

START POWER

Power Electronics Technologies

SP3 DEFENDER



MADE IN ITALY

UPS THREE-PHASE SP3 8-40kVA

- LAN network
- Server
- Data center
- Industrial PCs
- Industrial systems
- Telecommunication devices
- Emergency devices
- Electromedical equipments

The UPS series **Defender** is available in **SP1** (single-phase), **SP2** (Three-phase single-phase), **SP3** (Three-phase three-phase) versions with **on-line double conversion technology**.

The **UPS Defender** is designed in compliance with EN50171 standard, and can be used in **responder function**, or as emergency power supply device in **SA** or **SE** mode.

Small-sized boxes, low weight and balanced noise **facilitate installation procedure** providing **maximum comfort**.

The **UPS Defender** are equipped with **advanced communication** system thanks to the use of management software and programmed shutdown.

The multi-level optimized inverters of the **UPS Defender** ensure **efficiency up to 96%** in on-line mode.

Both the **automatic bypass** and the **manual override** are available.

The **UPS Defender** also ensure wide tolerance on output with inrush **short-circuit currents up to 200%**.



TECHNICAL FEATURES

MODEL		DEFENDER SP3 TT 8	DEFENDER SP3 TT 10	DEFENDER SP3 TT 12	DEFENDER SP3 TT 15	DEFENDER SP3 TT 20	DEFENDER SP3 TT 30	DEFENDER SP3 TT 40	
INPUT	Input Voltage (Vac)	315 - 470 (usable with engine-generator)							
	Frequency (Hz)	48 - 62							
	Distortion THDI	< 3%							
	Power Factor	≥ 0,99							
	Connections	Clips							
OUTPUT	Nominal Power (kVA)	8	10	12	15	20	30	40	
	Nominal Capacity (kW)	7,2	9	10,8	13,5	18	27	36	
	Voltage (Vac)	220/230/240 (selectable)							
	Voltage Precision	+/- 1% @ 230 Vac							
	Waveform	Pure sine wave							
	Frequency	50 / 60 Hz +/- 0,1 (selectable)							
	Nominal Current @230V (Arms)	11,6	14,5	17,5	21,7	29	43,5	58	
	Inrush Current @230V (Arms)	17,4	21,7	26,1	32,6	43,5	65,3	87	
	Crest Factor	3:1							
	Overload	150% per 30" - 200% (short-circuit)							
	Connections	Clips							
	PERFORMANCE	Reaction time	zero						
		Efficiency	94% (on-line) - 98% (eco mode)						
Battery Recharge Time		4 - 6 hours							
Battery Test		Automatic Continuous							
Bypass		Automatic Integrated 0 ms / Manual bypass							
Protections		Overload - Short-circuit – Excessive low battery – Overvoltage - Temperature							
Operating Temperature		0 - 40 °C							
Noise Level		< 45 dB a 1m at Full Load – PWM control							
PHYSICAL	Dimensions (HxWxD) mm / rack	700 x 300 x 900				N. 2 700 x 900 x 300			
	Net Weight - Basic Autonomy (Kg)	95	95	145	145	145	230	280	
CONTROL & COMMUNICATION	Color LC Display	2 x 16 characters, blue backlit, keypad with 4 keys							
	Interface	RS 232 - USB							
	EPO (Emergency Power Off)	Yes							
	Control Software and Shutdown	Included							
ACCESSORIES	Battery box	Rack and tower version with wheels							
	AS400 contacts board	Clean contact-alarms and digital insulated input							
	Extended interface board	Ethernet Interface - SNMP Agent							
	Insulating Transformer	Integrated Optional or Movable and Separated							
STANDARD & CERTIFICATIONS	EMC	CEI EN 50091-2, EN61000-3-2 (PFC), 61000-3-3 (flicker)							
	Safety	CEI EN 60950, EN62040-1-1, norms 73/23/EC, 93/68/EC							