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INPUT

Nominal Voltage : 380VAC/220VAC
Phase : Three phase and Neutral with ground (4W + G)
or Single phase with ground (2W + G)
Power Factor : ≥ 0.99
Voltage Range : 208 ~ 476VAC/120~275VAC


Volt. Low Detection / Comeback : 208/242VAC | 120/140VAC, at load $\leq 50\%$;
260/286VAC | 150/165VAC, at $50\% < \text{load} \leq 70\%$;
286/312VAC | 165/180VAC, at $70\% < \text{load} \leq 90\%$;
304/329VAC | 176/190VAC, at load $> 90\%$;

Volt. High Detection / Comeback : 476/459VAC | 275/265VAC

Nominal Frequency : 50/60Hz
Frequency Range : 40 ~ 70Hz
Freq. Low Detection / Comeback : 40Hz / 40.5Hz
Freq. High Detection / Comeback : 70Hz / 69.5Hz
Nominal RMS Current : 31A
Protection : 63Amp Breaker
Connection : Terminal Block

BYPASS

Output before UPS power-on : Default "YES", can be configured to "NO" through Winpower software
Voltage Range : 187 ~ 264VAC
Bypass Low Detection : Default 187VAC, can be set to 176 ~ 209VAC through Winpower software
Bypass Low comeback : Bypass Low voltage detected plus 10VAC
Bypass High detection : Default 264VAC, can be set to 231 ~ 264VAC through Winpower software
Bypass High comeback : Bypass High voltage detected minus 10VAC
Bypass Frequency Range : Default 50/60Hz $\pm 8\%$, can be set 50/60Hz $\pm (1\% \sim 10\%)$
Protection : 100Amp Breaker

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OUTPUT


Power Capacity	:	20kVA / 18kW
Power Factor	:	0.9
Voltage	:	220VAC, can be set 230/240VAC
Voltage Regulation	:	±1%
Waveform	:	Sine wave
Voltage Distortion	:	≤ 2% (Full linear load) ≤ 4% (Full RCD load)
Frequency	:	Battery mode: 50Hz ±0.05Hz Line mode: Synchronized to 50/60Hz ±4Hz
Slew Rate	:	< 1.0 Hz/sec
Phase Lock Error to Line	:	< 2°
Transient Recovery	:	60ms (R load from 0% to 100% and vice versa)
Current Crest Ratio	:	3:1
Efficiency	:	Up to 93.5% at battery model Up to 94% at line mode Up to 98% at ECO mode
Overload Capability	:	105%-125%, transfer to bypass mode after 10 min (0°C-30°C) or 1 min (30°C- 40°C) Bypass over load > 30 minutes then turn off output; 125%-150%, transfer to bypass mode after 30s Bypass over load > 1 minutes then turn off output; Over 150%, transfer to bypass after 0.5s Bypass over load > 30 seconds then turn off output;
Nominal Output Current	:	90A
Short Circuit Protection	:	Cut off output within 100ms in Line mode & Battery mode; Input Breaker in Bypass mode
Bypass Output without turning on	:	Yes
Maintenance Bypass Switch	:	Option
Connection	:	Terminal Block

**PRODUCT SPECIFICATIONS**REF. No.:
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Type	: Valve Regulated Lead Acid (VRLA), Maintenance Free
Rating	: Option
Quantity	: 20 pieces per string (adjustble: 16/18)
Nominal DC Voltage	: 240VDC (adjustable: 192/216VDC)
Backup Time	: Depends on the external battery capacity
Auto Shutdown Voltage	: 11VDC*N \pm 2VDC when load < 1kW 9.5VDC*N \pm 2VDC when load > 1kW
Protection	: Fast-acting Fuse
Floating Charging Voltage	: 13.5VDC*N
Initial Charging Current	: 4A
Recharge Time	: Depends on the external battery capacity
Over Voltage Protection	: 14.7VDC*N \pm 1%
Leakage Current	: < 3.5mA
Connection	: Terminal Block

INTERFACE

Control Panel	: Power On/Off, Self-test/Alarm silence
Indicators	: Graphical LED & LCD display: Line, Battery, Bypass, Inverter, Load level/Battery level, Fault
Diagnostics	: Full system self test on power up
Auto Restart Function	: Auto restart while AC source restored after discharge shutdown
DC Power-on Function	: On-battery power on
Audible Alarm	: Battery mode: Beeps every four seconds Battery low: Beeps every second Overload: Beeps twice every second Bypass: Beeps every two minutes Fault: Beeps continuously
Communications	
- DB-9 Port	: RS232 interface
- Intelligent Slot (SNMP)	: Available (Options : NMC, AS400 or CMC Card)
- Parallel Port	: Option
- Emergency Power Off(EPO)	: Option
Cooling	: Force air cooling

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PARALLEL FUNCTION

Parallel card : Option
Number of UPS in Parallel : Up to 3 units

TRANSFER TIME

Utility Power Failure : 0 ms
Bypass to Inverter and vice versa : 0 ms

ECO to Inverter and vice versa : < 4 ms

Auto Transfer : Automatically re-transfer to Inverter mode after overload is cleared

ENVIRONMENTAL

Operating Temperature : 0 ~ 40°C
Storage Temperature : -25°C ~ 55°C
Humidity : 20% ~ 90%, Non-condensing
Altitude : < 1000 m

STANDARD & SAFETY

Audible Noise : ≤ 50dB, at 1-meter distance in front of the front panel (Exclusive of Buzzer)
EMC : IEC/EN61000
IEC/EN62040-2
Safety : IECEN62040-1

MECHANICAL FEATURES

Unit
Dimensions: W x 'x + (mm) : 248 x 500 x 616 mm
Weight (Kg) : 30.5 Kg
Packaging
Dimensions: W x 'x + (mm) : x 680 x 705 mm
Weight (Kg) : 35.5 Kg

Specifications are subject to change without notice.