calyxo TS Solar GmbH

Benefits
TS Solar Thin Film 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

Certificate No. 40045463

CALYXO CO_2 - CARBON FOOTPRINT
- most eco-efficient in the entire solar sector
- clean energy - at the lowest cost - with the least impact on our environment.

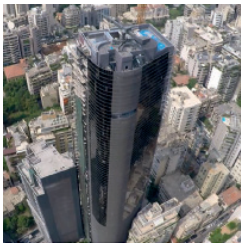
MODULE WARRANTY

25 YEARS — Power Output Warranty
on 90% of rated power in the first 10 years
on 80% over 25 years

10 YEARS — Product Warranty
on material and workmanship


Residential


Roof Top


BIPV


Repowering


Ground Mounted

MODULE DESCRIPTION

CX-Series

Cell Type	Cadmium telluride
Length	1200 mm
Width	600 mm
Weight	12.0 kg
Thickness	6.8 mm
Area	0.72 m²
Cable diameter	2.5 mm²
Plus pole	650 mm
Minus pole	850 mm
Junction box	IP65
Bypass Diode	none
Front Glass	3.2 mm
Back glass	3.0 mm
Encapsulation	none EVA
Frame	none
Laod Rate	2400 Pa
Safety Class	II
Fire Rating	C

ELECTRICAL CHARACTERISTICS

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

POWER CLASS	CX-Series		CX1	CX3	CX3pro /2
Nominal Power [+10% / -5%]	P_{MPP}	[W]	70.0 - 80.0	72.5 - 87.5	80.0 - 90.0
Current at max. Power	I_{MPP}	[A]	1.17 - 1.23	1,70 - 2.20	1.87 - 1,97
Voltage at max. Power	V_{MPP}	[V]	60.5 - 65.1	37.0 - 51.0	43.5 - 46.4
Short Circuit Current	I_{SC}	[A]	1.35 - 1.41	1.90 - 2.30	2.13 - 2.19
Open Circuit Voltage	V_{OC}	[V]	85.8 - 89.1	53.0 - 64.0	56.7 - 58.6
Maximum System Voltage	V_{SYS}	[V]		1000	
Maximum Reverse Current	I_R	[A]	2.00	4.00	3.50
Connector	I_{CF}	[A]	MC3	Y-Sol4	MC4

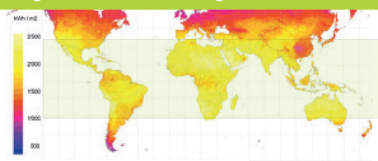
Normal Module Operating Temperature (NMOT: 800 W/m², 45 ±2°C, AM 1.5 Spectrum)

POWER CLASS	CX-Series		CX1	CX3	CX3pro /2
Nominal Power	P_{MPP}	[W]	54.0 - 62.0	56.0 - 68.0	62.0 - 70.0
Current at max. Power	I_{MPP}	[A]	0.94 - 1.00	1.46 - 1.54	1.50 - 1.60
Voltage at max. Power	V_{MPP}	[V]	58.0 - 62.4	39.0 - 44.3	41.7 - 44.5
Short Circuit Current	I_{SC}	[A]	1.07 - 1.12	1.72 - 1.75	1.71 - 1.76
Open Circuit Voltage	V_{OC}	[V]	82.7 - 86.0	57.0 - 58.5	54.3 - 56.1

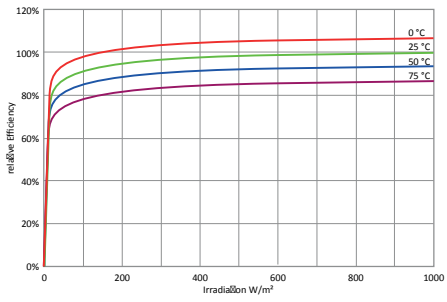
Temperature coefficients

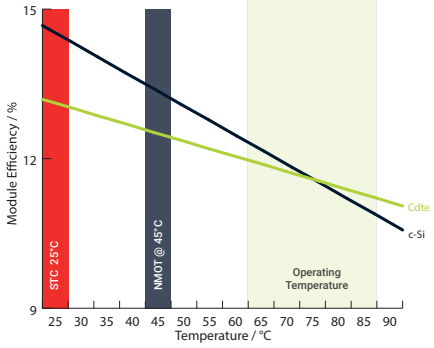
Temperature I_{SC}	α	[%/K]	0.03
Temperature V_{OC}	β	[%/K]	-0.21
Temperature P_{MPP}	γ	[%/K]	- 0.20
NMOT		[°C]	45 +/-2

Efficiency advantage in hot climate regi ons



Performance at low irradiance





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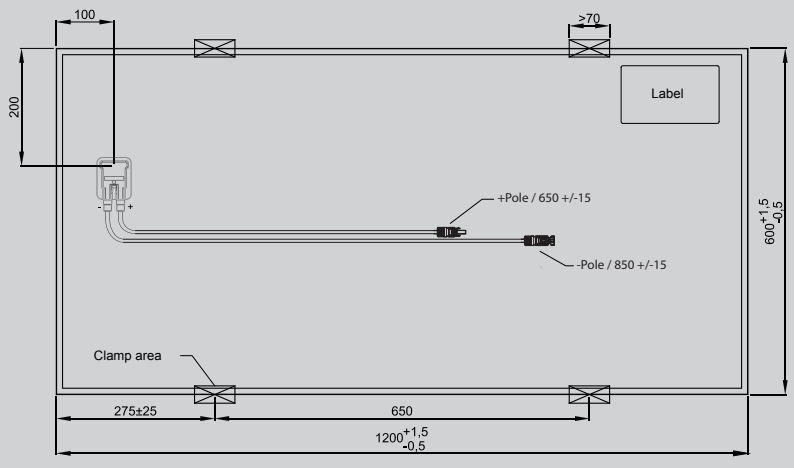
Download Area



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