

MONO CRYSTALLINE N-TYPE MODULE

CE-410/415/420/425/430HM FULL BLACK



HIGH EFFICIENCY

Powerful N-type topcon cells
Excellent module efficiency up to: 22.35%.



HIGH RELIABILITY

Superior craftsmanship, engineering excellence, and attention to the finest detail ensure longevity and optimal performance.



HIGH RETURN ON INVESTMENT

Reduction of balance-of-system-costs through higher performance per module.



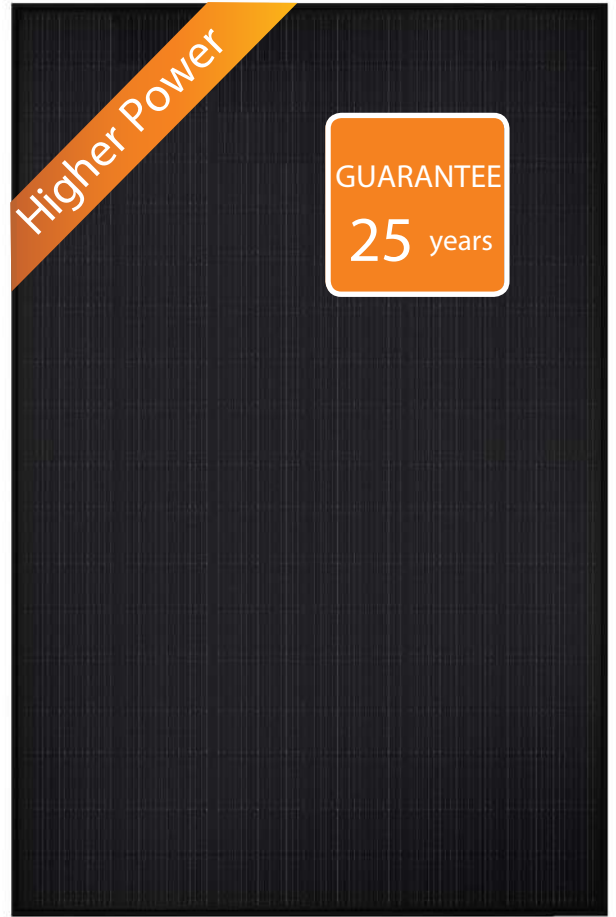
EXTREMELY ENVIRONMENTAL TESTING

Remain peak performance in extreme environments.
Class A fireproofing rating.



STRENGTH AND DURABILITY

Certified for 5400Pa snow and 3600Pa loads test.
Passed hail test with 35mm hail stones at 97 km/h.



CENTRO ENERGY ELECTRIC QUALITY

For more than 10 years, we have been perfecting our PV modules to bring you the highest quality products possible.

- Automated cell and module production lines ensure consistently high quality in every module.
- Each cell and module flash tested to ensure rated level of output.
- Aesthetically pleasing black frame and cells.
- Lead-free solder protects health and the environment.

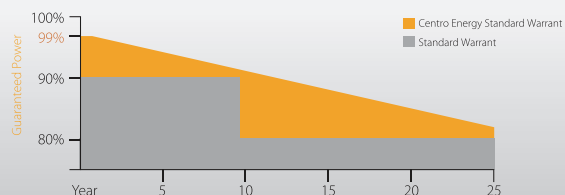
SYSTEM CERTIFICATION

ISO 9001: 2015
ISO 14001:2015

AUTHORISED PHOTOVOLTAIC CERTIFICATES



25 YEARS PERFORMANCE WARRANTY



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Electrical Data (at STC)

	CE-410HM	CE-415HM	CE-420HM	CE-425HM	CE-430HM
Max. power (Pmax) [W]	410	415	420	425	430
Max. power voltage (Vmp) [V]	31.08	31.27	31.46	31.65	31.84
Max. power current (Imp) [A]	13.20	13.28	13.36	13.44	13.52
Open circuit voltage (Voc) [V]	37.63	37.86	38.09	38.32	38.55
Short circuit current (Isc) [A]	13.93	14.01	14.09	14.18	14.26
Maximum Series Fuse Rating	25	25	25	25	25
Power tolerance [W]	0/+5	0/+5	0/+5	0/+5	0/+5
Max. system voltage [V]	1500	1500	1500	1500	1500
Solar panel efficiency [%]	21.33	21.58	21.84	22.10	22.35

Note: Standard Test Conditions: Air mass 1.5; Irradiance = 1000W/m²; cell temp. 25°C

Electrical Data (at NOCT)

	CE-410HM	CE-415HM	CE-420HM	CE-425HM	CE-430HM
Max. power (Pmax) [W]	308.32	312.08	315.84	319.60	323.36
Max. power voltage (Vmp) [V]	28.92	29.11	29.30	29.46	29.64
Max. power current (Imp) [A]	10.66	10.72	10.78	10.85	10.91
Open circuit voltage (Voc) [V]	34.73	34.96	35.18	35.40	35.63
Short circuit current (Isc) [A]	11.24	11.31	11.37	11.45	11.51

Note: NOCT (nominal operating cell temperature): irradiance 800W/m²; wind speed 1m/sec; ambient temp. 20°C; cell temp. 25°C; Air Mass 1.5

Temperature characteristics

Temperature (NOCT) [°C]	45±2
Temp. coefficient of Pmax [%/°C]	-0.300
Temp. coefficient of Voc [V/°C]	-0.250
Temp. coefficient of Isc [mA/°C]	0.045

Warranty

12 years product warranty
12 years warranty on 92% power output
25 years warranty on 83% power output

Mechanical Data

Dimension	1722x1134x30mm
Weight	21.5Kg
Solar cell	108 (6x18)/ 182mmx91mm/ N-Type TOPCon
Glass	3.2mm tempered, highly transparent, anti-reflection glass
Frame	Stable, anodized aluminium frame
Junction Box	IP 68, three diodes
Cable	4mm ² , 1000mm
Connector	MC4 Compatible

Electrical characteristics CE-415HM

