

Solar Technology (Military P3)



G3systems

The P3 Military Power Pack is a solar-energised portable power pack for mobile power needs. Incorporating NASA and military technologies with PowerFlex solar cells, the P3 Military power pack provides an excellent choice for applications that require a lightweight, flexible, durable and portable power solution.

- Twice the power to weight of any other solar alternative
- Available in 15W, 30W, 48W and 55W units
- Foldable for ease of transport and practically indestructible
- Reduces system through life costs – ON FUEL and number of batteries required
- Power output even in bad weather conditions
- Built in reverse current protection
- All products 12V dc output with optional 24V dc output on 48W
- Available in Desert, Arctic, Woodland Camo and emergency Orange backing





Specification

GENERAL

The P3 Military Power Pack is a solar-energised portable power pack for mobile power needs. Incorporating NASA and military technologies with PowerFlex solar cells, the P3 Military power pack provides an excellent choice for applications that require a lightweight, flexible, durable and portable power solution.

SOLAR PANEL THIN FILM TECHNOLOGY CIGS

The thin film materials are all good light absorbers and only need to be about 1micron thick. Our unique solution utilises copper indium (gallium) diselenide (CIGS).

CIGS thin film technologies are all complex. They have taken at least twenty years to get from the stage of promising research into production.

In order to build up useful voltages from thin film cells, manufacturing usually includes laser scribing sequences that enable the front and back of adjacent cells to be directly interconnected in series, with no need for further solder connection between cells.

Thin film cells are laminated to produce a weather resistant and environmentally robust module. Thin films potentially generate more electricity over the year because of their higher performance in higher temperature and is less prone to shading.

CIGS technology has shown significant benefits of being more stable in high temperature conditions, very resistant to degradation and ability to sustain damage to sections of the panel with very little output reduction, flexible and light weight. They are therefore well suited to the rigours of a military environment.

P3 MILITARY POWER PACK SPECIFICATION

Model Number	P3-15	P3-30	P3-48	P55
Rated Power (Watts)	15	30	48	55
Rated Voltage (Volts)	18.8	18.8	18.8/37.8	20
Rated Current (Amps)	0.78	1.5	1.2	28
Open Circuit Voltage (Volts)	36	28	28/55	30
Short Circuit Current (Amps)	1.0	2.2	3.9/1.8	3.7
Thermal (Relative to 25°C)				
Rated Power (%/C)	0.5	0.5	0.5	0.5
Temperature	-40C to 80C	-40C to 80C	-40C to 80C	-40C to 80C
Folded Dimensions				
Length (mm/inches)	267/10.5	267/10.5	368/14.5	279/11
Width (mm/inches)	216/8.5	216/8.5	216/8.5	229/9
Depth (mm/inches)	19/0.75	30.5/1.2	35.5/1.4	33/1.3
Weight (kg)	0.70	1.1	1.8	
Deployed Dimensions				
Length (mm/inches)	711/28	1118/44	1321/52	1397/55
Width (mm/inches)	21/533	737/27	737/27	813/32
Depth (mm/inches)	2.54/0.1	2.54/0.1	2.54/0.1	2.5/0.1

G3 Systems Limited

Heydon Lodge, Newmarket Road
Nr Royston, Hertfordshire, SG8 7PN
Tel +44 (0)1763 268200 Fax +44 (0)1763 268210
E mail sales@g3-systems.co.uk www.g3-systems.co.uk