

# S-Class Professional

220 Wp ■ 225 Wp ■ 230 Wp ■ 235 Wp ■ 240 Wp

The premium solution for professional use.

- suitable for professional continuous use - even near the coast: passed salt spray test according to DIN EN ISO 9227-NSS
- highest yields even in diffused light
- award-winning anti-reflective glass
- lockable plug connectors
- positive performance classification
- manufacture in the CENTROSOLAR Sonnenstromfabrik, certified according to DIN EN ISO 9001:2008 and 14001:2009
- up to 5,400 Pa load
- up to 10 years product warranty\*;  
up to 26 years performance warranty\*



• Qualified IEC 61215  
• Safety tested, IEC 61730  
• Periodic inspection



Salt spray test according to DIN EN ISO 9227-NSS



\* You can find detailed information in the Centrosolar AG warranty conditions.

## S-Class Professional monocrystalline

### Output under STC\*

| Module type                 | S 220M60 Professional | S 225M60 Professional | S 230M60 Professional | S 235M60 Professional | S 240M60 Professional |    |
|-----------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----|
| Rated output (Pmpp)         | 220                   | 225                   | 230                   | 235                   | 240                   | Wp |
| Short-circuit current (Isc) | 8.26                  | 8.37                  | 8.48                  | 8.59                  | 8.70                  | A  |
| Open-circuit voltage (Uoc)  | 36.25                 | 36.32                 | 36.39                 | 36.46                 | 36.53                 | V  |
| Voltage (Umpp)              | 28.55                 | 28.60                 | 28.65                 | 28.70                 | 28.75                 | V  |
| Current (Impp)              | 7.69                  | 7.87                  | 8.03                  | 8.19                  | 8.35                  | A  |
| Module efficiency $\eta$    | 13.4                  | 13.7                  | 14.0                  | 14.3                  | 14.6                  | %  |

\* Under standard testing conditions STC (1,000 W/m<sup>2</sup>, spectrum AM 1.5, cell temperature 25 °C)

### Output at 800 W/m<sup>2</sup>, NOCT, AM 1.5

| Module type                 | S 220M60 Professional | S 225M60 Professional | S 230M60 Professional | S 235M60 Professional | S 240M60 Professional |    |
|-----------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----|
| Rated output (Pmpp)         | 159                   | 162                   | 166                   | 169                   | 173                   | Wp |
| Short-circuit current (Isc) | 6.63                  | 6.72                  | 6.81                  | 6.89                  | 6.98                  | A  |
| Open-circuit voltage (Uoc)  | 32.86                 | 32.92                 | 32.98                 | 33.05                 | 33.11                 | V  |
| Voltage (Umpp)              | 25.24                 | 25.29                 | 25.33                 | 25.37                 | 25.42                 | V  |
| Current (Impp)              | 6.27                  | 6.41                  | 6.54                  | 6.67                  | 6.80                  | A  |

### Thermal properties

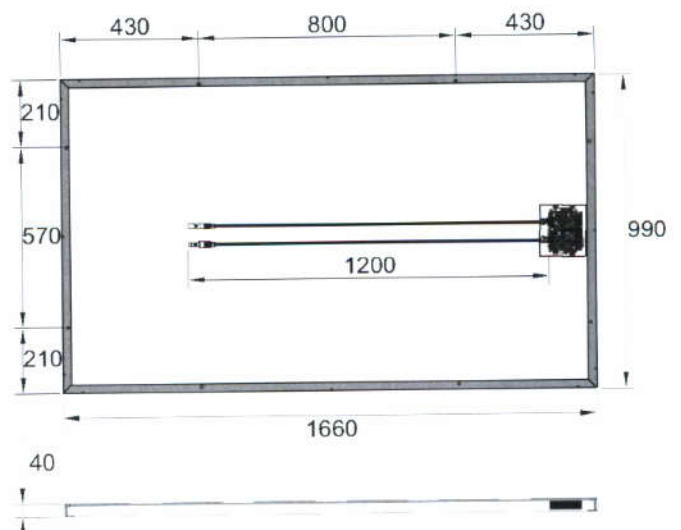
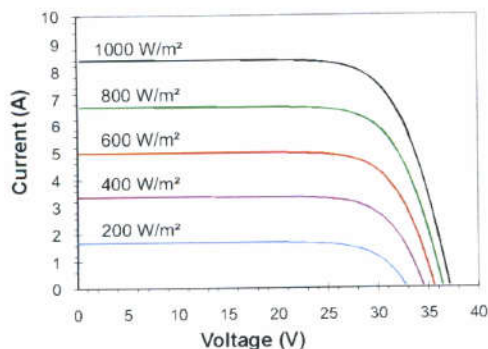
|         |           |
|---------|-----------|
| TK Pmpp | -0.43 %/K |
| TK Uoc  | -0.35 %/K |
| TK Isc  | 0.03 %/K  |
| NOCT    | 46 °C     |

### Other technical data

|                                       |             |
|---------------------------------------|-------------|
| Class range (Positive Classification) | -0/+4.99 W  |
| Max. system voltage                   | 1000 V      |
| Weight                                | 20 ± 0.5 kg |
| Reverse current carrying capacity IR  | 12 A        |
| Measuring Accuracy Pmpp at STC        | ± 3 %       |

### Materials used

|                 |                      |
|-----------------|----------------------|
| Number of cells | 60                   |
| Cell dimensions | 156 mm x 156 mm      |
| Front           | hardened solar glass |
| Junction box    | IP65                 |



## S-Class Professional polycrystalline

### Output under STC\*

| Module type                 | S 220P60<br>Professional | S 225P60<br>Professional | S 230P60<br>Professional | S 235P60<br>Professional | S 240P60<br>Professional |    |
|-----------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|----|
| Rated output (Pmpp)         | 220                      | 225                      | 230                      | 235                      | 240                      | Wp |
| Short-circuit current (Isc) | 8.26                     | 8.37                     | 8.48                     | 8.59                     | 8.70                     | A  |
| Open-circuit voltage (Uoc)  | 36.25                    | 36.32                    | 36.39                    | 36.46                    | 36.53                    | V  |
| Voltage (Umpp)              | 28.55                    | 28.60                    | 28.65                    | 28.70                    | 28.75                    | V  |
| Current (Impp)              | 7.69                     | 7.87                     | 8.03                     | 8.19                     | 8.35                     | A  |
| Module efficiency $\eta$    | 13.4                     | 13.7                     | 14.0                     | 14.3                     | 14.6                     | %  |

\* Under standard testing conditions STC (1,000 W/m<sup>2</sup>, spectrum AM 1.5, cell temperature 25 °C)

### Output at 800 W/m<sup>2</sup>, NOCT, AM 1.5

| Module type                 | S 220P60<br>Professional | S 225P60<br>Professional | S 230P60<br>Professional | S 235P60<br>Professional | S 240P60<br>Professional |    |
|-----------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|----|
| Rated output (Pmpp)         | 159                      | 162                      | 166                      | 169                      | 173                      | Wp |
| Short-circuit current (Isc) | 6.63                     | 6.72                     | 6.81                     | 6.89                     | 6.98                     | A  |
| Open-circuit voltage (Uoc)  | 32.86                    | 32.92                    | 32.98                    | 33.05                    | 33.11                    | V  |
| Voltage (Umpp)              | 25.24                    | 25.29                    | 25.33                    | 25.37                    | 25.42                    | V  |
| Current (Impp)              | 6.27                     | 6.41                     | 6.54                     | 6.67                     | 6.80                     | A  |

### Thermal properties

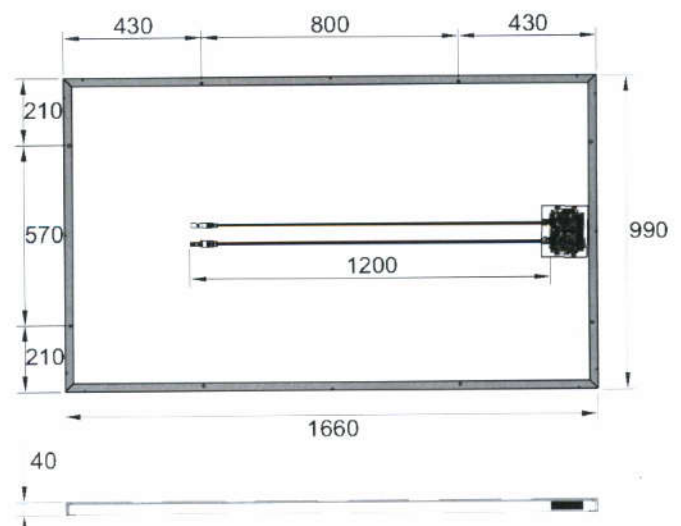
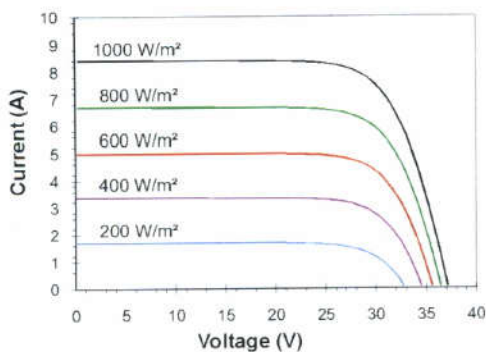
|         |           |
|---------|-----------|
| TK Pmpp | -0.43 %/K |
| TK Uoc  | -0.35 %/K |
| TK Isc  | 0.03 %/K  |
| NOCT    | 46 °C     |

### Other technical data

|                                       |             |
|---------------------------------------|-------------|
| Class range (Positive Classification) | -0/+4.99 W  |
| Max. system voltage                   | 1000 V      |
| Weight                                | 20 ± 0.5 kg |
| Reverse current carrying capacity IR  | 12 A        |
| Measuring Accuracy Pmpp at STC        | ± 3 %       |

### Materials used

|                 |                      |
|-----------------|----------------------|
| Number of cells | 60                   |
| Cell dimensions | 156 mm x 156 mm      |
| Front           | hardened solar glass |
| Junction box    | IP65                 |





Your CENTROSOLAR partner:



## Sunshine is our business.

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