

Modules

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 9001:2000
- up to 5,400 Pa load
- up to 10 years product warranty*;
up to 26 years performance warranty*



Quality

Made in
Germany



- 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 (P _{mp})	220	225	230	235	240	Wp
Short-circuit current (I _{sc})	8.26	8.37	8.48	8.59	8.70	A
Open-circuit voltage (U _{oc})	36.25	36.32	36.39	36.46	36.53	V
Voltage (U _{mp})	28.55	28.60	28.65	28.70	28.75	V
Current (I _{mp})	7.69	7.87	8.03	8.19	8.35	A
Module efficiency η	13.8	14.1	14.5	14.8	15.1	%

* Under standard testing conditions STC (1,000 W/m², spectrum AM 1.5, cell temperature 25 °C)

Output at 800 W/m², NOCT, AM 1.5

Module type	S 220M60 Professional	S 225M60 Professional	S 230M60 Professional	S 235M60 Professional	S 240M60 Professional	
Rated output (P _{mp})	159	162	166	169	173	Wp
Short-circuit current (I _{sc})	6.63	6.72	6.81	6.89	6.98	A
Open-circuit voltage (U _{oc})	32.86	32.92	32.98	33.05	33.11	V
Voltage (U _{mp})	24.24	24.29	25.33	25.37	25.42	V
Current (I _{mp})	6.27	6.41	6.54	6.67	6.80	A

Thermal properties

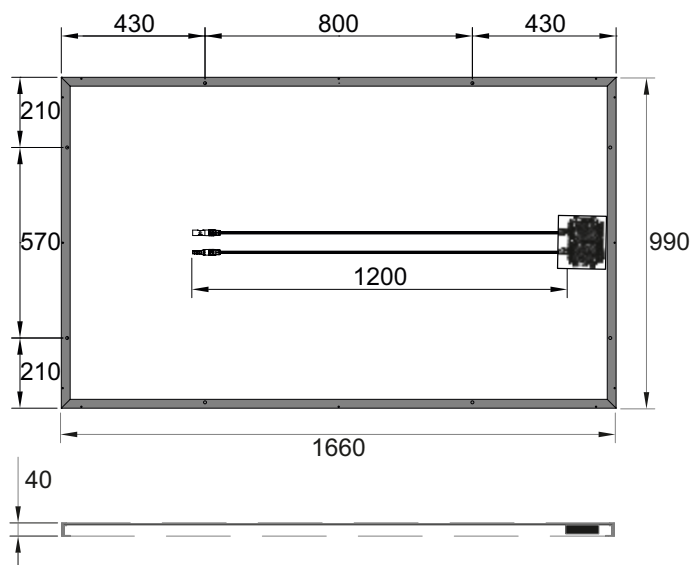
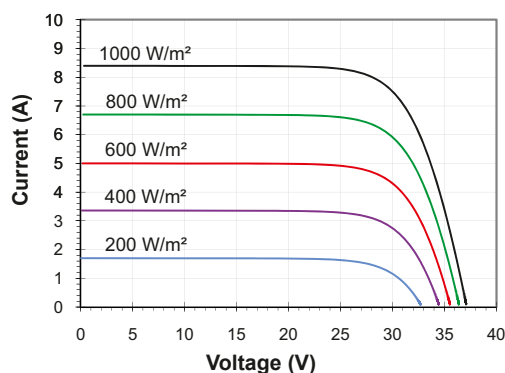
TK P _{mp}	-0.43 %/K
TK U _{oc}	-0.35 %/K
TK I _{sc}	0.03 %/K
NOCT	46 °C

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 I _R	12 A
Measuring Accuracy P _{mp} 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 Professional	S 225P60 Professional	S 230P60 Professional	S 235P60 Professional	S 240P60 Professional	
Rated output (P _{mp})	220	225	230	235	240	Wp
Short-circuit current (I _{sc})	8.26	8.37	8.48	8.59	8.70	A
Open-circuit voltage (U _{oc})	36.25	36.32	36.39	36.46	36.53	V
Voltage (U _{mp})	28.55	28.60	28.65	28.70	28.75	V
Current (I _{mp})	7.69	7.87	8.03	8.19	8.35	A
Module efficiency η	13.8	14.1	14.5	14.8	15.1	%

* Under standard testing conditions STC (1,000 W/m², spectrum AM 1.5, cell temperature 25 °C)

Output at 800 W/m², NOCT, AM 1.5

Module type	S 220P60 Professional	S 225P60 Professional	S 230P60 Professional	S 235P60 Professional	S 240P60 Professional	
Rated output (P _{mp})	159	162	166	169	173	Wp
Short-circuit current (I _{sc})	6.63	6.72	6.81	6.89	6.98	A
Open-circuit voltage (U _{oc})	32.86	32.92	32.98	33.05	33.11	V
Voltage (U _{mp})	24.24	24.29	25.33	25.37	25.42	V
Current (I _{mp})	6.27	6.41	6.54	6.67	6.80	A

Thermal properties

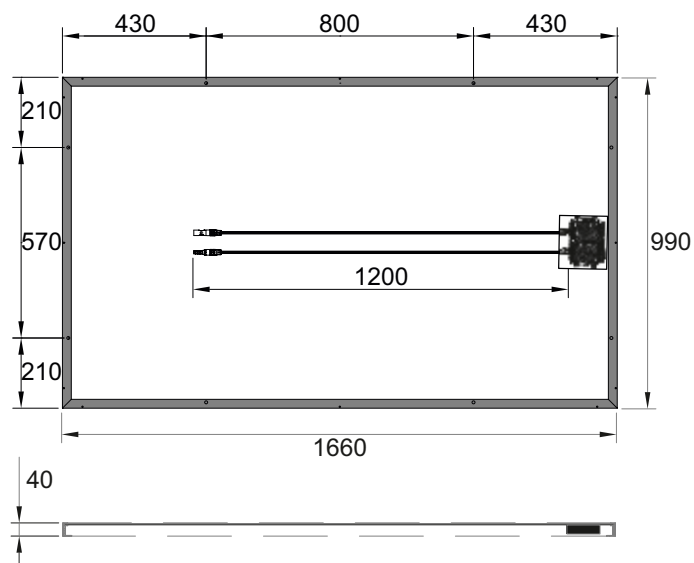
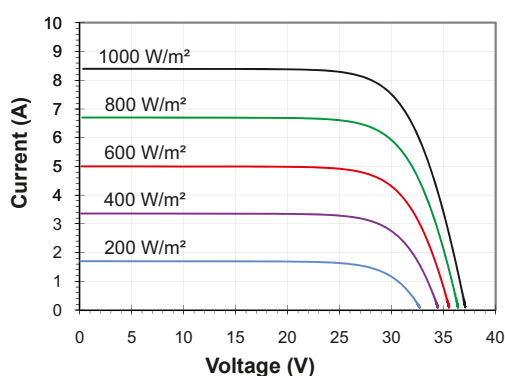
TK P _{mp}	-0.43 %/K
TK U _{oc}	-0.35 %/K
TK I _{sc}	0.03 %/K
NOCT	46 °C

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 I _R	12 A
Measuring Accuracy P _{mp} at STC	± 3 %

Materials used

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



Sunshine is our business.

GERMANY

CENTROSOLAR AG
Stresemannstraße 163
22769 Hamburg
GERMANY
Tel.: +49 40 391065-0
hamburg@centrosolar.com

CENTROSOLAR AG
Otto-Stadler-Straße 23c
33100 Paderborn
GERMANY
Tel.: +49 5251 50050-0
paderborn@centrosolar.com

CENTROSOLAR AG
Daimlerstraße 22
87437 Kempten
GERMANY
Tel.: +49 831 540214-0
kempten@centrosolar.com

INTERNATIONAL

CENTROSOLAR AMERICA INC.
8350 E. Evans Road, Suite E-1
Scottsdale, AZ 85260
USA
Tel.: +1 480 3482555
info.usa@centrosolar.com

CENTROSOLAR BENELUX B.V.
De Prinsenhof 1.05
4004 LN Tiel
THE NETHERLANDS
Tel.: +31 344 767002
info.benelux@centrosolar.com

CENTROSOLAR CANADA INC.
3415 14th Avenue, Unit C
Markham, Ontario, L3R 0H3
CANADA
Tel.: +1 9056044012
info.can@centrosolar.com

CENTROSOLAR FOTOVOLTAICO
ESPAÑA S.L.
Moll de Barcelona s/n
Edifici Nord, 7a planta
08039 Barcelona
SPAIN
Tel.: +34 93 3435048
info.espana@centrosolar.com

CENTROSOLAR FRANCE SARL
Espace Européen
15, chemin du Saquin, Batiment G
69130 Ecully
FRANCE
Tel.: +33 4 69848210
info.france@centrosolar.com

CENTROSOLAR HELLAS MEPE
Ag. Alexandrou 57-59
17561 Paleo Faliro
GREECE
Tel.: +30 210 6228791
info.hellas@centrosolar.com

CENTROSOLAR ITALIA S.R.L.
V.le del Lavoro 33
37036 S. Martino B.A. Verona
ITALY
Tel.: +39 045 8781225
info.italia@centrosolar.com

CENTROSOLAR UK LTD
Building 3, Chiswick Business Park
566 Chiswick High Road
London W4 5YA
GREAT BRITAIN
info.uk@centrosolar.com