B8031FXS - B8033FXS

Uninterruptible Power Supply

1-Ph - 3-Ph from 10 to 20 kVA

Applications

- Networks and servers
- Industrial control and process automation
- Building automation

Highlights

- On-line double conversion
- Transformer free
- Full IGBT technology
- Paralleling up to 120 kVA

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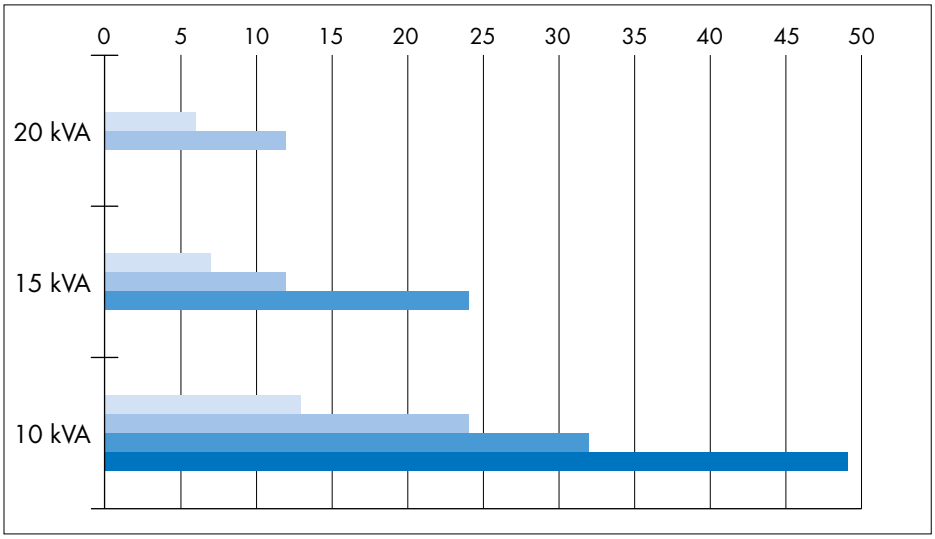
Features and benefits

- High double conversion efficiency and ECO mode for low running costs and environmental impact.
- Transformer free design for light small size layout.
- Removable power modules architecture and built-in diagnostics for easy maintenance and very low MTTR.
- Hot connection/disconnection of parallel units for easy system resizing.
- Full IGBT technology and electronic PFC, ensuring 0.99 input PF and low THDi for maximum upstream sources compatibility.
- Wide range of configurations with internal batteries for low TCO compact solutions.
- High power battery charger, suiting long autonomy applications.
- Dual DSP plus microcontroller logics for top performance and reliability.
- CAN-bus based distributed parallel control ensuring high load sharing accuracy and no single point of failure.
- Comprehensive set of communication options for total remote monitoring of equipment operation.
- Included bypass contactor for complete backfeed protection and operators' safety without additional installation costs.
- Fully compliant with all international product standards for maximum quality guarantee.

Main options

- Isolation transformer.
- Transformers/autotransformers for voltage adjustment.
- Battery voltage temperature compensation.
- External maintenance bypass wall-mounted box.
- Battery fuse switch wall-mounted box.
- Associated battery cabinets for long autonomy times.
- Parallel kit for load sharing.
- Load-sync for single UPS units.
- Input terminals for remote EPO, external manual bypass auxiliary contact, diesel mode.
- Separate bypass input for B8033FXS.
- Cold start.

Autonomy time in minutes with different types of internal batteries



B8031FXS - B8033FXS technical data

Rating (kVA)	10	15	20
Nominal power (kW)	**9**	**13.5**	**18**
UPS dimensions WxDxH (mm)	450x670x1200		
UPS weight (kg)	100	110	110
UPS weight with internal battery (kg)	Max.285	Max.275	Max.275
External battery module dimensions WxDxH (mm)	500x670x1200		
Battery configuration	Internal or external, 360 to 372 cells, VRLA (other options)		
Max autonomy with int. battery 70% load (min)	49	24	12

Input	**B8031FXS (10-15-20 kVA)**	**B8033FXS (10-15-20 kVA)**
Connection type	Hardwired 4w (rectifier), 2w (bypass)	Hardwired 4w
Nominal voltage	400 Vac 3-phase with neutral (rectifier) 220/230/240 Vac 1-phase (bypass)	400 Vac 3-phase with neutral (rectifier) 380/400/415 Vac 3-phase with neutral (bypass)
Voltage tolerance	-20%, +15% (rectifier); ±10% (bypass)	
Frequency and range	50/60 Hz, 45 to 65 Hz	
Power factor	0.99	
Current distortion (THDi)	<4%	

Output	**B8031FXS (10-15-20 kVA)**	**B8033FXS (10-15-20 kVA)**
Connection type	Hardwired 2w	Hardwired 4w
Nominal voltage	220/230/240 Vac 1-phase	380/400/415 Vac 3-phase with neutral
Frequency	50/60 Hz	
Voltage regulation	Static: ±1%; dynamic: IEC/EN 62040-3 Class 1	
Power factor	Up to 0.9, lagging or leading without power derating	
Overload capacity	Inverter: 125% for 10 min, 150% for 30 s, >150% for 10 s; bypass: 150% continuous, 1000% for 1 cycle	
Efficiency (AC/AC)*	Up to 98%	
Classification as per IEC/EN 62040-3	VFI-SS-111	

Connectivity and function extensions	
Front panel	Graphic display, mimic LED panel and keyboard, local EPO
Remote communication	Included: serial RS232 and USB; terminal block for battery breaker auxiliary contact. Optional: input terminal block (remote emergency power off, external maintenance bypass circuit breaker aux. cont., diesel mode aux. cont.); SNMP adapter (Ethernet), Web interface (Ethernet), ModBus-TCP/IP (Ethernet), ModBus-RTU (RS485), from ModBus-RTU to PROFIBUS DP adapter; SPDT contact relay board; remote system monitoring panel; UPS managing and server shutdown software
Optional function extensions	Isolation transformer; transformers/autotransformers for voltage adjustment; external maintenance bypass; custom battery cabinets; wall-mounted battery fuse switch box; battery thermal probe; parallel kit; load-sync for single UPS; other options on request

System	
Protection degree	IP 20
Colour	RAL 7016
Installation layout	10 cm wall-gap, side by side installation allowed
Accessibility	Front and top access, bottom cable entry

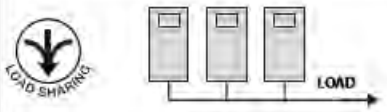
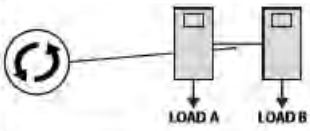
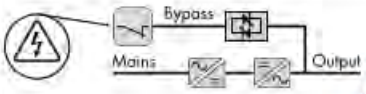
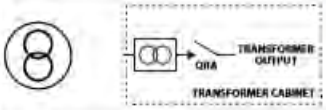
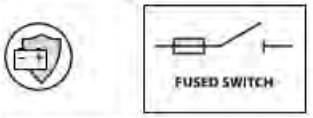
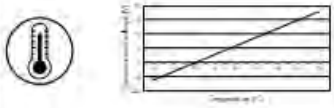
*according to IEC/EN 62040-3

Other features

Environmental	
UPS operating temperature range	0°C to +40°C
UPS storage temperature range	-10°C to +70°C
Altitude (AMSL)	< 1000 m without power reduction, > 1000 m with reduction of 0.5% per 100 m
Audible noise at 1 m (dBA)	<52

Standards and certifications	
Quality assurance, environment, health and safety	ISO 9001:2008, ISO 14001:2004, BS OHSAS 18001:2007
Safety	IEC/EN 62040-1
EMC	IEC/EN 62040-2
Environmental aspects	IEC/EN 62040-4
Test and performance	IEC/EN 62040-3
Protection degree	IEC 60529
Marking	CE

B8031FXS - B8033FXS series options

	Description	When do I use it
	Parallel kit	When the unit is to be paralleled for load sharing
	Load-sync for single units	To synchronize single units' output for no-break load transfers by downstream static transfer switches
 Included	Backfeed protection bypass contactor	To be fully protected against backfeed energy upon static bypass failure
	1-phase output isolation transformer for B8031FXS in extended cabinet	To galvanically isolate UPS from load or to change system's earth arrangement
	3-phase input isolation transformer for B8033FXS in extended cabinet	To galvanically isolate UPS from load or to change system's earth arrangement
	Battery fuse switch in wall-mounted box	To disconnect and protect an external battery pack
	Internal battery temperature probe	When the unit has internal batteries, for charging voltage compensation with temperature
	Internal battery + UPS temperature probe	When the unit has internal batteries, for charging voltage compensation with temperature and UPS temperature monitoring
	External battery temperature probe	When the unit has external batteries, for charging voltage compensation with temperature (10 m cable length)
	Dry contact relay card	To send UPS status to PLC's, SCADA's or AS400's by voltage free SPDT contacts
	Remote monitoring panel	To monitor UPS status by a LED panel from a remote control room (relay card required)
	RS485 ModBus-RTU port	To send UPS status to BMS's by RS485 connection and ModBus-RTU protocol. For remote monitoring and remote service
	Web/SNMP Adapter	To send UPS status to BMS's by Ethernet connection and SNMP or ModBus over IP protocol. To monitor UPS status by any internet browser from workstations. To receive SMS or e-mail alerts from the UPS on any portable device
	Input terminal block for remote EPO	When the Emergency Power Off (EPO) has to be commanded by a remote control button
	Input terminal block for external manual bypass switch auxiliary contact	When there is an external maintenance bypass switch, for state monitoring
	Input terminal block for external battery switch auxiliary contact Included	When there is an external battery switch, for state monitoring
	Input terminal block for diesel mode contact	When battery recharge has to be inhibited over genset operation

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