

TECHNICAL DATA SHEET “B8033 FXS”

30 – 40 kVA 3Ph_(In) – 3Ph_(Out)

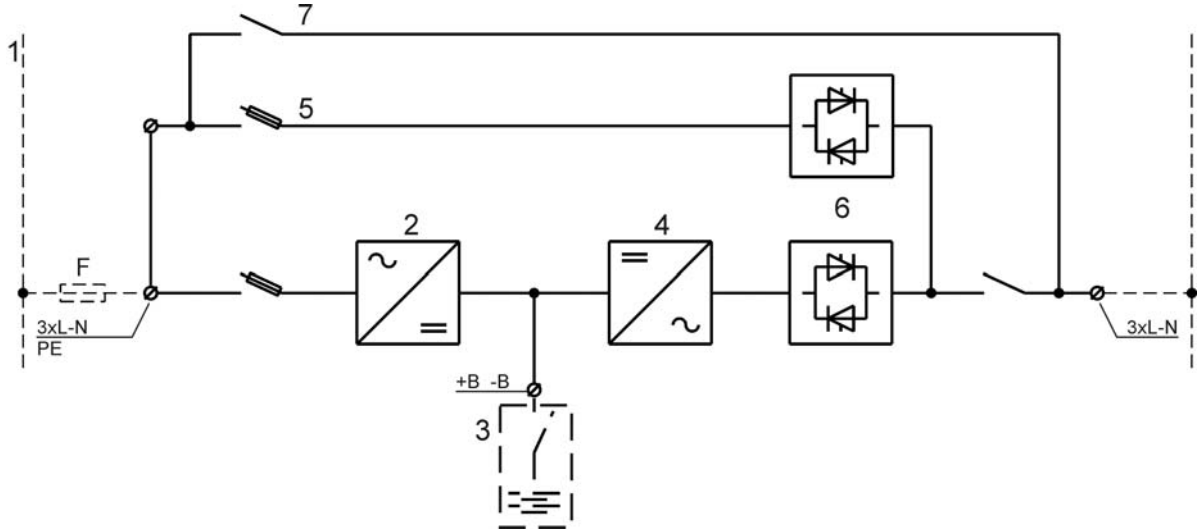
GENERAL INFORMATION

POWER		kVA	30	40
UPS Type			ON LINE – Double Conversion	
Nominal output power (Cosφ 0.9)		kVA	30	40
Nominal output power (Cosφ 1.0)		kW	27	36
Efficiency (AC ÷ AC) (ON LINE - Double Conversion)	@25% load	%	> 88	
	@50% load		> 90	
	@75% load		> 91	
	@100% load		> 92	
Efficiency (AC ÷ AC) (Eco Mode)		%	> 98	
Heat dissipation at nominal load and voltage		kW	2.34	3.13
		kcal/h	2.01	2.69
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 sea level)	
Power derating for altitude > 1000 m			According to “IEC62040-3” 1% power derating every 100m above 1000m up to max 2000m	
Ventilation			Forced	
Requested cooling air volume		m ³ /h	800	900
Audible noise level (according to IEC EN 62040-3)		dB	< 52 db	
Standard battery type lead acid		n° cells	2 x 180	
			2 x 186	
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	
Installation			10 cm from the wall	
Dimensions		mm	W = 450 D = 640 H = 1200	
Weight		kg	140	
Static load		kg/m ²	464	
Input/Output cable connection			Bottom front side	
Transport			By wheels	
Transport mechanical stress			According to “IEC EN 62040-3”	
Design standards			“IEC EN 62040” “ISO 9001:2008” - “ISO 14001”	

Rev.	Descrizione Description	Data Date	Emesso Issued	Approvato Approved	Lingua Language	Pagina Page	di Pag. of Pag.
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Free contact interface		On request
Serial communication interface		Standard: RS232 - USB Optional: RS485 (ModBus protocol)
Parallel configuration (optional)		Up to 5+1 (Redundant parallel) Up to 6 (Power parallel)

BLOCK DIAGRAM



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

UPS INPUT: RECTIFIER AND BATTERY CHARGER

POWER		kVA	30	40
Input			Three-phase + Neutral	
Nominal input voltage range		Vac %	400 -20/+15	
Input frequency range		Hz %	50 – 60 ±5 / ±10 adjustable	
Input power factor			> 0.99	
Input current THD at nominal voltage and THDV <0,5%	@25% load	%	< 14	
	@50% load		< 7	
	@75% load		< 5	
	@100% load		< 4	
DC output voltage accuracy		%	+/- 1%	
DC output voltage ripple		% rms	1% rms	
Battery recharging characteristic			IU (DIN 41773)	
Maximum recharging current - at nominal load		A	10	8
Bridge rectifier type			IGBT PFC	
Input protection			Fuses	
Inrush input current		A	< maximum nominal current	
Earth leakage current		mA	< 22	
Nominal current absorbed from mains (at nominal load and battery charged)		A	43	56
Maximum current absorbed from mains (at nom. Load, max. recharging current and nominal. input voltage)		A	54	66
Settable walk-in		sec	Sectable from 5" to 30"	
Settable hold-off		sec	Sectable from 1" to 300"	

BATTERY

POWER		kVA	30	40
External battery				
Standard type			Maintenance free	
Cells number (settable)			2x180 or 2x186	
Floating voltage at 25°C (settable)		Vdc	2x406 or 2x418	
Minimum battery discharge voltage		Vdc	Settable	
Inverter input power (at nominal load)		kW	28.58	38.25
Inverter input current (at nominal load and minimum Vdc)		A	40.5	54
Battery Protection (external to the UPS)			Fuses	
Battery Test			Included as standard	

UPS OUTPUT: INVERTER

POWER	kVA	30	40
Inverter Bridge		Modular IGBT (transformerless)	
Nominal output power (Cosφ 0.9)	kVA	30	40
Nominal output power (Cosφ 1.0)	kW	27	36
Efficiency (DC ÷ AC)	%	> 95	
Output		Three-phase + Neutral	
Nominal output voltage (selectable)	Vac	380-400-415	
Output voltage stability			
- Static (balanced Load)	%	± 1	
- Static (unbalanced Load)	%	± 2	
- Dynamic (step load 20%÷100%÷20%)	%	± 5	
- Output voltage recovery time (after step load)	ms	< 20	
- IEC EN 62040-3		Class 1	
Output frequency (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)			
- Cosφ 0.9 (leading and lagging)	A	44	58
- Cosφ 1 (purely resistive load)		39	52
Overload capability		125% for 10 min 125%/150% for 30 sec >150% for 10 sec	
Short circuit current	A	70	94
Short circuit characteristic		Elect. short circuit protection, current limited at above values. Automatic stop after 5 seconds	
Selectivity		Within ½ cycle (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: BY PASS

Automatic static by-pass		Electronic thyristor switch
Protection		Fuses
Bypass	Vac	Three-phase + Neutral
Nominal Voltage (selectable) Range	Vac %	380 – 400 – 415 ±10
Nominal Frequency (selectable) Range	Hz %	50-60 ±(1÷5) ±10 adjustable
Transfer mode		Without break
Transfer inverter → automatic bypass		In case of : - Short circuit - Battery end of discharge - Inverter test - Inverter not operating
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
Back feed protection		Optional

OPTIONS

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

OTHER SOFTWARE SELECTABLE FEATURES

1. OFF-LINE
2. RECTIFIER WALK-IN TIME
3. RECTIFIER DELAY ON STARTUP (HOLD-OFF TIME)
4. FREQUENCY CONVERTER MODE