JASPER ELECTRONICS

BUILD AMERICA BUY AMERICA OPTIONAL

APPLICATIONS

- Traffic Control Cabinets
- Urban Lighting
- Robotics
- AI Equipment
- Automation Equipment
- Rail Transit
- Communication Equipment
- Charging Pile Auxiliary Power Supply
- LED Lighting Equipment

CONTACT

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TC401-M1558G Power Supply

90-264 VAC Input / 12 and 48 VDC 400 Watts Output

GENERAL OVERVIEW

Jasper Electronics Model TC401-M1558G Power Supply has a wide universal input voltage range of 90-264VAC, dual outputs at 12 and 48 VDC, and overall high power density. This unit features output short-circuit protection, over-current protection, over-voltage protection, over-temperature protection, and parallel current sharing. Please see below for full specifications.

FEATURES INCLUDE:

- Universal 90-264 VAC full range voltage input
- Wide operating temperature: -25°C to +65°C
- Power Factor ≥0.95
- Input anti-surge and anti lightning strike design
- Output over-voltage, output over-current, output short-circuit and over-temperature protection
- Current sharing and parallel operation
- Flame-retardant and moisture-proof design
- Low leakage current: ≤0.75mA
- High efficiency

TECHNICAL SPECIFICATIONS

Model	VIN Range (VAC)	Vout (VDC)	IOut (A)	Rated Power (W)	Dimensions (LxWxH)
TC401-M1558G	90-264V	48V	0-8.3A	400W	127 x 82 x 41 mm
		12V	0-0.5A		

ENVIRONMENTAL

Parameter	Min	Typ	Max	Unit	Remark
Operating Temperature	-25		65	ºC	
Storage Temperature	-40		85	ºC	
Relative Humidity	20		95	%	Non condensing
Cooling Method	Factory recommends conduction cooling via heatsink or baseplate for full load operation. If the output is derated below 70%, convection cooling is acceptable				

INPUT CHARACTERISTICS

Parameter	Min	Typ	Max	Unit	Remark
Input Voltage Range	90	100/240	264	VAC	
Input Current			5	A	Input at 90VAC
Inrush Current		14	40	A	264VAC input
Input Frequency Range	47	50	63	Hz	
Power Factor	0.95				220VAC input, rated load

OUTPUT CHARACTERISTICS

Parameter	Min	Typ	Max	Unit	Remark
Output Voltage		48V		VDC	Default set at 48V
		12V			12V - supply for external fan
Output Current	0		8.3	A	48V
	0		0.5		12V
Output Power		400		W	
Efficiency	90	94.5		%	220VAC input, 48V Full Load
Ripple & Noise (Peak-Peak)			480	m Vp-p	Rated input and load range. output is decoupled by a high frequency 0.1 µF cap and one 1 0µF electrolytic capacitors. Bandwidth set at 20MHz
Load Regulation			±3	%	
Line Regulation			±2	%	
Temperature Coefficient			±0.02	% / °C	
ON / OFF Overshoot			±10	%	
Dynamic Response Overshoot			±5	%	25%~50%~25%EIJZ 50%~75%~50% load change
Dynamic Response Recovery Time			200	ūS	
Start-Up Time			1	S	220VAC input, full load
Current Imbalance			10	%	Parallel operation

PROTECTION

Parameter	Min	Typ	Max	Unit	Remark
Over Voltage			56	V	48V, half load
Over Current	9		15	A	220VAC Input, 48V, hiccup
Short Circuit	Can withstand permanent short				
Over Temperature	Self recover when temperature within set limit				

**Specifications subject to change without notice.*

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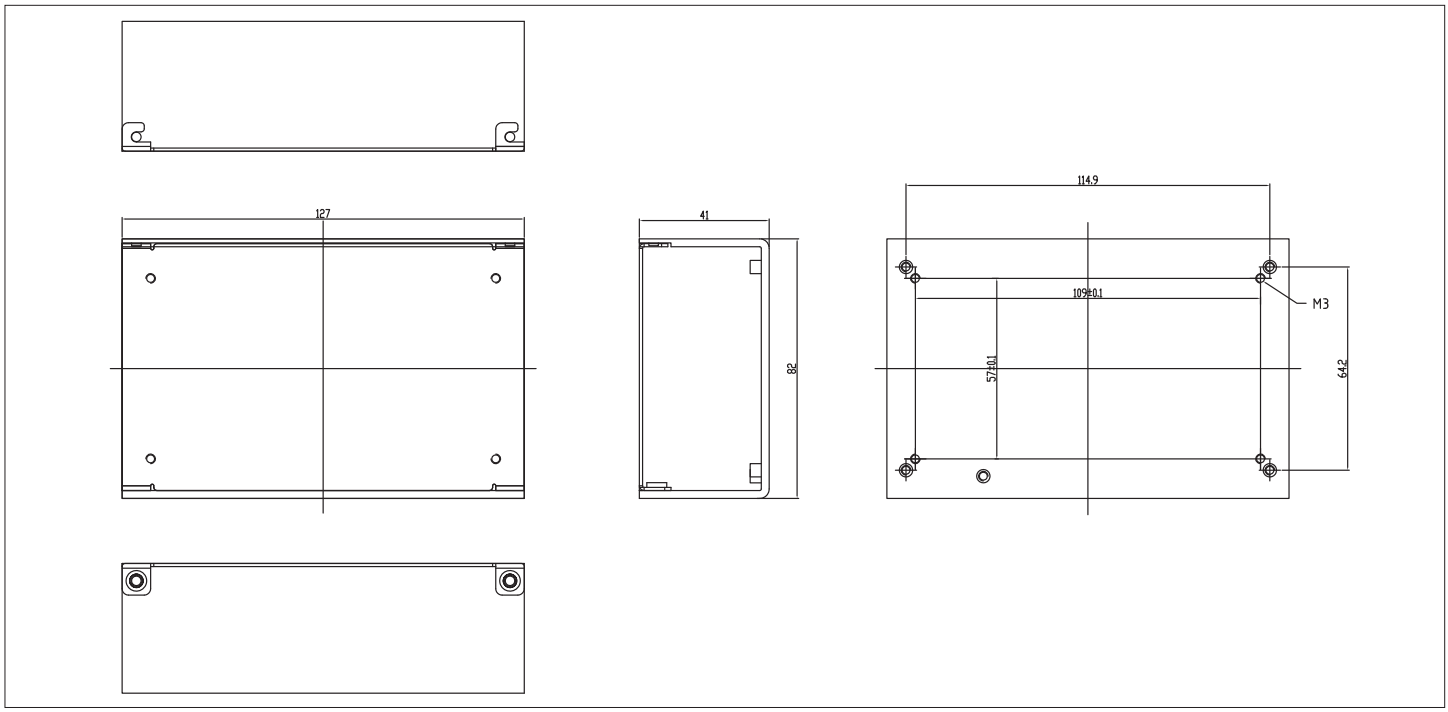
OUTLINE DRAWING



CONNECTOR

	DEFINITION	PIN FUNCTION	CONNECTOR
Input Connector	Input AC	L	1121S-3P2 3.96mm
	Input AC	N	
48V Output Connector	Ouput +	V+	BRTB825-01-02P 8.25mm 2P
	Ouput -	V-	
12V Output Connector	Ouput +	12V	1343-021-1B-1D 2.50mm 2P
	Ouput -	GND	
Current Sharing Connector	Current Sharing Bus +	SHARE+	1343-021-1B-1D 2.50mm 2P
	Current Sharing Bus -	SHARE-	

Jasper Electronics

INNOVATIVE SPECIALTY DC POWER SYSTEMS

Standard and Custom Power Supplies from 5W to 10KW

TRAFFIC CONTROL POWER SUPPLIES

- 70-400+ Watts / 120 and 220 VAC Models Available
- CALTRANS TEES, NYSDOT, CDOT, GDOT Compliant for 332, 334, 336, 342, 344, and 346 Series cabinets
- RoHS and NEMA Compliant
- Custom labeling and barcoding available
- Ruggedization against shock / vibration / humidity available

CUSTOM POWER DISTRIBUTION ASSEMBLIES (PDAs)

- Compliant with TEES 2020
- 1U smaller than the PDA2-LX and PDA3-LX
- User accessible slots as specified
- Custom labeling and barcoding available
- Ruggedization against shock / vibration / humidity available

COMPACT PCI

- AC or DC input, 175W - 500W DC output, active PFC
- 3U x 8HP, 6U x 8HP sizes
- PICMG 2.11 compliant, UL/CSA, NEMKO/TUV/CE certified, ROHS compliant
- Ruggedization against shock/ vibration/ humidity optional

Primary Applications: Industrial Computing, Military, Satellite Comm, Test, Transportation, Telecom, Aerospace

SPECIALTY HOT-SWAPPABLE POWER SUPPLIES

- 200-1500W, Universal Input, 5-54VDC Output
- Hot Swap. N+1, 90+% Efficiency
- 1U Form Factors
- 30+ Variations for Various Applications Including Nuclear
- Ruggedization against shock/ vibration/ humidity optional

Primary Applications: Medical Equipment, Military, Test, Automotive, Computing, Audio, Sensitive Electronics

RACK POWER SYSTEMS

- 200W-1500W, 2-8 slots, single or mixed output voltages, up to 10KW total
- Single, dual, or individual unit AC or DC input
- Internally or externally redundant DC outputs
- Standard 19" and 23" size or user-specified configurations also available
- Ruggedization against shock/ vibration/ humidity optional

Primary Applications: Medical Equipment, Military, Test, Automotive, Computing, Audio, Sensitive Electronics

CUSTOMS & MODIFIED STANDARDS

- 75W-2KW
- Single to 7 outputs
- Designed and built to custom or semi-custom specifications
- Ruggedization against shock/ vibration/ humidity optional
- Custom electrical specs, chassis, paint, labeling, connectors, interface all available

Primary Applications: Medical Equipment, Military, Test, Automotive, Computing, Audio, Sensitive Electronics

LOW NOISE CONVECTION / CONDUCTION COOLED POWER SUPPLIES

- 200W-500W, 90—264VAC full range input with 12-54 VDC Output
- Wide operating temperature range / high efficiency
- Small form factors
- Ruggedization against shock/ vibration/ humidity optional

Primary Applications: Medical Equipment, Military, IT, Sensitive Electronics

MEDICAL ADAPTERS

- 6W-250W, Efficiency levels V & VI
- Desktop, Wall-mount, and Interchangeable AC plug types
- Large selection of output connectors – additional cable lengths available
- UL60601 (medical) approved adapters available
- Ruggedization against shock/ vibration/ humidity optional

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