



## Heavy Duty black resists the heaviest loads

- 1,5 t load with only 22 kg module weight (8.000 Pa acc. IEC Test, approx 1,5 to)
- Strong module performance that is retained even after extreme physical stress
- More stability due to a stronger frame
- · Extreme resistance to loads, such as high snowpacks
- Better shading properties due to halfstring technology & e.ISP
- More power through use of 12-busbar technology and halfcut solar cells
- Optimized used cell surface due to fine round wires
- Manufactured in Austria

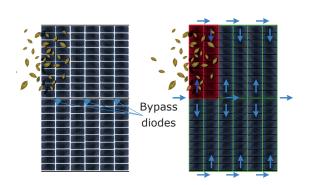
# e.STAK<sup>®</sup> Strong, Stable and Sustainable.

The e.STAK stacking and packaging system from energetical ensures that the modules arrive at their destination stable and without microcracks: In the stack, the specially developed frame profiles of the modules interlock. In combination with the film, they form a stable unit.

Slipping of the modules on the pallet becomes virtually impossible. The packaging material is reduced to the bare minimum. Moreover, the film used is made of biogenic plastic.

### Halfcut panel technology

**Significantly improved behavior during partial shading:** If one half of the module is shaded, the second half of the module still generates full power.









### **z**energetica

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#### e.Classic M HC black HD Technical data

| Electrical data (STC)                     |        |        |        |        |
|---|--------|--------|--------|--------|
| Туре                                      | 360    | 365    | 370    | 375    |
| Maximum power P <sub>Max</sub> [Wp]       | 360.00 | 365.00 | 370.00 | 375.00 |
| MPP voltage U <sub>MPP</sub> [V]          | 34.09  | 34.37  | 34.65  | 34.98  |
| MPP current I <sub>MPP</sub> [A]          | 10.60  | 10.67  | 10.74  | 10.74  |
| Open circuit voltage U <sub>oc</sub> [V]  | 41.00  | 41.17  | 41.33  | 41.50  |
| Short circuit current I <sub>SC</sub> [A] | 11.19  | 11.26  | 11.33  | 11.40  |
| Module efficiency η <sub>Modul</sub> [%]  | 19.48% | 19.77% | 20.06% | 20.27% |
| Performance sorting [Wp]                  | 0/+5   | 0/+5   | 0/+5   | 0/+5   |

These measurements are valid under standard test conditions STC. All electrical data  $\pm 10\%$ . Measurement uncertainty  $P_{MPP}$  ( $P_{Max}$ ): +/- 3%, (Airmass AM 1.5; radiation of  $1000W/m^2$ ; cell temperature  $25^{\circ}$ C)

| Electrical data (NMOT)                      |        |        |        |        |
|---|--------|--------|--------|--------|
| Туре  | 360    | 365    | 370    | 375    |
| Maximum power (P <sub>Max</sub> ) [Wp]      | 268.90 | 272.90 | 276.90 | 286.73 |
| MPP voltage U <sub>MPP</sub> [V]            | 32.00  | 32.26  | 32.52  | 32.98  |
| MPP current I <sub>MPP</sub> [A]            | 8.40   | 8.46   | 8.51   | 8.69   |
| Open circuit voltage (V <sub>oc</sub> ) [V] | 38.51  | 38.67  | 38.82  | 39.41  |
| Short circuit current I <sub>sc</sub> [A]   | 8.86   | 8.91   | 8.97   | 9.18   |

NMOT (Nominal Module Operating Temperature): Irradiance 800 W/m², ambient temperature 20 °C, wind speed 1 m/s. All technical data +/- 10 %

| Permissible operating conditions |  |  |
|----------------------------------|--|--|
| Temperature range                | -40°C to +90°C   |  |
| Maximum system voltage           | 1,000 V, 1,500 V upon request  |  |
| Test load <sub>max</sub>         | tested according to IEC up to 5.4 kPa snow / 2.4 kPa wind            |  |
| Breaking load                    | > 6.0 kPa  |  |
| Hail resistance class 4          | hailstone up to 40 mm Ø at 27.5 m/s v $_{\mbox{\scriptsize impact}}$ |  |
| Maximum reverse current          | 16 A**   |  |

\*According to VKF. \*\*In any case, due to the integrated active electronics, it must be ensured that there are no reverse currents greater than 16 A.

| Temperature coefficient (Tc) |              |  |
|------------------------------|--------------|--|
| Tc short circuit current α   | 0.05 %/°C    |  |
| Tc open circuit voltage β    | -0.26 %/°C   |  |
| Tc maximum power γ           | -0.33 %/°C   |  |
| NMOT                         | 43.5°C +/- 2 |  |



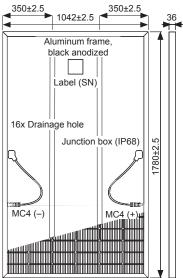
Note: This data sheet is a legally binding document and, along with the assembly instructions, is part of the proper documentation according to OVE EN 50380. Due to constant technical innovation, R&D and improvements, the above specifications are subject to change accordingly. Energetica Industries has the sole right to make these changes at any time without notice. The data given is without guarantee. Product representations are symbolic images and can partly differ from the original in terms of appearance and data.

| Certifications                 |  |
|--------------------------------|--|
| Certifications / product tests | IEC 61215, IEC 61730 IEC 62716 (Ammonia corrosion test) IEC 61701 (Salt mist corrosion test) EN 61000-4-2 EN 61000-4-4 EN 61000-4-5 EN 61000-4-6 Safety Class II PID, LID, LeTID |
| Module fire performance        | Class C, Fire class 1 (Italy)  |

| Warranties   |  |
|--|--|
| Product warranty   | 17 years                                 |
| Output warranty of P <sub>MAX</sub> (Measurement tolerance ± 3%) | 25 years linear acc. warranty conditions |

| Mechanical Data    |  |
|--------------------|--|
| Dimensions (HxWxD) | 1,780 x 1,042 x 36 mm                                    |
| Weight             | 22 kg  |
| Front glass        | transparent tempered anti-reflective 3.2 mm glass        |
| Backsheet          | black PET  |
| Frame              | black anodized aluminum                                  |
| Cells              | 20 x 6 high efficiency solar<br>half cells (166 x 83 mm) |
| Cell type          | mono PERC, 12 busbars                                    |
| Bypass control     | active electronics at string level                       |
| Modul connector    | 4 mm² solar cabel (+,-) 1,150 mm                         |
| Connectors         | multi-contact MC4, IP68                                  |
| Origin             | Made in Austria  |

| Paletts / Truck load |     |
|----------------------|-----|
| Pieces per palett    | 30  |
| Pieces per truck     | 840 |



All indicated dimensions in mm