned are measured at 115 / 230VAC input, rated load and 25℃ of ambient temperature.
*2 Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.
*3 OCP type: constant current limiting, recovers automatically after fault condition is removed (hiccup mode customizable)
*4 OVP type: shutdown output voltage, re-power on to recover.
*5 The power supply is considered as a component to be installed into a final equipment which should be re-confirmed to meets EMC directives.
*6 Operating time at peak output current is less than 10 sec.
With Average Output Power.(Duty≤0.35)

Mechanical Outline (unit: mm)

Model Number: MF320A24AG-V



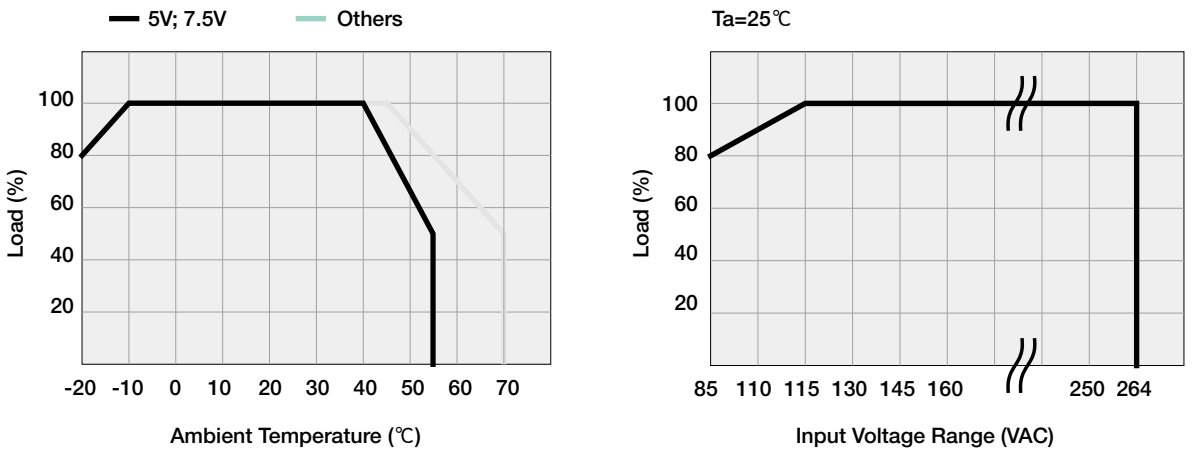
- Pin Configuration

Pin No.	Output
1	AC input / L
2	AC input / N
3	FG ⏚
4, 5	DC output -V
6, 7	DC output +V

- CN3: JST S8B_PHDSS or Equivalent (optional)

Pin No.	Output	Pin No.	Output
1	COM	8	PF
2	RC+	7	RC-
3	VO-	6	-S
4	VO+	5	+S

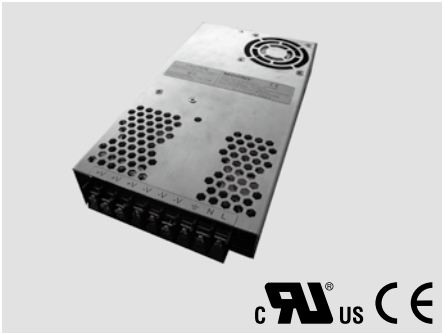
Derating Curve



MF300A5AG - PSU For LED Screen Displays (Ultrathin)

Features

- Universal AC input : 90-264VAC
- Active PFC filter build-in, PF>0.95, compliance to EN61000-3-2.
- Ultrathin: 25.5mm height, high performance
- Protections: short circuit, overload, over voltage, over temperature.
- LED indicator for power on.
- Fan speed automatically adjusts with the load which improves fan life.
- Safety: CUL / CE
- 2-year warranty.



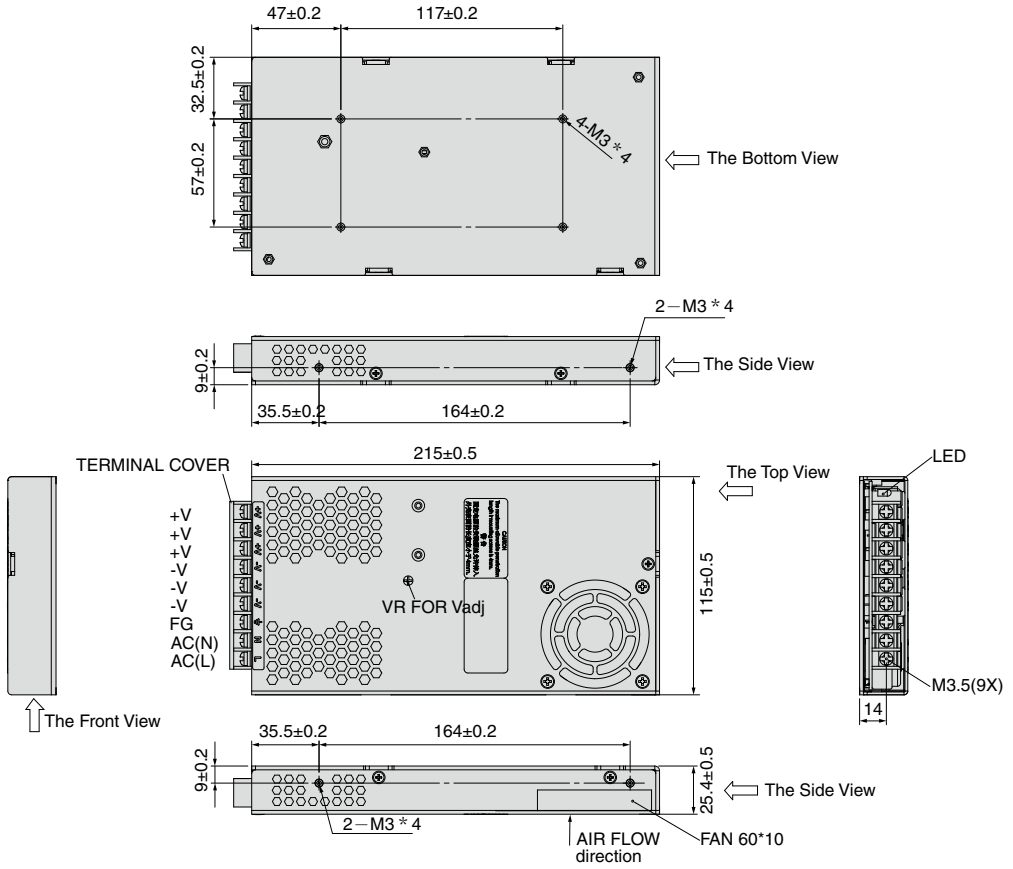
single output
215 × 115 × 25.5mm

General Specifications

	MF300A5AG
Rated output voltage	5V
Output current range	60A
Rated output power	300W
Output voltage Adj. range	4.9-5.4V
Ripple & noise (p-p) * 1, 2	150mV
Output voltage tolerance * 1	± 5%
Hold time (typical) * 1	16ms
Input voltage range	90 ~ 264VAC (47-63Hz)
Input AC current (typical) * 1	5 / 2.5A
Inrush current (typical) * 1	60A (cold start)
Power factor (typical) * 1	0.99 (at 110V / 60A) 0.97 (at 230V / 60A)
Efficiency (typical) * 1	86% (at 110V / 40A) 85% (at 230V / 60A)
Leakage current (typical) * 1	1mA (MAX)
Over current protection * 3	110 - 130%
Over voltage protection * 4	5.75~6.95V
Over temperature protection * 4	90℃ ± 5 (detect on heatsink of power transistor)
Temperature coefficient	< 0.03% /℃ (0-50℃)
Operating temperature	- 40 ~ +70℃ (refer to output derating curve)
Operating humidity	10 ~ 90%RH (non-condensing)
Storage temperature	- 40 ~ +85℃
Storage humidity	10 ~ 90%RH (non-condensing)
Cooling method	Forced air cooling by built-in fan
Withstand voltage	Input - Output: 3.0kVAC (15mA); Input - FG: 1.5kVAC (15mA)
Isolation resistance	>100MΩ Output -FG: 500VDC Ta=25℃ and 70%RH
Vibration	10-55Hz,10min. 1cycle, 2G Constant, X, Y, Z axes 1hour each
Safety	UL60950-1, CSA60950-1, EN60950-1, GB4943
EMI conduction & radiation	Compliance with FCC-Class B, EN55011/EN55022-B, CISPR22 Class B
EMS Immunity	Compliance with EN61000-4-2, 3, 4, 5, 6, 8, 11
Weight (typical)	900g
Reference dimension (L x W x H)	215 x 115 x 25.5 (mm)

Note:
*1 At rated output power, rated input voltage (115 / 230VAC) and 25℃ of ambient temperature.
*2 Measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.
*3 Constant current limit with automatic recovery. To avoid overload or short circuit for long time.
*4 Shutdown output voltage, re-power on to recover.

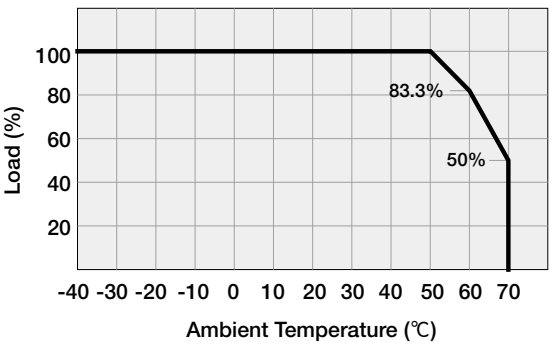
Mechanical Outline (unit: mm)



- Pin Configuration

Pin No.	Output
1	AC input / L
2	AC input / N
3	FG ⏚
4、5、6	DC output -V
7、8、9	DC output +V

Derating Curve



SPD-277

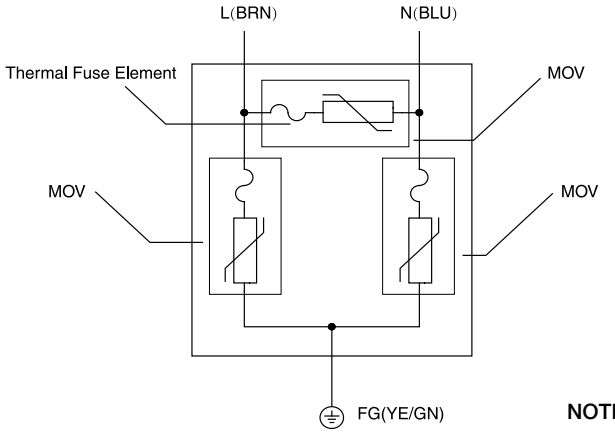
Features

- SPD-277 is for use on 277V or universal voltage drivers or ballasts
- Protects against surges according to IEEE C62.41.2 C High (10kA and 10kV)
- Surge current rating = 10,000 Amps using industry standard 8/20 uSec wave
- High temperature, flameproof plastic enclosure, 85℃ max surface temp rating
- Thermally Protected Transient Over-voltage Circuit
- Meet EN61643-11, IEC61643-11

Electrical Specifications

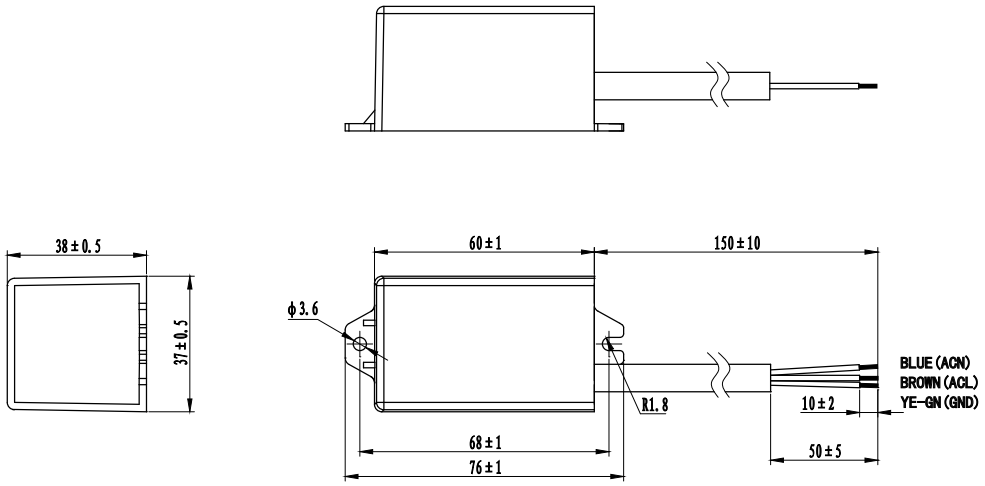
Working voltage	AC 277V, 47~63Hz
Mcov (maximum continuous opearting voltage)	305V
Up (voltage protection level, L-N, L-PG, N-PG)	1500V
Surger rating (2ms)	360 Joules
Imax (max discharge current)	10000A
Surge current life (8/20us, 700A)	1000 times

Diagram



NOTE: MOV 550Vac

Mechanical Outline (unit: mm)

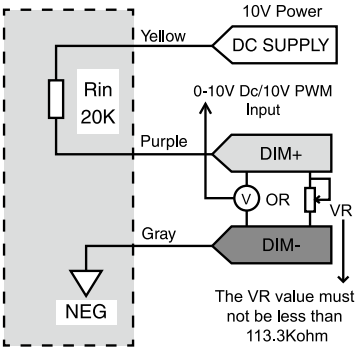


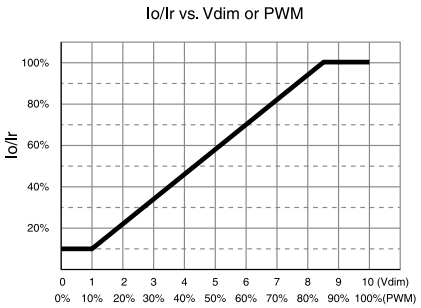
0-10V Dimming Instructions for H Series

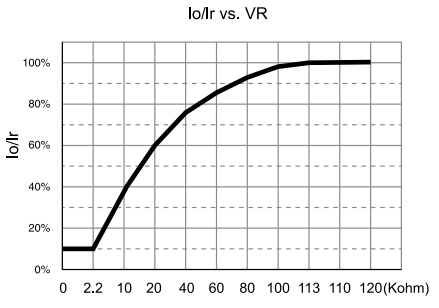
Dimming Signal Description

1.The dimmer control may be operated from an input signal of 0 - 10 VDC or 10V PWM.
(Frequency range：500 Hz - 5000 Hz，Duty cycle：0-100%)
2.With one external variable resistor, the VR value must not be less than 113.3Kohm.

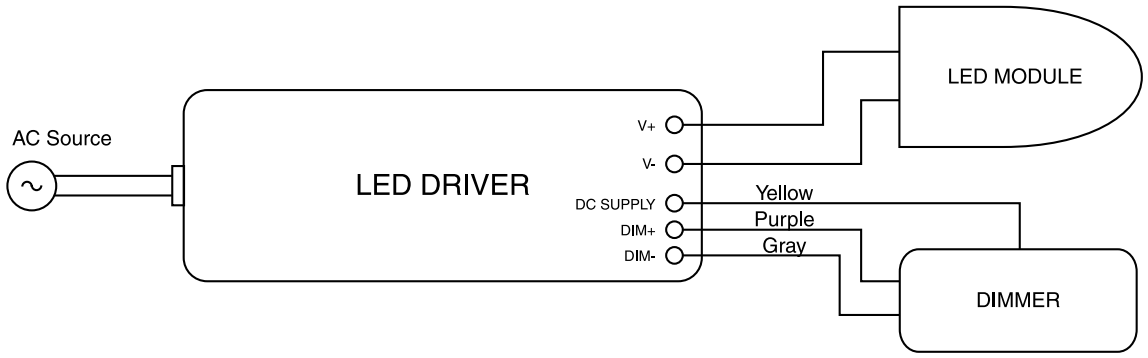
Dimming Module Diagram and Dimming Cruve







0-10V Dimming Connection Diagram



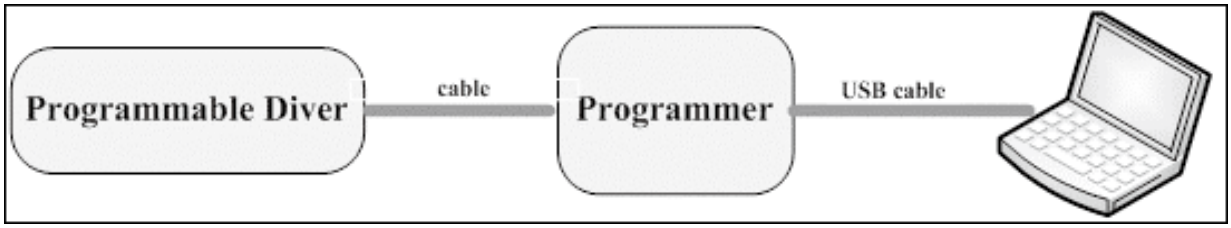
Notes:
1. Io is actual output current with dimming control signal and Ir is rated output current.
2. The dimming control signal can be operated output current from 100% to 10% Ir, output voltage must be maintained above 50% of the rated output voltage.
3. Do not connect dimming wire to the output; otherwise, the LED driver can not work normally.
4. The dimming signal is allowed to be less than 1V/10% PWM, the output current can be maintained 10% Ir.
(on/off function: optional, please feel free to contact us for details.)

Dimming Control Module Parameter (On Secondary Side)

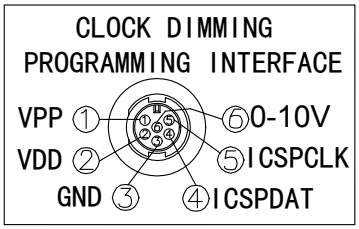
Parameter	Min.	Typical	Max.
DC supply output voltage	10V	12V	14V
DC supply output current	0 mA	-	10 mA
Absolute maximum voltage on the DIM+	-2V	-	12V
Source current on the DIM+	0 mA	-	0.5 mA
Value of Rin (the resistor inside the LED driver which locate between the DIM+ and the DC Supply)	19.8K	20K	20.2K

Clock Dimming(CLK) Instructions for H Series

Field Programmable Topology

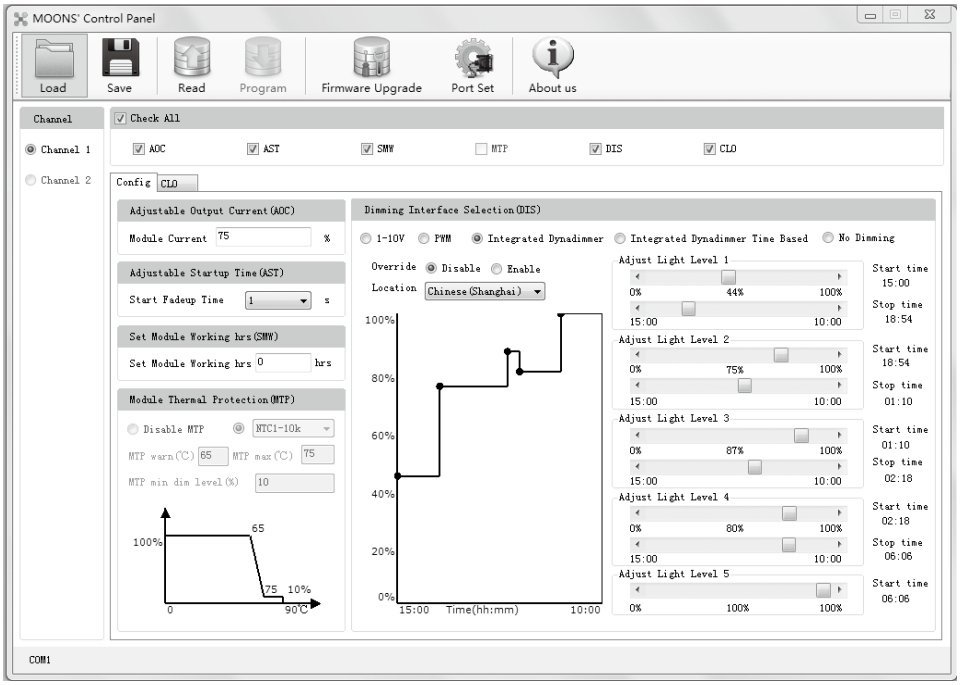


Dimming Interface Description



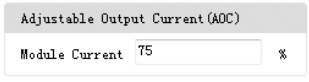
Pin	Definition	Description
1	VPP	Programming Model Enable
2	VDD	DC Supply Input
3	GND	DC Ground
4	ICSPDAT	Programming Data
5	ICSPCLK	Programming Clock
6	0-10V	0-10VDC Dimming Signal

Dimming Software Function Instruction



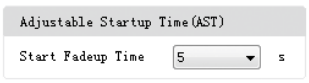
1. Adjustable Output Current(AOC)

Users can set the rated current between 10%~100% by 1% per step.



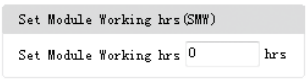
2. Adjustable Startup Time(AST)

At power ON, the fast fade-up of light can be unpleasant in certain applications. To avoid such a situation, the driver fade-up time at start-up can be programmed to a value among 0s、1s、2s、5s、10s、20s、40s. The default start fade up time is 1s.



3. Set Module Working Hours

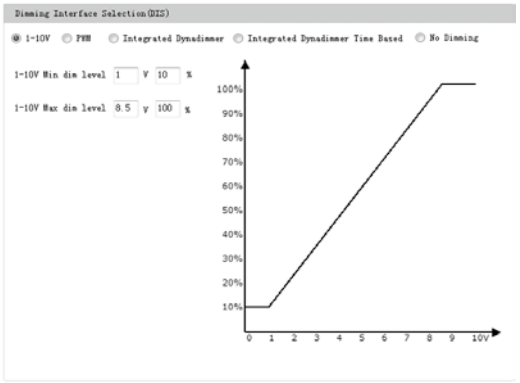
Used to reset the working hour counting in the microcontroller of the driver and collaborate with CLO.



4. Dimming Interface Setting(DIS)

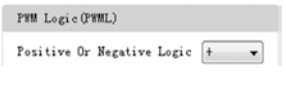
(1) 1-10V

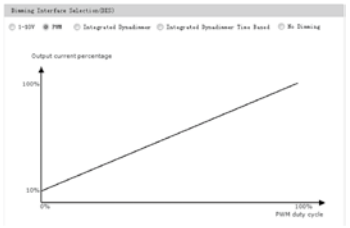
Allow users to set the max and min output current and corresponding output voltage to clarify the 1-10V dimming curve.

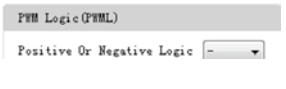


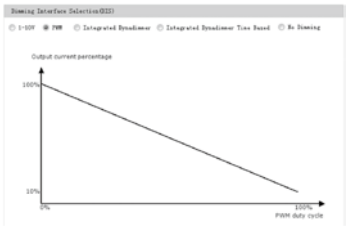
(2) PWM

Input a PWM signal from the 5th pin of the dimming interface to change the output current. PWM duty circle: 1%~99%(it has both positive and negative logics), frequency: 500Hz~5kHz, 3.3V~10V is high.



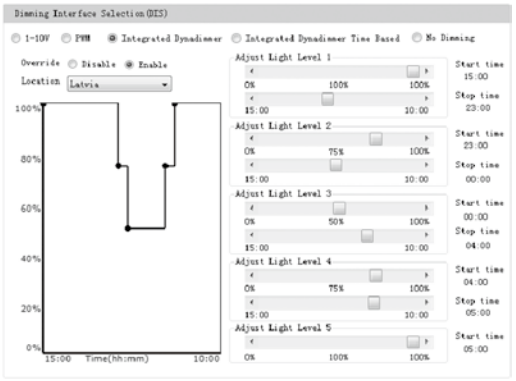






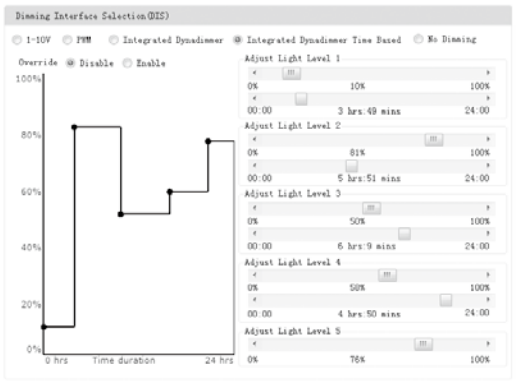
(3) Integrated Dynadimmer

Integrated Dynadimmer allows dimming to predefined light levels based on the nightly operating time. With flexibility in setting time and light levels, the user can configure the driver for specific locations and application needs. Using Integrated Dynadimmer, it is possible to set up to 5 dim levels and time intervals. The driver does not have a real time clock. Instead it runs a virtual clock, determined by the length of nightly operating hours. After 3 ON-OFF cycles, the driver will calculate the virtual clock time. A valid ON-time is defined as a period during which the driver operates continuously for ≥ 4 hours to ≤ 24 hours.



(4) Integrated Dynadimmer Time Based

Allow users to separate 24hrs into 5 sections and corresponding output current.

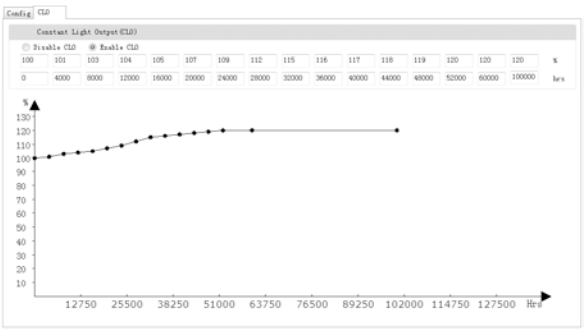


(5) No Dimming

The driver will be in constant output mode.

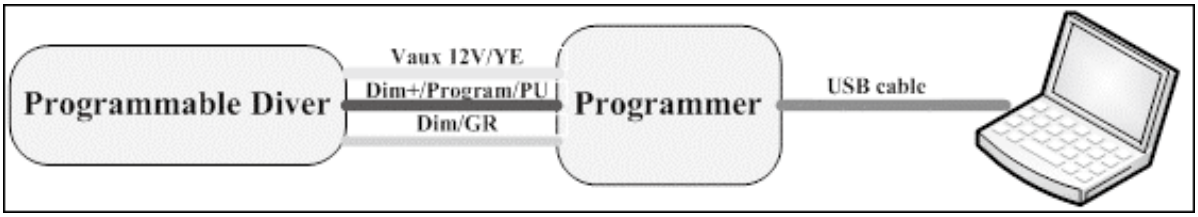
5. Constant Light Output(CLO)

The CLO feature enables LED solutions to deliver constant lumen output through the life of the light engine. Based on the type of LEDs used, heat sinking and driver current, it is possible to estimate the depreciation of light output for specific LEDs and this information can be entered into the driver. The driver counts the number of light source working hours and will increase output current based on this input to enable CLO.

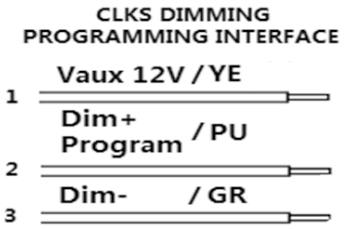


Clock Dimming(CLKS) Instructions for H Series

Field Programmable Topology

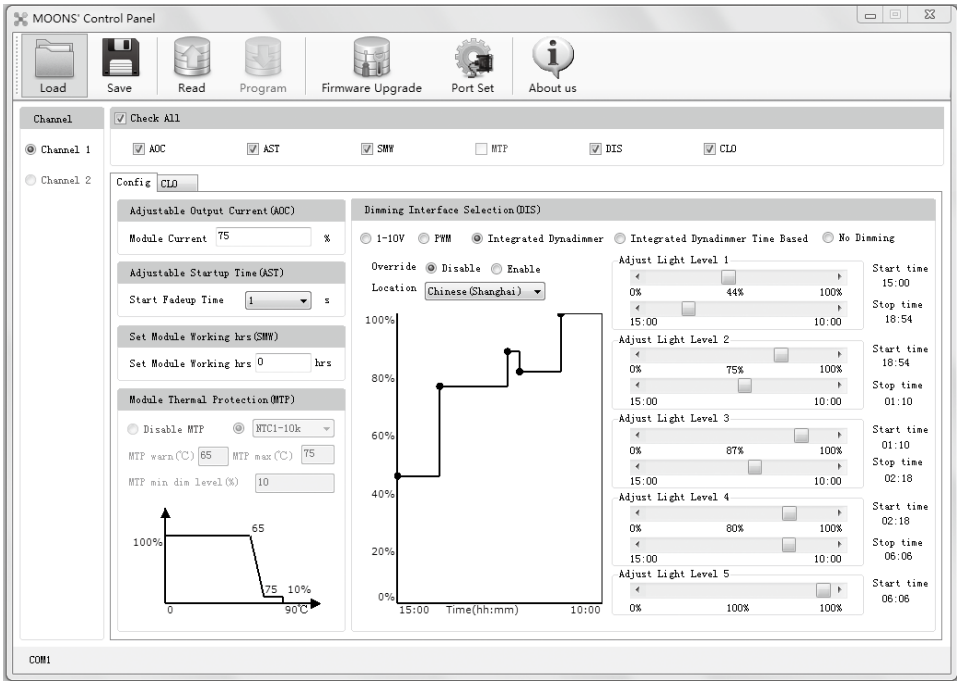


Dimming Interface Description



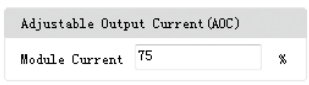
Pin	Name	Value	Description
1	Vaux 12V	10.8V-13.2V	Passive dimmers power supply
2	Dim+/Program	0-10V	Dimming/Programming input
3	Dim-	0V	DC Ground

Dimming Software Function Instruction



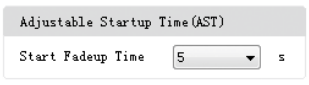
1. Adjustable Output Current(AOC)

Users can set the rated current between 10%~100% by 1% per step.



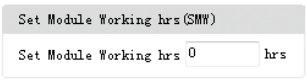
2. Adjustable Startup Time(AST)

At power ON, the fast fade-up of light can be unpleasant in certain applications. To avoid such a situation, the driver fade-up time at start-up can be programmed to a value among 0s、1s、2s、5s、10s、20s、40s. The default start fade up time is 1s.



3. Set Module Working Hours

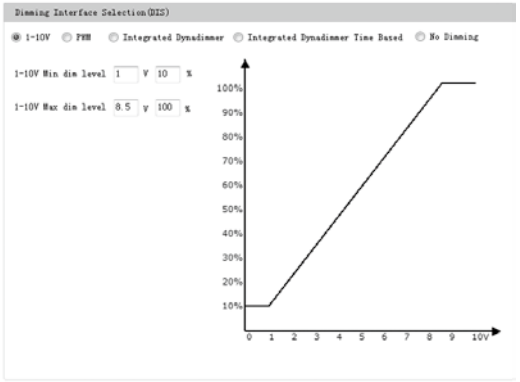
Used to reset the working hour counting in the microcontroller of the driver and collaborate with CLO.



4. Dimming Interface Setting(DIS)

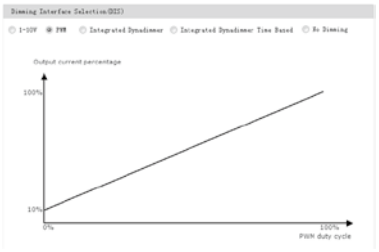
(1) 1-10V

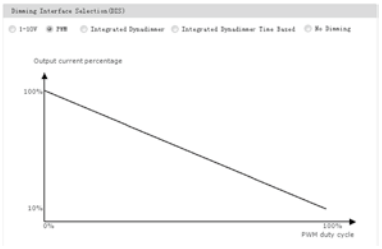
Allow users to set the max and min output current and corresponding output voltage to clarify the 1-10V dimming curve. Input a 0~10V signal from 2nd pin of the dimming interface. Default: input ≤ 1V, output current 10%; input ≥ 8.5V, output current 100%.



(2) PWM

Input a PWM signal from the 2nd pin(Dim+/Program) of the dimming interface to change the output current. PWM duty circle: 1%~99%(it has both positive and negative logics), frequency: 500Hz~5kHz, 3V~10V is high,-0.3V~0.8V is low.





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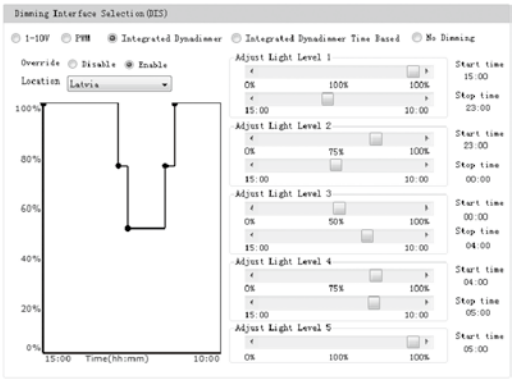

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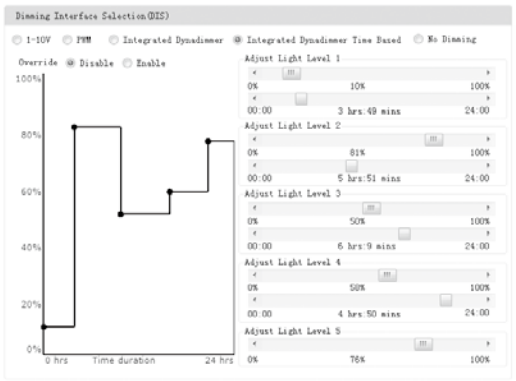
Allow users to separate 24hrs into 5 sections and corresponding output current.

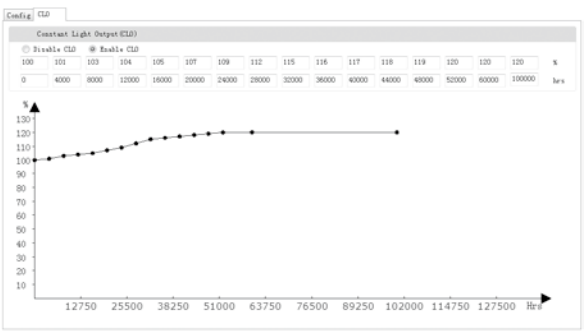


(5) No Dimming

The driver will be in constant output mode.

5. Constant Light Output(CLO)

The CLO feature enables LED solutions to deliver constant lumen output through the life of the light engine. Based on the type of LEDs used, heat sinking and driver current, it is possible to estimate the depreciation of light output for specific LEDs and this information can be entered into the driver. The driver counts the number of light source working hours and will increase output current based on this input to enable CLO.

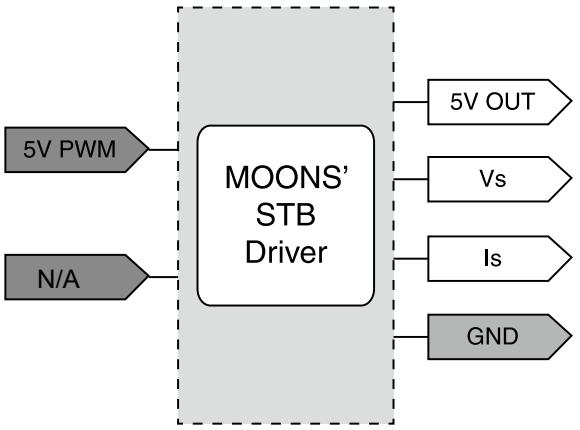


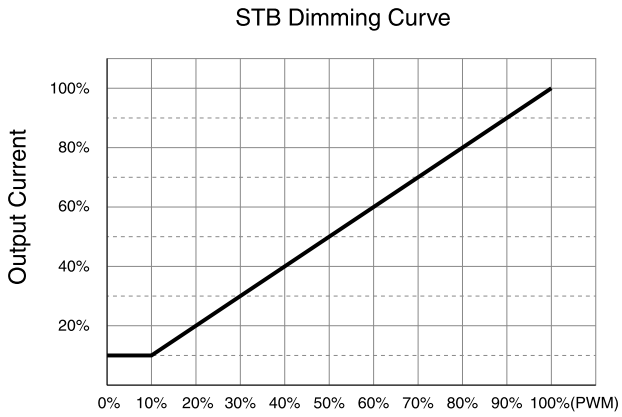
Standby (STB) Instructions for H Series(No Turn-off function)

Dimming Signal Description

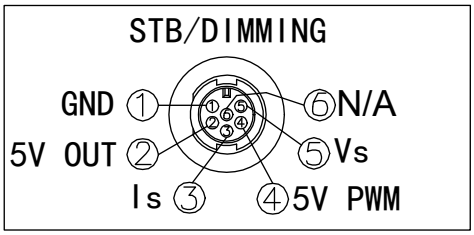
The dimmer control may be operated from an input signal of 5V PWM. (Frequency: 500 Hz~5000 Hz, Duty cycle: 0%~100%)

Dimming Module Diagram and Dimming Cruve





Dimming Interface Description



Pin	Definition	Description
1	GND	DC Ground
2	5V OUT	DC Supply Ouput
3	Is	Current Feedback
4	5V PWM	PWM Input Pin
5	Vs	Voltage Feedback
6	N/A	N/A

Notes:
MOONS' STB Driver dimming interface with Standby controller, you can achieve the following functions:
A、Dimming levels: 10% to 100%, continuously adjustable.
B、Status query: output voltage/current status query.
C、Output: 5V 300mA.

Dimming Control Module Parameter (On Secondary Side)

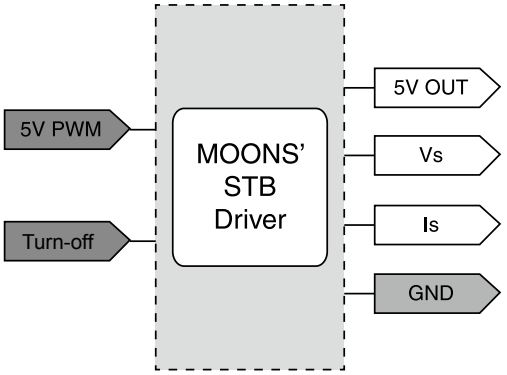
Parameter	Min.	Typical	Max.
5V output voltage	4.75V	5V	5.25V
5V output source current	-	300 mA	-
The voltage on the 5V PWM input pin	-	5.0V	5.25V
Source current on the 5V PWM input pin	0 mA	-	100uA
Frequency on the 5V PWM input pin	500Hz	-	5kHz
Duty cycle on the 5V PWM input pin	0%	-	100%
Voltage on the Vs output pin	0V	3.0V	3.6V
Voltage on the Is output pin	0V	3.0V	3.6V

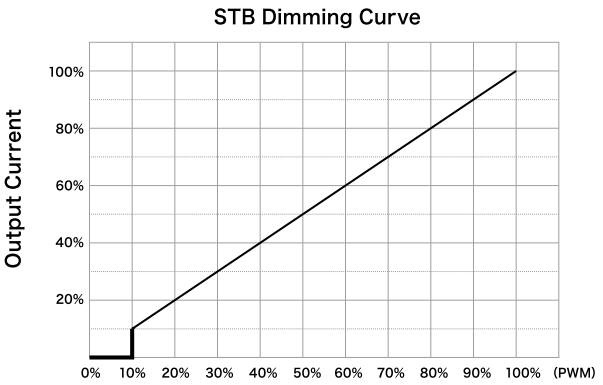
Standby (STB) Instructions for A Series(Turn-off function)

Dimming Signal Description

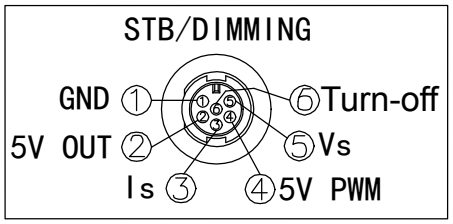
The dimmer control may be operated from an input signal of 5V PWM. (Frequency: 500 Hz~5000 Hz, Duty cycle: 0%~100%)

Dimming Module Diagram and Dimming Cruve





Dimming Interface Description



Pin	Definition	Description
1	GND	DC Ground
2	5V OUT	DC Supply Ouput
3	Is	Current Feedback
4	5V PWM	PWM Input Pin
5	Vs	Voltage Feedback
6	Turn-off	Turn-off Input Pin

Notes:
MOONS' STB Driver dimming interface with Standby controller, you can achieve the following functions:
A、Dimming levels: 10% to 100%, continuously adjustable.
B、Status query: output voltage/current status query.
C、Output: 5V 300mA.

Dimming Control Module Parameter (On Secondary Side)

Parameter	Min.	Typical	Max.
5V output voltage	4.75V	5V	5.25V
5V output source current	-	300 mA	-
The voltage on the 5V PWM input pin	-	5.0V	5.25V
Source current on the 5V PWM input pin	0 mA	-	100uA
Frequency on the 5V PWM input pin	500Hz	-	5kHz
Duty cycle on the 5V PWM input pin	0%	-	100%
Voltage on the Turn-off input pin	4.75V	5.0V	5.25V
Source current on the Turn-off input pin	1 mA	-	-
Voltage on the Vs output pin	0V	3.0V	3.6V
Voltage on the Is output pin	0V	3.0V	3.6V

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