

Product Features:

- Power module telecom applications
- Fits in 19" high, 1.6U high
- 1800W Constant output power
- Wide input range
- Wide operating temperature
- Hot swap fault tolerant
- Active load sharing



Constant output power

A true constant power with 91% typical efficiency (including redundancy diode) for this 1800W rectifier and racks demonstrates the combination of the long experience of Mitra E&I for distributed power architecture with the latest development in technology to offer 3600W with redundancy in less than 2U space or 9000W with redundancy in 3U space.

Constant output power is the ideal fit for the networks, typically dc/dc converters. It also supplies more current at low voltages - a real need when batteries are discharged.

Superior power Density

With 627W/l, (10.23W/cubic inch) up to 55°C/(131°F), this rectifier demonstrates superior power density at both 230VAC and 110VAC mains. This excellent power density leaves a lot of room for the application.

Full featured for all applications

The units are perfect solutions to both indoor and outdoor applications and offer a wide range of features to improve control of the system. Beyond the traditional voltage programming, AC and DC fault control, the unit is equipped with a smart derating of the power in regard to internal temperature.

Signals include thermal shutdown, AC mains range detection (low or high) over voltage and module missing offering great flexibility of system configuration.

Excellent reliability

The rectifiers are designed to work in parallel. Active single wire sharing secure a very good load share among units. Redundancy diode on the output allows for hot swap fault tolerant insertion.

Each unit is protected against input under and over voltage and over temperature.

Easy installation and maintenance

The rectifiers do not require any special procedure or tools to be installed in the racks. Four leds on the front plate allow rapid detection of operation or faults making system maintenance extremely simple.

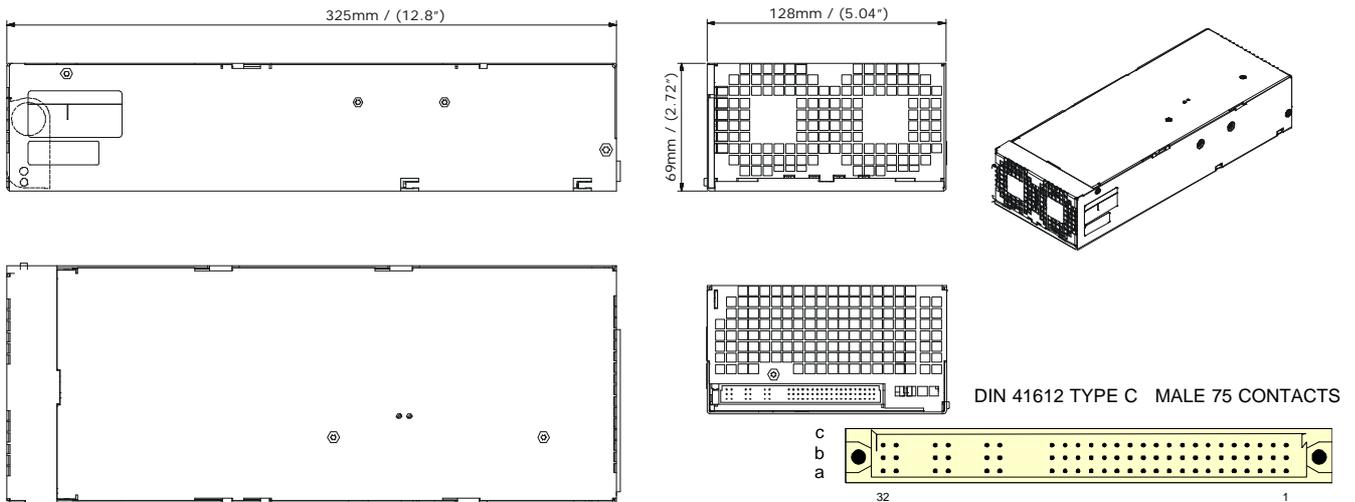


CAR1848TN

-48V / 1800W rectifier

SPECIFICATIONS	CAR1848TN - 1A	CAR1848TN - 2A
Input Voltage Range	90-264VAC (47 - 63Hz)	150-280VAC (47 - 63Hz)
Input Current (maximum)	13.5A @ 90VAC, 12A @ 180VAC	11.5A @ 150VAC, 12A @ 180VAC
Inrush Current	35A max. peak (ETS 300 132-1 compliant)	
Input Fuse	Two fuses : 15AF/250V	Two fuses : 16AFF/500V
Power Factor	0.99 typical at full load and nominal line (EN61000-3-2 compliant)	
Efficiency	91% typical at 230V (including redundancy diode in the -DC)	
Output Power	1800W @ High-line (180 - 264VAC) 1000W @ Low-line (90 - 160VAC)	1800W @ High-line (180 - 280VAC) 1500W @ Low-line (150 - 170VAC)
Nominal Output Current @ -54.6Vdc	33A (High-line) and 19A (Low-line)	33A (High-line) and 28A (Low-line)
Output Voltage Range	-40V to -57V with remote programming (factory set @ -54.6VDC)	
Voltage Regulation	250mV for any combination on load, line and temperature	
Output Ripple and Noise	Narrow band noise (25 - 20000Hz bandwidth) per ETS 300 132-2, CCITT 0.41 Wide band noise: max. 1mVrms psophometric and max. 5mVrms	
Transient Response	Overshoot 1V max. Recovery time: 4ms max. @ 50% load step and dl/dt<1A/μs	
Start-up Time	1sec typical (max. 3sec)	
Hold-up Time	10msec at full load	
Remote ON / OFF	ON: external 10k resistor. OFF: tied to 0V signal or open connection	
Current Limit Protection	40A	
Over Voltage Protection	-59Vdc to -60Vdc - latching, reset by remote OFF or line off during 20 sec	
Over Temperature Protection	Non latching; protection active at 110°C internal temp., restart at 95°C (typical)	
Operating Temperature	-25°C to +70°C / (-4°F to +158°F). Internal derating above 55°C / (131°F) of 2% per °C (-40°C / (-40°F) start-up	
EMI	EN55022 level B, CE marking (EN61000-6-3 and EN61000-6-1)	
LED Indicators	Mains presence (green), DC good (green), Thermal shut down (red), Overvoltage (red)	
Cooling	Built in horizontal front to back with variable speed fan	
Shock and Vibration	IEC 68-2-27, IEC 68-2-64	
Alarm	AC OK, AC High, DC OK, Temperature OK	
Monitoring	For the four signals: PNP open collector (0V signal) related to +out when Good:typ. 10V/5mA	
Controls	Active load sharing, Remote programming, Remote on / off	
Dimensions	128mm x 69mm x 325mm / (5.04" x 2.72" x 12.8")	
Weight	3.2kg / (7.05lbs)	

Outline Dimensions



#	Function	#	Function	#	Function
a1-a7	OUT - [-54V]	b1-b7	OUT- [-54V]	c1 - c7(*)	OUT- [-54V]
a8	Do not connect	b8	Do not connect	c8	Do not connect
a9-a15	OUT+ [+0V]	b9-b15	OUT+ [+0V]	c9 - c15	OUT+ [+0V]
a16	DC OK	b16	Output Voltage Programming	c16	Output current reading
a17	Do not connect	b17	AC OK	c17	Current Sharing
a18	Do not connect	b18	Temperature OK	c18	AC High
a19	Missing module	b19	Remote ON/OFF	c19	0V signal
a20-a22	REMOVED	b20-B22	REMOVED	C20-C22	REMOVED
a23-a24	LINE	B23-B24	LINE	c23-c24	LINE
a25-a26	REMOVED	b25-b26	REMOVED	c25-c26	REMOVED
a27-a28	NEUTRAL	b27-b28	NEUTRAL	c27-c28	NEUTRAL
a29-a30	REMOVED	b29-b30	REMOVED	c29-c30	REMOVED
a31-a32	PE	b31-b32	PE	c31-c32	PE

(*) pin c7 (sense-) to be connected to OUT-

The information contained within this specification is believed to be true and correct at the time of publication, however, Mitra Energy & Infrastructure accepts no responsibility for consequences arising from printing errors or inaccuracies.

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