

■ **Features**

- Power Rating: 50W
- Input Voltage: 100-277Vac
- Constant current design
- Output current(520mA-1550mA)
- Adjustable output through POT switch
- Efficiency up to 88%
- 3-1 Dimming, 0-10V/PWM/Resistor
- Protections: SCP, OVP
- IP67
- 5-year warranty
- Surge Protection: L/N-PE: 6KV, L-N: 4KV



\*Product images are for illustrative purposes only and may vary from actual design.

■ **Application**

- High bay light
- Dry, damp and wet locations

■ **Model List**\*(See part number scheme for model number details)

Model Number	Input Voltage Range	Output Power	Output Voltage	Output Current Min.	Output Current Max.	Efficiency	Certification
L3WCD050S155ST	100-277Vac	50.4W	24-42V	900mA	1600mA	87%	UL/cUL
L3WCD050S120ST	100-277Vac	51.3W	36-54V	700mA	1200mA	88%	UL/cUL
L3WCD050S070ST	100-277Vac	50.4W	43-72V	520mA	700mA	88%	UL/cUL

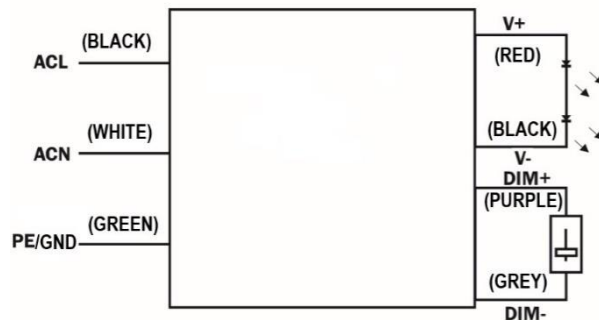
\*Timer dimming option available, contact Autec Sales.

Autec power supplies are designed to meet and comply with the safety standards listed above. Contact Autec Sales to confirm available safety approvals for your specific power supply application.

**Notes:**

1. Output current selectable by POT switch
2. Torque: 0.98 to 19.6mN·m (10 to 200gf·cm) max.
3. Stop strength: 49.0mN·m (500gf·cm) min

■ **Wiring Diagram / Dimming**



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■ **Input Characteristics**

Parameter	Min	Typ.	Max	Remarks
Rated AC input range	100Vac		277Vac	Derated@90-100Vac
AC input range	90Vac		305Vac	
Input frequency range	47Hz		63Hz	
Max input current			0.7A	90Vac, full load
Inrush current			40A	230Vac/50Hz, cold start
No load power		1W	1.5W	277Vac/50Hz, No load
Power factor	0.95	0.96		230Vac/50Hz, full load
	0.88			100-277Vac/50Hz, 70-100% Load
THD		8%	10%	230Vac/50Hz, full load
			20%	100-277Vac/50Hz, 70-100% Load

■ **Output Characteristics**

Parameter	Min	Typ.	Max.	Remarks
Output voltage range	L3WCD050S155ST	24V	42V	Power derated@24-33Vdc
	L3WCD050S120ST	36V	54V	Power derated@36-42Vdc
	L3WCD050S070ST	43V	72V	Power derated@43-72Vdc
Rated Output Voltage	L3WCD050S155ST	33V	42V	Po=Vo*Io=50W, full load
	L3WCD050S120ST	42V	54V	
	L3WCD050S070ST	43V	72V	
Rated Output Current	L3WCD050S155ST	1.2A	1.55A	1.55A for 30V, 1.2A for 42V
	L3WCD050S120ST	0.95A	1.2A	1.2A for 42V, 0.95A for 54V
	L3WCD050S070ST		0.7A	0.7A for 72V
Current Adjustable range	L3WCD050S155ST	0.9A	1.55A	Rated Io 75%-100% adjustable
	L3WCD050S120ST	0.7A	1.2A	
	L3WCD050S070ST	0.52A	0.7A	
No load Voltage	L3WCD050S155ST	42.5V	43.5V	44V
	L3WCD050S120ST	54.5V	55.5V	56V
	L3WCD050S070ST	72.5V	74V	75V
Efficiency@230Vac	L3WCD050S155ST	86%	87%	Output 42V/1.2A
	L3WCD050S120ST	87%	88%	Output 54V/0.95A
	L3WCD050S070ST	87%	88%	Output 72V/0.70A
Output current tolerance	-5%		+5%	
Output Voltage Ripple (pk-pk)		12%	15%	Full load
Output Current Ripple (pk-pk)		200%	220%	Full load
Start-up Current Overshoot			10%	
Start-up Time		0.32S	0.5S	115Vac
		0.33S	0.5S	230Vac
Line Regulation	-3%		+3%	Full load
Load Regulation	-3%		+3%	

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■ **Safety Compliance**

Certification	Standard	Status	Remark
UL/cUL	UL8750	✓	
CE	EN 61347-2-13:2014 EN61347-1:2008+A1:2011+A2:2013 EN62493:2015	✓	
SAA	AS/NZS61347.2.13	✓	
CCC	GB 19510.14-2009	✓	
BIS	IS15885:2012 Part 2 Sec 13	✓	Only for 3-in-1 Dimming
CE	EN61347-2-13:2014 EN61347-1:2008+A1:2011+A2:2013	✓	
Item	Standard	Remark	
Insulation Strength	Input-output	3200Vac/5mA Max/60s	Reinforced insulation
	Primary-Earth	1600Vac/5mA Max/60s	Basic insulation
	Sec.- Earth	1000Vac/5mA Max/60s	Function insulation
Insulation Resistance	Input-output	≥10 MΩ	Testing Voltage: 500Vdc
	Ground Resistor	≤0.1Ω	25A/1min
Leakage Current	≤0.75mA	277Vac	
Item	Criterion	Remark	
Conduction Emission	EN55015:2013+A1:2015		
Radiation Emission	EN55015:2013+A1:2015		
Harmonic Current Emissions	IEC/EN 61000-3-2	Class C	
Surge	IEC/EN61000-4-5	Difference mode 4kV, Common mode 4kV Criterion B	

**Disclaimer:**

Autec Power Systems' (Autec) LED Drivers are Hi-Pot tested during the manufacturing process. Autec assumes no responsibility for secondary Hi-Pot testing at customer location or designated production line(s). Should customer require further Hi-Pot testing, at their own production line, following assembly of the LED Driver into the customer's assembled fixture, Autec requests advance notice. This request must be communicated to Autec in a timely manner and is recommended to be requested at time of issuing each purchase order.

■ **Environmental Data**

Parameter	Min	Typ.	Max	Remarks
Operating Temperature	-40°C	25°C	+60°C	
Storage Temperature	-40°C	25°C	+85°C	
Operation Humidity	10%RH		90%RH	
Storage Humidity	5%RH		95%RH	
Altitude	-65m		4,000m	
Cooling Method	Air Cooling			
Packing	30pcs/carton, Carton Dimensions: 500mmx390mmx170mm			

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■ Other Characteristics

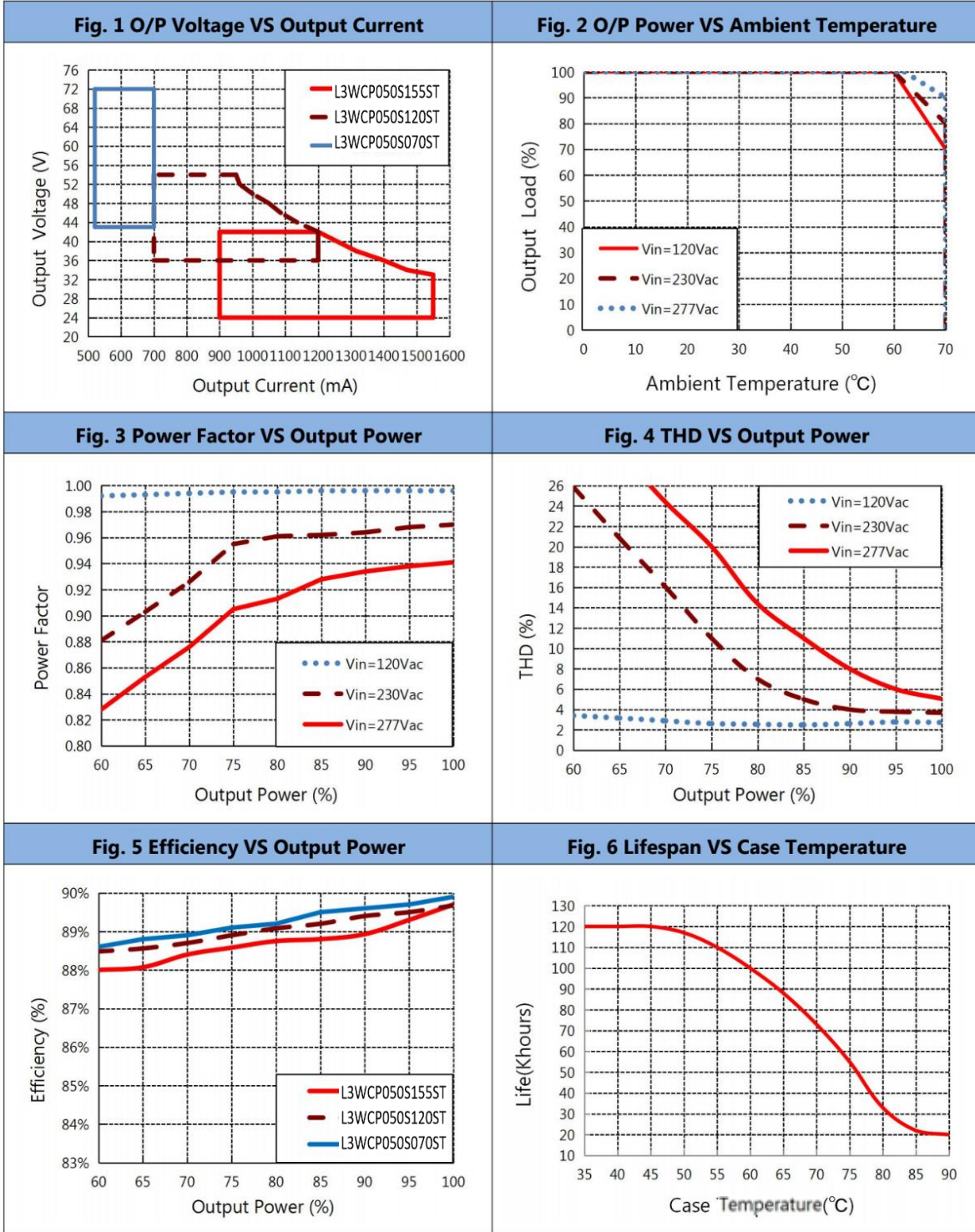
Parameter		Min	Typ.	Max	Remarks
0-10V Dimming (optional)	Dim Vmax	0V		14V	3 in 1 Dimming; 0-5V Dimming optional; Negative Logic Dim Optional
	Dim Range	10% Io max		100% Io set	
	Voltage	1V		10V	
PWM Dimming (Optional)	High	5V		10V	
	Low	-0.3V		-0.6V	
	Frequency	200Hz		2KHz	
	PWM Duty	1%		99%	
Resistor Dimming (optional)	Resistance	10K Ohm		100K Ohm	
	Dimming	10% Io max		100% Io Set	
Timing Curve (optional)	IC Control	By Programming			Typically, 3-4 sections
	Timing	5H/6H/7H/8H per section			DefaultMode:24 Hour/Circle with 50% load
Protection	OTP	80°C	85°C	90°C	Shut down o/p voltage, re-power on to recovery
	Short Circuit Protection	Driver will not be damage with Short-circuit power <8W			Hiccup mode
Life Time		55,000hrs			230Vac full load, Tc 75°C
MTBF		200,000hrs			230Vac full load, (MIL-HDBK-217F)
Temperature Coefficient		-0.03%/°C		+0.03%/°C	0°C~90°C
Tc					90°C
Warranty		5 years			Tc75°C
Net Weight		500g			
Dimension		163.8mmx46.5x31.5mm			L x W x H

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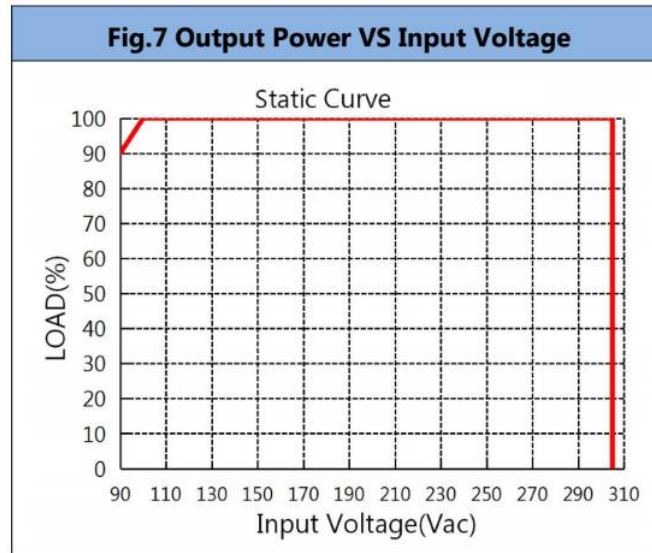
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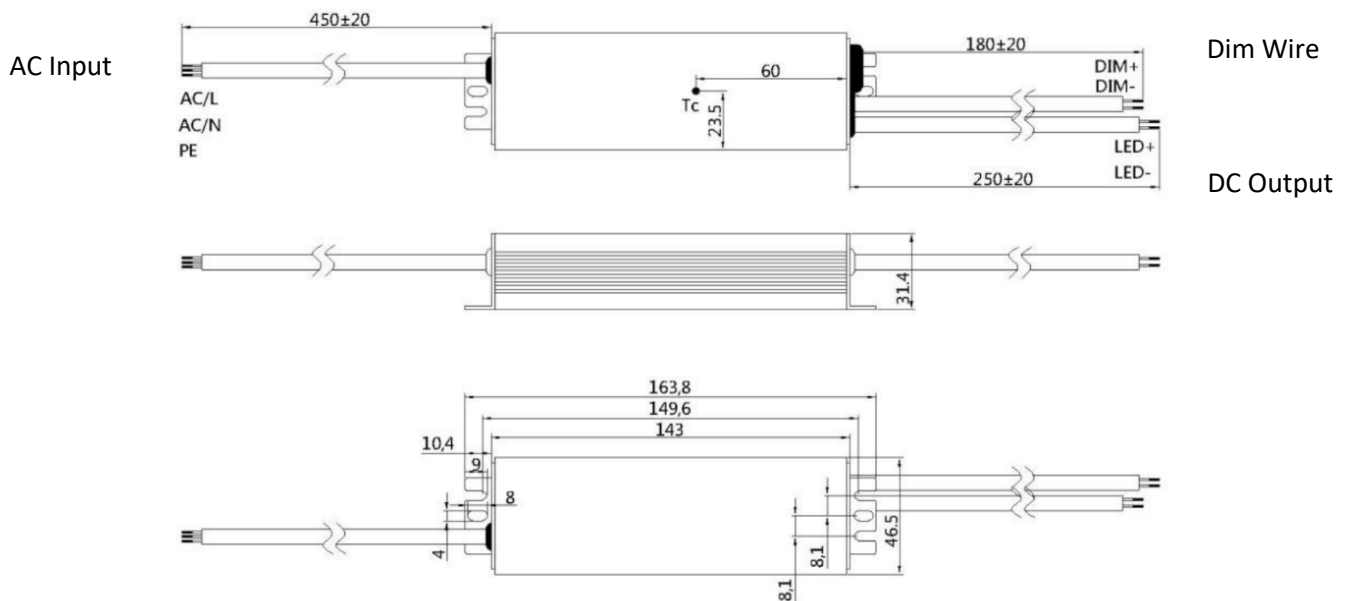
■ Performance Curve



■ Performance Curve(cont.)



■ Mechanical Diagram



Wire Specifications	
Input Wire	UL model: UL SJTW #18AWG 3*0.824 mm <sup>2</sup> , O.D:7.8mm, GREEN: PE, BLACK: L, WHITE: N
Output Wire	UL model: UL SJTW #18AWG 2*0.824 mm <sup>2</sup> , O.D:7.8mm, RED: V+, BLACK: V-
Dimming Wire	Style 2733 #22AWG, O.D: 5.8mm. PURPLE: Dim+, GREY: DIM-

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■ **Dimming**

**0-10V Dimming (Typ.)**

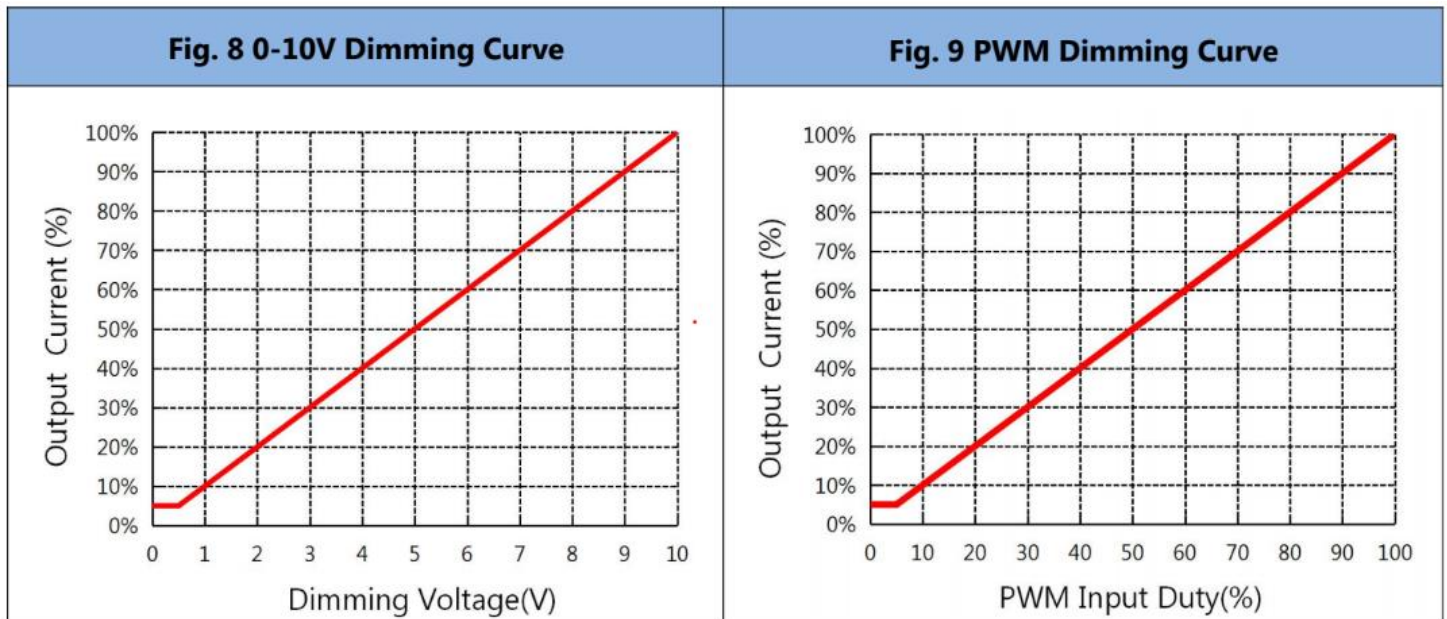
Voltage Range	1V	2V	3V	4V	5V	6V	7V	8V	9V	10V	Open
Rated Current Percentage	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	95-108%

PWM Duty	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	Open
Rated Current Percentage	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	95-108%

**Resistor(Typ.)**

Resistor	10KΩ	20KΩ	30KΩ	40KΩ	50KΩ	60KΩ	70KΩ	80KΩ	90KΩ	100 KΩ	Open
Rated Current Percentage	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	95-108%

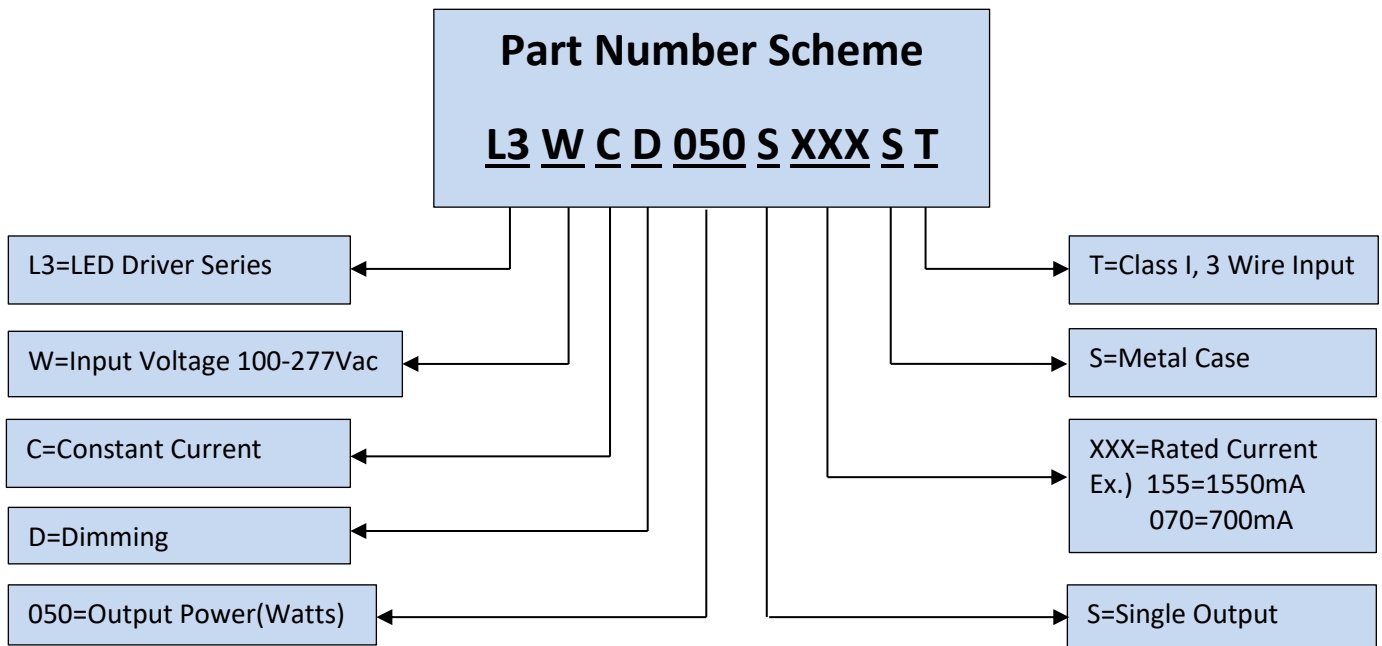
■ **Dimming Curve**



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