

SM1800

Modular 1800Watt rectifier designed for Telecom and Datacom applications

Rating from a single rectifier:
34A output at 48Vdc operation



KEY FEATURES

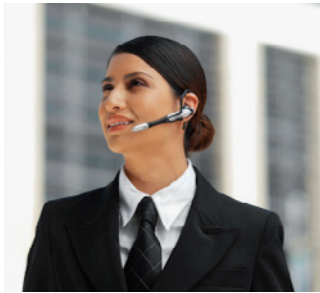
- » Convection cooled unit for low maintenance
- » High reliability
- » High power density (167W/l)
- » Wide operating input voltage range (180 to 285Vac, 300Vac withstand voltage)
- » Wide operating temperature range -10°C to +70°C with automatic self protection
- » Reliable operation due to its self-protection (input, output, temperature, current) and high MTBF
- » Sine wave input (PFC) and high efficiency (92%) to reduce operation costs
- » Easy to operate: compact, light, clear indications by LEDs
- » Control & alarm functions for remote management
- » Float temperature compensation and voltage control input for optimum battery charging via system controller - increases battery life
- » Boost/equalise as standard
- » 48V version available with internal DC output fuse
- » CE marked

For use in systems
ACM1D, NRC50

For use in systems
MTP1800C, MTP1800HP

SM1800

SPECIFICATION



MODULAR 1800 WATT RECTIFIER DESIGNED FOR TELECOM AND DATACOM APPLICATIONS

INPUT

Nominal input voltage lines	208, 220, 230, 240Vac without adjustment
Input voltage range	180-285Vac, (300Vac withstand voltage - see available configurations)
Nominal current	8.7A at 230Vac
Nominal frequency	50/60Hz
Number of phases	Single phase
Power factor	0.99
Total harmonic distortion (THD)	Meets EN61000-3-2
Inrush current	Less than normal peak current

OUTPUT

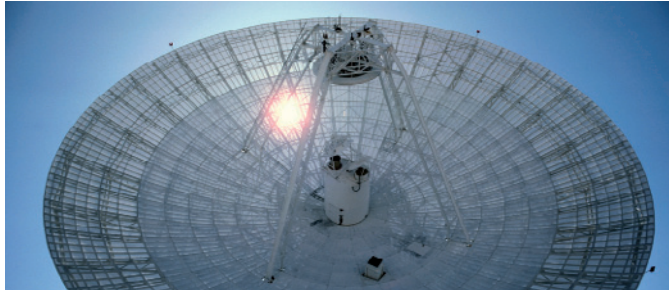
Nominal voltage	48Vdc
Output voltage control range	52-58Vdc
Maximum power	1850W
Maximum current	34A
Current sharing	±15%
Efficiency	92% Line & load regulation
Line & load regulation	<0.25%
Ripple and noise	<0.5mV rms weighted, <10mV rms unweighted <100mV peak to peak (30MHz Bandwidth)
Transient response	<3% for load variations from 10% to 90% or 90% to 10%, recovery to normal regulation limits in 5ms

PROTECTION

Input protection	Inrush protection, soft start, internal line fuse, surge protection devices The rectifier shuts down for input less than 165Vac or greater than 290Vac In both cases the rectifier will automatically re-start
Output protection	Electronic short circuit protection; output protection fuse (See available configurations)
Output overvoltage	DC overvoltage shutdown
Thermal protection	Automatic shutdown on thermal overload with automatic re-start when acceptable temperatures are re-established

SM1800

SPECIFICATION



ALARMS AND INDICATORS

Alarms	Input ac present, output voltage present, rectifier in current limit, DC overvoltage shutdown, boost mode
Front panel indicators	Green LED: Current output Amber LED: Input/AC present Red LED: Rectifier in current limit Green LED: Output voltage present Amber LED: Boost mode Red LED: DC overvoltage shutdown

MECHANICAL SPECIFICATION

Dimensions	265mm (6U)H, 107mm (21TE)W, 443mm D (minimum cabinet depth: 600mm)
Weight	9.8kg
Ingress protection	IP20
Mounting	Vertical 6U, 4 rectifiers across 19" or ETSI rack
Connections	Front connected as standard

ENVIRONMENTAL

Cooling	Natural convection
Operating temperature	10° to +70 °C full power up to 50°C, apply de-rating criteria between +50°C and +70°C
Storage temperature	- 40°C +80°C
Humidity	10 to 95% RH non condensing
Acoustic noise	<35dB(A)

STANDARDS

Safety	EN60950 - IEC60950
EMC	Emission: EN 55022 Class B - EN61000-3.2/3.3 - EN61000-6.3/6.4 Immunity: EN61000-6.1/6.2 - ANSI C62.41
Telecom networks	EN300 386 - EN300132-2
Environment	EN300 019 (Transportation, storage and operation) ROHS directive on Restriction Of use of Certain Hazardous Substances WEE directive on Waste Electrical and Electronic Equipment
Acoustic noise	ETS 300753
Approvals	CE

AVAILABLE CONFIGURATION

Product references	SM1800-50-33 Output Fused, 300V withstand voltage
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For further information
please refer to:

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