
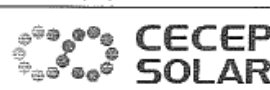


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KONSTRUKTIONSDATEN FORM
CONSTRUCTIONAL DATA FORM (CDF)

Produkte Products			 TÜVRheinland®
Our Reference	Refer to report no.	50201631 001	Appendix No. 1
Constructional Data Form (CDF) for Photovoltaic (PV) Modules			Page 1 of 7

License Holder.....:	CECEP Solar Energy Technology (Zhenjiang) Co., Ltd. No.9 Beishan Road, XinQu, Zhenjiang, 212132, P.R. China	
Production Factory.....:	CECEP Solar Energy Technology (Zhenjiang) Co., Ltd. No.9 Beishan Road, XinQu, Zhenjiang, 212132, P.R. China	
Type of Product.....:	Photovoltaic (PV) Modules	
Trademark.....:		
Type Name or Model No.....:	CEC6-72-xxxP	CEC6-60-xxxP
Maximum System Voltage [Voc] ..:	1000	1000
Rated Maximum Power [W].....:	305/310/315/320/325/330/335	260/265/270/275/280
Tolerance of Rated Maximum Power [%].....:	±3	±3
Rated Short Circuit Current [A].....:	8.84/8.85/8.95/9.17/9.18/9.27/9.32	9.09/9.20/9.31/9.42/9.53
Tolerance of Rated Short Circuit Current [%].....:	±4	±4
Rated Open Circuit Voltage [V] ..:	45.40/45.60/45.90/45.30/45.70/45.90/46.20	37.15/37.41/37.66/37.91/38.16
Tolerance of Rated Open Circuit Voltage [%].....:	±3	±3
Rated Maximum Power Current [A] ..:	8.24/8.35/8.47/8.62/8.72/8.81/8.90	8.49/8.61/8.70/8.79/8.90
Rated Maximum Power Voltage [V] ..:	37.02/37.13/37.20/37.12/37.25/37.45/37.62	30.62/30.78/31.03/31.29/31.46
Over-current protection rating [A]:	15	15
Classification (IEC 61730).....:	Class II	Class II
Dimensions (l x w x h) [mm] ..:	1970x992x50 1968x992x50 1957x992x50	1650x992x40 1640x992x40
Module area [m²].....:	1.95 / 1.95 / 1.94	1.64 / 1.63
Min-creepage distance [mm].....:	15.375 (to cell) 13.75 (to string connector)	15.875 (to cell) 14.25 (to string connector)
Type Name or Model No.....:	CEC6-72-xxxM	CEC6-60-xxxM

Shanghai, 20/10/2018

Derrick Wang

Zhenjiang
(City)

20/10/2018

(Stamp and/or signature of applicant)

TÜV Rheinland Group


TD-0179

Version: 2013-11-04/ approved by: U.Therhaag

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Maximum System Voltage [V _{DC}]	1000	1000
Rated Maximum Power [W]	315/320/325/330/335/340/345/350/355	265/270/275/280/285/290/295
Tolerance of Rated Maximum Power [%]	±3	±3
Rated Short Circuit Current [A]	9.16/9.25/9.33/9.36/9.48/9.49/9.53/9.58/9.65	9.14/9.25/9.36/9.49/9.60/9.70/9.80
Tolerance of Rated Short Circuit Current [%]	±4	±4
Rated Open Circuit Voltage [V]	45.40/45.73/45.83/45.97/46.13/46.21/46.65/47.10/47.50	37.65/37.91/38.16/38.32/38.56/38.83/39.09
Tolerance of Rated Open Circuit Voltage [%]	±3	±3
Rated Maximum Power Current [A]	8.36/8.36/8.38/8.87/8.90/8.89/8.95/9.02/9.12	8.54/8.64/8.75/8.87/8.97/9.07/9.16
Rated Maximum Power Voltage [V]	37.70/38.30/38.80/37.21/37.65/38.26/38.65/38.90/38.95	31.02/31.23/31.44/31.57/31.77/31.99/32.21
Over-current protection rating [A]	15	15
Classification (IEC 61730)	Class II	Class II
Dimensions (l x w x h) [mm]	1970x992x50 1968x992x50 1957x992x50	1650x992x40 1640x992x40
Module area [m ²]	1.95 / 1.95 / 1.94	1.64 / 1.63
Min- creepage distance [mm]	15.375 (to cell) 13.75 (to string connector)	15.875 (to cell) 14.25 (to string connector)

Shanghai, 20/10/2018 <i>Derrick Wang</i>	Zhenjiang (City) <i>(Signature)</i> 20/10/2018 (Date)
(Stamp and/or signature of applicant)	
Version: 2013-11-04/ approved by: U.Therhaag	

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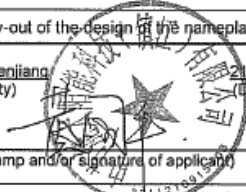
KONSTRUKTIONSDATEN FORM
CONSTRUCTIONAL DATA FORM (CDF)

Produkte Products			
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Copy of marking plate:

 中节能太阳能科技（镇江）有限公司 CECEP Solar Energy Technology (Zhenjiang) Co., Ltd. Model (型号): CEC6-72-355M	
Rated Maximum Power (Pmax)	355W
Power Tolerance(功率误差)	±3%
Voltage at Pmax(Vmp)	38.95V
Current at Pmax(Imp)	9.12A
Open-Circuit Voltage (Voc)	47.50V±3%
Short-Circuit Current (Isc)	9.65A±4%
Nominal Module Operating Temperature(NMOT)	42±2°C
Maximum System Voltage(最大系统电压)	1000VDC
Maximum Series Fuse Rating(最大串联熔断器额定值)	15A
Operating Temperature(工作温度)	-40°C to +85°C
Cell Technology (电池技术)	Mono-Si(单晶硅)
Weight (重量) (kg)	22
Dimensions(尺寸)(mm)	1957x992x40
 Warning 警告 Solar module generate electricity as soon as they are exposed to sunlight. One module on its own is below the safety extra low voltage level, but multiple modules connected in series (summing the voltage) represent a danger. 组件暴露在阳光下会产生电压，组件自身电压低于安全电压，但是几个组件串联起来（电压相加）就很危险。	
All technical data at standard test conditions(在标准测试条件下): AM=1.5 E=1000W/m² TC=25°C ADD: No.9 Beishan Road, New Area Zhenjiang Jiangsu China 地址: 江苏省镇江市新区北山路9号 212132 TEL:+86-511-85597723 FAX:+86-511-85587711 Made in china	
	

The rating label is presented to show the lay-out of the design of the nameplates.


Shanghai, 20/10/2018	Zhenjiang (City) 20/10/2018 (Date)
<i>Derrick Wang</i>	
TÜV Rheinland Group TD-0179	(Stamp and/or signature of applicant)

Version: 2013-11-04/ approved by: U.Therhaag

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List of Critical Components (add lines for multiple material sources)

Object	Manufacturer / trademark	Type / model	Technical data / ratings	Standard (if applicable)	Certificates (if applicable)
Front cover 1	AnCai Hi-Tech Co., Ltd.	external AR coating glass	Thickness=3.2±0.2mm	—	—
Front cover 2	Jiangsu Xiuqiang Glass Co., Ltd.	external AR coating glass	Thickness=3.2±0.2mm	—	—
Rear cover 1	Lucky Film Co., Ltd.	TPTw	Thickness=0.340±0.030mm PVF(0.038mm)/PET(0.250 mm)/ PVF(0.038mm) Usys=1002 VDC TI=128°C, FSI=2.0 white color	2 PIG 1793/04.14	R 50302140
Rear cover 2	Cybrid Technologies Inc.	Cynagard 205A	Thickness=0.290±10%mm PVF(0.0225mm)/PET(0.250 mm)/ Primer coating (0.004mm) Usys=1018 VDC TI=120°C, FSI=17.81 white color	2 PIG 1793/04.14	R 50296517
Rear cover 3	Jollywood (Suzhou) Sunwatt Co., Ltd.	FFC-JW30	Thickness=0.290(±10%) mm FFC(0.015mm)/PET(0.250 mm)/FFC(0.025mm) Usys=1077VDC TI=124°C, FSI=8.8 white color	2 PIG 1793/04.14	R 50302127
Rear cover 4	Tailflex Scientific Co., Ltd.	Solmate VTPE1RW-P	Thickness= 0.284mm PVF=0.025mm/PET=0.25m m/E-layer=14mm	2 PIG 1793/04.14	N/A
Encapsulation material 1	Shanghai HiUV Materials Technology Co., Ltd.	S201MR1 (between glass & solar cell) / S201MR2 (between solar cell & backsheet) (combined with Rear cover 1)	Thickness=0.60±0.10mm	—	—
Encapsulation material 2	Hangzhou First PV Material Co., Ltd.	F406PS (between glass & solar cell) / F806W (between solar cell & backsheet) (combined with Rear cover 2)	Thickness=0.45±0.10mm	—	—
Encapsulation material 3	Hangzhou First PV Material Co., Ltd.	F406PS (between glass & solar cell) / F806PS (between solar cell & backsheet) (combined with Rear cover 3)	Thickness=0.50±0.10mm	—	—
Encapsulation material 4	Changzhou Bbetter Film Technologies Co., Ltd.	B601HP (between glass & solar cell) / B601P (between solar cell & backsheet) (combined with Rear cover 4)	Thickness=0.40±0.10mm	—	—

Shanghai, 20/10/2018

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Object	Manufacturer / trademark	Type / model	Technical data / ratings	Standard (if applicable)	Certificates (if applicable)
Frame parts 1	Zhangjiagang Hanlong New Energy Technology Co., Ltd.		Drawing No. for the following families: 1. CEC6-4-72-xxxP / CEC6-4-72-xxxM 2. CEC6-4-72-xxxPA / CEC6-4-72-xxxMA 3. CEC6-4-60-xxxPA / CEC6-4-60-xxxMA 4. CEC6-4-60-xxxPD / CEC6-4-60-xxxMD Long side: 1. CEC-X-05-11-020 (A/0) 2. CEC-X-05-15-020 (A/0) 3. CEC-X-04-10-020 (A/0) 4. CEC-X-04-21-020 (B/1) Short side: 1. CEC-X-05-11-030 (A/0) 2. CEC-X-05-15-030 (A/0) 3. CEC-X-04-10-030 (A/0) 4. CEC-X-04-21-030 (B/1) Cross section: 1. CEC-72-T-B (A/0) 2. CEC-72-T-B (A/0) 3. CEC-60-T-B (A/0) 4. CEC-60-T-B (B/1) Corner Key: 1. CEC-72-T001-B (A/0) 2. CEC-72-T002-B (A/0) 3. CEC-60-T002-B (A/0) 4. CEC-60-T004-B (B/1)		
Frame parts 2	Jiangyin Guangyue Electric Co., Ltd.	Anodized Aluminium Alloy(6063T5)			
Frame parts 3	Jiangsu Jiangnan Chuangjia Profile Co., Ltd.				
Sealing tape (frame) 1	Darbond Technology Co., Ltd.	DT-9123			
Sealing tape (frame) 2	Lohmann GmbH & Co., KG.	DC57010			
Adhesive (frame)	Shanghai Huijian New Chemical Material Co., Ltd.	HT906Z			
Solar cell 1	CECEP Solar Energy Technology (Zhenjiang) Co., Ltd	CEC166P-B4	Poly-Si LxWxT= 156x156x0.2(±0.02) / 156.75x156.75x0.2(±0.02) / 157.75x157.75x0.2(±0.02) mm Cell area: 243.36 / 245.71 / 248.85 cm²		

Shanghai 20/10/2018

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TÜV Rheinland Group
TD-0179

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Object	Manufacturer / trademark	Type / model	Technical data / ratings	Standard (if applicable)	Certificates (if applicable)
Solar cell 2	CECEP Solar Energy Technology (Zhenjiang) Co., Ltd	CEC156M-B4	Mono-Si LxWxT= 156x156x0.2(±0.02) / 156.75x156.75x0.2(±0.02) / mm Cell area: 238.95 / 244.32 cm²	—	—
Number of solar cells	72 for CEC6-4-72-xxxP, CEC6-4-72-xxxPA, CEC6-4-72-xxxM, CEC6-4-72-xxxMA 80 for CEC6-4-60-xxxPA, CEC6-4-60-xxxPD, CEC6-4-60-xxxMA, CEC6-4-60-xxxMD				
Cells per bypass diode	24 for CEC6-4-72-xxxP, CEC6-4-72-xxxPA, CEC6-4-72-xxxM, CEC6-4-72-xxxMA 20 for CEC6-4-60-xxxPA, CEC6-4-60-xxxPD, CEC6-4-60-xxxMA, CEC6-4-60-xxxMD				
Serial/parallel connection of cells (S.SP.SPS)	—	—	S	—	—
Number of diodes	—	—	3	—	—
Cell connectors	Wuxi Sveck Technology Co., Ltd	Sn60/Pb40	0.25x1.2mm, 0.27x1.2mm	—	—
String connectors	Wuxi Sveck Technology Co., Ltd	Sn60/Pb40	0.35x6mm	—	—
Soldering material	—	—	—	—	—
Fluxing agent	SZ Hualih Electronic Material Co., Ltd	680B	—	—	—
Junction box combination					
Junction box	CECEP Solar Energy Technology (Zhenjiang) Co., Ltd.	CEC-BOX01P	Rated Voltage = 1000VDC Rated Current = 15A Reverse Current = 25A	IEC 62790: 2014	R 50361902
Cable 1	Zhejiang Zhonghuan Sunter PV Technology Co., Ltd.	H1Z2Z2-K 1X4 mm²	Rated Voltage = 1500VDC	EN 50618:2014	R 50330654
Cable 2	Suzhou Baohing Electric Wire & Cable Co., Ltd.	H1Z2Z2-K 1X1,5...35mm²	Rated Voltage = 1500VDC	EN 50618:2014	R 50310426
Connectors 1	Ningbo Zhonghuan Sunter PV Technology Co., Ltd.	PV-ZH202	Rated Voltage = 1000VDC	IEC 62852: 2014	R 50313728
Connectors 2	Jiangsu Tonglin Electric Co., Ltd.	TL-CABLE01	Rated Voltage = 1000VDC	IEC 62852: 2014	R 50372077
Bypass diode 1	Ningbo Zhonghuan Sunter PV Technology Co., Ltd.	SB3045DY	Tjmax=200°C	—	—
Bypass diode 2	Ningbo Zhonghuan Sunter PV Technology Co., Ltd.	20SQ045	Tjmax=200°C	—	—
Potting material	Shanghai Huitian New Chemical Material Co., Ltd.	HT-5299W	—	—	—
Adhesive (junction box) 1	Beijing Tonsan New Material Technology Co., Ltd.	TS1527	—	—	—
Adhesive (junction box) 2	Shanghai Huitian New Chemical Material Co., Ltd.	HT906Z	—	—	—
Additional materials					
Additional materials (fixing tape)	3M Company Supplier: NANJING XUBO TECHNICAL DEVELOPMENT CO.,LTD.	3M UV-1	10mmx50m	—	—
Additional materials (Barcode material)	AVERY DENNISON	FASSON® white PET	—	—	—

Shanghai, 20/10/2018

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Object	Manufacturer / trademark	Type / model	Technical data / ratings	Standard (if applicable)	Certificates (if applicable)
Additional materials (insulation material)	3M Company	EPE D300	—	—	—
(Optional) Accessories	—	—	—	—	—

Shanghai, 20/10/2018

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