



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 40 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 1U, 19"
- ✓ High power density (2kW @1U, 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: 2x 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
- ✓ Front Terminal - terminals and connections for DC loads are located on the front panel
- ✓ Simple installation and intuitive operation



TECHNICAL SPECIFICATIONS

AC input		
Nominal voltage	Vac	230/400
	Vdc	220
The range of input voltage	Vac	85÷300
Frequency	Hz	45÷65
AC mains configuration	-	L + N + PE / L1 + L2 + N + PE
Max. current phase	Aac	12
Power factor	-	≥0,99

DC output		
Voltage range	Vdc	42÷58
Characteristic	-	IPU
Output voltage stabilization	%	±1
Maximum output current	Adc	40
Maximum output power	kW	2
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, Operation signaling	LED relay contacts
Alarm output	4× changeover relay contacts

Mechanical specifications		
Dimensions (H × W × D)	mm	44 (1U) × 483(19") × 335
Ingress protection		IP20
Weight without rectifiers	kg	3,5

Rectifier		
Efficiency	%	95,4 (peak)
Dimensions (H × W × D)	mm	41 × 52 × 152
Weight	kg	0,6
Cooling	-	forced

Standard equipment		
Rectifier PDW 48/20-1000W		1+2
Battery protections with status monitoring		2× 34A Hydraulic/magnetic circuit breaker
Load protections with status monitoring		6× 10A type miniature fuse-links 6,3x32mm or 6× 15A type ATO 80VDC BLADE
Battery protection against deep discharge		LVD
The system summary battery current measurement		

Optional equipment		
Additional temperature sensor		Ambient temperature measurement

Environmental specifications		
Operating temperature	°C	-33÷55
Relative humidity	%	<95 (non-condensing)

Design standards		
Electrical safety		EN 60950-1
EMC		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

TYPES OF LOAD PROTECTIONS



SYSTEM WITH FUSES UP TO 15A



SYSTEM WITH FUSES UP TO 10A