



PV MODULE :
Standard Series : PM220P00 (Tested and certified by the TÜV Rheinland)

Specification	PM220P00						
typ. Nominal Power P_N @STC*	205 Wp	210 Wp	215 Wp	220 Wp	225 Wp	230 Wp	235 Wp
typ. Module Efficiency	12.3%	12.6%	12.9%	13.2%	13.5%	13.8%	14.1%
typ. Nominal Voltage V_N (V) @STC*	29.22	29.58	29.91	30.20	30.50	30.84	31.14
typ. Nominal Current I_N (A) @STC*	7.01	7.12	7.20	7.28	7.37	7.48	7.55
typ. Open Circuit V_{oc} (V) @STC*	36.20	36.50	36.60	36.90	37.00	37.32	37.50
typ. Short Circuit I_{sc} (A) @STC*	7.63	7.70	7.77	7.85	7.89	8.00	8.02
Maximum Tolerance of P_N **	-0%/+3%						
NOCT***	47°C						
typ. Nominal Power P_N @NOTC	147 Wp	151 Wp	155 Wp	158 Wp	162 Wp	165 Wp	169 Wp
typ. Temperature Coefficient of P_N	-0.46 % / K						
typ. Temperature Coefficient of V_{oc}	-0.129V/K						
Temperature Coefficient of I_{sc}	4.4m A/K						
Maximum System Voltage	1000V						
IP Protection Level	IP 65						
Reverse Current Power Rating I_R ****	15A						
Module Technology	Glass-foil-laminate with aluminum frame High transparent solar glass (tempered), 4mm Embedding: EVA Backside Foil : Black or White Aluminum Frame : Silver						
Module Design	60 polycrystalline solar cells, 156mm x 156mm						
No. and Type Solar Cells	60 polycrystalline solar cells, 156mm x 156mm						
Cables	Junction box with MC 4 Plug connector cables, 1x4 mm ² , Length : each 1.0m						
Bypass-Diodes	3						
Dimensions (L x W x H)	1668 x 1000 x 40 mm						
Weight	23kg						
Operating Temperature	-40...+80°C						
Ambient Temperature Range	-40...+45°C						
Qualifications	IEC61215 Ed.2 / IEC61730						

* STC: Standard Test Conditions, measurement conditions: Radiation strength 1000 W/m², spectral distribution AM 1.5, temperature 25 ± 2°C, in accordance with EN 60904-3

** The given electrical data are nominal values which account for basic measurements and manufacturing tolerances of ±10%, with the exception of P_N . The classification is performed according to P_N

*** NOCT: Normal Operation Cell Temperature, Measuring conditions: irradiance 800 W/m², AM 1,5, Air temperature 20°C, wind speed 1m/s

**** Reverse Current Power Rating I_R : Operation of more than 3 strings in parallel is only permitted by using a string fuse with a max. release current of I_R