ELTEK VALERE
always on

RECTIFIER
PSS30

In: 230VAC

Out: 24/48/60/110/220VDC (max. 3.0kW)

(24V version: max. 2.3kW)

KEY FEATURES

- **Single-phase module 1/3 x 19", 6U with sinusoidal input current**
- **"Hot plug-in" capability**
- **CAN-Bus interface**
- **Temperature compensation of the charging voltage**
- **Digital display for output voltage, current and adjustment values**
- **Front side connectors**
- **Fan cooling**

PRODUCT DESCRIPTION

A combination of modern AC to DC switching power conversion technology and a flexible 19" compatible mechanics such as the PSS offers many advantages and is suitable for a wide range of applications.
A constant voltage and current control circuit performs the correction of output voltage deviations due to transient deviations of the input voltage or load within less than 1.5ms and permits constant current operation down to continuous short circuit.
A microcontroller unit equipped with two control keys and digital displays at the front panel provides permanent monitoring of input and output voltage, output current and temperature. This feature offers easy adjustment and programming of output parameters and monitoring thresholds.
To increase the power supply, it is possible to operate the PSS modules in parallel connection.
For the control of all parameters and measurement values it is advantageous to use the monitoring device UPC3, which communicates with the modules via CAN–Bus interface.

APPLICATIONS

Rectifier module for DC power supply facilities with or without battery in all areas of industry, power generation and power distribution.

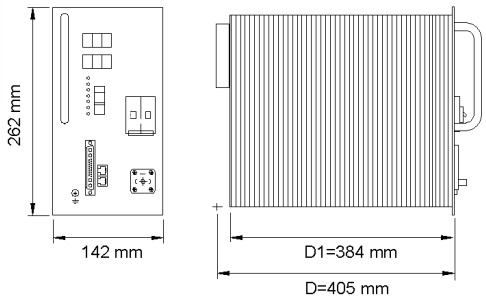
TECHNICAL DATA

Type	PSS30/24-80-CAN	PSS30/48-50-CAN	PSS30/60-40-CAN	PSS30/110-22.3-CAN	PSS30/220-11.1-CAN	PSS30/220-11.1 Relay
Article code	100-030-140.00	100-030-150.00	100-030-160.00	100-030-170.00	100-030-180.00	100-030-180.01
Nominal input voltage	230VAC +15/-20%	←	←	←	←	←
Nominal input current	10.9AAC	12.9AAC	12.9AAC	12.9AAC	12.9AAC	12.9AAC
Input frequency range	47– 63Hz	←	←	←	←	←
Power factor	>0.95 at P_{nom} <25% ; >0.97 at 50% >P_{nom} >25% ; >0.99 at 100% >P_{nom} >50%					
Efficiency	≥90%	≥91%	≥91%	≥91%	≥91%	≥91%
Internal input fusing	MCB B16A	←	←	←	←	←
Nominal output voltage	24VDC	48VDC	60VDC	108VDC	216VDC	216VDC
Nominal output current (adjustable range)	80.0 (40-80)ADC	50.0 (25-50)ADC	40.0 (20-40)ADC	22.3 (11-22.3)ADC	11.1 (5.5-11.1)ADC	11.1 (5.5-11.1)ADC
Charge characteristic line	IV line acc. to DIN 41772/DIN 41773					
Output voltage V_{O1} (Trickle charging)	27.2VDC ±1% (23.4 to 28.8V adjustable)	54.5VDC ±1% (46.6 to 57.6V adjustable)	68.1VDC ±1% (58.5 to 72V adjustable)	122.6VDC ±1% (105 to 130V adjustable)	245.2VDC±1% (211 to 260V adjustable)	245.2VDC±1% (211 to 260V adjustable)
Output voltage V_{O2} (Boost charging)	28.8VDC ±1% (24 to 30V adjust-	57.6VDC ±1% (48 to 60V adjustable)	72.0VDC ±1% (60 to 73V adjustable)	129.6VDC ±1% (108 to 135V adjustable)	259.2VDC±1% (216 to 270V adjustable)	259.2VDC±1% (216 to 270V adjustable)
Output voltage V_{O3} (Battery test)	22.2VDC ±1% (20.4 to 24V adjustable)	44.4VDC ±1% (40.8 to 48V adjustable)	55.5VDC ±1% (51 to 60V adjustable)	99.9VDC ±1% (91.8 to 108V adjustable)	200VDC ±1% (184 to 216V adjustable)	200VDC ±1% (184 to 216V adjustable)
Voltage ripple	≤20mV_{pp}	≤20mV_{pp}	≤20mV_{pp}	≤100mV_{pp}	≤200mV_{pp}	≤200mV_{pp}
Psophometric acc. to CCITT-A	≤1.2mV_{rms}	≤1.8mV_{rms}	≤1.8mV_{rms}	- - -	- - -	- - -
Dynamic accuracy of the charging voltage	<3% V_{nom} at load transients between 10% - 90% - 10% I_{nom}, recovery time t ≤1.5ms					
Short circuit protection	Continuously short circuit proof, 1x I_{nom}					
Parallel operation	Yes, <20 pieces, load sharing appr. 10% I_{nom}					
Internal decoupling at the output	no	←	←	←	←	←
LED signalling	Mains O.K. (green); V_{O1} (green); V_{O2} (green); I_O (yellow); V< (green); V> (red); Alarm (red)					
Digital displays	Output voltage, output current					
Isolated signalling contacts	"General fault" and "V_O<"					
Monitoring	Output voltage high/low, output voltage, output current, short circuit					
External functions	Active current sharing, boost charge and battery test function, temperature compensation of the charging voltage, external sensor lead for the output voltage, remote ON/OFF, optocoupler signal "V_O O.K.", "Mains O.K." and "Constant current operation"					
Communications interface	CAN-Bus interface for communication with central monitoring unit					- - -
Ambient temperature	Operation: -20°C to +45°C, storage: -40°C to +85°C					
Climatic conditions	IEC 721-3-3 class 3K3/3Z1/3B1/3C2/3S2/3M2					
Max. installation altitude //Audible noise	<1500m // <40dB (A) in 1m distance					
Construction	1/3 x 19" module, 6U, for mounting in sub racks acc. to DIN 41 494, front connectors					
Dimensions (W/H/D/D1) // Weight	142/262/405/384mm // approx. 12.4kg					
Cooling	Fan cooling	←	←	←	←	←
Type of enclosure / Protection class	IP20 (mech.); 1 (electr.)					
Surfaces	Front panel: powder coating RAL 7035, black imprint; constructive parts: anodized					
Compliance to safety standards	EN 60950-1, VDE 0100 part 410, VDE 0110, EN 50178, EN 60146 // CE conformity: yes					
Compliance to EMC standards	EN 55011, EN 55022 class „B", EN 61000– 4 part 2– 5					

OPTIONS

Article	Article Code
Connector set for input/output <40A	880-100-STK.01
Connector set for input/output >40A	880-100-STK.02
Connector set for input/output , PSS 216V	880-100-STK.03
19" subrack, 7 U	880-MEC-BGT7.00

DIMENSIONS



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