

TLP150 Medical Series

Single Output

Data Sheet

Total Power: 150 Watt
Input Voltage: 85 - 264 Vac
of Outputs: Single

SPECIAL FEATURES

- 150 W on main channel with only 200 LFM
- Low profile fits 1U applications
- Active PFC and EN61000-3-2 compliant
- Integrated control and monitoring features
- Overcurrent, overvoltage and overtemperature protection
- Compliance to EN55022-B conducted noise standard
- 12 V fan output
- 5 V standby output (optional)
- RoHS compliant
- Two year warranty

SAFETY

- TUV EN60601-1/IEC60601-1
- VDE CB Certificate and Report
- UL 60950-1



Electrical Specifications

Input		
Input voltage range	Universal Input	85 - 264 Vac
Input frequency range		47 - 63 Hz
Input surge current	264 Vac (cold start)	40 A max.
Safety ground leakage current	264 Vac, 50 Hz	150 μ A
Input current	120 Vac @ 150 W 230 Vac @ 150 W	1.8 A rms 0.8 A rms
Input fuse:	UL/IEC127	T 3.15 A, 250 Vac
Output		
Adjustment range		\pm 10%
Total regulation (line and load)	Main output Auxiliary outputs Fan output	\pm 3% \pm 5% \pm 10%
Turn-on delay	@120 Vac Input	2.0 s max.
Transient response	Main output 25% to 75% step at 0.5 A/ μ s	5% max. dev., 1 ms max. recovery to 1%
Temperature coefficient		\pm 0.02%/ $^{\circ}$ C
Overvoltage protection	Main outputs	125%, \pm 5%
Short circuit protection	Current limited	Continuous
Minimum output current	Singles	0 A
Fan voltage output	See Note 9	12 V @ 0.5 A
Standby output	See Note 9	5 V @ 1.0 A

EMC Characteristics ⁽⁵⁾

Conducted emissions	EN55022, FCC part 15	Level B
Harmonic current correction	EN61000-3-2	Compliant
ESD air	EN61000-4-2	Level 3
ESD contact	EN61000-4-2	Level 3
Radiated immunity	EN61000-4-3	Level 3
Fast transients	EN61000-4-4	Level 4
Surge	EN61000-4-5	Level 3
Conducted immunity	EN61000-4-6	Level 3

General Specifications

Hold-up time	850 Vac @ 60 Hz	20 ms @ 150 W
Efficiency	115 Vac @ 150 W 230 Vac @ 150 W	81% typ. 84% typ.
Isolation voltage	Input/output Input/chassis	4000 Vac 1500 Vac
Weight	260g (9.2 oz)	
MTBF (@ 25 °C)	Telcordia SR-332 MIL-HDBK-217F	900,000 hours min. 350,000 hours min.

Environmental Specifications

Thermal performance	Operating ambient, (See derating curve)	0 °C to +70 °C
	Non-operating	-40 °C to +85 °C
	0 °C to 50 °C ambient, 200 LFM forced air	150 W
	0 °C to 50 °C ambient, convection cooled	100 W
	50 °C to 70 °C ambient, convection cooled	Derate linearly to 50% load
Relative humidity	Non-condensing	5 - 95% RH
Altitude	Operating	10,000 feet max.
	Non-operating	30,000 feet max.
Vibration (See Note 7)	5 - 500 Hz	2.4 G rms peak
Shock	per MIL-STD-810E	516.4 Part IV

Connector and Mating Connector Types

Connector	Type	Mating Connector Type
J1	Molex 09-65-2038 (5273 series) void pin 2 or equivalent	Molex 09-52-4034 (5239 series) or equivalent with Molex 08-52-0072 (2478 series) or equivalent crimp terminals
J3	Molex 09-65-2068 (5273 series) or equivalent	Molex 09-52-4064 (5239 series) or equivalent with Molex 08-52-0072 (2478 series) or equivalent crimp terminals
J301 (Optional)	Leoco 2421P04H000 (2421 series) or equivalent	Leoco 2420S04000 (2420 series) or equivalent with Leoco 2453TPB00V1 (2453T series) or equivalent crimp terminals or JST EHR-4 (EH series) or equivalent with JST SEH-001T-P0.6 (EH series) or equivalent crimp terminals
Fan	Molex 22-23-2021(6373 series) or equivalent	Molex 22-01-3027 (2695 series) or equivalent with Molex 08-50-0113 (2759 series) or equivalent crimp terminals

Pin Connections

J1 Pin Connections

Pin 1	Neutral
Pin 3	Live

J2 Tab Connections

Tan	Ground/Earth
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Pin Connections

J3 Pin Connections

Pin 1	RTN	Main Return
Pin 2	RTN	Main Return
Pin 3	RTN	Main Return
Pin 4	Vo	+Main Output
Pin 5	Vo	+Main Output
Pin 6	Vo	+Main Output

Pin Connections

J4 Pin Connections

Pin 1	-S	-Vo Remote Sense
Pin 2	DC OK	DC Power Good Signal
Pin 3	PW OK	Power Good
Pin 4	LS	Load Share Signal
Pin 5	+S	+Vo Remote Sense
Pin 6	SGND	Signal Common

J301 Pin Connections (Optional)

Pin 1	5 Vsb	Standby Voltage
Pin 2	SGND	Signal Common
Pin 3	Reserved	Do Not Connect
Pin 4	PS OFF	Remote ON/OFF Signal

Fan Pin Connections

Pin 1	+ 12 V	Fan Voltage
Pin 2	+SGND	Return

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