K-FACTOR
THE VOLTAGE YOU NEED

PSS

THREE-PHASE EN50171 7.5KW : 150KW

Sine wave centralized
emergency power supplies
to EN50171

TECHNICAL SPECIFICATION

THREE-PHASE CENTRALIZED EMERGENCY POWER SUPPLIES TO EN50171 FROM 10KVA TO 200KVA

The PSS series is a high-frequency double-conversion online type, with three-phase input and output, available in sizes from 10kVA to 200kVA.
High efficiency and efficiency at PF 0.9 and PF 1.
The PLA series leverages modularized power technology and uses N+X redundancy. The number of UPS modules can be flexibly varied according to the load to be connected, which makes the investment gradual and cost-effective.
It can solve any power supply problems, such as blackouts, surges, undervoltage, sudden voltage drop, voltage spikes, voltage fluctuation, overcurrent, current spikes, Total Harmonic Distortion (THD), interference noises, frequency oscillation, etc.
This series is controlled by a Digital Signal Processor (DSP), which increases and increases reliability, performance, self-protection and self-diagnosis.
It is a high-intensity RESCUER system whose input current is kept balanced. Acceptable load unbalance up to 100%.

KEY FEATURES

- On-line double conversion UPS with three-phase input + N, three-phase output + N
- 0ms switching time
- Power factor 0,9 e 1
- LCD panel with display of all the main parameters
- Modularized power from 10KVA to 200KVA
- Full control with DSP (Digital Signal Processor)
- Low input distortion > 2%
- Prepared for communication with SNMP, MODBUS, RELAY, USB card, RS485
- EPO contact as standard
- Battery configurable with dynamic from 16 -18 – 20 monoblocs according to your needs
- ModBus 485
- Parallel to the same point on the distribution board.
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Electrical cables that include bypass input cables and UPS output cables must be of the same length and specifications. This makes it easier to distribute the load when operating in bypass mode.

MODEL			PSS010	PSS015	PSS020	PSS030	PSS040	PSS060
Input	Power (KVA/KW)		10 / 10	15 / 15	20 / 20	30 / 30	40 /40	60 /60
	according to EN50171 (KW)		7.5	11.3	15	22.5	30	45
	No. of phases		3 Steps 4 Cables and Grounding					
	Rated voltage		380/400/415Vac					
	Voltage Range		208~478Vac					
	Frequency Range		45-55Hz to 50Hz / 56-66Hz to 60Hz (auto detection)					
	Power factor		≥0.99					
	THDi Current		≤2% (100% nonlinear load)					
	Bypass voltage range		Max. voltage: 220Vac:+25% (optional +5%,+10%,+15%) 230Vac:+20% (optional +10%,+15%) 240Vac:+15% (optional +10%) Min. Voltage: -45% (optional -20%, -30%) Frequency Protection Range: ±10%					
	Generator Set Input		Supported					
Output	Stages		3 Steps 4 Cables and Grounding					
	Rated voltage		380/400/415Vac					
	Power factor		0.9					
	Voltage regulation		±1%					
	Frequency	With mesh	±1%, ±2%, ±4%, ±5%, ±10% of rated frequency (optional)					
		In battery mode	(50/60±0.1%) Hz					
	Crest factor		3:1					
	THD		≤1% with linear load ≤3% with nonlinear load					
Efficiency (in normal mode)			≥96.5%	≥97.5%				
Battery	Tension		UPS standard: ±120Vdc (10+10) 12V 7/9AH Long autonomy UPS ±96V/±108V/±120Vdc (16/18/20 pcs. Optional)				UPS standard: ±240Vdc (20+20) 12V 7/9AH Long Range UPS: ±192/±204/±216/±228/±240Vdc (32/34/36/38/40 pcs optional)	UPS standard: ±120Vdc (10+10) 12V 7/9AH Long autonomy UPS ±96V/±108V/±120Vdc (16/18/20 pcs. Optional)
	Charging Current(A)		The charging current is automatically set according to the capacity, quantity and dynamics of the batteries inserted UPS standard (20pcs): 1.35A UPS standard (2X20pcs): 2.7A UPS standard (3X20pcs): 4.5A Long Range UPS: Max 10A					
	Type		VRLA with 10-year expected lifespan					
	Remaining battery life		60 / 90 /120 minutes					
	Charging capacity		80% in 12h					
	Battery Tests		Set by Default to run the test every 30 days					
Transfer Time			Intervention time according to EN50171 regulations					

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MODEL			PSS010	PSS015	PSS020	PSS030	PSS040	PSS060
Protection	Overload	Normal Mode	Load: ≤110% duration 60min, ≤125% duration 10min ≤150% duration 1min, ≥150% switch to bypass immediately					
		Battery Mode	Load: ≤110% duration 10min, ≤125% duration 1min ≤150% 10s life, ≥150% shut down the UPS immediately					
		Bypass mode	20A Switch	32A Switch	40A Switch	63A Switch	80A Switch	2x63A Switch
	Short circuit		Involves the entire UPS					
	Overheating		Normal Mode: Switch to Bypass, Battery Mode: Immediately shuts down the UPS					
	Low battery		UPS Alarm and Shutdown					
	Self-diagnosis		When UPS is switched on and via software command					
	EPO (optional)		Immediately turns off the UPS					
	Battery		Advanced battery management					
	Noise suppression		Conform to there EN62040-2					
Alarms	Sound and Visual		Mains failure, low battery, overcharging, UPS failure					
Display	LED and LCD status		Line Mode, Bypass Mode, Low Battery, Low Battery, Overcharge, and UPS Fault					
	Displayed on the LCD screen		Input Voltage, Input Frequency, Output Voltage, Output Frequency, Load Percentage, Battery Voltage and Internal Temperatures etc.					
Communication Interface			USB, RS485, Parallel (optional), Dry Contacts, Smart Slot, SNMP Card (optional), Relay Board (optional)					
Environment	Operating Temperature		0°C~40°C					
	Storage Temperature		-25°C~55°C					
	Humidity		0~95% non-condensing					
	Altitude		< 1500m. When >1500m the rated power is reduced					
	Degree of protection		IP20 (EN50171)					
	Noise		< 55dB				< 58dB	< 55dB
Other	Dimensions (W×L×H)		828x250x868					2X828x250x868
	Weight (kg) without batteries		42	45	45	71	73	2 x 71
	Unit		1					2
Rules	PSS		EN50171					
	Performance		EN62040-3 (VFI-SS-111)					
	Safety		EN62040-1, EN60950-1					
	Electromagnetic compatibility		EN62040-2					
Frequency Converter Function			YES					

MODEL			PSS080	PSS100	PSS120	PSS160	PSS180	PSS200
Input	Power (KVA/KW)		80 / 80	100 / 100	120 /120	160 / 160	180 / 180	200 / 200
	according to EN50171 (Kw)		60	75	90	120	135	150
	No. of phases		3 Steps 4 Cables and Grounding					
	Rated voltage		380/400/415Vac					
	Voltage Range		208~478Vac					
	Frequency Range		45-55Hz to 50Hz / 56-66Hz to 60Hz (auto detection)					
	Power factor		≥0.99					
	THDi Current		≤2% (100% nonlinear load)					
	Bypass voltage range		Max. voltage: 220Vac: +25% (optional +5% +10%+15%) 230Vac: +20% (optional +10%+15%) 240Vac: +15% (optional +10%) Min. Voltage: -45% (optional -20%, -30%) Frequency Protection Range: ±10%					
	Generator Set Input		Supported					
Output	Stages		3 Steps 4 Cables and Grounding					
	Rated voltage		380/400/415Vac					
	Power factor		1					
	Voltage regulation		±1%					
	Frequency	With mesh	±1%, ±2%, ±4%, ±5%, ±10% of rated frequency (optional)					
		In battery mode	(50/60±0.1%) Hz					
	Crest factor		3:1					
	THDv		≤1% with linear load ≤3% with nonlinear load					
Efficiency (in normal mode)			≥97.5%					
Battery	Tension		UPS standard: ±240Vdc (20+20) 12V 7/9AH Long Range UPS: ±192/±204/±216/±228/±240Vdc (32/34/36/38/40 pcs optional)	UPS standard: ±120Vdc (10+10) 12V 7/9AH Long autonomy UPS ±96V/±108V/±120Vdc (16/18/20 pcs. Optional)	UPS standard: ±240Vdc (20+20) 12V 7/9AH Long Range UPS: ±192/±204/±216/±228/±240Vdc (32/34/36/38/40 pcs optional)			
	Charging Current(A)		The charging current is automatically set according to the capacity, quantity and dynamics of the batteries inserted UPS standard (20pcs): 1.35A UPS standard (2X20pcs): 2.7A UPS standard (3X20pcs): 4.5A Long Range UPS: Max 10A					
	Type		VRLA with 10-year expected lifespan					
	Remaining battery life		60 / 90 /120 minutes					
	Charging capacity		80% in 12h					
	Battery Tests		Set by Default to run the test every 30 days					
Transfer Time			Intervention time according to EN50171 regulations					

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MODEL			PSS080	PSS100	PSS120	PSS160	PSS180	PSS200
Protection	Overload	Normal Mode	Load: ≤110% duration 60min, ≤125% duration 10min ≤150% duration 1min, ≥150% switch to bypass immediately					
		Battery Mode	Load: ≤110% duration 10min, ≤125% duration 1min ≤150% 10s life, ≥150% shut down the UPS immediately					
		Bypass mode	2x80A Switch	3x63A Switch	3x80A Switch	Switch 4x80A		
	Short circuit		Involves the entire UPS					
	Overheating		Normal Mode: Switch to Bypass, Battery mode: Immediately shuts down the UPS					
	Low battery		UPS Alarm and Shutdown					
	Self-diagnosis		When UPS is switched on and via software command					
	EPO (optional)		Immediately turns off the UPS					
	Battery		Advanced battery management					
	Noise suppression		Conform to there EN62040-2					
Alarms	Sound and Visual		Mains failure, low battery, overcharging, UPS failure					
Display	LED and LCD status		Line Mode, Bypass Mode, Low Battery, Low Battery, Overcharge, and UPS Fault					
	Displayed on the LCD screen		Input Voltage, Input Frequency, Output Voltage, Output Frequency, Load Percentage, Battery Voltage and Internal Temperatures etc.					
Communication Interface			USB, RS485, Parallel (optional), Dry Contacts, Smart Slot, SNMP Card (optional), Relay Board (optional)					
Environment	Operating Temperature		0°C~40°C					
	Storage Temperature		-25°C~55°C					
	Humidity		0~95% non-condensing					
	Altitude		< 1500m. When >1500m the rated power is reduced					
	Degree of protection		IP20 (EN50171)					
	Noise		< 58dB	< 55dB	< 58dB			
Other	Group Dimensions (P×L×H)		828x250x868	828x750x868	828x500x868	828x500x868	828x750x868	
	Weight (kg) without batteries		2 x 73	3 x 71	2 x 73	2 x 73	3x71	
	Unit		1	3	2	2	3	
Rules	PSS		EN50171					
	Performance		EN62040-3 (VFI-SS-111)					
	Safety		EN62040-1, EN60950-1					
	Electromagnetic compatibility		EN62040-2					
Frequency Converter Function			YES					

Battery Cabinet	Dimensions (D×W×H) mm		502x250x616 (max 40 battery) 828x250x868 (max 80 battery)
	Weight (Kg)	Max 40 Batt.	N/Batt: 31 20 (battery): 81 40 (battery): 131
		Max 80 Batt.	N/Batt: 56 20 (battery): 106 40 (battery): 156 60 (battery): 206 80 (battery): 256

Standard Features:

- Designed to hold at 120% of the rated charge for the entire life of the battery.
- Long battery life 10/12 years.
- Protection of the battery against deep discharge.
- IP20 metal enclosure EN60598-1 compliant.
- Battery recharge 80% in 12h.
- Protecting the battery from damage resulting from a possible polarity reversal.
- Alarm contacts for remote control of the status of the equipment.