SDK 80

Smart DC -48V PSU

3U | 19" | 4kW | HE

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 SDK 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: PDK 48/20-1000W.

APPLICATION

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

KEY FEATURES

✓ Compact design 3U, 19"

✓ Cptional side covers for wall or floor mounting

✓ 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: 4× PDK 48/20-1000W

✓ 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)

✓ Battery asymmetry control

✓ 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 (or version with terminals on the back plate)

✓ Simple installation and intuitive operation

TECHNICAL SPECIFICATIONS

AC input

Nominal voltage	VAC	3x230/400 or
	VDC	220
The range of input voltage	VAC	85÷300
Frequency	Hz	45÷65
AC mains configuration	-	3L+ N+ PE or L+ N+ PE
Max. current phase	AAC	24 (single-phase) 12 (three-phase)
Power factor	-	≥0,99

DC output

Voltage range	VDC	48÷58
Output voltage stabilization	%	±1
Maximum output current	ADC	80
Maximum output power	kW	4
Psophometric voltage ripple	mV	< 2

Control and monitoring

Controller	Pi1
Operation status signaling	LED
Local control	control buttons & LCD display or by PC (USB port)
Remote control	Infra manager (option) 4DC manager (option) web-server
Alarming, Operation signaling	LED dry contacts
Alarm output	3× dry contacts

Mechanical specifications

Dimensions (H × W × D)	mm	133(3U) × 483(19") × 300
Ingress protection		IP20
Weight without rectifiers	kg	11

Rectifier

Efficiency	%	92 (peak)
Dimensions (H × W × D)	mm	44 × 88 × 241
Weight	kg	1,25
Cooling	-	forced

Standard equipment

Rectifier PDK 48/20-1000W	2÷4
Battery protections with status monitoring	2×MCB (4× MCB - option)
Load protections with status monitoring	14×MCB (for 2 installed battery protections)
AC mains phase failure detection (KZF)	

Optional equipment

Battery protection against deep discharge	LVD
The system summary battery current measurement	
management of groups of loads (ZGO)	
side covers for creating wall mounted / free standing system	
Additional temperature sensor	Ambient temperature measurement
Remote monitoring	Infra Manager 4DC manager

Environmental specifications

Operating temperature	°C	-35 ÷ +40 (+65 limited power)
Relative humidity	%	<95 (non-condensing)

Design standards

Electrical safety	EN 60950
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