



Compact -48V DC power supply systems are designed for low power DC loads. These are compact systems (19", >3U) with power up to 20kW and simple and fast installation.

GENERAL DESCRIPTION

The SDO 210 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: PDO 48/42-2000W.

APPLICATION

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

KEY FEATURES

- ✓ Compact design 5U, 19" or 21" (reduction brackets)
- ✓ High power density (10kW @5U, 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
- ✓ Remote monitoring - SNMP / GSM/GPRS (option)
- ✓ Programmable alarm outputs - dry contacts
- ✓ Measurements of electrical and environmental parameters (current, voltage, power, temperature)
- ✓ Space for rectifiers: 5x PDO 48/42-2000W
- ✓ Modern high-efficiency rectifiers - lower heat dissipation and energy consumption
- ✓ 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 quick and 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
- ✓ "Cold start" - switching on the loads after the AC mains failure at a certain internal temperature
- ✓ Resistance to short-circuits and overloading of output circuits
- ✓ Immunity to electromagnetic interference
- ✓ Simple installation and intuitive operation



TECHNICAL SPECIFICATIONS

AC input		
Nominal voltage	VAC	3x230VAC/400VAC
	VDC	220
The range of input voltage	VAC	85÷300
Frequency	Hz	45÷65
AC mains configuration	-	3L+ N+ PE
Max. current phase	AAC	24
Power factor	-	≥0,99

DC output		
Voltage range	VDC	46÷56
Characteristic	-	IPU
Output voltage stabilization	%	±1
Maximum output current	ADC	210
Maximum output power	kW	10
Psophometric voltage ripple	mV	< 2

Control and monitoring	
Controller	Q1
Operation status signaling	LED
Local control	control buttons & LCD display
	or by PC
Remote control	Infra manager (option)
	4DC manager (option) web-server
Alarming,	LED
Operation signaling	dry contacts
Alarm output	4 ÷ 132 (NO-C-NC)

Mechanical specifications		
Dimensions (H × W × D)	mm	222 (5U) × 483(19") × 368
Ingress protection		IP20
Weight without rectifiers	kg	20

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

Standard equipment		
Rectifier		1÷5
PDO 48/42-2000W		
Battery protections with status monitoring		4× MCB (max 63A)
Load protections with status monitoring		17× MCB (max 63A - critical and not critical)
Temperature compensation of buffer voltage with temperature sensor		
Battery protection against deep discharge		LVD
Two groups of loads (critical and not critical loads)		Contactors for selective disconnection of two groups of loads
The system summary battery current measurement		

Optional equipment		
Additional temperature sensor		Ambient temperature measurement
Remote monitoring		Infra Manager 4DC manager

Environmental specifications		
Operating temperature	°C	-35÷40
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