# UNINTERRUPTIBLE POWER SUPPLY



### CORE

TECHNOLOGY: TRUE ON LINE Double Conversion

CLASSIFICATION: VFI-SS-111 (EN 62040-3)

POWER RANGE: 1 - 2 kVA

No. OF PHASES: 1:1



#### APPLICATIONS

- Servers
- Working stations
- Lighting

- Laboratory equipment
- Security systems
- Automation and control systems

#### SPECIFICATION

**Technology True On-Line** Double Conversion Technology provides perfect output voltage parameters, regardless of the input voltage and the load.

Automatic bypass provides continuous load supply in critical conditions, such as overheating or inverter failure.

#### Communication:

USB, RS232 for UPS and load supervision and control.

TVSS to protect tele information equipment.

Smart slot allows connect SNMP card to manage UPS throw network or AS400 card with potential free contactors.

LCD control panel displays UPS and power parameters as well as hundreds of useful information.

Small dimensions only 2U for all models 1-3 kVA provides minimum space in rack to install.

**High efficiency** up to 95% in online mode to minimizes energy consumption and reduces heat emissions, which makes cooling of rooms cheaper.

ECO-Mode allows 99% efficiency and additional energy savings.

CVCF Frequency converter mode allows UPF to operate in the Hz or 60 Hz to supply non-standard receivers.

**Automatic diagnostics** guarantee full device performance, control of components and operating parameters without user intervention.

The high value of input power factor restricts the current value of the device from professional network.

Wide input voltage range for normal mode ensures that batteries are used only if necessary – in fact, only when the input voltage is completely lost.

The ability to extend the backup time by adding battery modules allows you to precisely adjust the required autonomy time.

Wide input frequency range for normal mode makes possible to freely use the power supply in a mixed network of city-generator.

Auto restart guarantees maintenance-free operation in case of long power failure.

Cold start provides possibility to launch UPS without main voltage.

Advanced battery management guarantees optimum battery charging and usage. The 3-stage charging process extends their service life up to 50% and reduces operating costs.

Excellent voltage quality achieved by using the IGBT (3L) inverter and high frequency PWM modulation ensures that the voltage is delivered in extremely stable parameters, regardless of power interference and the type of power supply.

Overload resistance is reliable power supply with transient states and high fault tolerance.

Advanced software gives the user complete control over the device and the power receivers.

**EPO** connector provides the ability to remotely switch off the power supply in the case of fire.

**Programmable output sockets** allows you to manage the presence of output voltage during battery operation.

# UNINTERRUPTIBLE POWER SUPPLY



## CORE

Power  No. Of phases IN: OUT Input Nominal voltage  Voltage range Frequency Frequency range THDi Input power factor Output Nominal voltage Output power factor Voltage regulation static/dynamic Frequency Overload capacity inverter Efficiency On-Line mode Efficiency Eco mode Controlled socket groups — with programmable power off Type and number of sockets Terminal board Creast factor Batteries Amount of internal batteries Cold start Connector for external batteries Charging time Charger Weight and dimensions Dimensions and weight of UPS (W x D x H)  Communications Working indicator	208	2000 VA/ 1800 W  1:1  8 / 220 / 230 / 240 VAC  -52% ÷ +30%  50 / 60 Hz  -20% ÷ +20%  <3%  ≥0,99  8 / 220 / 230 / 240 VAC  0,9  ±1% / ±3%  50 / 60 Hz ± 0,05 Hz  - 5 min., 140% - 30 sec., >140% - 1,5 sec.  >92%  99%  1 x 4 psc.  IEC320-C13 x 8  n/a (Plug&Play)  3:1
Input Nominal voltage Voltage range Frequency Frequency range THDi Input power factor Output Nominal voltage Output power factor Voltage regulation static/dynamic Frequency Overload capacity inverter Efficiency On-Line mode Efficiency Eco mode Controlled socket groups – with programmable power off Type and number of sockets Terminal board Creast factor Batteries Amount of internal batteries Cold start Connector for external batteries Charging time Charger Weight and dimensions Dimensions and weight of UPS (W x D x H) Communications Working indicator	208 208 50 110% - no limit, 130% -	1:1  3 / 220 / 230 / 240 VAC  -52% ÷ +30%  50 / 60 Hz  -20% ÷ +20%  <3%  ≥0,99  8 / 220 / 230 / 240 VAC  0,9  ±1% / ±3%  50 / 60 Hz ± 0,05 Hz  - 5 min., 140% - 30 sec., >140% - 1,5 sec.  >92%  99%  1 x 4 psc.  IEC320-C13 x 8  n/a (Plug&Play)
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Voltage range Frequency Frequency range THDi Input power factor Output Nominal voltage Output power factor Voltage regulation static/dynamic Frequency Overload capacity inverter Efficiency On-Line mode Efficiency Eco mode Controlled socket groups – with programmable power off Type and number of sockets Terminal board Creast factor Batteries Amount of internal batteries Cold start Connector for external batteries Charging time Charger Weight and dimensions Dimensions and weight of UPS (W x D x H) Communications Working indicator	208 5: 110% - no limit, 130% -	-52% ÷ +30%  50 / 60 Hz  -20% ÷ +20%  <3%  ≥0,99  8 / 220 / 230 / 240 VAC  0,9  ±1% / ±3%  50 / 60 Hz ± 0,05 Hz  - 5 min., 140% - 30 sec., >140% - 1,5 sec.  >92%  99%  1 x 4 psc.  IEC320-C13 x 8  n/a (Plug&Play)
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THDi Input power factor Output Nominal voltage Output power factor Voltage regulation static/dynamic Frequency Overload capacity inverter Efficiency On-Line mode Efficiency Eco mode Controlled socket groups – with programmable power off Type and number of sockets Terminal board Creast factor Batteries Amount of internal batteries Cold start Connector for external batteries Charging time Charger Weight and dimensions Dimensions and weight of UPS (W x D x H) Communications Working indicator	50 110% - no limit, 130% - IEC320-C13 x 8	<3% ≥0,99  8 / 220 / 230 / 240 VAC 0,9 ±1% / ±3%  50 / 60 Hz ± 0,05 Hz - 5 min., 140% - 30 sec., >140% - 1,5 sec. >92% 99%  1 x 4 psc.  IEC320-C13 x 8  n/a (Plug&Play)
Output Nominal voltage Output power factor Voltage regulation static/dynamic Frequency Overload capacity inverter Efficiency On-Line mode Efficiency Eco mode Controlled socket groups – with programmable power off Type and number of sockets Terminal board Creast factor Batteries Amount of internal batteries Cold start Connector for external batteries Charging time Charger Weight and dimensions Dimensions and weight of UPS (W x D x H)  Dimensions and weight of battery module (W x D x H)  Communications Working indicator	50 110% - no limit, 130% - IEC320-C13 x 8	8 / 220 / 230 / 240 VAC 0,9 ±1% / ±3% 50 / 60 Hz ± 0,05 Hz - 5 min., 140% - 30 sec., >140% - 1,5 sec. >92% 99% 1 x 4 psc. IEC320-C13 x 8 n/a (Plug&Play)
Nominal voltage Output power factor Voltage regulation static/dynamic Frequency Overload capacity inverter Efficiency On-Line mode Efficiency Eco mode Controlled socket groups – with programmable power off Type and number of sockets Terminal board Creast factor Batteries Amount of internal batteries Cold start Connector for external batteries Charging time Charger Weight and dimensions Dimensions and weight of UPS (W x D x H) Communications Working indicator	50 110% - no limit, 130% - IEC320-C13 x 8	0,9 ±1% / ±3% 50 / 60 Hz ± 0,05 Hz - 5 min., 140% - 30 sec., >140% - 1,5 sec. >92% 99% 1 x 4 psc. IEC320-C13 x 8 n/a (Plug&Play)
Output power factor Voltage regulation static/dynamic Frequency Overload capacity inverter Efficiency On-Line mode Efficiency Eco mode Controlled socket groups – with programmable power off Type and number of sockets Terminal board Creast factor Batteries Amount of internal batteries Cold start Connector for external batteries Charging time Charger Weight and dimensions Dimensions and weight of UPS (W x D x H)  Dimensions and weight of battery module (W x D x H)  Communications Working indicator	50 110% - no limit, 130% - IEC320-C13 x 8	0,9 ±1% / ±3% 50 / 60 Hz ± 0,05 Hz - 5 min., 140% - 30 sec., >140% - 1,5 sec. >92% 99% 1 x 4 psc. IEC320-C13 x 8 n/a (Plug&Play)
Voltage regulation static/dynamic Frequency Overload capacity inverter Efficiency On-Line mode Efficiency Eco mode Controlled socket groups – with programmable power off Type and number of sockets Terminal board Creast factor Batteries Amount of internal batteries Cold start Connector for external batteries Charging time Charger Weight and dimensions Dimensions and weight of UPS (W x D x H)  Dimensions and weight of battery module (W x D x H)  Communications Working indicator	110% - no limit, 130% - IEC320-C13 x 8	±1% / ±3% 50 / 60 Hz ± 0,05 Hz - 5 min., 140% - 30 sec., >140% - 1,5 sec. >92% 99% 1 x 4 psc.  IEC320-C13 x 8 n/a (Plug&Play)
Frequency Overload capacity inverter Efficiency On-Line mode Efficiency Eco mode Controlled socket groups – with programmable power off Type and number of sockets  Terminal board Creast factor Batteries Amount of internal batteries Cold start Connector for external batteries Charging time Charger Weight and dimensions Dimensions and weight of UPS (W x D x H)  Dimensions and weight of battery module (W x D x H)  Communications Working indicator	110% - no limit, 130% - IEC320-C13 x 8	50 / 60 Hz ± 0,05 Hz - 5 min., 140% - 30 sec., >140% - 1,5 sec. >92% 99% 1 x 4 psc.  IEC320-C13 x 8 n/a (Plug&Play)
Overload capacity inverter  Efficiency On-Line mode  Efficiency Eco mode  Controlled socket groups – with programmable power off  Type and number of sockets  Terminal board  Creast factor  Batteries  Amount of internal batteries  Cold start  Connector for external batteries  Charging time  Charger  Weight and dimensions  Dimensions and weight of UPS (W x D x H)  Communications  Working indicator	110% - no limit, 130% - IEC320-C13 x 8	- 5 min., 140% - 30 sec., >140% - 1,5 sec. >92% 99% 1 x 4 psc. IEC320-C13 x 8 n/a (Plug&Play)
Efficiency On-Line mode  Efficiency Eco mode  Controlled socket groups – with programmable power off  Type and number of sockets  Terminal board  Creast factor  Batteries  Amount of internal batteries  Cold start  Connector for external batteries  Charging time  Charger  Weight and dimensions  Dimensions and weight of UPS (W x D x H)  Dimensions and weight of battery module (W x D x H)  Communications  Working indicator	IEC320-C13 x 8	>92% 99% 1 x 4 psc. IEC320-C13 x 8 n/a (Plug&Play)
Efficiency Eco mode  Controlled socket groups — with programmable power off  Type and number of sockets  Terminal board  Creast factor  Batteries  Amount of internal batteries  Cold start  Connector for external batteries  Charging time  Charger  Weight and dimensions  Dimensions and weight of UPS (W x D x H)  Dimensions and weight of battery module (W x D x H)  Communications  Working indicator		99% 1 x 4 psc. IEC320-C13 x 8 n/a (Plug&Play)
Controlled socket groups – with programmable power off  Type and number of sockets  Terminal board  Creast factor  Batteries  Amount of internal batteries  Cold start  Connector for external batteries  Charging time  Charger  Weight and dimensions  Dimensions and weight of UPS (W x D x H)  Dimensions and weight of battery module (W x D x H)  Communications  Working indicator		1 x 4 psc.  IEC320-C13 x 8  n/a (Plug&Play)
programmable power off Type and number of sockets  Terminal board Creast factor  Batteries Amount of internal batteries Cold start Connector for external batteries Charging time Charger Weight and dimensions Dimensions and weight of UPS (W x D x H)  Dimensions and weight of battery module (W x D x H)  Communications Working indicator		IEC320-C13 x 8 n/a (Plug&Play)
Type and number of sockets  Terminal board  Creast factor  Batteries  Amount of internal batteries  Cold start  Connector for external batteries  Charging time  Charger  Weight and dimensions  Dimensions and weight of UPS (W x D x H)  Dimensions and weight of battery module (W x D x H)  Communications  Working indicator		IEC320-C13 x 8 n/a (Plug&Play)
Terminal board Creast factor Batteries Amount of internal batteries Cold start Connector for external batteries Charging time Charger Weight and dimensions Dimensions and weight of UPS (W x D x H) Dimensions and weight of battery module (W x D x H) Communications Working indicator		n/a (Plug&Play)
Creast factor Batteries Amount of internal batteries Cold start Connector for external batteries Charging time Charger Weight and dimensions Dimensions and weight of UPS (W x D x H) Dimensions and weight of battery module (W x D x H) Communications Working indicator	3 x 7/9 Ah	
Batteries Amount of internal batteries Cold start Connector for external batteries Charging time Charger Weight and dimensions Dimensions and weight of UPS (W x D x H) Dimensions and weight of battery module (W x D x H) Communications Working indicator	3 x 7/9 Ah	3:1
Amount of internal batteries  Cold start  Connector for external batteries  Charging time  Charger  Weight and dimensions  Dimensions and weight of UPS (W x D x H)  Dimensions and weight of battery module (W x D x H)  Communications  Working indicator	3 x 7/9 Ah	
Cold start  Connector for external batteries  Charging time  Charger  Weight and dimensions  Dimensions and weight of UPS (W x D x H)  Dimensions and weight of battery module (W x D x H)  Communications  Working indicator	3 x 7/9 Ah	
Connector for external batteries  Charging time  Charger  Weight and dimensions  Dimensions and weight of UPS (W x D x H)  Dimensions and weight of battery module (W x D x H)  Communications  Working indicator		4 x 7/9 Ah
Charging time Charger Weight and dimensions Dimensions and weight of UPS (W x D x H)  Dimensions and weight of battery module (W x D x H)  Communications Working indicator	Yes	
Charging time Charger Weight and dimensions Dimensions and weight of UPS (W x D x H)  Dimensions and weight of battery module (W x D x H)  Communications Working indicator		Yes
Charger  Weight and dimensions  Dimensions and weight of UPS (W x D x H)  Dimensions and weight of battery module (W x D x H)  Communications  Working indicator	4 hours up to	to 90% of capacity (configurable)
Weight and dimensions Dimensions and weight of UPS (W x D x H)  Dimensions and weight of battery module (W x D x H)  Communications Working indicator	+ flours up to	
Dimensions and weight of UPS (W x D x H)  Dimensions and weight of battery module (W x D x H)  Communications  Working indicator		1A
H)  Dimensions and weight of battery module (W x D x H)  Communications  Working indicator		
Dimensions and weight of battery module (W x D x H)  Communications Working indicator	438 x 410 x 88 (2U)	438 x 510 x 88 (2U)
(W x D x H)  Communications  Working indicator	14,2 kg	19,5 kg
(W x D x H)  Communications  Working indicator		
Working indicator	438 x 410 x 88 (2U) 21,3 kg	438 x 510 x 88 (2U) 24 kg
Working indicator	21,5 kg	
	LCD + indic	icators LED, alarm sound alarm
		B, RS232, TVSS, Smart slot, REPO
Communications		ns: AS400 card, SNMP card
Environmental	·	·
Noise level		<45 dB
Operating temperature for UPS	0°C ÷ 40°C	
Recommended operating temperature for UPS	15°C ÷ 25°C	
Storage temperature	-25°C ÷ 55°C	
Humidity	0 ÷ 95% (without condensing)	
Certification		
Standards	EN 62040-2:2005, EN 62040-2:2006	
Safety	IEC6204	040-1-1, CE, 62040-3 :2001
Options		
- SNMP card - AS400 card		
- Maintenance bypass - Rail kits 19 - REPO - output pluc	battery module	
- output plut	battery module	
	battery module	

