

- 2U high
- Up to 10,000W in 19" rack
- Hotswap capable
- >90% efficiency
- Full power at 65°C ambient

TL Series

1000W to 2500W

Front End Power Supplies

Key Market Segments & Applications

Power for distributed Power Architecture
Factory Automation

TL Features and Benefits

Features

- 2U high
- Hotswap capable
- High efficiency
- Full array of signals

Benefits

- Utilizes less cabinet space
- Suitable for N+1 redundancy
- Higher density
- Easier system monitoring

Specifications

ITEMS	MODEL		24V Nominal	48V Nominal
			(Factory Set)	(Factory Set)
Output Voltage Range	(1)	VDC	21 - 28V	42 - 56V
Total Regulation		%	±1	
Current limit		%	105 to 120%	
Short Circuit Current		%	150% maximum	
Output Noise		mV	480mV maximum, peak to peak (10Hz to 20MHz)	
Output Rise Time		-	100 - 400ms	
Dynamic Response		-	3% in 10ms for a 10 - 100% load change	
Overvoltage Protection	(3)	VDC	27 to 30V	54 to 60V
Load sharing		-	±10%	
I2C programming	(1)	-	Set Output Volt., Monitors AC Present, Converter OK, Thermal profile, Fan fail	
Signals (opto isolated)	(2)	-	Converter OK, AC Present, and Over-temperature alarms. Active Low on Fail	
Remote On/Off		-	Shuts down output(s) by applying 5V	
Auxiliary Output		-	12V 0.1A bias voltage	
AC Input		-	TL1000: 90~264VAC, 95VAC start up; TL1500-2500: 180~264VAC, 185VAC start up	
Power Factor		-	0.99 Typical meets EN61000-3-2	
Inrush Current		A	<40A	
Leakage Current		mA	<3.2mA	
Efficiency (typical)		%	92%	
Immunity		-	EN61000-4-2, -3, -4, -5, -6, -8	
EMC (conducted and radiated)		-	EN55022, level B, FCC Class B	
Operating Temperature		-	-40°C to +65°C, short duration at 75°C, no derating (TL250048: -40°C to 65°C)	
Storage Temperature		-	-40 to +85°C	
Humidity		-	5 - 95% RH non condensing	
Altitude		-	-200 to 8000 feet, derate max. ambient 2°C/1000 feet	
Shock		-	IEC68-2-27, MIL STD 810E, 20G	
Vibration		-	IEC68-2-64 (random) 20 - 200Hz, 30 minutes	
Safety Agency		-	UL60950-1, CSA 22.2 No. 60950-00, EN60950-1, CE Mark	
Size (L x W x H)		mm	282 x 87 x 88 (stand alone), 365 x 480 (incl. ears) x 88 (TLR rack)	
Weight		Kg	Stand alone unit: 2.5, Rack: 4.3	
Warranty		-	2 Years	

Notes:

(1) Contact Factory for application

(2) All three signals share a common return - Logic GND

(3) Factory Programmable



Model Selector			
Model	Output Voltage (V)	Output Current (A)	Maximum Power (W)
TL100024	24V	40A	1000W
TL150024	24V	55A	1500W
TL100048	48V	20A	1000W
TL150048	48V	30A	1500W
TL250048	48V	50A	2500W
TLR4	19" Rack, holds up to 4 TL Modules		
TLRBP	Blanking Panel for One Module Slot		
TLRC01	Signal Cable		
TLCK232	RS232 Communications Kit		
TLRBPc	Blanking Panel for Controller Slot		

Output Connector (Module)				
TL Module Connector (Part Number: FCI 51732-007)				
	D	C	B	A
6	Converter OK	12VAux	SCL	SDA
5	Logic GND	n/c	Reserved	Overtemp
4	AC Present	Reserved	n/c	LOC0
3	Present	n/c	LOC1	LOC2
2	Remote on/off	Short Pin	n/c	I Share
1	+Remote Sense	-Remote Sense	n/c	V Margin
P2	Negative Output			
P1	Positive Output			

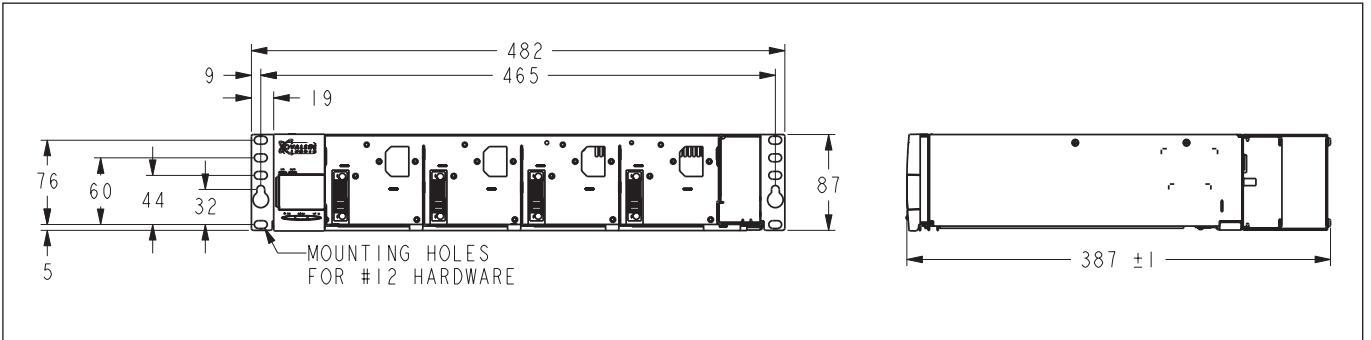
Note: View facing rear of module

Output Signal Connector (Rack)				
TL Rack Connector (Part Number: Molex 43045)				
1	12V Aux	11	Signal GND	
2	SCL	12	I Share	
3	SDA	13	V Margin	
4	Logic GND	14	n/c	
5	Remote on/off	15	Overtemp	
6	AC Present (Bay 1)	16	Converter OK 1	
7	AC Present (Bay 2)	17	Converter OK 2	
8	AC Present (Bay 3)	18	Converter OK 3	
9	AC Present (Bay 4)	19	Converter OK 4	
10	AC Present (Bay 5)	20	Converter OK 5	

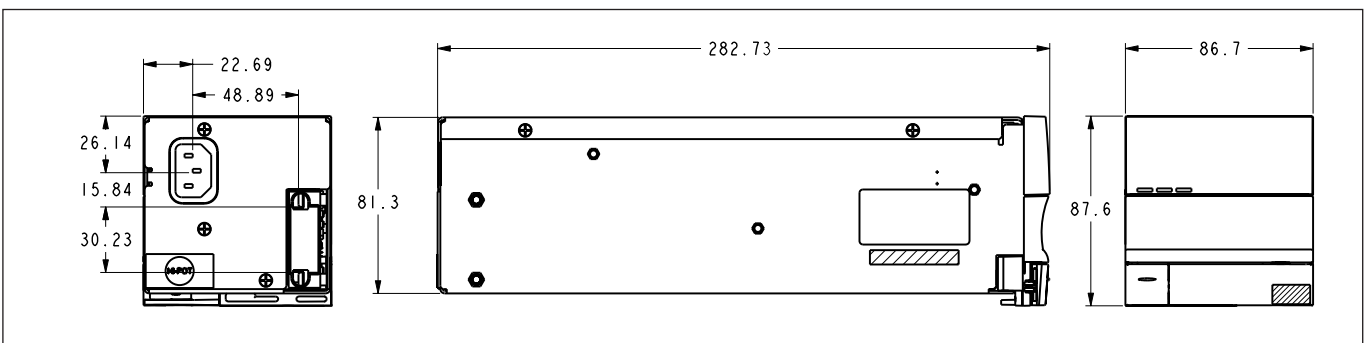
**Note: 1. Pin 1 is top left, view from rear of rack. Pin 11 is bottom left, view from rear of rack
2. Module Bay 1 is far left of rack, view from front**



Outline Drawing TL Rack



Outline Drawing TL Module





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