



OVERVIEW

Pharos Marine Automatic Power offers a versatile and rugged range of solar electrical power generators for individual or multiple installations, suitable for a wide range of client projects in demanding gas & dust hazard environments.

The Photovoltaic Module is highly resistant to water, abrasion, hail impact and other severe weather conditions, making it suitable for use in any climate. Our dedicated team can custom design and manufacture a portable or permanent certified Zone 1 solar powered system, with battery back-up to provide required autonomy for a multitude of applications in hazardous areas.

Current applications for this reliable and economical energy source include remote marine navigation and aviation warning systems, communications & wifi, site traffic management, pipeline / valve leak detection and fluid / vapour flow monitoring, security applications and offshore HPU UPS systems.

KEY FEATURES

- PID resistant
- 1000V (UL) / 1000V (IEC) Certified
- Micro-crack free
- Triple stage 100% in-line EL passed
- Higher energy yield on field performance
- Certified solar panels range from 20W-400W for use in Zone 1 & Zone 2 hazardous environments
- Anodised aluminium extruded frame for torsional rigidity and ease of installation
- High integrity IP66 universal junction box c/w 4mm² terminals with blocking diode included
- Two ISO M25 cable entries
- Designed for modular integration and expansion in series for 24V and higher voltages
- Designed for modular integration and expansion in parallel for increased output currents

CERTIFICATIONS

ATEX certificate number: ExVeritas 15ATEX0051X

IECEx certificate number: IECEx EXV 15.0001X

Coding: Ex II 2 G Ex e mb II C T6 Gb -40°C ≤ Tamb ≤ +55°C

Ingress Protection: IP-66

MECHANICAL SPECIFICATIONS

Connector	MC4 Compatible
Diode	Shottky bypass diodes; 3nos
Frame	Anodised aluminium alloy; twin wall profile
Locking	Corner key type
Glass	ARC; low iron; tempered; high light transmission; 3.2mm
Furnished with universal GRP junction box	

Part No	Length [mm]	Width [mm]	Thickness [mm]	Weight [kg]
SPEX20-12	459	677	40	3.85
SPEX40-12	693	677	40	5.85
SPEX95-12	1157	677	40	9.70
SPEX140-12	1487	667	40	15.00
SPEX240-24	1968	987	40	60.00
SPEX305-24	1968	987	40	60.00

ELECTRICAL SPECIFICATIONS

Part Number	Nominal Volt	Rated Power (W)	Open Circuit Voltage (Voc)	Max Power Voltage (Vmp)	Max Current (Imp)	Short Circuit Current (Isc)	Efficiency (%)
SPEX20-12	12	20	21.80V	17.50V	1.15	1.33	6.44
SPEX40-12	12	40	21.80V	18.00V	2.50	2.75	9.59
SPEX95-12	12	95	22.30V	18.31V	5.19	5.60	12.13
SPEX140-12	12	140	22.25V	17.75V	7.90	8.30	14.11
SPEX240-24	24	240	36.60V	30.00V	8.00	8.50	12.36
SPEX305-24	24	305	46.00V	30.00V	8.00	8.68	15.70

General Details:

Output Tolerance (%): +-5

Warranty:

5 years product warranty
0-10 years for 90% rated power

