

TECHNICAL DATA SHEET "B9000 FXS" 200 - 250 - 300kVA

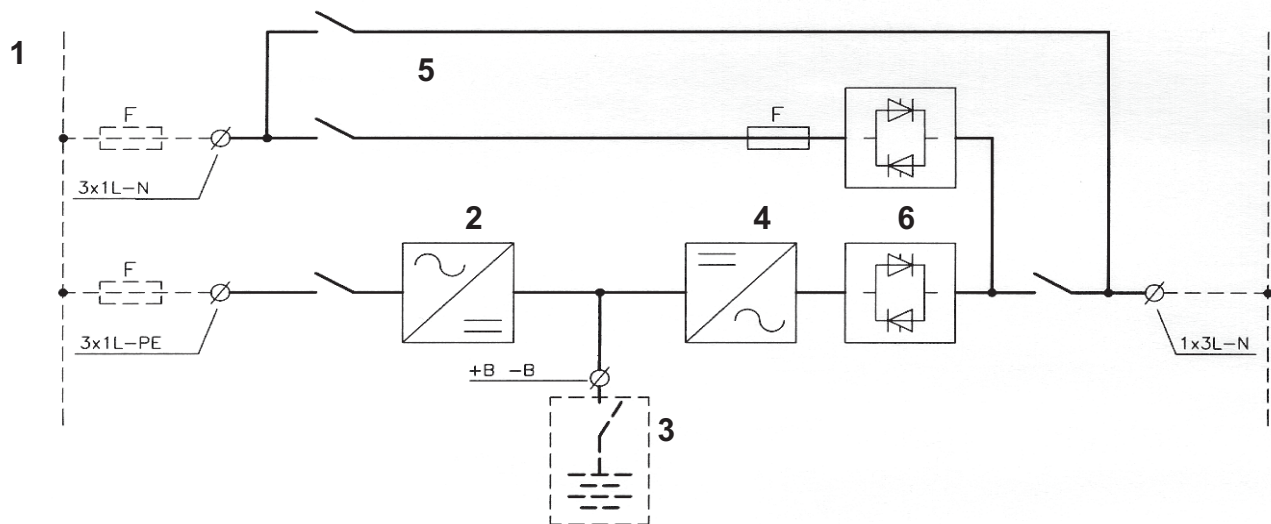
GENERAL INFORMATION

POWER	kVA	200	250	300
UPS Type		ON LINE - Double Conversion		
Nominal output power (Cos φ0,8)	kVA	200	250	300
Nominal output power (Cos φ1,0)	kW	160	200	240
Efficiency (AC ÷ AC) (ON LINE - Double Conversion)	@25% load	> 88		
	@50% load	> 90		
	@75% load	> 92		
	@100% load	> 93		
Efficiency (AC ÷ AC) (Eco Mode)	%	> 98		
Heat dissipation at nominal load and voltage	kW	11,2	14,0	16,8
	kcal/h	9,6	12,0	14,4
UPS ambient temperature	°C	0 ÷ 40		
Battery ambient temperature	°C	0 ÷ +25		
UPS storage temperature	°C	-10 ÷ +70		
Battery storage temperature	°C	-10 ÷ +60		
Relative humidity (non condensing)	%	< 95		
Altitude	m	< 1000 (Above See Level)		
Power derating for altitude > 1000mt		According to "IEC62040-3", 1% power derating every 100m above 1000m, up to max 2000m		
Ventilation		FORCED		
Requested cooling air volume	m ³ /h	3500	4100	4500
Audible noise level (according to IEC EN 62040-3)	dB	< 62		
Standard battery type lead acid (n° of cells)	n° cells	300 - 312 adjustable		
Protection degree		IP 20		
Electromagnetic compatibility EMI		According to "IEC EN 62040-2" (CE marking)		
Safety		IEC EN 62040-1		
Test and performance		IEC EN 62040-3		
Paint		RAL 7016		
Accessibility		Front and top access for service		
Installation		Also against wall and/or side-by-side		
Dimensions	mm	W = 1220 D = 895 H = 1905		
Weight (without battery)	kg	870	1020	1200
Static load (without battery)	kg/m ²	925	1085	1277



Input/output cable connection		Bottom Side (Top Side on Request)
Transport		Base provided for forklift handling
Transport mechanical stress		According to "IEC EN 62040-3"
Design standard		"IEC EN 62040" "ISO 9001:2008"
Free contact interface		Standard per remotizzare i seguenti contatti: EPO – MCB – BCB – DIESEL MODE
Serial communication interface		Standard: RS232 - USB Optional: RS485 (Mod-Bus protocol)
Parallel configuration		Up to 5+1 (redundant parallel) Up to 6 (power parallel)

BLOCK DIAGRAM



1. Input mains (separate for by-pass and rectifier)
2. Rectifier and battery charger
3. External battery
4. Inverter
5. Emergency line (by-pass) with optional backfeed contactor
6. Inverter (SSI) and by-pass (SSB) static switch

UPS INPUT: RECTIFIER AND BATTERY CHARGER

POWER		kVA	200	250	300
Input			Three-phase		
Nominal Input Voltage		Vac	400		
Range		%	-20/+15		
Input Frequency		Hz	50 – 60		
Range			+/- 5		
Input Power Factor			> 0,99		
Input Current THD at nominal voltage and THDV <0,5%	@25% load	%	< 10		
	@50% load		< 7		
	@75% load		< 5		
	@100% load		< 3		
DC Output Voltage Accuracy		%	+/- 1		
DC Output Voltage Ripple		% rms	1		
Battery Recharging Characteristic			IU (DIN 41773)		
Maximum recharging current		A	30	40	40
- at nominal load					
- with DCM function (max current)			100	100	100
AC-DC converter type			PFC IGBT		
Input protection			Fuses		
Nominal Current Absorbed from Mains (at nominal load and Battery charged)		A	250	310	375
Maximum Current Absorbed from Mains (at nom. load and max. recharging current)		A	280	350	410
Sectable walk-in		sec	Sectable from 5" to 30"		
Sectable hold-off		sec	Sectable from 1" to 300"		

BATTERY

POWER	kVA	200	250	300
Type (standard) other on request		Lead Sealed maintenance free		
Number of Cells		300 – 312 adjustable		
Floating Voltage at 25°C	Vdc	680 for 300 cells, 707 for 312 cells (adjustable)		
Minimum Discharge Voltage	Vdc	496 for 300 cells, 516 for 312 cells (adjustable)		
Inverter input power (at nominal Load)	kW	168	210	252
Inverter input current (at nominal load - minimum Vdc)	A	340	425	510
Battery Protection (external to the UPS)		Wall mounted fused switch box on request		
Battery Test		Included as standard		



UPS OUTPUT: INVERTER

POWER		kVA	200	250	300
Inverter Bridge			IGBT (High Frequency PWM.)		
Nominal output power (Cos φ 0,8)		kVA	200	250	300
Nominal output power (Cos φ1,0)		kW	160	200	240
Efficiency (DC ÷ AC)	@25% load	%	90		
	@50% load		92		
	@75% load		94		
	@100% load		95		
Nominal Output Voltage - (selectable)		Vac	380-400-415		
Output			Three-phase + Neutral		
Output Voltage Stability					
- Static (Balanced Load)		%	+/- 1		
- Static (Unbalanced Load)		%	+/- 2		
- Dynamic (Step Load 20% ÷100% ÷20%)		%	+/- 5		
- Output Volt. Recovery Time(after step load)		ms	< 20		
- IEC EN 62040-3			Class 1		
Phase Angle Accuracy					
- Balanced Load		°	+/- 1 Degree		
- 100% Unbalanced Load			+/- 2 Degrees		
Output Frequency –Hz (selectable)		Hz	50 - 60		
Output Frequency Stability					
- Free Running Quartz Oscillator		Hz	± 0,001		
- Inverter Sync. with Mains		Hz	± 2 (other on request)		
- Slew rate		Hz/s	1		
Nominal Output Current (@ 400 Vac output)					
- Cos φ 0,8		A	290	360	430
- Cos φ 1			230	290	360
Overload Capability		⚡	10 min >100%...125% 1 min >125%...150% 10 s >150%...199% 100ms at 200%		
Short Circuit Current		A	460	580	720
Short Circuit Characteristic			Elect. short circuit protection, current limited at 2 times nominal current. Automatic stop after 5 seconds		
Selectivity			Within ½ cicle (Fuse gl 20% In)		
Output Waveform			Sinusoidal		
Output Harmonic Distortion					
- Linear Load		%	< 1		
- Non Linear Load			< 5		
- IEC EN 62040-3			Fully compliant		
Max Crest Factor without derating			3:1		



UPS OUTPUT: BYPASS

Automatic Static By-Pass		Electronic Thyristor Switch
Protection		Fuses
Bypass	Vac	Triphase + Neutral
Nominal Voltage (selectable) Range	Vac %	380-400-415 ±10
Nominal Frequency (selectable) Range	Hz %	50 - 60 ± (1÷5) adjustable
Transfer mode		Without interruption
Transfer inverter → automatic bypass		In case of : - Static Switch test - Inverter test - Inverter not operating - Battery end of discharge
Retransfer automatic bypass → inverter		- Automatic - Block on bypass after 6 transfers within 2 minutes, reset by front panel
Overload Capability	%	150 Continuously 1000 For 1 Cycle
Manual By-Pass		Standard: - Electronically controlled - No break



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OPTIONS

1. BATTERY TEMPERATURE VOLTAGE COMPENSATION
2. INSULATION TRANSFORMER ON BY-PASS
3. VOLTAGE ADAPTATION AUTO-TRANSFORMERS
4. RELAY CARD (Eight signals Alarms/Statuses), Free relay contact
5. SERIAL INTERFACE RS-485 (MOD-BUS protocol)
6. SNMP ADAPTER
7. REMOTE MONITORING PANEL
8. PARALLEL CARD INTERFACE KIT
9. EXTERNAL BATTERY CABINET
10. WALL MOUNTED FUSED SWITCH BOX
11. IN/OUT TOP CABLE ENTRY
12. SPECIAL PAINT
13. LOAD-SYNC BUS CARD INTERFACE KIT
14. BACK FEED PROTECTION

OTHER SOFTWARE SELECTABLE FEATURES

1. DIESEL-MODE
2. ECO-MODE
3. BOOST-CHARGE
4. RECTIFIER WALK-IN TIME
5. RECTIFIER DELAY ON STARTUP (HOLD-OFF TIME)
6. FREQUENCY CONVERTER MODE
7. DCM FUNCTION

