

DATASHEET

PXE-60 SERIES STATIC FREQUENCY CONVERTERS

With Variable Frequency And Voltage Options.

400Hz

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About

PX Electronic specialise in the design of electrical power measuring instrumentation. Including power analysers, High Voltage Switching, HiPot Testing, ground bond testing and DC loads. Our product expertise and consultancy includes applications associated with electrical safety equipment, AC power analysis, energy instruments and current sensors and current probes. Applications include EV, wind turbines, green power, automation, military power systems, power electronics, power conversion, electric cars, generators, motors, fans and pumps.

Our range of Test & Measuring products includes power analysers, single & three phase watt meters measuring from DC to 2MHz along with HV related switching and IR measurement products.

PX offers PC based software solutions. This enables PX measuring instruments and transducers to be controlled via USB, Ethernet, RS232, RS485 and IEEE-488 interfaces. Various display and storage options are available to suit the customer's need. An "in house" software customisation service is available.

PX has a global support network, enabling us to distribute our products worldwide from a variety of distributors and representatives to meet the needs of our customers.

PXe-60 Series Static Frequency Converters

With Variable Frequency And Voltage Options.



- Continuous duty, 3-phase,
- 400Hz converters for internal use.
- Ultra compact.
- Very low acoustic noise output.
- Galvanically isolated, sinusoidal,
- 3-phase output.
- Variable output frequency and voltage options.
- Comprehensive digital display.
- Remote status & control options.
- Extremely dependable with long design life.
- Optional 28VDC secondary output.

Setting new standards in 400Hz generation, the PXe-60 series frequency converters are ultra compact, near silent in operation and very low maintenance. They have a large easy-to-read digital display panel which displays all output parameters including voltage, current, frequency and power. An extensive options list allows each converter to be customised to specific requirements.

PXe's latest converter topology provides a robust, high quality 400Hz output, able to handle even the most non-linear and complex types of load. It is capable of working in continuous duty with a long service life and at very high efficiency levels. The new design benefits from extremely low levels of both acoustic and electrical noise.

The PXe-60 series includes 2 main models the 10kVA and 20kVA, but ranges are available from 4kVA to 50kVA. All share the same comprehensive digital display panel, but with PXe's trade-mark simplicity of operation.



The comprehensive digital display shows output volt age, current, frequency, power and power factor.

PXe-60 models may be ordered with variable output voltage and/ or frequency. This allows the User to replicate the real 'in the air' aircraft supply quality when testing equipment. Output voltage and frequency are both continuously variable via front panel knobs.

A remote control panel is available allowing the converter to be monitored and controlled from up to 200m



Remote Control Panel up to 200 metres away.

Applications:

- Avionics/aircraft equipment development and R&D.
- Production line and proving.
- Hangar Plant room.
- Test House.
- Submersibles.
- Special Applications.
- For external GPU see our other ranges



Technical Specification:

Input:

Voltage: 400V or 440V +/-10%, 3ph
 Frequency: 50Hz or 60Hz +/- 6%
 Power factor: >0.98 @ full load
 Susceptibility: EN 61000-4-4, 5

Output:

Voltage: 115/200V or 120/208V, 3ph
 Voltage regulation steady-state: +/- 2%
 Voltage regulation dynamic: +/- 5% @ 0-100% step-load.
 Frequency: 400Hz +/- 0.1% under all conditions.
 THDv: Better than 3% @ linear load
 Overall quality: Better than MIL-STD704E, DFS400
 Waveform: Pure sinusoid
 Phase angle accuracy: Better than 1%
 Overload capability: 110% @ 30 mins, 200% @ 5 secs, 300% @ 1 sec
 Permissible load power factor: 0.6 leading to 0.6 lagging.
 Permissible phase un-balance: 70%
 Secondary 28VDC output: 70 amps continuous (optional).

Protection:

Input supply: MCB, phase loss detection, over & under voltage.
 Output: Over-current, over-temperature, phase loss detection, over & under voltage, short-circuit (any phase).

Display panel:

Parameters displayed: Output voltage (ph-ph + ph-N), output current, power, . frequency, power factor.
 Accuracy: Better than class 0.25 IEC 60688
 LEDs: Input present, Converter healthy, Over-temperature, Overload, General fault.

Environment:

Ambient temperature range: -10 to 50 deg C
 Electrical noise: EN 55022, IEC1000-4
 Cabinet protection: IP31
 Acoustic noise: <50dB(A) @ 1m
 Construction: Mild steel, zinc plated, painted RAL7032 grey & white
 Castors or feet: 4KVA has rubber feet and lifting handles, others have 80mm castors with front brakes. A/Vs or feet optional.
 Cooling: Variable speed turbine, air intake in base, exhaust at rear.
 CE: CE marked

Connectors:

Connector options: Hard-wire terminals, EN60309, MIL-STD, or Client choice.

Remote Facilities:

Remote control option: Remote control panel, electrically isolated from the converter, self-powered, On/Off + 5 status indications. Operational up to 200m from the converter.
 Remote monitoring: RS485 2-wire/0V, 1/2 duplex 1/4 unit load, MODBUS RTU 16-bit CRC 4800 or 9600 baud.
 Volt-free contacts (C/O): Input supply present, output on/off, over-temperature, overload, fault. Contacts isolated from converter.
 Connector type remote: 25-way 'D' socket.

Options:

Variable output voltage: Via front panel knob, nominal voltage +/- 15%
 Variable output frequency: Via front panel knob, 400Hz +/- 10%
 Special input voltages: 220V & 480V (3ph)
 Special output voltages: 67/115V, 3ph, 400Hz.
 Military EMC standard: MIL-STD 461

Standards:

EN61000-6-4, EN62040-1-1, MIL-STD704, CE

PX Electronics is a specialist UK Manufacturer of frequency converters and aircraft GPUs. The company manufactures a wide range of solid-state converters for aerospace, naval, industrial and military applications.

PXe-604 4KVA	PXe-606 6KVA	PXe-610 10KVA	PXe-615 15KVA	PXe-620 20KVA	PXe-625 25KVA	PXe-630 30KVA	PXe-640 40KVA	PXe-650 50KVA
44Kg	60Kg	85Kg	120Kg	140Kg	165Kg	195Kg	225Kg	255Kg

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The logo for PX Electronics, featuring the letters 'PX' in a stylized, outlined font followed by the word 'ELECTRONICS' in a bold, black, sans-serif font.

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