

## TECHNICAL DATA SHEET “B4033”

20 30KVA 3F<sub>(in)</sub> - 3F<sub>(out)</sub>

### GENERAL INFORMATION

<b>POWER (KVA)</b>	<b>20</b>	<b>30</b>
UPS typology	ON LINE - Double Conversion	
Nominal output power @ P.F. 0,8 (KVA)	20	30
Nominal output power @ P.F. Cos Ø 1 (KW)	16	24
Efficiency AC ÷ AC (%)	>90	>90
Heat dissipation at nominal load and voltage:		
-KW	1,78	2,67
-Kcal	1531	2296
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 (mt)	<1000 (Above See Level)	
Power derating for altitude > 1000mt	According “EN50091-3”	
Ventilation	FORCED	
Requested cooling air volume (mt <sup>3</sup> /h)	700	800
Audible noise level (according EN 50091)	<58 db	
Standard battery type lead acid (N° cells)	192	192
Storage time of battery without recharge (@ 25°C)	3 months	
Protection degree	IP 20	
EMC Compatibility	According to “EN 50091-2”	
Paint	RAL 7035	
Accessibility	Front and top access for service	
Static load without battery (Kg/m <sup>2</sup> )	610	628
Input/output cable connection	Bottom Side	
Transport	Base provided for forklift handling	
Transport mechanical stress	According to “EN50091-1”	
Design standard	According to “EN50091-1”	
Free contact interface	On request	
Serial communication interface	RS232-RS485	
Parallel configuration	To increase output power up to 6 UPS or 5+1 redundant	

## RECTIFIER

<b>POWER (KVA)</b>	<b>20</b>	<b>30</b>
Nominal Input Voltage (Vac)	380 ÷ 415 +/- 10% (Selectable)	
Input Frequency (Hz)	50-60 +/- 5%	
Input Power Factor (@ 380Vac)	>0,8	>0,8
DC Output Voltage Accuracy (%)	+/- 1	
DC Output Voltage Ripple (With battery connected) (% rms)	<1	
Total harmonic distortion rejected into the mains (%)	<32	<32
Battery Recharging Characteristic	IU (DIN 41773)	
Temperature Battery Voltage Compensation	On Request	
Maximum Recharging Current at nom. load (A)	10	10
Rectifier Bridge Type	Three Phase Full bridge rectifier	
Input protection	Fast fuses	
Nominal Current Absorbed from Mains (@ nominal load and Battery in floating) (A)	34	50
Maximum Current Absorbed from Mains (@ nom. load and maximum recharging current) (A)	42	60

## INVERTER

<b>POWER (KVA)</b>	<b>20</b>	<b>30</b>
Inverter Bridge	IGBT (High Frequency Comm.)	
Nominal Output Power @ P.F. 0,8 (KVA)	20	30
Nominal Output Power @ P.F. 1 (KW)	16	24
Nominal Output Voltage (Vca)	380 ÷ 415 (Selectable)	
Output Voltage Stability (%)		
- Static (Balanced load)	+/- 1	
- Static (Unbalanced load 100%)	+/- 2	
- Dynamic (Step load 0÷100%÷0)	+/- 8	
- Output Volt. Recovery Time (after step load)	Within 40 msec	
Phase Angle (° el.)		
- Balanced load	+/- 1	
- Unbalanced load 100%	+/- 2	
Output Frequency (Hz)	50 - 60 (Selectable)	
Output Frequency Stability (Hz)		
- Free Running Quartz Oscillator	+/- 0,001	
- Inverter Sync. with Mains	+/- 2 (Adjustable)	
Nominal Output Current (A)		
-@ P.F. 0,8	29	43
-@ P.F. 1	23	35
Overload Capability (%)	125% for 10', 150% for 1' 200% for 100 msec	
Short Circuit Current (A)	46	70
Short Circuit Characteristic	Elect. short circuit protection. current limited at 2 times nominal current	
Selectivity	Within ½ cycle (Fuse gl 20% In)	
Output Waveform	Sinusoidal	
Output Harmonic Distortion (%)		
- Linear Load	<2	
- Non Linear Load	<5	
Crest Factor	3:1	
Max. DC current absorbed from inverter during battery discharge (@ 326Vdc and NP) (A)	54,5	81,8

## BY PASS

Automatic Static By-Pass	Electronic Thyristor Switch
Nominal Voltage (Vca)	380 ÷ 415 (Selectable) +/-10%
Nominal Frequency (Hz)	50 - 60 (Selectable) +/-5
Transfer Inverter ÷ Static By-Pass	In case of : <ul style="list-style-type: none"> <li>- Test inverter</li> <li>- Inverter failure</li> <li>- Input inv. volt. out of limit</li> <li>- Output inv. Volt. out of limit</li> </ul>
Retransfer Static By-Pass ÷ Inverter	Automatic or Manual (Selectable) Block on mains after 6 commut. in 2 min
Overload Capability	-150% Continuously -200% For 1 minute -2000% For 1 Cycle
Manual By-Pass	With electric security and without interruption

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## ALARMS,CONTROLS AND SIGNALS

### ON THE “SYSTEM CONTROL PANEL” :

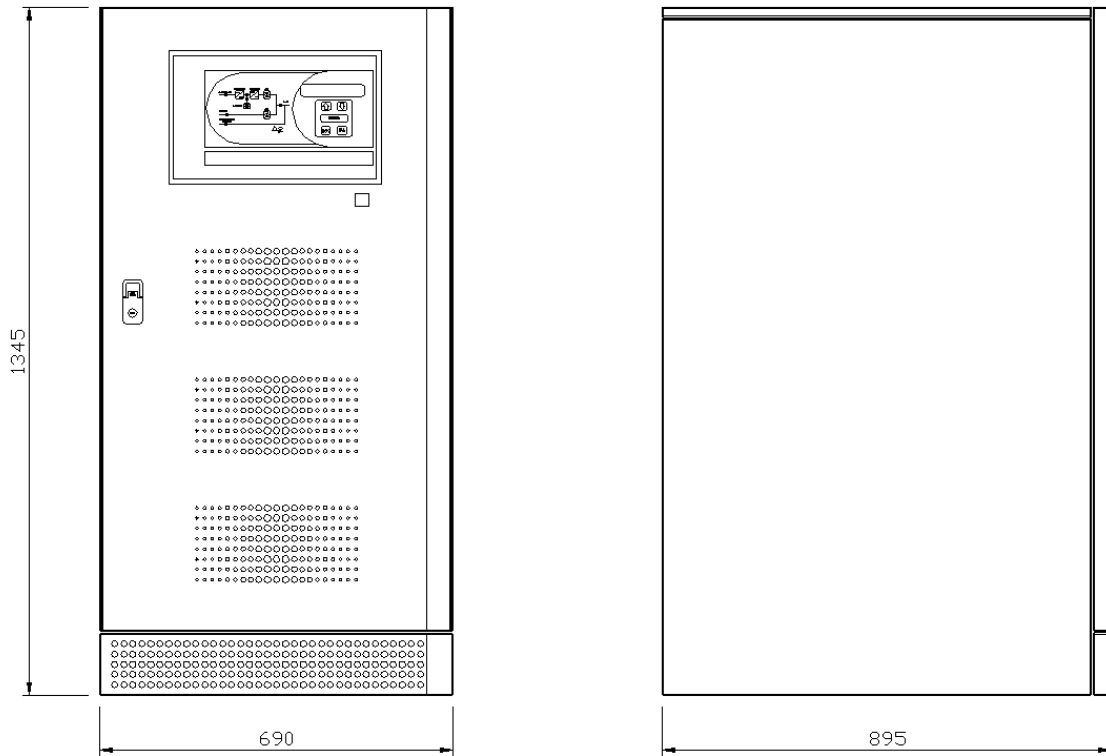
- Synoptic diagram showing : power flow, circuit breaker status and alarms
- Battery test indicator
- LCD display
- Keyboard

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## OPTIONS

1. Free contact remote alarms (FS1418 ARC)
2. Remote System control Panel (type AS224)
3. Parallel configuration
4. Battery Temperature Voltage Compensation

Dimensions:



Weights without battery:

20KVA = 325kg

30KVA = 335kg

