Flatpack2 Stand-alone Box, Maritime
Power Supply 2000 W

Cost-effective, powerful solution for compact applications

The combination of cost-effective design, power density and reliability makes the *Flatpack2 Stand-alone Box, Maritime* a product family that truly stands outs and provides a smart solution for ultra compact applications. The versatility of the Flatpack2 rectifier range means that *Flatpack2 Stand-alone Box, Maritime* can be used in a wide variety of 48VDC and 24VDC applications across the globe.

Applications

Due to the rectifier's high power density, cost competitive design and a highly flexible system communication interface, the *Flatpack2 Stand-alone Box, Maritime* may be used in 48VDC and 24VDC system solutions up to 2000W. The output power is easily increased by parallel-connecting several Flatpack2 Stand-alone Boxes.

The box is to be fixed with 6 suitable screws to any surface, as long as the front panel does not face upwards or downwards. In UL recognized systems, the box is to be fixed inside a cabinet.

Maritime Applications

The *Flatpack2 Stand-alone Box, Maritime* can be used in maritime applications when using the Flatpack2 24V or 48V, 2kW rectifiers.
The system then complies with "Det Norske Veritas" (DNV) Rules for Classification of Ships, High Speed & Light Craft and "Det Norske Veritas" (DNV) Offshore Standards.

Telecom Applications

The *Flatpack2 Stand-alone Box, Maritime* is also suitable for Telecom applications, using either the Flatpack2 24V or 48V, 2kW rectifiers or the Flatpack2 HE 48V, 2kW rectifier.
The Flatpack2 HE rectifier delivers an industry leading power density with an outstanding efficiency of 96.5%.

Product Description

The *Flatpack2 Stand-alone Box, Maritime* is a compact power system containing 1 rectifier from the Flatpack2 product range and a connection back board. This board incorporates AC input and DC output terminals, as well as alarm relay outputs, CAN bus connection and AC input filter for maritime applications.

The *Flatpack2 Stand-alone Box, Maritime* has been specifically designed to meet the demand for higher density and ultra compact power solutions. It is suitable for applications needing an easily serviceable, reliable and expandable power supply, fitting within a minimal space.
Switch mode technology with resonant topology and high switching frequency is used to minimize volume and weight and to obtain high reliability. The system accepts large variations on the input voltage (85-290 VAC) and draws sinusoidal current with a soft start power-up.

Key Features

Highest Efficiency in Minimum Space

Resonant topology makes the *Flatpack2 Stand-alone Box, Maritime*'s efficiency industry leading and contributes to the rectifier's ultra compact dimensions.

Digital Controllers

Primary and secondary controls are digitalized, enabling excellent monitoring and regulation characteristics. Thus, the number of components has been reduced by 40% - for highly reliable, long life, trouble free DC power systems.

Heat Management

Front-to-back air flow with chassis-integrated heat sinks gives the system the most suitable working environment.

Global Compliance

Flatpack2 Stand-alone Box, Maritime is CE marked and UL recognized for worldwide installation.

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Additional Technical Specifications

Flatpack2 Rectifier Options

The *Flatpack2 Stand-alone Box, Maritime* may house any one of the following rectifiers:

- Flatpack2 HE Rectifier 48V, 2000W (Part 241115.105)......(Telecom)
- Flatpack2 Rectifier 48V, 2000W (Part 241115.100)............(Telecom & Maritime)
- Flatpack2 Rectifier 24V, 2000W (Part 241115.200)............(Telecom & Maritime)

***Note:**

For technical specification about each rectifier option, read the actual rectifier's data sheet or
the User Guide Flatpack2 Rectifier Module, Doc. No. 350002.013

AC Input

Input Protection	AC input filter for maritime applications (DNV)
Other Parameters	Read note ***

DC Output

Output Parameters	Read note ***

Monitoring

Alarm Relays	2relays: RL1=Alarms; RL2=Warnings
Alarms and Warnings	Rectifier, Temperature, Fan, Mains, Output and CAN Failures. For detailed info, read note ***
Visual Indications	Read note ***

Other Specifications

Efficiency	Read note ***
Isolation	o 3.0 KVAC – input and output o 1.5 KVAC – input earth o 0.5 KVDC – output earth
Operating temp	-40 to +75°C (-40 to +167°F)
Storage temp	-40 to +85°C (-40 to +185°F)
Cooling	Read note ***
Fan Speed	Temperature and current regulated
Acoustic Noise	Read note ***
Humidity	o Operating: 5% to 95% RH non-condensing o Storage: 0% to 99% RH non-condensing
Dimensions	138.6 x44.2 x 445.0 mm (wxhxd) (5.46 x 1.74 x 17.52")
Weight	1.48 kg (3.27 lbs) without rectifier

Applicable Telecom Standards

Electrical safety	o IEC 60950-1, UL 60950-1 and CSA 22.2
EMC	o ETSI EN 300 386 V.1.3.2 (Telecommunication Network) o EN 61000-6-4 (emission, industry) o EN 61000-6-3 (emission, light industry) o EN 61000-6-2 (immunity, industry) o EN 61000-6-1 (immunity, light industry)
Mains Harmonics	o EN 61000-3-2
Environment	o ETSI EN 300 019-2 and ETSI EN 300 132-2 o RoHS compliant

Applicable Maritime Standards

EMC	o EN60533

Specifications are subject to change without notice