



Smart -48V DC power supply systems are designed for low power DC loads. These are small systems (19", up to 3U) with power up to 6kW and simple and fast installation.

GENERAL DESCRIPTION

The SDW 80 RT is designed to supply DC loads with rated 48Vdc voltage. In conjunction with the battery it provides uninterruptible power to critical 48Vdc loads during designed autonomy.

The system is controlled by Q1 unit which monitors and controls the operation of individual modules. Energy is processed by high efficient, constant power rectifiers: PDW 48/20-1000W.

APPLICATION

- wireless telecommunication
- ICT
- railway industry
- power engineering
- GPON networks
- Data Center
- broadband networks

KEY FEATURES

- ✓ Compact design 3U, 19"
- ✓ High power density (4kW @3U, 19")
- ✓ Uninterruptible supply of the 48Vdc critical loads in cooperation with the battery
- ✓ Intuitive control interface with LCD display, control panel and USB port
- ✓ Remote monitoring via WEB and desktop application
- ✓ Remote monitoring - SNMP / Ethernet
- ✓ Programmable alarm outputs - dry contacts
- ✓ Measurements of electrical and environmental parameters (current, voltage, power, temperature)
- ✓ Space for rectifiers: 4x PDW 48/20-1000W
- ✓ Modern high-efficiency rectifiers
- ✓ Fast on-line expansion of rectifiers (hot-swap)
- ✓ Fast on-line replacement of control unit (hot-swap)
- ✓ Flexible Q1 controller - continuous control of the system and sending alarm states
- ✓ Automatic operation mode (float, battery charging, battery operation)
- ✓ Protection of the battery against deep discharge: LVD contactor disconnects the battery at specified voltage
- ✓ Temperature compensation of float voltage
- ✓ Simple installation and intuitive operation



TECHNICAL SPECIFICATIONS

AC input

Nominal voltage	Vac	230 lub 3x230/400
	Vdc	220
The range of input voltage	Vac	85÷300 (176<limited power)
	Hz	45÷65
Frequency	-	L+N+PE or 3xL+N+PE
AC mains configuration	-	24 (single-phase supply) 12 (three-phase supply)
Max. current phase	-	≥0,99
Power factor	-	

DC output

Voltage range	Vdc	48÷58
Characteristic	-	IPU
Output voltage stabilization	%	±1
Maximum output current	ADC	84
Maximum output power	kW	4
Psophometric voltage ripple	mV	< 2

Control and monitoring

Controller	Q1
Operation status signaling	LED
Local control	Three configurable light emitting diodes, color LCD TFT display (resolution: 128 x 160 px), keyboard (4 buttons)
Remote interface (http server)	Graphic user interface using, 4 configurable access levels, login control, user profiles, the ability to set settings remotely, displaying the current operating parameters of the system
Remote interface (SNMP)	Remote parameter control, remote alarming via SNMP
Alarming,	LED
Operation signaling	relay contacts
Alarm output	3x changeover relay contacts

Mechanical specifications

Dimensions (H x W x D)	mm	133(3U) x 483(19") x 312
Ingress protection		IP20
Weight without rectifiers	kg	11

Rectifier

Efficiency	%	95,4 (peak)
Dimensions (H x W x D)	mm	41 x 52 x 152
Weight	kg	0.6
Cooling	-	forced

Standard equipment

Rectifier PDW 48/20-1000W	1÷4
Battery protections with status monitoring	1÷4 x MCB
Load protections with status monitoring	11(MCB 13mm) 8(MCB 18mm) minus the number of battery protections
Temperature sensor	Battery temperature measurement

Optional equipment

Additional temperature sensor	Ambient temperature measurement
The system summary battery current measurement	
The system separate battery current measurement	
Battery protection against deep discharge	LVD
management of load groups	ZGO
Remote monitoring	SNMP module
supervision over the operation of the modular inverter	

Environmental specifications

Operating temperature	°C	-40 ÷ 75 (>45 limited power)
Relative humidity	%	<95 (at 20°C)

Design standards

Electrical safety	PN-EN 60 950-1
EMC	PN-ETSI EN 300-386
Environmental	RoHS, WEE, LVD

Our experts will help to properly select and configure all elements of the power system and to integrate this product with other solutions.

COMMON QUESTIONS

- selection of the battery
- selection of the battery & loads protections
- selection of cable cross-section

RELATED PRODUCTS AND SERVICES

- indoor cabinets / racks
- outdoor cabinets
- batteries
- installation service
- remote monitoring
- extended warranty