

Poly-crystalline Solar Module

Engcotec TP660P-220/225/230/235

Power:	TP660P-220	220 Wp	TP660P -230	230 Wp
	TP660P-225	225 Wp	TP660P -235	235 Wp



Certifications

High quality standards proved by the following certifications:

- TÜV, CE
- VDE IEC 61215
- VDE IEC 61730
- UL 1703I

- High efficiency poly-crystalline solar cells 156 x 156 mm, with silicon
- Manufacturer rated power: $\pm 5\%$
- Assembled with Multi-Contact-Plugs MC Type 4
- Robust double aluminium profile
- Simple and cost-saving installation
- IP 65 Junction Box with 3 built-in by-pass diodes (10SQ050)
- Tempered low iron glass for better impact resistance and better light transmission
- Manufacturer's linear performance warranty 25 years product guarantee 10 years with irredeemable policy period
 - 10 years on 90% of peak power
 - 25 years on 80% of peak power

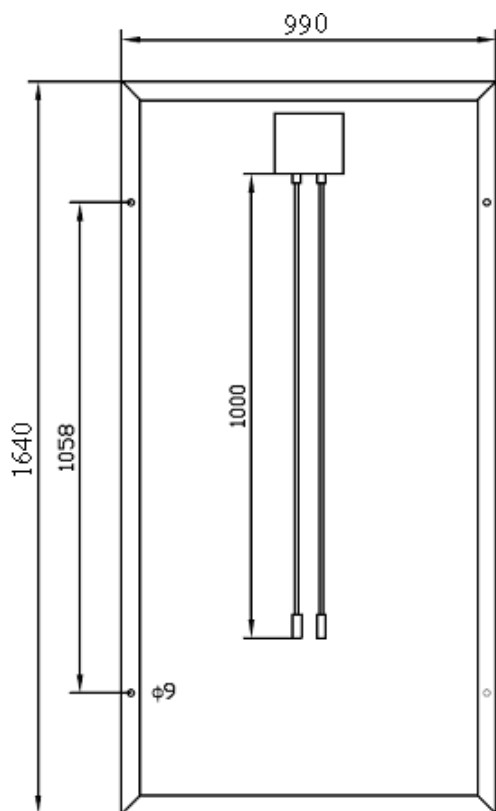
Engcotec TP660P-220/225/230/235

Engcotec solar modules are designed and constructed to provide high performance and reliability. We constantly improve our products to ensure product performance and reliability.

The poly-crystalline cells lie behind hardened glass glazing and are embedded in transparent EVA (ethylene-vinyl-acetate).

Data Sheet Solar Module Engcotec TP660P-220/225/230/235

Electrical Data	TP660P-220	TP660P -225	TP660P -230	TP660P -235
Max. Power P_{MPP}	220 W	225 W	230 W	235 W
Voltage at max. power point U_{MPP}	29.0 V	29.2 V	29.4 V	29.5 V
Current at max. power point I_{MPP}	7.59 A	7.71 A	7.83 A	7.97 A
Open-circuit voltage U_{OC}	36.4V	36.6V	36.7 V	36.8 V
Short-circuit current I_{SC}	8.32 A	8.40 A	8.52 A	8.59 A



Dimensions and weights

Dimensions (L x W x H)	1640 x 990 x 40 mm
Weight	approx. 19.3 kg

Characteristic data

Solar cells per module	60
Type of solar cell	poly-crystalline
Dimensions of cell	156 x 156 mm
Connections	Assembled with Multi-Contact-Plugs
Length of cable	1000 mm
NOCT	47 \pm 2°C

Limit values

Max. system voltage	1000 V
Tested wind resistance	200 km/h
Operating module temperature	-40°C - +85°C

Cell temperature coefficients

P_m	-0.445%/C
I_{sc}	+0.032%/C
Open-circuit voltage (U_{oc})	-152mv/C

Certifications

VDE IEC 61215	VDE IEC 61730
ISO 9002	UL 1703



Engcotec Advanced Technology GmbH, P.O.Box 100852, D-70007 Stuttgart

Tel.: +49 (0)711 22 29 67 – 6, Fax: 49 (0)711 22 29 67 – 77

Email: engcotec@engcotec.de, website: www.engcotec.de

Engcotec reserves the right to make specification changes. No responsibility is taken for this information. 01/2012