RECTIFIER UNIT -48V/1200W
PHB 1200A-0048/01

Features:

- ✓ 3U standard module;
- ✓ 180Vac to 275Vac input;
- ✓ -48Vdc output;
- ✓ Output power limited to 1200W (25A @ -48Vdc);
- ✓ Hot swap;
- ✓ High power density;
- ✓ High efficiency and reliability;
- ✓ High Power Factor;
- ✓ Up to five paralleled modules per 19”shelf with current share (slope compensation);
- ✓ Forced Cooling;
- ✓ Over load and short circuit protection;
- ✓ Over voltage protection;
- ✓ Over temperature protection;
- ✓ Power limitation under fan fail;
- ✓ SPI interface;
- ✓ Meet requirements of Brazilian Telecommunications Agency (ANATEL File Number 0307-03-1752).

The PHB 1200A-0048/01 is specifically designed to operate as an integral part of a complete –48V rectifier power system, with or without battery backup. A high switching frequency and the forced cooling allow a compact size and high efficiency.

The output power is limited to 1200W up to 55ºC, above this temperature the power is derated with a -20W/ºC rate. Paralleling diodes are included in order to allow redundancy. A fully equipped 19”/3U shelf is able to include up to five modules, with a total output power of 6kW.

All parameters can be adjusted by Control Unit (keypad or PC – RS232). In this way, for example, it allows to set output voltage, define the float voltage temperature compensation, protective levels, etc…

The Rectifier Units latch the preview adjusted parameters and keep working, for operation without Control Unit.

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ELECTRICAL SPECIFICATIONS	
Input Voltage Range	180Vac to 275Vac (phase to phase or phase to neutral)
Input Frequency Range	47Hz to 63Hz
Power Factor	> 0.98 for loads from 50% to 100% of rated current.
Maximum Input Current	7.5Arms @ 180Vac
Nominal Input Current	6.2Arms @ 220Vac
Inrush Current	< 10Apeak
Output Voltage	-54Vdc (could be adjusted from –45.0Vdc to -58.4Vdc in factory)
Nominal Output Current	25A @ -48Vdc
Maximum Output Power	1200W per module
Efficiency	89% @ full load and 220Vac input voltage
Static Output Voltage Regulation	< ±1% (load and line)
Dynamic Output Voltage Regulation	< ±5% for 50% step load from 10% to 100% (less than 25ms for recovery time)
Output Noise	< 200mVpp (10Hz to 20MHz) < 48mVrms (10Hz to 10MHz) < 1mVpsophometric or –57.8dBm (voice band)
Withstand Voltage	1500Vdc (Ground to Input or Input to Output)
MTBF	> 195,000 hours @ 25°C and full load (RELEX 7.5)

MECHANICAL SPECIFICATIONS	
Connections	Male Connector DIN41612 - VG95324 – H type, 15 circuits
Dimensions	Height: 133mm; Width: 81mm; Depth: 288mm
Weight	2.4Kg
Front Panel Finishing / Silk Screen	Brushed Stainless Steel / black (or different finishing under request)

GENERAL FEATURES	
LED Indicators	ON, Power Fail and Fan Fail
Test Points	Output Voltage
Output Signals	Complete status information by SPI (Serial Peripheral Interface) Protocol
Protection	Input fuses Output paralleling diode Short circuit and overload Input under and over voltage (with Control Unit) Output over voltage (-58.8Vdc) Over temperature (internal temperature ~ 80°C) Output power is limited to 120W under fan fail

STANDARDS	
Emission (EMI)	CISPR 22 – Class A FCC (under request)
Immunity (EMC)	IEC 61000-4-2 (level 4) IEC 61000-4-3 (level 3) IEC 61000-4-4 (level 4) IEC 61000-4-5 (level 4) IEC 61000-4-6 (level 3) IEC 61000-4-11 IEC 61000-3-2
Safety	UL 60950 (under request)
Others	Any Standard for any country requirements under request

ENVIRONMENT	
Temperature	-10°C to 55°C at 1200W (above 55ºC the power is reduced by –20W/ºC and at 75ºC the unit is shutdown)
Air Humidity	0 to 95% R.H. non-condensing

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