

Top Quality mono crystalline modules produced in Denmark

Option – choose between white, black or transparent backsheet. Silver or black frame or no frame at all.

HEM Photovoltaic offers a high quality series of modules produced in Scandinavian. The unique, automated production process ensures the highest level of precision and consistently high production quality. The machine finishing produces a highly homogeneous design.

The top quality monocrystalline 5" cells lie behind a 3,2 mm hardened-glass glazing and are embedded in transparent EVA (ethylene-vinyl-acetate). The back of the module is sealed with a very high quality Tedlar film. The module stability is the result of the deep inset of the glass in the frame and its continuous bond between the two.

The flat and compact connecting socket is mounted on the back of the module. The connecting socket has no hollow cavities, is watertight, resistant to UV radiation and microbes, as well as very temperature resistant. This flat and compact top-quality product represents the ideal solution for every application

5 Years Limited PV Modules Warranty

HEM Photovoltaic warrants the PV Module(s) to be free from the defects and/or failures specified below for a period not exceeding five (5) year from the date of sale to the original customer - ("Customer"):

- 1) defects and/or failures due to manufacturing;
- 2) defects and/or failures due to materials;
- 3) cracking of the front glass surface due to foreign objects inside the glass;

Note: This limited warranty shall exclude cracking of the front glass surface due to external shock from flying objects or external stress or transportation damages.

4) Non-conformity to specifications due to faulty manufacturing and/or inspection processes. If the PV Module(s) fails to conform to this warranty, HEM will repair or replace the PV Module.

Limited Power Output Warranty of 25 years (90%- 80%)

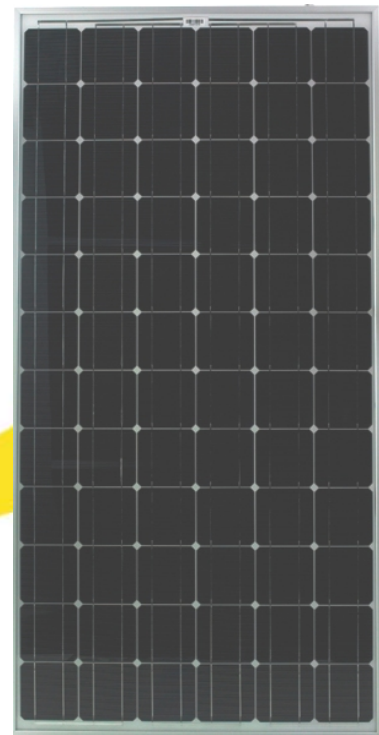
HEM Photovoltaic warrants:

- within the first 10 years from the date of sale to the Customer, the PV Module(s) exhibits a power output of less than 90% of the original minimum rated power specified at the time of sale (Power peak minus the power tolerance %);

- within 25 years from the date of sale to the Customer, the PV Module(s) exhibits a power output of less than 80% of the original minimum rated power specified at the time of sale

*The power output values shall be those measured under HEM standard measurement conditions as follows:

- Light spectrum of AM 1.5; - irradiation of 1,000w per m²; - cell temperature of 25 degrees Centigrade.



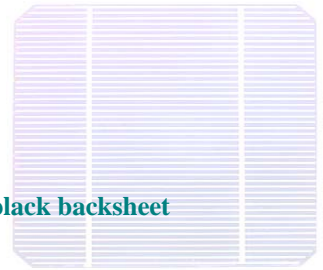
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HEM photovoltaic is owned by Danish Solar Energy Ltd. We have been in the photovoltaic module production since 1993 and are considered as one of the pioneers in the marked. All our high quality modules are produced in Scandinavian and they always come with optimal performance.

HEM - Photovoltaic



Datasheet for HEM 72M5F- 160Wp – 190Wp White, transparent or black backsheet
- Without frame HEM 72M5- 160Wp – 190Wp

Physical Specifications for version 24V

Cells per module: 72
 Cell type: mono-crystalline silicon
 Cell dimensions: 125 x 125 mm²
 Weight: 15 kg

International certifications
 IEC 61215, Safety class II
 and EN 61701

Rated power and maximum tolerance

160 - 190 : +/- 3%

Connecting socket:

IP 65

Plug: tyco

Maximum system voltage 1000V

25 years production
 80% guarantee

5 years product
 guarantee.

Characteristics for the characterisation of the thermal behaviour

NOCT: 46°C * TK Isc: 0,06 %/K * TK Voc: -0,35 %/K * Pmpp(%/K) 0,3 %/K

Module size: 1610 x 810 x 34 mm

Junction box with cables and waterproof Tyco of connectors, cables length cm 90.

With 3 Bypass diode.

Power specification for version 24V - Performance under standard test conditions (STC)

1000 W/m ² , NOCT, AM 1,5		72M5F160	72M5F165	72M5F170	72M5F175	72M5F180	72M5F185	72M5F190
Peak power (Wp):	Pmax	160 Wp	165 Wp	170 Wp	175 Wp	180 Wp	185 Wp	190 Wp
Open circuit voltage	Voc	43,8 V	44,0 V	44,2 V	44,4 V	44,6 V	44,8 V	45,0 V
Max power voltage	Vmpp	35,0 V	35,3 V	35,5 V	35,8 V	36,0 V	36,3 V	36,6 V
Short circuit current	Isc	5,00 A	5,10 A	5,20 A	5,30 A	5,40 A	5,50 A	5,60 A
Max power current	I mpp	4,58 A	4,68 A	4,79 A	4,89 A	5,01 A	5,10 A	5,20 A

