

## SM2800

**Modular 2800 Watt rectifier, fan-cooled, designed for telecoms, datacoms and industrial applications**  
**Rating from a single rectifier:**  
**50A output at 48Vdc operation - 100A output at 24Vdc operation**  
**20A output at 130Vdc operation**

### Key features

- Active power factor correction greater than 0.98
- High reliability – 33 years MTBF
- High power density – 0.2W/cm<sup>3</sup>, 3.4W/in<sup>3</sup>
- Efficiency (90% typical at full load 48V nominal mains, 86% at 24V)
- Forced air cooling
- Front panel adjustment of key variables
- Boost/Equalise as standard
- Unlimited paralleling
- Fan fail reporting
- Float temperature compensation control input for optimum battery charging or remote voltage control
- CE marked (UL marked available)



### For use with controllers:

ACM1D, NRC50

### For use in systems:

MTP 2800C, MTP2800HP

### SPECIFICATION

#### Input

<b>AC input voltage</b>	180 – 264V rms
<b>Frequency</b>	45 – 65Hz
<b>Number of phases</b>	Single phase
<b>Power factor</b>	Greater than 0.98 (nominal input and output)
<b>Total harmonic distortion</b>	Less than 5% at full load
<b>Full load input current</b>	13.6A at 230V input

#### Output

<b>Output voltage</b>	24V, 48V, 120V (see table for adjustment range)
<b>Output current</b>	Nominal 50A (48V), 100A (24V)
<b>Current share</b>	Any number of rectifiers may be operated in parallel. Passive sharing is typically within 15%
<b>Regulation</b>	Less than 100mV for full range of AC input and DC output
<b>Ripple and noise</b>	0.5mV weighted to 800Hz, 10mV flat (to CCITT standard) 5mV/mHz 3kHz to 100mHz wideband. Narrowband <8mV 1kHz to 100mHz
<b>Transient response</b>	For 90% to 10% or 10% to 90% rated load, maximum deviation 2V, recovery to within 0.5V in 5mS
<b>Temperature coefficient</b>	Less than 0.015% per °C
<b>Polarity</b>	Bipolar

### Modular 2800 Watt rectifier, fan-cooled, designed for telecoms, datacoms and industrial applications

Protection	
<b>Output current limit</b>	Current characteristic is constant current between 100% rated current and short circuit. Automatic recovery to normal operation on removal of abnormal load
<b>Output overvoltage</b>	Output overvoltage in excess of the overvoltage setting results in the unit latching into output shutdown. Reset by interruption of AC input supply. (See table)
<b>Inrush current</b>	Less than normal peak current
<b>Thermal protection</b>	Automatic shutdown on thermal overload with automatic re-set when acceptable temperatures are re-established
<b>EMC</b>	Complies with EN50082-2, EN50081-1, EN300 386-2, EN55022 level B, (level A 120V version) FCC part 15, Subpart B, Class A
<b>Safety</b>	Designed and built to EN60950, IEC950, UL1950
Environmental	
<b>Operating temperature</b>	-10°C to +50°C inlet ambient
<b>Storage temperature</b>	-40°C to +80°C
<b>Humidity</b>	0 – 95% RH non-condensing
<b>Altitude</b>	0 – 4000m (0-13,500ft) operating
Mechanical specification	
<b>Dimensions</b>	2U, 88mm H, 445mm W, 350mm D
<b>Weight</b>	12.0kg
<b>Fixing</b>	19" rack mounting

Model	Reference	Output voltage adjustment range	Output current (nominal)	Output current limit	Output overvoltage (factory settings)	
					Float	Equalise
<b>24V</b>	-24-100	26-29V	100A	102A	30V	30.8V
<b>48V</b>	-50-50	52-58V	50A	51.5A	58.5V	59.6V
<b>130V</b>	-130-20	110-145V	20A	21A	142V	148V