

Commandar 595-615Wp

High performance solar module
120 halfcell, monocrystalline

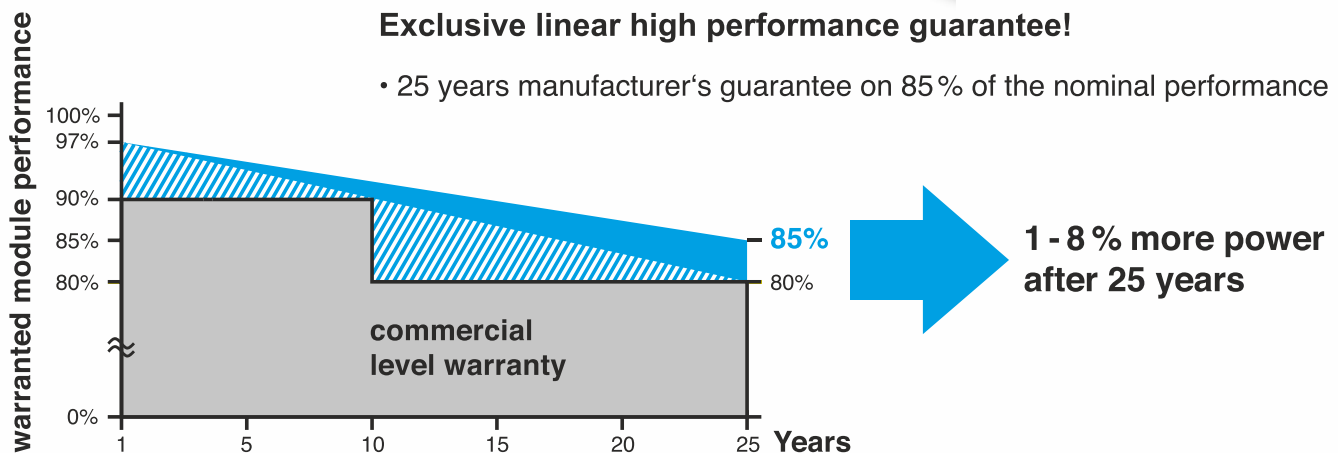
The advantages:

- 25** Years
25 years manufacturer's warranty
- HC**
Highest module performance through Half-Cut-technology and tested materials
- Wp**
Guaranteed positive power tolerance from 0-5 Wp by individual measurement
- 2.400 Pa**
Maximum 2400 Pa snow load
- 100%**
100% electroluminescence inspection
- IP 68**
High quality junction box and connector systems



Exclusive linear high performance guarantee!

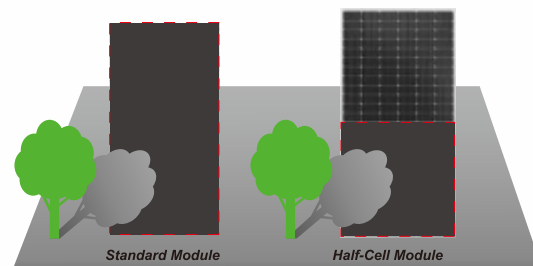
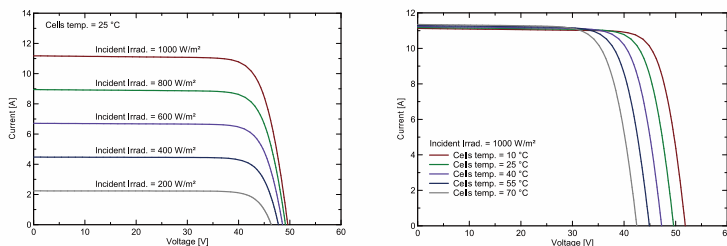
• 25 years manufacturer's guarantee on 85% of the nominal performance



Electrical data (at standard conditions (STC) irradiance 1000 watt/m², spectrum AM 1,5 at a cell temperature of 25°C)

Type	Nominal output P _{mpp}	Nominal voltage U _{mpp}	Nominal current I _{mpp}	Short circuit current I _{sc}	Open circuit voltage U _{oc}	Module conversion efficiency
NB595-60M	595 Wp	34,20V	17,40A	18,27A ± 4%	41,04V ± 3%	21,02%
NB600-60M	600 Wp	34,40V	17,44A	18,31A ± 4%	41,28V ± 3%	21,20%
NB605-60M	605 Wp	34,60V	17,49A	18,36A ± 4%	41,52V ± 3%	21,38%
NB610-60M	610 Wp	34,80V	17,53A	18,41A ± 4%	41,76V ± 3%	21,55%
NB615-60M	615 Wp	35,00V	17,57A	18,45A ± 4%	42,00V ± 3%	21,73%

I-V Curve



Design

Frontside	3,2 mm hardened, low-reflection white glass
Cells	210 monocrystalline high efficiency cells
Backside	Composite film
Frame	35 mm silver aluminium frame

Mechanical data

L x W x H	2172 x 1303 x 35 mm
Weight	30,0kg with frame

Power connection

Socket	Protection Class IP68
Wire	approx. 1,2 m, 4 mm ²
Plug-in system	Plug/socket IP68, Stäubli EVO2 / EVO2 pluggable

Limit values

System voltage	1500V~2000V DC
NOCT (nominal operating cell temperature)*	45°C +/-2K
Max. load-carrying capacity	2400 N/m ²
Reverse current feed IR	20,0 A
Permissible operating temperature	-40°C to 85°C / -40F to 185F

(No external voltages greater than U_{oc} may be applied to the module)

* NOCT, irradiance 800 W/m²; AM 1,5; wind speed 1 m/s; Temperature 20°C

Temperature coefficients

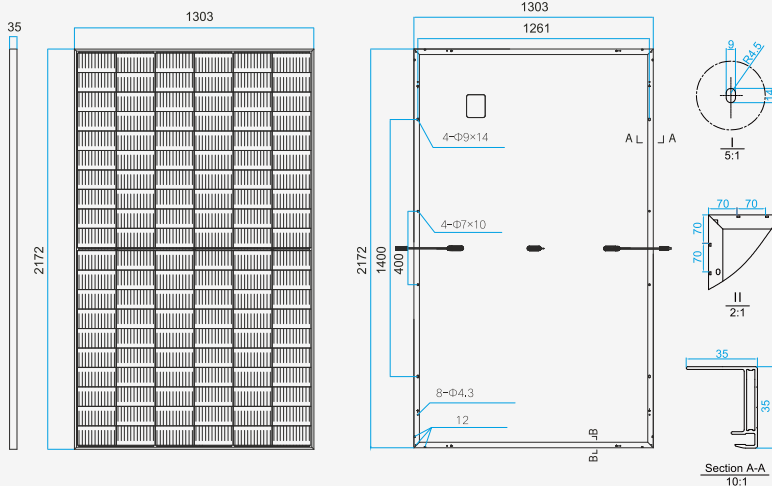
Voltage U _{oc}	-0,27 %/K
Current I _{sc}	0,048 %/K
Output P _{mpp}	-0,35 %/K

Low-light performance

I-U characteristic curve	Current I _{pp}	Voltage U _{pp}
200 W/m ²	2,24 A	40,05 V
400 W/m ²	4,51 A	40,51 V
600 W/m ²	6,74 A	40,82 V
800 W/m ²	8,91 A	41,17 V
1000 W/m ²	10,94 A	41,61 V

Packaging

Module pieces per pallet	31
Module pieces per HC-container	620



All dimensions in mm