

Rectifier E xxVDC/yyADC-Bwrug- SW

Input: 100 to 250VAC
Output: 24/48/60/220VDC (800W)

Product Description

Power supply modules of series are compact battery charging rectifiers with an optimized switching principle and therefore with a high power density. The rectifier can be used in all DC applications with or without battery.

Due to the modular concept and a high scalability the user is able to equip the power supply with additional modules according to his actual power demand. The chargers are very user-friendly and can be swapped and upgraded during operation.

The devices get their operation parameters via the system wide CAN communication bus. After a successful login a central monitoring unit controls and monitors the devices. In case of CAN bus interruption the modules operate continuously with internal default values. Therefore, the supply of the connected loads and the charging of the batteries are guaranteed without any interception. The nominal output power of the unit is 800W (600W at input voltage ≤ 173 VAC). Up to 6 modules can be integrated in a 19" sub rack with 4U (forced cooling mode with fan rack).

Key Features

- 1/6x19", 3U
 - Single-phase module with sinusoidal input current (PFC)
 - Input overvoltage protection
 - Wide input voltage range
 - Wide output voltage range
 - Suitable for NiCd batteries
 - "Hot-Plug-In" design with backplane connection
 - High power density
 - CAN-Bus interface
 - Integrated decoupling from the DC bus
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Technical Data

Type	E xxV/yyA-Bwrug-SW	24V/30A - 48V/16.7A - 60V/13.5A -220V/3.7A
AC input		100 up to 250VAC
AC input voltage tolerance		-20/+10%
AC input current		3.9 AAC @230VAC
Input frequency range		47-63Hz
Power factor		>0.99 at Pnom >50%
Total harmonic distortion		<5%
Efficiency		≥ 90%
Internal input fusing		10A (5x20 mm)
Nominal output voltage		24VDC/48VDC/60VDC/216VDC
Nominal output current @ 24/48/60/220V		30A /16.7A/13.5A/3.7ADC
Nominal output power		800W (600W @ input voltage ≤173VAC), power derating at higher temperatures
Charge characteristic line		IV characteristic line according to DIN41772/DIN41773; power limited
Adjustable output voltage range		19.0 - 36.0/38.0-75.0/48-88.5/172.0-313.0VDC (also suitable for NiCd-batteries)
Default value of the charging voltage		27.24/54.5/68.1/245VDC (2.27V/cell; lead acid battery); option NiCd batteries
Voltage ripple / psophometric acc. to CCITT-A		≤ 20mVpp / <1.8mV
Dynamic accuracy of the charging voltage		<3% Vnom at load changes between 10%-90%-10% Inom; correction time ≤1ms
Short circuit protection		Continuous short circuit proof; 1x Inom
Parallel operation		Yes; current distribution ≤10% Inom
Internal decoupling at the output		Yes; active, low-loss decoupling circuit in the negative output line
Internal output fuse		40/25/20/5A
LED signalling		Operation (green), Vo OK (green), Vo> (red), Alarm (red)
Main processor		16Bit Fujitsu
Isolated signalling contacts		"General fault"; relay contact
Communications interface		CAN-Bus, proprietary protocol
Ambient temperature		Operation: -20°C up to +45°C; storage: -40°C up to +85°C
Cooling		Forced cooling with fan rack 1U or convection cooling
Climatic conditions		according to IEC 721-3-3 class 3K3/3Z1/3B1/3C2/3S2/3M2
Max. installation altitude		≤ 1500m
Audible noise		<30dBA
Type of construction		1/6 x 19", 3U
Dimensions (W/H/D)		71/128/285mm
Weight		approx. 2.2kg
Type of enclosure / Protection class		IP20 (front panel) / 1
Colour (front panel)		RAL 7035, black imprint
CE conformity		yes
Compliance to safety standards		EN60950-1; VDE0100 T410; VDE0110; EN50178; EN60146
Compliance to EMC standards		EN55022/24 class "B", ITE Devices; EN61000-4 T2-5
Connections connector		AC input, DC output and signalization: DIN41612-M-