

# PXe-MS Series Marine & Shore Power Static Frequency Converter

PXe-330250-MS-3P400V50-3P440V60-250KVA-IP54-RS485 | 250kVA | 400V 50Hz to 440V 60Hz

Representative 250kVA marine static frequency converter configured to convert a 400V three-phase 50Hz shore or facility supply to a regulated 440V three-phase 60Hz vessel supply. The PXe-MS Series is intended for marine, shipyard, dockside and vessel applications where voltage and frequency conversion are required.

This sample specification records the electrical, environmental and mechanical details for the configured unit. Final enclosure and project compliance requirements are confirmed against the installation environment before manufacture.



Representative PXe-MS Series enclosure

| Rated capacity | Input          | Output         | Enclosure |
|----------------|----------------|----------------|-----------|
| 250kVA         | 400V 3PH, 50Hz | 440V 3PH, 60Hz | IP54      |

| 1. General  |                                                   |
|-------------|---------------------------------------------------|
| Model       | PXe-330250-MS-3P400V50-3P440V60-250KVA-IP54-RS485 |
| Capacity    | 250kVA                                            |
| Phase       | Three Phase in / Three Phase out                  |
| Application | Marine / shore power frequency conversion         |

| 2. Input         |                                 |
|------------------|---------------------------------|
| Nominal Voltage  | 400V (L-L) +/-10%, 3 Phase + PE |
| Acceptable Range | 360V-440V (L-L)                 |
| Frequency        | 50Hz                            |
| Power Factor     | > 0.8 (Standard configuration)  |

| 3. Output                            |                                                                                              |
|--------------------------------------|----------------------------------------------------------------------------------------------|
| Nominal Voltage                      | 440V (L-L), 3 Phase + PE                                                                     |
| Rated Current                        | 328A line current @ 440V                                                                     |
| Frequency                            | 60Hz                                                                                         |
| Voltage Accuracy                     | < +/-1% FS (Full Scale)                                                                      |
| Frequency Accuracy                   | < +/-0.1% FS (Full Scale)                                                                    |
| Total Harmonic Distortion (THD)      | THD < 3% @ Linear Load, pure sine wave output                                                |
| Load Current Crest Factor Capability | 3:1                                                                                          |
| Overload Capacity                    | 100% continuous, <110% - 15 minutes, <125% - 10 minutes, <150% - 1 minute, <200% - 5 seconds |

## Construction, environment and compliance

Remaining specification values for the individual configured unit

| 4. Control, protection and enclosure |                                                                                       |
|--------------------------------------|---------------------------------------------------------------------------------------|
| Interface                            | RS485 remote interface (sample configuration)                                         |
| Protection                           | Over Current, Overload, Over Voltage, Overheat, Short Circuit, Alarm and Indicators   |
| Enclosure IP                         | IP54 enclosure configuration; alternative enclosure requirements available by project |
| LCD Display                          | Frequency Meter<br>Voltage Meter<br>Current Meter<br>Power Meter<br>PF Meter          |
| Connectors                           | Hard-Wire Terminal Blocks; alternative industrial connectors by project               |

| 5. Environment |                                                                                                                |
|----------------|----------------------------------------------------------------------------------------------------------------|
| Temperature    | Operational: -10C to 55C<br>Recommended ambient: -10C to 45C                                                   |
| Noise          | <65dB at 1 metre                                                                                               |
| Humidity       | 10% to 90% RH, non-condensing                                                                                  |
| Cooling        | Variable speed forced-air cooling                                                                              |
| Altitude       | <1800 metres                                                                                                   |
| Installation   | Floor-standing protected indoor configuration; dockside/onboard environment to be confirmed before manufacture |

| 6. Reliability and efficiency    |                                                   | 7. Dimensions and weight |                                                                                                        |
|----------------------------------|---------------------------------------------------|--------------------------|--------------------------------------------------------------------------------------------------------|
| Mean Time Between Failure (MTBF) | 50,000Hrs                                         | Dimensions               | 1540 x 880 x 1600mm*                                                                                   |
| Mean Time to Restore (MTTR)      | <30 minutes                                       | Weight                   | 1250kg*                                                                                                |
| Overall Efficiency               | >90% for this representative 250kVA configuration | Note                     | *Representative mechanical data for the sample IP54 configuration; final data confirmed at order stage |

| 8. Standards and project requirements |                                                                                                                                                         |
|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| CE                                    | CE marked                                                                                                                                               |
| Project requirements                  | Marine classification, vessel-specific, port, EMC or other project compliance requirements to be stated at enquiry stage and agreed before manufacture. |
| Testing                               | Functional factory testing as standard; application-specific FAT and third-party witness testing available.                                             |

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