

TS CIGS SERIE

højtydende CIGS-solcellemoduler

145 Wp / 150 Wp / 155 Wp / 160 Wp / 165 Wp

Fordele

- Avanceret egen CIGS tyndfilmteknologi
- Plussortering +5 W til -0 W
- Op til 3% ekstra effekt takket "light soaking" effekt
- Lav temperature koefficient giver øget ydelse
- Æstetisk sort fremtoning med antirefleks coating (ARC)
- Moduler med sorteloxerede rammer, som passer med standard montagesystemer
- Forsynet med serie-nummer graveret i rammen for enkel sporbarhed

Kvalitet og sikkerhed

- Lamineret dobbeltglas konstruktion for optimal styrke og levetid
- IEC, MCS and UL certificeret
- Tåler 2.400 Pa i sne- og vind-last
- Fri for mulig induceret nedbrydning (PID)
- Produceret på en ISO 9001:2008, ISO 14001 og OHSAS 18001 certificeret fabrik
- Cerificeret for barske omgivelser: korrosion fra salt-tåge (IEC 61701) og flyvende sand (DIN EN 60068-2-68)

Garantier

- Produkt-garanti*: 10 år for materialer og produktion
- Effektgaranti*: 90% ved 10 år og 80% ved 25 år ved minimum målt output



A TSMC Company

www.tsmc-solar.com

Tekniske data

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Elektiriske egenskaber

Standard Test Conditions (STC)

TS CIGS Series		TS-145C2	TS-150C2	TS-155C2	TS-160C2	TS-165C2		
Max power	P_{max}	145	150	155	160	165	W_p	
Factory binning		+5/-0	+5/-0	+5/-0	+5/-0	+5/-0	W	
Open-circuit voltage	V_{oc}	85.2	86.1	86.9	87.8	88.7	V	
Short-circuit current	I_{sc}	2.66	2.66	2.66	2.66	2.66	A	
Max power voltage	V_{mpp}	60.4	62.5	64.6	66.7	68.5	V	
Max power current	I_{mpp}	2.40	2.40	2.40	2.40	2.41	A	
Module efficiency	Eff%	13.3	13.8	14.3	14.7	15.2	%	
Max reverse current	I_R	6.5 A						
Max system voltage		1000 Vdc [IEC], 600 Vdc [UL]						
Operating temperature		-40°C to 85°C						

IV Parameters measured at STC: 1000 W/m², module temperature 25°C, AM 1.5 after factory light soaking. All IV ratings are +/- 10%.

Pre-binning power tolerance of +/-5%, as certified by UL/TÜV-SÜD. TSMC Solar only delivers modules with greater than or equal to nameplate power.

Normal Operating Cell Temperature Conditions (NOCT)

Max power	P_{max}	109.4	113.2	116.9	120.7	124.6	W
Open-circuit voltage	V_{oc}	79.3	80.2	80.9	81.8	82.6	V
Short-circuit current	I_{sc}	2.14	2.14	2.14	2.14	2.14	A
Max power voltage	V_{mpp}	56.8	58.7	60.7	62.7	64.4	V
Max power current	I_{mpp}	1.93	1.93	1.93	1.93	1.93	A

Conditions at NOCT: 800 W/m², ambient temperature 20°C, AM 1.5

Termiske egenskaber

NOCT	46.5 ± 1°C
Temperature Coefficient of P_{max}	-0.30% / °C
Temperature Coefficient of V_{oc}	-0.29% / °C
Temperature Coefficient of I_{sc}	0.01% / °C

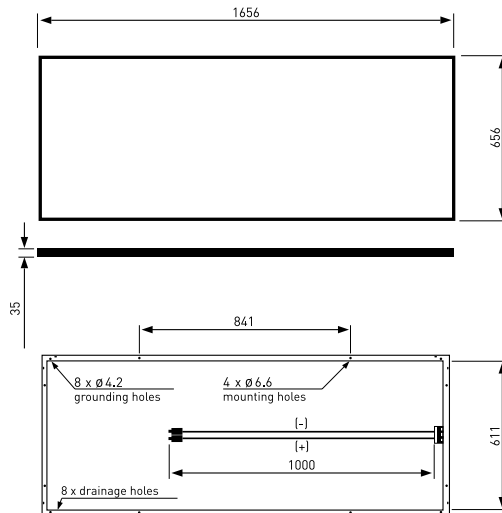
Mekaniske egenskaber

Snow/wind load (IEC)	2,400 Pa
Dimensions in mm	1656 x 656 x 35
Weight in kg	17.5
Frame	Black anodised aluminum
Front cover	Anti-reflective coated, textured white tempered glass
Junction box, connector	IP 67, MC-4 compatible
Output cable cross section and length	2.5 mm ² , 1000 mm
Cell type	133 CIGS cells
Safety class	II
Fire rating	Class C

The information contained herein is subject to change without notice.

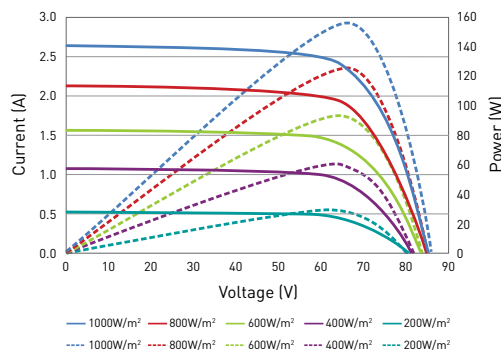
Caution: Read the installation guidelines before using, handling, installing or operating TSMC Solar modules.

Fysiske mål



All measurements in mm

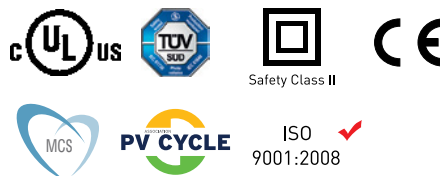
I-V og P-V kurve (TS-155C2)



Performance at Low Irradiance

Typical relative efficiency reduction of maximum power from an irradiance of 1,000 W/m² to 200 W/m² at 25°C is 7%.

Certificering



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We look forward to your call or your e-mail!

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