

Use

Local Area Network (LAN), Data Centers

Protection

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

Main specifications

- Convertible format (rack 19" or tower) with adjustable display
- 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)
- Hot Swap Battery
- ECO MODE operation
- Frequency converter operation
- Output voltage and frequency can be regulated from the front panel
- Battery charging system controlled by microprocessor
- Static Bypass
- RS232 and USB communication port
- Intelligent slot for SNMP or Dry Contact card
- Telephone/modem protection by RJ11/RJ45 plug
- High efficiency and low operating cost
- Easy installation and maintenance
- UPS Management Software TecnoManager (compatible with WINDOWS, UNIX, LINUX, etc.)

DSP

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



EVO DSP 1.3 Rack Tower



EVO DSP 2.6 Rack Tower



EVO DSP 4.0 Rack Tower

Details

- 1 - RS232 port
- 2 - USB port
- 3 - RJ11/RJ45 plug
- 4 - EPO connector
- 5 - Input thermal protection
- 6 - Input socket
- 7 - Output sockets
- 8 - Interface slot for SNMP or Dry Contact
- 9 - Connector for extra Battery Box
- 10 - IEC output sockets



19" Rack cabinet positioning



Hot Swap batteries

UPS EVO DSP MM RT

1.3-2.6-4.0

ON LINE MM

Specifications

UPS Model	EVO DSP MM 1.3 RACK TOWER	EVO DSP MM 2.6 RACK TOWER	EVO DSP MM 4.0 RACK TOWER
Code	FGCEVD1302MMRT	FGCEVD2602MMRT	FGCEVD4002MMRT
Nominal power	1.300 VA	2.600 VA	4.000 VA
Active power	910 W	1.820 W	2.800 W
Power factor		0.7	
Technology	On-Line Double Conversion transformerless (VFI-SS-111)		
Cooling	Fan cooling		
Audible noise	< 45 dBA at 1 m		
Positioning	Into 19" rack (2U), or tower positioning		
Dimension (UPS) WxHxD	43,8x8,8x38 cm	43,8x8,8x48 cm	43,8x8,8x60 cm
Dimension (with packing) WxHxD	60x24x53 cm	60x24x63 cm	60x24x75 cm
Weight	13 Kg	21 Kg	28 Kg
Dotazioni	1 power cable, 2 output cables (IEC type), 2 plastic pedestals for Tower positioning, 2 metal handle for 19" Rack mounting		
Input			
Number of phases	1ph+N		
Nominal voltage	208Vac/220Vac/230Vac/240Vac		
Input voltage range	110-300Vac		
Nominal frequency	50/60 Hz (selectable)		
Input frequency range (On-Line mode)	±7%		
Input power factor	0.99		
Output			
Number of phases	1ph+N		
Nominal voltage	208Vac/220Vac/230Vac/240Vac (selectable)		
Static voltage Regulation at %100 linear load (On-Line and battery mode)	±1%		
Voltage THD at rated linear load	<2% (linear load), <8% (non-linear load)		
Crest factor	5:1		
Frequency	50/60 Hz (selectable)		
Free running frequency	±0.2 Hz		
Inverter waveform	Sinewave		
Overload capability	110% only audible warning, 110-130% for 30 sec, >130% for 100 ms		
Efficiency	>92% (line/battery mode), >98% (ECO mode)		
Transfer time	0 ms (On-Line)		
Outlets	8 (IEC 320 C13 type)	6 (IEC 320 C13 type)+ 1 (IEC 320 C19 type)	
Bypass			
Number of phases	1ph+N		
Nominal voltage	208Vac/220Vac/230Vac/240Vac		
Voltage range	110-300Vac		
Battery			
Type	Lead acid, sealed, maintenance free		
Batteries number	2 (internal)	4 (internal)	6 (internal)
Battery charge time (typical)	6-8 hours		
Nominal battery voltage	24Vdc	48Vdc	72Vdc
Battery specification	12Vdc - 9Ah		
Backup time (Typical)	8 min		
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, ecc.)		
SNMP interface	SNMP internal module (compatible with WINDOWS, UNIX, LINUX, ecc.) - optional		
Phone/modem line protection	RJ11/RJ45 plug		
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 (Standards: Low Voltage Directive IEC EN 62040-1; EMC Directive IEC EN 62040-2; classification IEC EN 62040-3)		
Warranty			
Standard	24 months electronic parts and 12 months batteries		
Extensions	Optional		

© 2014 Tecnoware Power Systems. The technical data may change without prior notice.

Accessories

Model	Codice
Bypass Box for UPS MM from 1 KVA to 4 KVA	FGCBYPIEC
Dry Contact for UPS Evo DSP MM	FGCEVODSDRY3
Internal SNMP for UPS Evo DSP MM	FGCNETAG7
Kit for Rack UPS installation	FGCKITEVORT

To extend autonomy see page 46

UPS EVO DSP MM RT

BATTERY BOX

Main specifications

- Internal battery charger on every unit
- Units can be expanded infinitely
- Batteries with thermal circuit protection
- Easy connection to UPS
- Convertible format (rack 19" or tower)
- Easy installation and maintenance



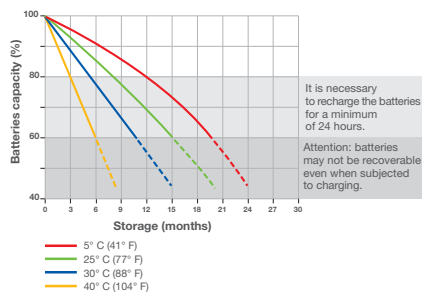
Italian
DESIGN

REFURBISHED
COMPONENTS

ROHS
COMPLIANT

CE

Storage of batteries in UPS and Battery Boxes

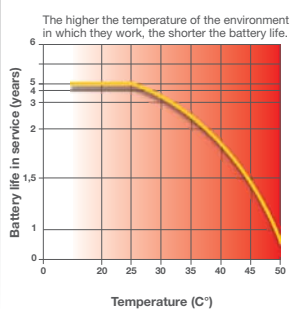


Details



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

Battery life in service



19" Rack cabinet positioning

UPS EVO DSP MM RT

BATTERY BOX

ON LINE MM

Specifications

Model	BATTERY BOX FOR EVO DSP MM 1.3 RT		BATTERY BOX FOR EVO DSP MM 2.6 RT		BATTERY BOX FOR EVO DSP MM 4.0 RT	
Code	FBBEVDRT24/18	FBBEVDRT24/36	FBBEVDRT48/09	FBBEVDRT48/18	FBBEVDRT72/09	FBBEVDRT72/18
Positioning	Into 19" rack cabinet (2U) or tower positioning					
Dimension (Box) WxHxD	43,8x8,8x38 cm		43,8x8,8x48 cm		43,8x8,8x68 cm	
Dimension (with packing) WxHxD	59x26x55 cm		59x26x65 cm		59x26x85 cm	
Weight	21 Kg	31 Kg	22 Kg	33 Kg	30 Kg	43 Kg
Equipped with	Battery charger power cable, battery cable to connect UPS to Battery Box, 2 plastic pedestals for Tower positioning, 2 metal handle for 19" Rack mounting					
Battery						
Type	Lead acid, sealed, maintenance free					
Batteries number	4	8	4	8	6	12
Nominal battery voltage	24Vdc		48Vdc		72Vdc	
Battery specification	12Vdc - 9Ah					
Internal battery charger						
Nominal input voltage	230Vac					
Nominal input frequency	50/60Hz					
Nominal charging voltage	27.4Vdc		54.8Vdc		82.2Vdc	
Max charging current	1A					
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					

© 2014 Tecnoware Power Systems. The technical data may change without prior notice.