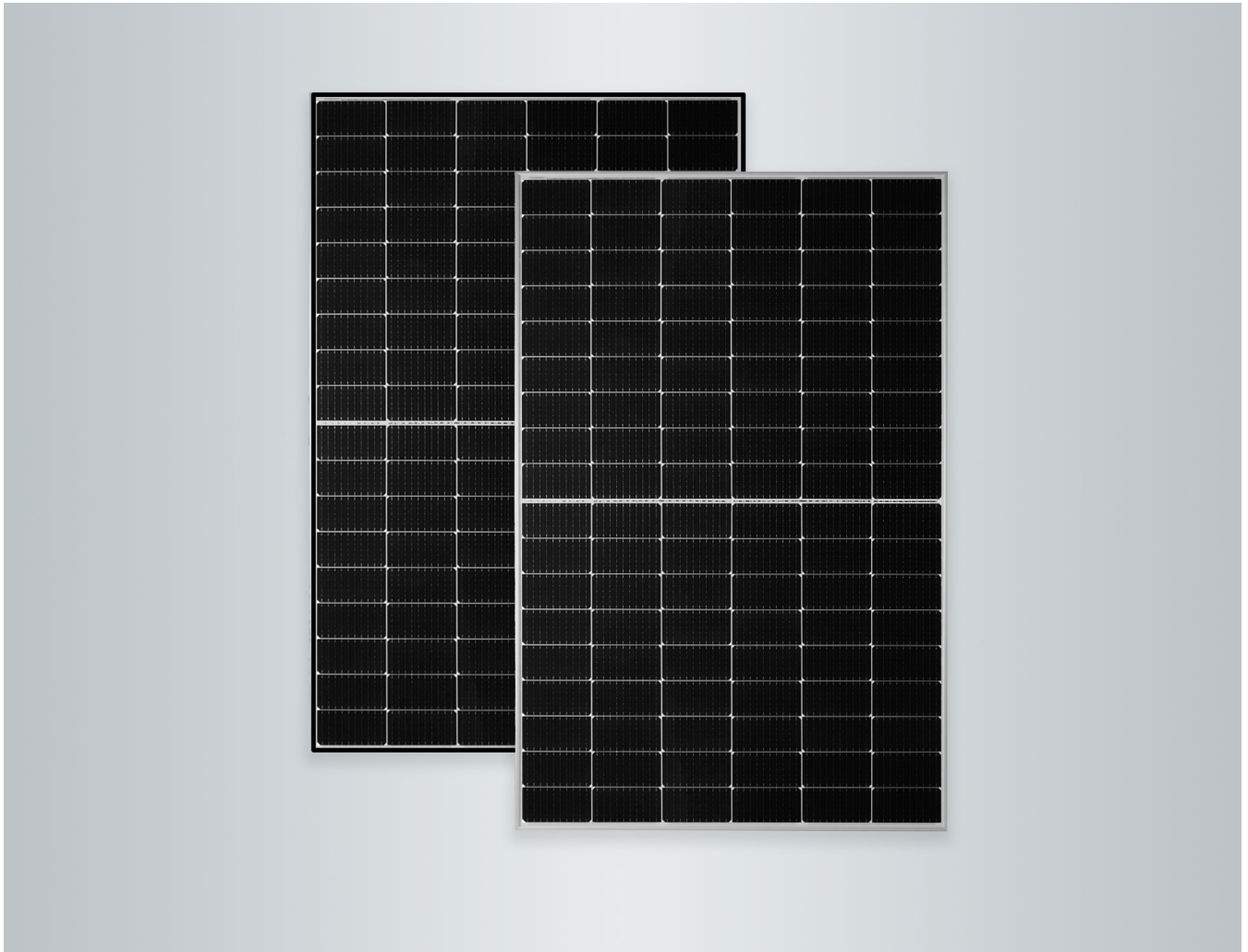


Datasheet



VITOVOLT 300 Type M400AK, M405AK, M410AK

Monocrystalline photovoltaic modules in **standard** and **blackframe** versions with 400/405/410 W_p rated output for generating power from solar energy.

- Module efficiency up to 21.2 %
- 9 busbar half-cut cell technology
- Corrosion-resistant aluminium frame with excellent mechanical load bearing capacity for high snow (5400 Pa) and wind/suction (2400 Pa) loads
- Additional output of up to 5 W_p due to positive output tolerance
- 3.2 mm anti-reflective glass for high solar yields
- High operational reliability: Split module connection for higher shade tolerance
- Tested for resistance to salt spray and ammonia. Consequently suitable for use in coastal regions and areas with intensive agricultural operations.
- Certified to IEC 61215, IEC 61730, IEC 61701 and IEC 62716 to guarantee compliance with international quality standards.

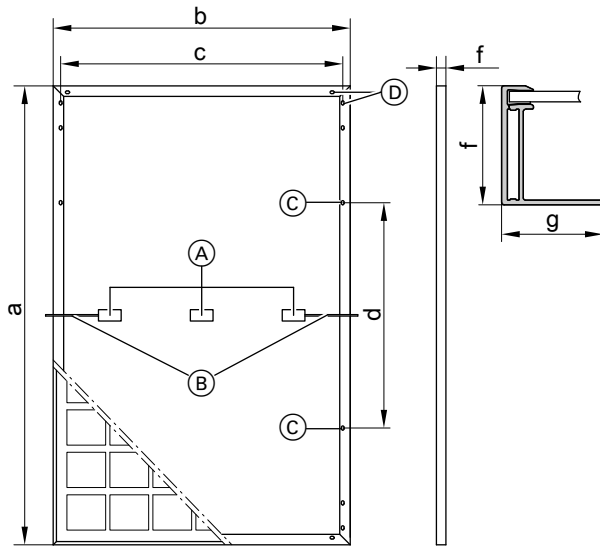
Specification

Vitovolt 300	Typ e	M400AK	M405AK	M410AK
Performance data under STC				
Rated output P_{max}	W_p	400	405	410
Output tolerance	W	0/+5	0/+5	0/+5
MPP voltage U_{mpp}	V	31.09	31.26	31.43
MPP current I_{mpp}	A	12.86	12.96	13.05
Open circuit voltage U_{oc}	V	37.00	37.20	37.40
Short circuit current I_{sc}	A	13.65	13.76	13.88
Module efficiency	%	20.7	20.9	21.2
Temperature coefficients				
Output	%/K	-0.35	-0.35	-0.35
Open circuit voltage	%/K	-0.27	-0.27	-0.27
Short circuit current	%/K	0.045	0.045	0.045

Vitovolt 300	Typ e	M400AK	M405AK	M410AK
Cell temperature at NOCT	°C	41	41	41
Max. system voltage	V	1500	1500	1500
Reverse current resistance	A	25	25	25

STC Insolation 1000 W/m², cell temperature 25 °C, air mass AM 1.5, measuring tolerance ±3 % (P_{max})
MPP Maximum power point (maximum output under STC)
NOCT Insolation 800 W/m², ambient temperature 20 °C, air mass AM 1.5, wind speed 1 m/s, measuring tolerance ±5 % (P_{max})

Connection dimensions



- Ⓐ Junction box
- Ⓑ Connecting cables
- Ⓒ 4 drilled holes 9 x 14 mm
- Ⓓ 8 holes for equipotential bonding, \varnothing 5.5 mm

a	mm	1708
b	mm	1133
c	mm	1089
d	mm	990
f	mm	30
g	mm	32

Cell type: Monocrystalline PERC silicon cell
182 mm x 91 mm
Number of cells: 108 half-cut cells (6 x 18)
Cell embedding: Ethylene vinyl acetate (EVA)
Frame: Anodised aluminium alloy, black/silver
Front glass: Thermally toughened safety glass 3.2 mm with anti-reflective coating
Weight: 21.5 kg
Max. pressure/suction load: 5400 Pa/2400 Pa
Junction box: IP 67, 3 diodes
Connection: Cables 1.2 m long, with 4 mm² cross-section and Multi-Contact (MC4/EVO2)
Protection class: II
Application class: A
Shipping unit: 36 pce per pallet

Guarantee

Product guarantee

5 years: Viessmann warranty
12 years: Viessmann product guarantee

Output guarantee

Min. 97 % after one year
Min. 80 % linear after 25 years

Note

Product and output guarantee in accordance with the guarantee conditions of Viessmann Climate Solutions SE
Guarantee conditions: www.viessmann.de/Login.

Tested quality

Certified to IEC 61215, IEC 61730, IEC 61701 and IEC 62716. Manufactured in factories certified to ISO 9001 and 14001. CE designation according to current EC directives.



Subject to technical modifications.

Viessmann Climate Solutions SE
35108 Allendorf / Germany
Telephone: +49 6452 70-0
Fax: +49 6452 70-2780
www.viessmann.com

Viessmann Limited
Hortonwood 30, Telford
Shropshire, TF1 7YP, GB
Telephone: +44 1952 675000
Fax: +44 1952 675040
E-mail: info-uk@viessmann.com

6177247