



Solar Module 250W ATEX ND_A5_250_EX

Protection mode:

Type of protection:	II 2 G Ex emb IIC T5 Gb II 2 D Ex tb IIC T100°C Db
Ambient temperature:	-20/+55°C
Class of temperature:	T5
Zones :	1-2-21-22
Protection	IP66



Description:

The ND_A5_250EX solar module is poly Crystalline Silicon photovoltaic module cells of 60 cells of 156mm² generating a typical peak power of 250 watt maximum . Single solar module can charge a 12/24 Volt battery using a charge regulator. System voltages from 12 of 24 volt and higher can be obtained by connecting modules in series.

Higher currents can be obtained by connecting modules in parallel, bypass diode is attached minimize power reduction caused by shade.

The ND_A5_Ex module meets the following requirements

IEC/EN 61215 and IEC/EN 61730

Hazardous area certification according:

EN 60079-0 : 2009, IEC 60079-0 : 2007

EN 60079-7 : 2007, IEC 60079-7 : 2006

EN 60079-18 :2009 , IEC 60079-18 : 2009

EN 60079-31 : 2009, IEC 60079-31 : 2008

Mechanical construction :

Anti-reflex coating to increase light absorption. Improved temperature coefficient to reduce power losses at higher temperatures. High power performance even at lower irradianations

The front of the Ex solar module is a high impact resistant, highly transparent tempered glass plate offering the solar module excellent protection against environmental hazards.

Dimension 1 652x 994x 46mm Weight 19Kg

Junction box :

3 busbar technology for enhancing the power output - PPE/PPO resin, IP65 rating, 58 × 125 × 15 mm, 3 bypass diodes

Connexion by an Exe junction box, 2 x M20 cable gland polyamide in standard. Other nickel plate brass or stainless steel on request.

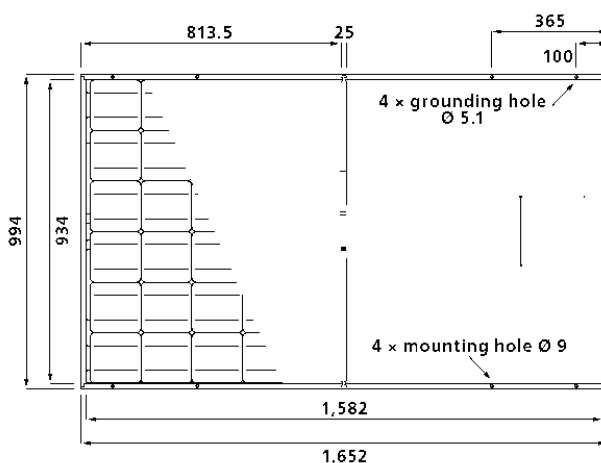
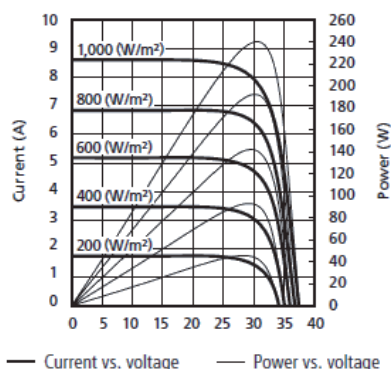


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Electrical & mechanical specifications :

Dependance on temperature :

Characteristic curves: current/power vs. voltage
(cell temperature: 25 °C)



ELECTRICAL DATA (at STC) ND_A250_EX		at STC	at NOCT
Maximum Power	P _{max}	250	180
Open -circuit voltage	V _{oc}	37,6	36,7
Short-circuit current	I _{sc}	8,68	7
Voltage at point of maximum power	V _{mpp}	30,09	27,7
Current at point of maximum power	I _{mpp}	8,1	
Module efficiency	η _m	15,2	15,2
Nominal Operating Cell Temperature NOCT	°C		47,5
Temperature coefficient			
P _{Max}	%/°C	-0,44	-0,44
V _{oc}	%/°C	-0,329	-0,329
I _{sc}	%/°C	-0,038	-0,038

STC = Standard Test Conditions: irradiance 1,000 W/m², AM 1.5, cell temperature 25 °C.

Rated electrical characteristics are within ±10 % of the indicated values of I_{sc}, V_{oc} and 0 to +5 % of P_{max} (power measurement tolerance ±3 %).