## Centro Energy

## HALF CUT MONO CRYSTALLINE MODULE <br> (E-390/395/400/405/410HM72



Higher Efficiency
The highest efficiency of the series is up to 20.38\%.


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


Low-Light Performance
Excellent power generation performance under Low-light.


Extremely Environmental Testing
Remain peak performance in extreme environments.


Strength and Durability
Certified for 5400Pa snow and 2400Pa loads test.


## PID Free

Certified for Anti-PID under 85 degrees Celsius, 85\% RH for 288 hours.

## 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.


## Authorised Photovoltaic Certificates

## System Certification

- ISO 9001: 2008
- ISO 14001:2004

25 Years Performance Warranty


## HALF CUT MONO CRYSTALLINE MODULE

Electrical Characteristics under STC*

| Module Type | CE-390HM72 | CE-395HM72 | CE-400HM72 | CE-405HM72 | CE-410HM72 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Max. power (Pmax) [W] | 390 | 395 | 400 | 405 | 410 |
| Max. power voltage (Vmp) [V] | 41.2 | 41.4 | 41.6 | 41.8 | 42.0 |
| Max. power current (Imp) [A] | 9.47 | 9.55 | 9.62 | 9.68 | 9.76 |
| Open circuit voltage (Voc) [V] | 48.7 | 48.9 | 49.1 | 49.3 | 49.5 |
| Short circuit current (Isc) [A] | 9.96 | 10.03 | 10.10 | 10.17 | 10.25 |
| Max. series fuse rating [ A ] | 20 | 20 | 20 | 20 | 20 |
| Power tolerance [W] | 0/+5 | 0/+5 | 0/+5 | 0/+5 | 0/+5 |
| Max. system voltage [V] | 1000/1500 | 1000 / 1500 | 1000 / 1500 | 1000/1500 | 1000 / 1500 |
| Solar panel efficiency [\%] | 19.38 | 19.63 | 19.88 | 20.13 | 20.38 |

Mechanical Characteristics

| Dimension | $2008 \mathrm{mmx} 1002 \mathrm{mmx40mm}$ |
| :--- | :---: |
| Weight | 23.5 kg |
| Front Glass | 3.2 mm, Low Iron Tempered Glass |
| Solar Cell | 144 pcs |
| Frame | Anodized Aluminum Alloy |
| Junction Box | $\mathbb{P} 67 / \mathrm{IP} 68,3$ diodes |
| Cable | $4 \mathrm{~mm}^{2}$, Length 300mm |
| Connector | $M C 4$ Compatible |

Temperature characteristics

| Temperature (NOCT) $\left[{ }^{\circ} \mathrm{C}\right]$ | $45 \pm 2$ |
| :--- | :---: |
| Temp. oefficient of $\operatorname{Pmax}\left[\% /{ }^{\circ} \mathbf{C}\right]$ | -0.367 |
| Temp. coefficient of $\operatorname{Voc}\left[\mathbf{V} /{ }^{\circ} \mathbf{C}\right]$ | -0.320 |
| Temp.coefficient of $\operatorname{Isc}\left[\mathrm{mA} /{ }^{\circ} \mathbf{C}\right]$ | 0.107 |

## Warranty

## 12 years product warranty <br> 12 years warranty on $90 \%$ power output <br> 25 years warranty on $80 \%$ power output

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