

PM33-HF040S - 40KVA On-Line Double Conversion 3-Phase Input and Output UPS, Internal Batteries

The PowerMan PM33-HF UPS range is manufactured using a double conversion design principal, and operates using a 380/400V 50Hz, three-phase AC input and output. The use of state of the art high frequency, transformer-less technology keeps the UPS small and compact.

The incoming mains is converted directly into DC which is used to charge the batteries and to drive the inverter, which in turn runs the load. **This means that your sensitive electronic equipment will be protected from any potentially damaging spikes, surges or dips.** Should the mains fail completely, the batteries will simply carry on driving the inverter, and start to discharge as opposed to charging. There is no break on the output on transfer to or from the mains. This design concept offers the best possible protection as your equipment is supplied clean power from the inverter at all times.

The UPS has a built in Static By-Pass feature which enables the machine to transfer the load to normal mains under certain emergency conditions, such as an overload. Once the condition causing the by-pass has been corrected the unit will automatically return to its normal operating mode.

Each UPS is supplied with a software package that will connect to a USB Port on your computer so that the UPS parameters can be monitored by the user, and in the event of the computers being left unattended a safe shut down will be executed by the software. An SNMP network version is available at an extra charge.



Features	Benefits
On-Line, double conversion technology	Computer equipment is protected from typical commercial power problems such as spikes, surges, dips or failures due to the isolation of the input from the output. A double conversion is the only type of UPS that will be able to recreate a clean, steady voltage and frequency output.
Transformer-less	This technology has been tried and tested over the years and has proven itself to be reliable. The use of high frequency technology dramatically reduces the size of the equipment and improves efficiency which reduces the running cost.
Generator Compatible Input	The output power from the generator can vary as different loads come on and go off, the UPS will ensure that your equipment is supplied with a clean 220V at all times and will not be damaged by the voltage fluctuations from the generator. Some generators have a poor output wave form, the UPS will correct that to a pure sine wave.
DC Start Capability	Units are able to start and run with no mains input. Essentially the units can be run as a straightforward inverter if necessary.
Absorbant Glass Mat Battery	The AGM battery is specifically designed for use with UPS and inverter applications. The acid in the batteries (the electrolyte) is suspended in a thin fiberglass mat that is situated between the lead plates. These batteries are leak-proof and are designed for long discharges, and they do not gas while charging making them an ideal choice for office or home environments.
Communication Ports	All units are fitted with a USB communication port. This can be connected to the USB port of a computer, and in conjunction with various software packages can supply information on the status of the UPS. An SNMP version is available as an optional extra.
LCD Display	Displays accurate information on the input and output voltages, frequency as well as load levels and available battery capacity for quick diagnosis.

Specifications

Model No.	PM33-HF040S
Capacity VA (Watts)	40 000 (36 000)
Input Voltage	3-Phase + Neutral + Earth 380V / 400V / 415 VAC line to line
Input Voltage Range	304 to 478 V line to line at full load
Input Frequency Range	40Hz to 70Hz
Total Harmonic Distortion (THDi)	< 3%
Input Power Factor	≤ 0.99
Output Voltage On Inverter (adjustable)	380V / 400V / 415 VAC line to line 230V AC ± 3% line to neutral
Voltage Regulation	± 1.5%
Frequency on Inverter	50 Hz Crystal Controlled (± 0.01%)
Inverter Wave Form	Sine
Total Harmonic Distortion (THDu)	≤ 1% For Linear Loads ; ≤ 5.5% Non-Linear Loads
Transfer Time	Zero Detection Time, Switch time ≤
Efficiency At Full Load	> 95%
Overload Capability	110% for 60 minutes, 150% For 1 minute, then by-pass
Battery Voltage	± 240VDC
Batteries	Internal battery pack, 80 x 12V 12Ah Sealed Lead Acid (AGM)
Re-Charge to 90 %	± 8 Hours
Backup Time With 50% Load (50% Load)	15 Minutes
Backup Time With 75% Load (75% Load)	7 Minutes
Ambient Operation	3000M Max Elevation, -10°C to 40°C, 0 to 90% Humidity
Audible Noise At 1 M	< 60% Load 52 dbA / > 60% Load 56 dbA
Short Circuit Protection	Yes
Low Battery Shut down	Yes
Controls	Mains Fail Alarm (Slow intermittent beep), Low Battery Alarm (Continuous beep), Mains on indicator, Charging indicator, By-Pass Indicator, LCD Display (Full UPS Status reporting), Diagnostic software via USB port (SNMP and dry contact optional)
Approvals	IEC 62040-1-2008 / IEC62040-2-2006 / IEC62040-3-2011 ISO9001-2005 Quality / ISO14001-2005 Environmental Management
UPS Dimensions (w x d x h) mm & Weight	500mm x 840mm x 1400mm @ 412Kg

Specifications are subject to change. E&OE.

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