TELZAS
ETC GROUP

WSZ-19

Compact AC & DC PSU

3U | 19" | 1kW | 4,5kVA | HE

Compact multi-voltage PSU are designed to supply low power and medium AC and DC loads. These are small systems (19", >3U), output power up to 10kVA and simple and fast installation.

GENERAL DESCRIPTION

The WSZ-19 is designed to supply DC loads with rated 48VDC voltage and AC loads with rated 230VDC voltage. In conjunction with the battery it provides uninterruptible power to critical 48VDC and 230VDC 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 PDK 48/20-1000W rectifiers and FUL 230/0,75 inverters.

APPLICATION

- telecommunication
- ICT
- Server rooms

KEY FEATURES

- ✓ Compact design 3U, 19"
- ✓ High power density (4,5kVA, 1kW @3U, 19")
- ✓ Uninterruptible supply of the 230VAC and 48VDC critical loads in cooperation with the battery
- ✓ Remote monitoring via WEB application
- ✓ Space for inverter modules: 6× FUL 230/0,75 and for rectifier modules: 1× PDK 48/20-1000W
- ✓ Modern high-efficiency rectifiers and inverter modules
- ✓ Fast on-line expansion of rectifiers or inverters (hot-swap)
- ✓ Flexible Pi1 controller - continuous control of the system quick and alarm states
- ✓ Simple installation and intuitive operation
- ✓ Innovative EPC mode - energy from the AC mains is buffered and processed for output high quality AC voltage to ensure the safe and stable power supply of AC loads
- ✓ The voltage supplied to the loads is a pure sine wave despite all the typical disturbances (harmonics, surges, noise) contributed by the AC mains
- ✓ Sinusoidal current from the mains in the EPC mode even when the AC load are non linear

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TECHNICAL SPECIFICATIONS

48VDC power supply – input

Nominal voltage	VAC	200 ÷ 250
The range of input voltage	VAC	184÷300
Frequency	Hz	45÷65
AC mains configuration	-	L+ N+ PE
Max. current phase	AAC	6
Power factor	-	~1

48VDC power supply – output

Nominal voltage	VDC	48
Voltage range	VDC	48÷58
Output voltage stabilization	%	±1
Maximum output current	ADC	20
Maximum output power	kW	1

230VAC power supply – input

Nominal voltage	VAC	230
	VDC	48
The range of input voltage	VAC	185÷265
	VDC	40 ÷ 60
Frequency AC	Hz	50 / 60
Nominal current phase	AAC	FUL × 2,9
	ADC	FUL × 12,5 @48VDC
Power factor	-	~1

230VAC power supply – output

Nominal voltage	VAC	230
Voltage range	VDC	200 ÷ 240
Output voltage stabilization	%	±2
Frequency	Hz	50 / 60 ±0,03%
Maximum output current	ADC	3 × 3,3
Maximum output power	kVA	4,5

Control and monitoring

Controller	Pi1, local inverter controller
Operation status signaling	LED
Remote monitoring	web-server
Operation signaling	LED

Mechanical specifications

Dimensions (H × W × D)	mm	133 (3U) ×483(19")×384
Ingress protection		IP20

Rectifier

Efficiency	%	91 (peak)
Dimensions (H × W × D)	mm	44×88×241
Weight	kg	1,25
Cooling	-	forced

Inverter

Efficiency	%	94 (EPC), 89 (on-line)
Dimensions (H × W × D)	mm	1U x 106 x 325
Weight	kg	3
Cooling	-	forced
Overload capacity	%	135% @15s

Standard equipment

PDK 48/20-1000W rectifier	1
FUL 230/0,75 inverter	1 ÷ 6
Battery protections with status monitoring	2× MCB
Load protections (DC with status monitoring)	1× MCB (DC loads) 2× MCB (AC loads)

Environmental specifications

Operating temperature	°C	+ 5 ÷ 50
Relative humidity	%	<95 (non-condensing)

Design standards

Electrical safety	PN-EN 60 950-1
EMC	PN-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

INSPIRED BY ENERGY

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