

OPUS C DC POWER SYSTEMS

MRC RECTIFIERS

MRC rectifier modules are designed and optimised for demanding industrial and telecom applications.

Rectifier delivers 1600W output power at 48, 60, 110, 125 and 220 VDC and 1100W at 24 VDC. Rectifier input is single phase, 140-290 VAC. Rectifiers are convection cooled.

Rectifiers can be operated either with a system controller or as stand-alone modules with or without batteries in the output.

MRC24-1100

MRC48-1600

MRC60-1600

MRC110-1600

MRC125-1600

MRC220-1600

RELATED PRODUCTS

VIDI+

VIDI+ I/O

- Convection cooling.
- Outputs 24, 48, 60, 110, 125, 220 VDC.
- 1600W output power.
- 1100W for 24VDC model.
- Constant output power characteristics.
- Nominal 230VAC input, 140-290 VAC.
- Active load current sharing.
- Internal over-temperature protection.
- Digital communication over CAN bus with VIDI controller.
- Flexible design with full front cabling.
- EMC: EN 300 386:2005.
- Safety: IEC/EN 60950-1 CB certified.

Providing sustainable
critical power solutions
in an ever demanding world.



SYSTEMS
POWER PROTECTION SPECIALISTS

TECHNICAL SPECIFICATIONS

MRC Rectifiers

24V

48V

60V

110V

125V

220V

AC INPUT	MRC24-1100	MRC48-1600	MRC60-1600	MRC110-1600	MRC125-1600	MRC220-1600
NOMINAL INPUT	230 VAC					
INPUT RANGE	140 – 290 VAC (100% output power 180-275 VAC)					
START-UP VOLTAGE	180 VAC					
REDUCED OUTPUT POWER	140 – 180 VAC, de-rating factor 1% / 1 VAC					
INPUT FREQUENCY RANGE	45 to 65 Hz					
MAXIMUM CURRENT (AT 180 VAC, FULL LOAD)	6.9 A	9.7 A	9.8 A	9.6 A	9.6 A	9.6 A
POWER FACTOR	0.99 (typical @ 230 VAC)					
INPUT PROTECTION	Mains fuse, Varistor and gas discharge tube for transient surge protection, Automatic shut-off above 290 VAC (restart at 280 VAC)					

DC OUTPUT	MRC24-1100	MRC48-1600	MRC60-1600	MRC110-1600	MRC125-1600	MRC220-1600
VOLTAGE RANGE	21-30 VDC	42-58 VDC	51-72 VDC	97-132 VDC	97-145 VDC	89-265 VDC
VOLTAGE FACTORY SETTING	27.3 VDC	54.5 VDC	68.1 VDC	123.6 VDC	136.8 VDC	245.3 VDC
MAXIMUM CURRENT	45.8 A @24V	32.7A @48V	26.7A @60V	14.5 A@ 110V	12.8 A@ 125V	7.2 A@220V
CONSTANT OUTPUT POWER	1100 W	1600 W	1600 W	1600 W	1600 W	1600 W
HOLD-UP TIME	> 20 ms , at full load, output voltage from nominal to minimum					
STATIC VOLTAGE REGULATION	± 3.0 % (load, line, temperature)					
DYNAMIC LOAD REGULATION	± 4.0 % for 10%-90% or 90%-10% load step, recovery time < 1.0 ms					
RIPPLE AND NOISE	< 100 mVp-p					
OUTPUT PROTECTION	Over-voltage shut-down Current limit / short circuit protection Power limiting Internal over-temperature protection					

FEATURES	MRC24-1100	MRC48-1600	MRC60-1600	MRC110-1600	MRC125-1600	MRC220-1600
EFFICIENCY, TYPICAL (AT 50-85% LOAD)	90%	92%	91%	>92%	>91%	>92%
LOAD CURRENT SHARE	± 5 % from true average current between the modules					
RECTIFIER ALARMS	Mains fault alarm (high/low), Low output voltage alarm, Over-voltage shut-down alarm, Rectifier fault alarm, Temperature Alarm					
VISUAL INDICATIONS	LED: Green/Red/Amber					
ENERGY SAVE OPERATION MODE	See VIDDI controller manual					

MECHANICAL	MRC24-1100	MRC48-1600	MRC60-1600	MRC110-1600	MRC125-1600	MRC220-1600
DIMENSIONS	230 x 83 x 350 mm					
WEIGHT	4.60 kg					
PROTECTION CLASS	IP20 / IEC 529					

CONNECTIONS	MRC24-1100	MRC48-1600	MRC60-1600	MRC110-1600	MRC125-1600	MRC220-1600
CONNECTOR, AC	Appliance plug IEC 320 / 10 A male					
CONNECTOR, DC	FCI Twin-blade TM Power IO connector					
CONNECTOR, POWERCAN	2 pcs RJ-45					

ENVIRONMENTAL	
COOLING	Natural convection
ACOUSTIC NOISE	<40 dB (A)
OPERATING TEMPERATURE	-20/+50°C
STORAGE TEMPERATURE	-40/+70°C
HUMIDITY	95% (relative humidity, non-condensing)
ALTITUDE (MAX)	2000m above sea level

APPLICABLE STANDARDS	
EMC	ETSI EN 300 386: 2005
ENVIRONMENT	Operation: ETS 300 019-2-3 cl T3.2 Storage: ETS 300 019-2-1 cl T1.2 Transportation: ETS 300 019-2-2 cl T2.3
SAFETY	IEC / EN 60950-1
APPROVALS	CE marked, CB certified
ROHS/WEEE	2002/95/EC
QUALITY	Manufacture and design conform to ISO 9001, ISO 14001

ORDER INFORMATION	
MRC24-1100	92G310
MRC48-1600	92G340
MRC60-1600	92G290
MRC110-1600	92G300
MRC125-1600	92H620
MRC220-1600	92G320



pe-systems.co.uk
+44 (0)1942 260330
sales@pe-systems.co.uk



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