

Use

Local Area Network (LAN), Data Centers, Industrial equipment, Electromedical equipment

Protection

- Blackout
- Dynamic Undervoltage
- Dynamic Overvoltage
- Undervoltage
- Overvoltage
- Lightning (UPS + surge discharger upstream)
- Voltage Surge
- Frequency Variation
- Voltage Distortion
- Voltage Harmonic

Main specifications

- Multifunctional LCD display
- Internal battery
- On-Line Double Conversion Technology without transformer (VFI-SS-111)
- Rectifier realized by IGBT technology
- Active PFC Circuit (0.99)
- Wide input voltage tolerance
- Compatible with Generators
- EPO (Emergency Power Off)
- ECO MODE operation
- Frequency converter operation
- Output voltage and frequency can be regulated from the front panel
- Battery recharge system managed by microprocessor
- Static and manual bypass
- RS232 e USB communication ports
- Intelligent slot for SNMP or Dry Contact card
- Expandable up to 3 units in parallel
- High efficiency and low operating cost
- Software di gestione UPS TecnoManager compatibile con Windows, Mac OS X (up to version 10.8), Unix, Linux, ecc



Details



- 1 - RS232 port
- 2 - USB port
- 3 - EPO connector
- 4 - Parallel interface (optional)
- 5 - Slot for SNMP interface or Dry Contact
- 6 - Manual bypass switch for maintenance
- 7 - Input voltage switch
- 8 - Connector for extra Battery Box
- 9 - Input/output terminal box

DSP

The UPS EVO DSP PLUS are controlled by Digital Signal Processor (DSP) which optimizes the machine operation in any conditions permitting a complete and easy programming.



The UPS range EVO DSP PLUS is designed in accordance with the highest environment protection standards. The high efficiency and low harmonic inputs guarantee the uppermost respect for the environment.



Multifunction LCD display

Specifications

UPS Model	EVO DSP PLUS 10.0 TT	EVO DSP PLUS 15.0 TT	EVO DSP PLUS 20.0 TT	EVO DSP PLUS 30.0 TT
Nominal power	10 KVA	15 KVA	20 KVA	30 KVA
Active power	8 KW	12 KW	16 KW	24 KW
Power factor	0,8			
Technology	On-Line Double Conversion transformerless (VFI-SS-111)			
Cooling	Fan cooling			
Audible noise	<58 dBA to 1 m			<60 dBA to 1 m
Dimension (UPS) WxHxD		25x82,6x81,5cm		25x100x81,5cm
Dimension (with packing) WxHxD		38,5x102,5x92 cm		38,5x120,5x92 cm
Input				
Number of phases	3Ph+N			
Nominal voltage	360Vac/380Vac/400Vac/415Vac			
Input voltage range (Ph-N)	176Vac-300Vac to 100% load, 110Vac-300Vac to 50% load			
Nominal frequency	50/60 Hz			
Input frequency range On-Line mode	±7%			
Input current harmonic distortion (THDi)	≤4%			
Input power factor	0,99			
Output				
Number of phases	3Ph+N			
Nominal voltage	360Vac/380Vac/400Vac/415Vac			
Nominal voltage (Ph-N)	208Vac/220Vac/230Vac/240Vac			
Voltage Regulation at %100 linear load (On-Line and Battery mode)	±1%			
Voltage THD at rated linear load	<2% (linear load) - <5% (distorting load)			
Crest factor	3:1			
Frequency	50/60 Hz			
Frequency stability	±0,1 Hz			
Inverter waveform	Sinewave			
Overload capability (On-line mode)	110% for 10 minutes, 130% for 1 minute, >130% for 1 second			
Overload capability (Battery mode)	110% for 30 seconds, 130% for 10 seconds, >130% for 1 second			
ECO Mode efficiency	98%			
Transfer time	0 ms (On-Line)			
Output connections	Terminal block			
Bypass				
Number of phases	3Ph+N			
Nominal voltage (Ph-N)	360Vac/380Vac/400Vac/415Vac			
Nominal voltage (Ph-N)	208Vac/220Vac/230Vac/240Vac			
Voltage range	Low threshold 110Vac-209Vac (selectable) - High threshold 231Vac-276Vac (selectable)			
Input frequency range (50Hz Nominal frequency)	Low threshold 46-48 Hz (selectable) - High threshold 51-54 Hz (selectable)			
Input frequency range (60Hz Nominal frequency)	Low threshold 56-58 Hz (selectable) - High threshold 61-64 Hz (selectable)			
Eco Mode				
Voltage range	Low threshold 5-10% (selectable) - High threshold 5-10% (selectable)			
Input frequency range (50Hz Nominal frequency)	Low threshold 46-48 Hz (selectable) - High threshold 52-54 Hz (selectable)			
Input frequency range (60Hz Nominal frequency)	Low threshold 56-58 Hz (selectable) - High threshold 62-64 Hz (selectable)			
Battery				
Type	Lead acid, sealed, maintenance free			
Batteries number	20/40 (Installed inside)	40 (Installed inside)		60 (Installed inside)
Battery charge time (typical)	6-8 hours			
Nominal voltage	240Vdc			
Extended autonomy	External Battery Box (optional)			
Interfacing				
Interface (communication port)	RS232 and USB			
EPO	Yes			
Dry Contact interface	Yes (optional)			
Software	TecnoManager downloadable free from www.tecnaware.com (compatible with WINDOWS, UNIX, LINUX, Mac OS X up to version 10.8, SUN SOLARIS)			
SNMP interface	Internal module SNMP (compatible with WINDOWS, UNIX, LINUX, Mac OS X up to version 10.8, SUN SOLARIS) - optional			
Parallel configuration				
Parallel interface	Yes (optional)			
Redundant parallel system	Up to 3 units			
Environmental specification				
Storage temperature	From -15 to 40 °C (for UPS with battery inside, see "Storage of batteries in UPS and Battery Box" graphic)			
Working temperature	From 0 to 40 °C (recommended from 20 to 25 °C, for longer battery life see "Battery life in service" graphic)			
Humidity	< 95% without condensation			
Maximum altitude	3000 m			
IP protection	IP20			
Certifications	CE (Standards: Low Voltage Directive IEC EN 62040-1; EMC Directive IEC EN 62040-2; classification IEC EN 62040-3)			
Warranty				
Standard	12 months electronic parts and 12 months batteries			
Extensions	Optional			

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Accessories

Model	Code
Bypass Box for Evo Dsp Plus TT 10-30 KVA	FGCBYP30TT
SNMP Interna for Evo Dsp Plus TT/TM	FGCNETAG7
Dry Contact for Evo Dsp Plus TT/TM	FGCEVODSDRY3
Kit Parallelo for Evo Dsp Plus TT 10 KVA	FGCKITPAREVDP3
Kit Parallelo for Evo Dsp Plus TT 15-20 KVA	FGCKITPAREVDP4

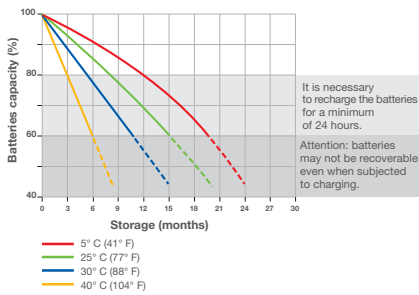
To extend autonomy see page 56

Main specifications

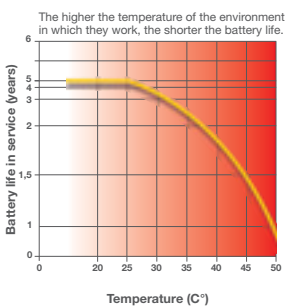
- Internal battery charger on every unit
- Units can be expanded infinitely
- Batteries with thermal circuit protection
- Easy connection to UPS
- Reduced dimensions
- Easy installation and maintenance



Storage of batteries in UPS and Battery Boxes



Battery life in service



Details



Battery Box for Evo Dsp Plus TT/MM 10-15-20-30

- 1 - Thermal Fuse protecting the battery charger circuit
- 2 - Power Socket for the battery charger circuit
- 3 - Thermal switch for battery circuit
- 4 - Connector for the UPS Battery Box connection
- 5 - Extra Battery Box connector

Specifications Battery Box for EVO DSP Plus TM/TT 10-15-20-30

Model	BATTERY BOX for EVO DSP PLUS TM/TT 10-15-20-30								
	FBBEVDP240/07	FBBEVDP240/14	FBBEVDP240/21	FBBEVDP240/09	FBBEVDP240/18	FBBEVDP240/27	FBBEVDP240/11	FBBEVDP240/22	FBBEVDP240/33
Code									
Box dimension WxHxD	25 x 57 x 79,5 cm								
Pack dimension WxHxD	38 x 79,5 x 96 cm								
Weight	85 Kg	125 Kg	165 Kg	90 kg	135 kg	185 kg	95 Kg	145 Kg	195 Kg
Equipped with	Battery charger power cable, battery cable to connect UPS to Battery Box								
Battery									
Type	Lead acid, sealed, maintenance free								
Batteries number	20	40	60	20	40	60	20	40	60
Nominal battery voltage	240Vdc								
Battery specification	12Vdc - 7,2Ah			12Vdc - 9Ah			12Vdc - 11Ah		
Internal battery charger									
Nominal input voltage	230Vac								
Nominal input frequency	50/60Hz								
Nominal charging voltage	274Vdc								
Max charging current	0,7A	1,4A	2,1A	0,9A	1,8A	2,7A	1,1A	2,2A	3,3A
Protection									
Battery charge input	Thermal fuse								
Battery circuit	Magnetothermic switch								
Environmental specification									
Storage temperature	From -15 to 40 °C (for Battery Box with battery inside, see "Storage of batteries in UPS and Battery Box" graphic)								
Working temperature	From 0 to 40 °C (recommended from 20 to 25 °C, for a correct battery use see "Battery life in service" graphic)								
Humidity	< 95% without condensation								
Maximum altitude	3000 m								
IP protection	IP20								
Certifications	CE								
Warranty									
Standard	24 months electronic parts and 12 months batteries								

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