



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 SDO 80 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 Pi1 unit which monitors and controls the operation of individual modules. Energy is processed by high efficient, constant power rectifiers: PDO 48/42-2000W.

### APPLICATION

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

### KEY FEATURES

- ✓ Compact design 1U, 19"
- ✓ High power density (4kW @1U, 19")
- ✓ Uninterruptible supply of the 48VDC critical loads in cooperation with the battery
- ✓ Intuitive control interface with OLED 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 PDO 48/42-2000W
- ✓ Modern high-efficiency rectifiers
- ✓ Fast on-line expansion of rectifiers (hot-swap)
- ✓ Flexible Pi1 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 connectors are located on the front panel
- ✓ Simple installation and intuitive operation



## TECHNICAL SPECIFICATIONS

<b>AC input</b>		
Nominal voltage	VAC	2×230/400
	VDC	220
The range of input voltage	VAC	100÷250
Frequency	Hz	45÷65
AC mains configuration	-	2×L+ N+ PE or L+ N+ PE
Max. current phase	AAC	17 (single-phase) 8,5 (three-phase - 2 phases)
Power factor	-	≥0,99

<b>DC output</b>		
Voltage range	VDC	46÷56
Output voltage stabilization	%	±1
Maximum output current	ADC	78
Maximum output power	kW	3,74
Psophometric voltage ripple	mV	< 2

<b>Control and monitoring</b>	
Controller	Pi1
Operation status signaling	LED
Local control	control buttons & OLED display or by PC
Remote control	Infra manager (option) 4DC manager (option) web-server
Alarming, Operation signaling	LED dry contacts
Alarm output	3x dry contacts

<b>Mechanical specifications</b>		
Dimensions (H × W × D)	mm	44 (1U) ×483(19")×335
Ingress protection		IP20
Weight without rectifiers	kg	4,5

<b>Rectifier</b>		
Efficiency	%	96,2 (peak)
Dimensions (H × W × D)	mm	41×84,5×252,5
Weight	kg	1,13
Cooling	-	forced

<b>Standard equipment</b>		
Rectifier PDO 48/42-2000W		1÷2
Battery protections with status monitoring		2× 50A C-frame
Load protections with status monitoring		6× 15A fuse
Battery protection against deep discharge		LVD
The system summary battery current measurement		

<b>Optional equipment</b>		
Additional temperature sensor		Ambient temperature measurement
Remote monitoring		Infra Manager 4DC manager

<b>Environmental specifications</b>		
Operating temperature	°C	-15÷40
Relative humidity	%	<95 (non-condensing)

<b>Design standards</b>		
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