KVAZAR
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KV 255M KV 235M
KV 250M KV 230M
KV 245M KV 225M
KV 240M KV 220M

- Solar modules manufactured by Kvazar PJSC provide high level of electricity generation due to up-to-date technology and optimal combination of materials.
- Wide range of power classes allows performance of an individual designing and installation of photovoltaic systems.
- Solar module frame construction was tested for bending resistance and provides reliable and quick assembling.
- Modern manufacturing methods and certified quality management system guarantee the client a high quality level of the product.
- Positive sorting of the modules output provides exceeding of the nominal parameters of electricity generation.
- The full range of tests and trials conducted with solar modules manufactured by Kvazar PJSC (including electro-luminescence) first of all guarantees durability of solar systems and power plants.

General Features

Performance Classes	220 Wp, 225 Wp, 230 Wp, 235 Wp, 240 Wp, 245Wp, 250 Wp, 255 Wp
Module Dimensions	1.665 x 997 x 50 mm
Frame	Aluminium (anodized)
Qualifications	Product sertification according to IEC 61215 Ed.2 Protection class II or IEC 61730 Development and manufacture certification according ISO 9001-2008
Warranty *	up to 10 years
Performance Guarantee *	12 years on 90 % of the performance 25 years on 80 % of the performance

TÜVRheinland® CERT ISO 9001

Technical subject to alterations

** In accordance with our respective applicable guarantee conditions*

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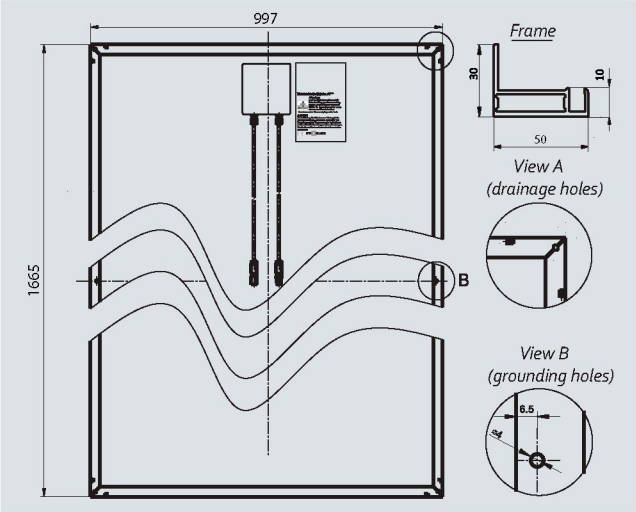
Technical Data

Dimensions



General Data

Module Technology	Glas-Foil-Laminate
Frame	Aluminium
Module Dimensions	1665 x 997 x 50 mm
Cover Material	High transparent solar glass (tempered) 4 mm
Back Material	Multilayered backsheet, white
Type of Cells	60 monocrystalline solar cells
Cell Dimensions	156 mm x 156 mm
Connection Box	Tyco with 3 Bypass Diods
Cables	2 x 1.000 mm / 4 mm^2
Connectors	Tyco Solarlok
Weight	23 kg

Electrical Data

STC: *Standart Test Conditions:*

Irradiance =1 000 W/m^2; Air mass = AM 1.5; Nominal operating temperature T = 25 °C *(The average statistical module parameters)*

Module Indication	KV-220M	KV-225M	KV-230M	KV-235M	KV-240M	KV-245M	KV-250M	KV-255M
Nominal Power P	220	225	230	235	240	245	250	255
Sorting limits	-0/+5	-0/+5	-0/+5	-0/+5	-0/+5	-0/+5	-0/+5	-0/+5
Open circuit voltage V_{oc}, V	36,7	36,8	36,9	37	37,1	37,2	37,3	37,4
Short circuit current I_{sc}, A	8,45	8,5	8,55	8,6	8,65	8,7	8,75	8,8
Voltage at max power V_{mpp}, V	29	29,25	29,5	29,75	30	30,5	30,7	30,9
Current at max power I_{mpp}, A	7,6	7,7	7,8	7,9	8	8,1	8,2	8,3

NOCT:

Irradiance=800 W/m^2; Air mass = AM 1.5; Nominal operating temperature T = 47±2 °C *(The average statistical module parameters)*

Module Indication	KV-220M	KV-225M	KV-230M	KV-235M	KV-240M	KV-245M	KV-250M	KV-255M
Nominal Power P	155,4	158,9	162,5	166	169,5	173	176,6	182
Open circuit voltage V_{oc}, V	33,35	33,45	33,5	33,6	33,7	33,8	33,9	34
Short circuit current I_{sc}, A	6,86	6,9	6,95	7,0	7,03	7,07	7,11	7,15
Voltage at max power V_{mpp}, V	26,2	26,5	26,7	26,9	27,1	27,5	27,7	27,9
Current at max power I_{mpp}, A	5,93	6,0	6,1	6,17	6,25	6,33	6,4	6,52

Temperature coefficients

TK(Isc)= +0,07%/ °C; TK(Uoc) = -0,33%/ °C
TK(P) = -0,45±0,05%/ °C; NOCT = 47±2 °C

Intencity Dependance:

W/m^2	Vmpp	Impp
1000	1,00	1,0
800	0,99	0,8
200	0,95	0,2

Limits!

Class of application: A (IEC 61730);
Protection class: II (IEC 61730);
Max. System Voltage (DC): 1.000 V;
Series Fuse Rating, A: 15 A;
IP Protection Level: IP 65;
Mechanical Ratings: Load of 5.400 Pa approved;
Operating Temperature Range: -40 ... + 85 °C
Ambiente Temperature Range: -40 ... + 45 °C

Distribution partner

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