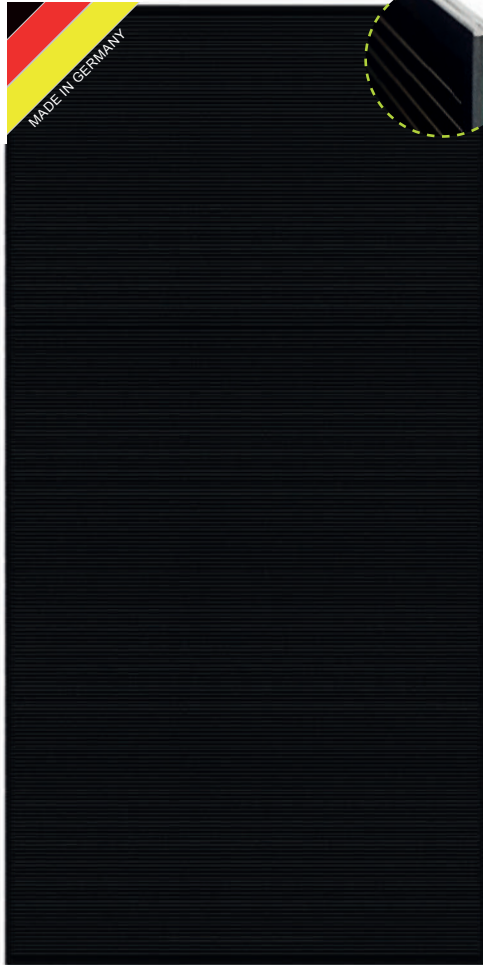


Benefits TS Solar Thin Film Solar Modules

CX-SERIES



HIGH ENERGY YIELD (KWH/KWP)

- better performance than crystalline silicon at low light and high temperatures

POSITIV OUTPUT TOLERANCE (+2,5/-0 W)

- better field performance
- risk of reduced output is eliminated

BLACK DESIGN EDGE SEAL

- reliable moisture and vapor barrier
- absolute insulation resistance through precise laser edge ablation
- aesthetic, homogenous appearance through the use of high-grade edge sealing material

MADE AND DEVELOPED IN GERMANY

- reduced manufacturing costs while at the same time increased product quality
- further development of technology and reliability from renowned institutions

MODULE FORMAT

- 1200 x 600mm
- light weight 12kg module
- outstanding use of space owing to the small module format
- easy to handle & installation >> one person

CERTIFIED AND TESTED ACCORDING TO NEWEST STANDARDS

IEC 61215 & IEC 61730
IEC 61701 Salt mist test
PID @-600V
Fire Rating A/B



CALYXO CO₂ - CARBON FOOTPRINT

- most eco-efficient in the entire solar sector
- clean energy - at the lowest cost - with the least impact on our environment.

MODULE WARRANTY



Power Output Warranty

on 90% of rated power in the first 10 years
on 80% over 25 years



Product Warranty

on material and workmanship



Residential



Roof Top



BIPV



Repowering



Ground Mounted

Length x Width	1200 mm x 600 mm
Thickness	6.7 mm (20,8 mm including junction box)
Weight	12.1 kg
Front Cover	3.2 mm glass
Back Cover	3.0 mm glass
Cell Type	Cadmiumtelluride [CdTe]
Frame	none
Junction Box	Protection class IP65
By-Pass Diode	none
Cable Type	Solar cable 2.5 mm ²
Cable Length	650 mm (+ pole), 850 mm (- pole)
Connector	MC 4



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Note: Installation instructions must be followed. See the instruction and operating manual or contact the technical service for further information on approved installation and use of the product.
Specifications subject to technical changes. Printed on environment-friendly paper.
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*) pending

ELECTRICAL CHARACTERISTICS

Performance at Standard Test Conditions (STC: 1000 W/m², 25°C, AM 1.5 SPECTRUM)

POWER CLASS	CX3 ^{pro} /3	CX3 ^{pro} 92/3	CX3 ^{pro} 95/3	CX3 ^{pro} 97/3	CX3 ^{pro} 100/3	CX3 ^{pro} 102/3	CX3 ^{pro} 105/3	CX3 ^{pro} 107/3	CX3 ^{pro} 110/3
Nominal Power [+10% / -5%]	P _{MPP} [W]	92.5	95.0	97.5	100.0	102.5	105.0	107.5	110.0
Current at max. Power	I _{MPP} [A]	1.99	2.01	2.08	2.09	2.11	2.13	2.15	2.18
Voltage at max. Power	V _{MPP} [V]	47.1	48.0	48.0	48.4	48.9	49.5	50.0	50.7
Short Circuit Current	I _{SC} [A]	2.20	2.21	2.30	2.31	2.33	2.34	2.35	2.37
Open Circuit Voltage	V _{OC} [V]	59.0	59.3	59.8	60.3	61.3	61.8	62.6	63.5

Performance at normal module operating temperature (NMOT: 800 W/m², 45 ±2°C, AM 1.5 Spectrum)

POWER CLASS	CX3 ^{pro} /3	CX3 ^{pro} 92/3	CX3 ^{pro} 95/3	CX3 ^{pro} 97/3	CX3 ^{pro} 100/3	CX3 ^{pro} 102/3	CX3 ^{pro} 105/3	CX3 ^{pro} 107/3	CX3 ^{pro} 110/3
Nominal Power	P _{MPP} [W]	71.0	73.0	74.9	76.8	78.7	80.6	82.6	84.5
Current at max. Power	I _{MPP} [A]	1.60	1.62	1.67	1.68	1.70	1.71	1.73	1.75
Voltage at max. Power	V _{MPP} [V]	45.1	46.0	46.0	46.4	46.8	47.4	47.9	48.6
Short Circuit Current	I _{SC} [A]	1.77	1.78	1.85	1.86	1.88	1.88	1.83	1.91
Open Circuit Voltage	V _{OC} [V]	56.5	56.8	57.3	57.8	58.7	59.2	60.0	60.8

Performance at 200 W/m², 25 ±2°C, AM 1.5 Spectrum

POWER CLASS	CX3 ^{pro} /3	CX3 ^{pro} 92/3	CX3 ^{pro} 95/3	CX3 ^{pro} 97/3	CX3 ^{pro} 100/3	CX3 ^{pro} 102/3	CX3 ^{pro} 105/3	CX3 ^{pro} 107/3	CX3 ^{pro} 110/3
Nominal Power	P _{MPP} [W]	17.9	18.4	18.9	19.4	19.9	20.4	20.9	21.3
Current at max. Power	I _{MPP} [A]	0.40	0.40	0.42	0.42	0.42	0.43	0.43	0.44
Voltage at max. Power	V _{MPP} [V]	45.1	45.8	45.5	46.4	47.1	47.8	48.5	48.9
Short Circuit Current	I _{SC} [A]	0.44	0.44	0.46	0.46	0.47	0.47	0.47	0.47
Open Circuit Voltage	V _{OC} [V]	56.1	56.3	56.8	57.3	58.2	58.7	59.5	60.3

Temperature coefficients (at 1000W/m², AM 1.5 Spectrum)

Temperature I _{SC}	α [%/K]	0.03
Temperature V _{OC}	β [%/K]	-0.21
Temperature P _{MPP}	γ [%/K]	-0.20

Properties for system design (IEC)

Maximum System Voltage	V _{sys} [V]	1500
Maximum Reverse Current	I _R [A]	3.5
Wind / Snow Load	p [Pa]	2400
Safety Class		II
Fire Rating		C

The power classes are defined by sorting of power classes (+2.5W/0W) according to measured PMPP under STC. IMPP, VMPP, ISC, VOC are within ±10% of the indicated values under STC. Valid indoor measurement of STC performance is obtained by pretreating the module before measurement. For more information PAS-11-05-0203-EN.