

MTP2800iHP

Intelligent high power 48Vdc power system
designed specifically for the Telecom
and Datacom industries

Systems rated up to 9000A



System comprises:

Up to 180 rectifiers in power block of 30 rectifiers per cabinet (1500 A). The system is controlled by NRC50 unit, which monitors all rectifiers and their parameters. 6 power blocks can be connected together make a 9000 A system. If more power is required two separate systems can be powered in parallel in a master slave arrangement.

These sophisticated digital control units communicate with the SMi2800 rectifiers via a CAN-bus intelligent link. They offer many advanced features including comprehensive battery management, alarms supervision, measurement of mains voltages, remote access and individual rectifier detection and monitoring

DC Distribution is provided in a separate cabinet configurable to customer specifications.

Battery protection, using breakers or fuses, can be housed either separately or included within the DC distribution cabinet.



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Key Features:

- Output power of up to 1500 A per cabinet (Footprint 600 mm x 600 mm)
- Simple system expansion by addition of rectifiers/power cabinets
- Advanced microprocessor technology with digital control and CAN-bus communications
- Space saving due to its power density (477 W/l) and format (1U)
- Robust due to its very wide operating input and voltage range:
 - 312-530 Vac (normal operation)
 - 147-312 Vac (extended operation)
- Wide operating temperature range -40°C to +70 °C with full thermal management
- Self protection against high temperature and low input voltage conditions via automatic output current de-rating
- Modular design
- Redundancy due to N+1 configuration
- Hot-plug capability with automatic rectifier detection and configuration for easy system expansion
- Parallel operation with active current sharing
- Sine wave input (PFC) and high efficiency (92%) to reduce operation costs
- Powerful local remote monitoring and control using NRC50 supervision unit
- Advanced battery management including 4 charging modes, floating current and symmetry monitoring, ampere-hour meter and automatic battery tests
- Complete system measurements, monitoring and alarm management, thanks to the powerful supervision platform NRC50
- Three battery charge modes available float, equalise/boost and commissioning
- Two levels of low voltage detection to enable disconnect of essential or non-essential load
- Designed for easy maintenance of all system key elements
- Fan monitoring for easy maintenance
- Standard distribution cabinets available
- Front access
- CE marked

For use with controller:

NRC50 up to 6 racks

For use with rectifier:

SMi800

SPECIFICATION

INPUT

Nominal AC supply	Three phase, + neutral, 312 - 530 Vac (normal operation), 147 - 312 Vac (extended operation)
Nominal current per rectifier	13,2A
Nominal frequency	50-60Hz

SPECIFICATION

OUTPUT	
Number and type of rectifier	Up to 30 x SMi2800 per cabinet
Nominal voltage	48Vdc
Output voltage control range	Adjustable 42V to 60V via management software
Efficiency	92%

DISTRIBUTION	
DC Distribution	Can be customised to your needs

SUPERVISION AND COMMUNICATION	
Controller	NRC50 advanced digital controller offers complete system management including battery management, system alarms and local or remote monitoring and control
Man machine interface	An 8 button keyboard and LCD screen to display system alarms, measurements or status
Communications	Direct through RS232, RS485 or Ethernet communication port NCS web server option for TCP/IP/SNMP and web based JAVA viewer
Alarms	configurable and fixed alarms

BATTERY MANAGEMENT	
Battery protection	Fuses or breakers to customer specification
Low volts disconnect (LVD)	Battery and non-essential load disconnect available
Charging modes	A range of charging modes available dependent on controller used
Battery test	Automatic programmable, or manually triggered battery test test undertaken at constant discharge current) – battery history log

MECHANICAL SPECIFICATION	
Dimensions	2200mm H, 600mm D, 600mm
Weight	110kg (without rectifier)
Ingress protection	IP20
Battery shelves	Separate battery cabinet
Cable entry	Top or bottom

ENVIRONMENTAL	
Cooling	Forced cooling
Operating temperature	- 15°C to + 50°C inlet ambient at full rated power
Storage temperature	- 40°C to + 80°C
Humidity	0-95% RH non-condensing

STANDARDS	
Safety	EN60950 – IEC60950 - UL60950
EMC	Emission: EN55022 Class B – EN61000-3.2/3.3 – EN61000-6.3/6.4 Immunity: EN61000-6.1/6.2 – ANSI C62.41
Telecom networks	EN300386-2 – EN300132-2
Environment	EN300019 (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 reference	MTP2800iHP



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