


Constructional Data Form for Photovoltaic Modules

License Holder.....: (full address)	Sany Silicon Energy (Zhuzhou) Co., Ltd. No.333 Qingxia Road, Tongtangwan Street, Shifeng District, Zhuzhou City, 412005, Hunan Province, P.R. China				
Production factory (full address) 1	Sany Silicon Energy (Zhuzhou) Co., Ltd. No.333 Qingxia Road, Tongtangwan Street, Shifeng District, Zhuzhou City, 412005, Hunan Province, P.R. China				
Production factory (full address) 2	Sany Silicon Energy (Shuozhou) Co., Ltd. No.2-1, Weier Road, Pinglu Economic Development Zone, Shuozhou City, 036899, Shanxi Province, P.R. China				
Type of Product.....:	Photovoltaic (PV) Modules				
Trademark.....:					
Type name or model no.	SYM156TBDxxx xxx = 615-645 in steps of 5	SYM144TBDxxx xxx = 555-595 in steps of 5	SYM120TBDxxx xxx = 455-495 in steps of 5	SYM108TBDxxx xxx = 415-445 in steps of 5	SYM144R01TBDxxx xxx = 590-620 in steps of 5
Nominal maximum output power at STC [W]	615, 620, 625, 630, 635, 640, 645	555, 560, 565, 570, 575, 580, 585, 590, 595	455, 460, 465, 470, 475, 480, 485, 490, 495	415, 420, 425, 430, 435, 440, 445	590, 595, 600, 605, 610, 615, 620
Nominal short-circuit current at STC [A]	13.57, 13.63, 13.69, 13.75, 13.81, 13.87, 13.93	13.60, 13.66, 13.72, 13.78, 13.84, 13.90, 13.96, 14.02, 14.08	13.54, 13.60, 13.66, 13.72, 13.78, 13.84, 13.90, 13.96, 14.02	13.60, 13.66, 13.72, 13.78, 13.84, 13.90, 13.96	14.44, 14.50, 14.56, 14.62, 14.68, 14.74, 14.80
Nominal open-circuit voltage at STC [V]	56.31, 56.53, 56.75, 56.97, 57.14, 57.32, 57.51	50.98, 51.12, 51.26, 51.40, 51.54, 51.68, 51.82, 51.96, 52.10	42.27, 42.41, 42.55, 42.69, 42.83, 42.97, 43.11, 43.25, 43.39	37.94, 38.14, 38.34, 38.54, 38.74, 38.94, 39.14	51.20, 51.34, 51.48, 51.62, 51.76, 51.90, 52.04
Tolerance of rating at STC (Pmpp / Isc / Voc) [%]	± 3/ ± 3/ ± 3	± 3/ ± 3/ ± 3	± 3/ ± 3/ ± 3	± 3/ ± 3/ ± 3	± 3/ ± 3/ ± 3
Nominal maximum output power at BNPI [W]	677, 682, 688, 693, 699, 704, 710	611, 616, 622, 627, 633, 638, 644, 649, 655	501, 506, 512, 517, 523, 528, 534, 539, 545	457, 462, 468, 473, 479, 484, 490	649, 655, 660, 666, 671, 677, 682
Nominal short-circuit current at BNPI [A]	14.93, 14.99, 15.06, 15.13, 15.19, 15.26, 15.32	14.96, 15.03, 15.09, 15.16, 15.22, 15.29, 15.36, 15.42, 15.49	14.89, 14.96, 15.03, 15.09, 15.16, 15.22, 15.29, 15.36, 15.42	14.96, 15.03, 15.09, 15.16, 15.22, 15.29, 15.36	15.88, 15.95, 16.02, 16.08, 16.15, 16.21, 16.28
Nominal open-circuit voltage at BNPI [V]	56.31, 56.53, 56.75, 56.97, 57.14, 57.32, 57.51	50.98, 51.12, 51.26, 51.40, 51.54, 51.68, 51.82, 51.96, 52.10	42.27, 42.41, 42.55, 42.69, 42.83, 42.97, 43.11, 43.25, 43.39	37.94, 38.14, 38.34, 38.54, 38.74, 38.94, 39.14	51.20, 51.34, 51.48, 51.62, 51.76, 51.90, 52.04
Tolerance of rating at BNPI (Pmpp / Isc / Voc) [%]	± 3/ ± 3/ ± 3	± 3/ ± 3/ ± 3	± 3/ ± 3/ ± 3	± 3/ ± 3/ ± 3	± 3/ ± 3/ ± 3

Shanghai, 2024-09-29


TÜV Rheinland Group

Zhuzhou

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Bifaciality coefficient	80%±5%	80%±5%	80%±5%	80%±5%	80%±5%
Dimensions (L x W x H) [mm]	2465x1134x30	2278x1134x30	1903*1134*30	1722*1134*30	2382x1134x30
Module area [m²]	2.80	2.58	2.16	1.95	2.70
Class (IEC 61730-1:2016)	II	II	II	II	II
Maximum system voltage [V_{DC}]	1500	1500	1500	1500	1500
Pollution degree	I	I	I	I	I
Qualified as cemented joint design	No	No	No	No	No
Over-current protection rating [A]	30	30	30	30	30
Defined min. creepage distance [mm]	12.3±1	12.3±1	12.3±1	12.3±1	12.3±1
Defined min. clearance distance [mm]	12.3±1	12.3±1	12.3±1	12.3±1	12.3±1
Max. operational altitude [masl]	2000	2000	2000	2000	2000
Design load – downwards [Pa]	3600	3600	3600	3600	3600
Design load – upwards [Pa]	1600	1600	1600	1600	1600
Safety factor for mechanical load	1.5	1.5	1.5	1.5	1.5
Number of solar cells	156	144	120	108	144
Connection of cells (S, SP, PS)	SPS	SPS	SPS	SPS	SPS
Number of diodes	3	3	3	3	3
Cells per diode	52	48	40	36	48
Type name or model no.	SYMN120R01TBD xxx	SYMN108R01TBD xxx	SYMN108TBDBxxx	SYMN108TBDFBxx x	SYMN156R02TBD xxx

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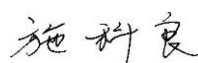

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	xxx = 490-520 in steps of 5	xxx = 440-470 in steps of 5	xxx = 415-445 in steps of 5	xxx = 415-445 in steps of 5	xxx = 650 -675 in steps of 5
Nominal maximum output power at STC [W]	490, 495, 500, 505, 510, 515, 520	440, 445, 450, 455, 460, 465, 470	415, 420, 425, 430, 435, 440, 445	415, 420, 425, 430, 435, 440, 445	650 , 655, 660, 665, 670, 675
Nominal short-circuit current at STC [A]	14.44, 14.50, 14.56, 14.62, 14.68, 14.74, 14.80	14.44, 14.50, 14.56, 14.62, 14.68, 14.74, 14.80	13.37, 13.43, 13.49, 13.55, 13.61, 13.67, 13.73	13.60, 13.66, 13.72, 13.78, 13.84, 13.90, 13.96	14.21 , 14.27, 14.33, 14.39, 14.45, 14.51
Nominal open-circuit voltage at STC [V]	42.62, 42.76, 42.90, 43.04, 43.18, 43.32, 43.46	38.33, 38.47, 38.61, 38.75, 38.89, 39.03, 39.17	38.74, 38.94, 39.14, 39.34, 39.54, 39.74, 39.94	37.94, 38.14, 38.34, 38.54, 38.74, 38.94, 39.14	56.77 , 56.91, 57.05, 57.19, 57.33, 57.47
Tolerance of rating at STC (P_{mp} / I_{sc} / V_{oc}) [%]	± 3 / ± 3 / ± 3	± 3 / ± 3 / ± 3	± 3 / ± 3 / ± 3	± 3 / ± 3 / ± 3	± 3 / ± 3 / ± 3
Nominal maximum output power at BNPI [W]	539, 545, 550, 556, 561, 567, 572	484, 490, 495, 501, 506, 512, 517	457, 462, 468, 473, 479, 484, 490	457, 462, 468, 473, 479, 484, 490	715 , 721, 726, 732, 737, 743
Nominal short-circuit current at BNPI [A]	15.88, 15.95, 16.02, 16.08, 16.15, 16.21, 16.28	15.88, 15.95, 16.02, 16.08, 16.15, 16.21, 16.28	14.71, 14.77, 14.84, 14.91, 14.97, 15.04, 15.10	14.96, 15.03, 15.09, 15.16, 15.22, 15.29, 15.36	15.63 , 15.70, 15.76, 15.83, 15.90, 15.96
Nominal open-circuit voltage at BNPI [V]	42.62, 42.76, 42.90, 43.04, 43.18, 43.32, 43.46	38.33, 38.47, 38.61, 38.75, 38.89, 39.03, 39.17	38.74, 38.94, 39.14, 39.34, 39.54, 39.74, 39.94	37.94, 38.14, 38.34, 38.54, 38.74, 38.94, 39.14	56.77 , 56.91, 57.05, 57.19, 57.33, 57.47
Tolerance of rating at BNPI (P_{mp} / I_{sc} / V_{oc}) [%]	± 3 / ± 3 / ± 3	± 3 / ± 3 / ± 3	± 3 / ± 3 / ± 3	± 3 / ± 3 / ± 3	± 3 / ± 3 / ± 3
Bifaciality coefficient	80%±5%	80%±5%	80%±5%	80%±5%	80%±5%
Dimensions (L x W x H) [mm]	1994x1134x30	1800x1134x30	1722*1134*30	1722*1134*30	2465x1192x33/30
Module area [m²]	2.20	2.04	1.95	1.95	2.94
Class (IEC 61730- 1:2016)	II	II	II	II	II
Maximum system voltage [V_{DC}]	1500	1500	1500	1500	1500
Pollution degree	I	I	I	I	I

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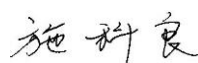

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Qualified as cemented joint design	No	No	No	No	No
Over-current protection rating [A]	30	30	30	30	30
Defined min. creepage distance [mm]	12.3±1	12.3±1	12.3±1	12.3±1	12.3±1
Defined min. clearance distance [mm]	12.3±1	12.3±1	12.3±1	12.3±1	12.3±1
Max. operational altitude [masl]	2000	2000	2000	2000	2000
Design load – downwards [Pa]	3600	3600	3600	3600	3600
Design load – upwards [Pa]	1600	1600	1600	1600	1600
Safety factor for mechanical load	1.5	1.5	1.5	1.5	1.5
Number of solar cells	120	108	108	108	156
Connection of cells (S, SP, PS)	SPS	SPS	SPS	SPS	SPS
Number of diodes	3	3	3	3	3
Cells per diode	40	36	36	36	52
Type name or model no.	SYMN156TBD0xxx xxx = 615-645 in steps of 5	SYMN156TBDLxxx xxx = 615-645 in steps of 5	/	/	/
Nominal maximum output power at STC [W]	615, 620, 625, 630, 635, 640, 645	615, 620, 625, 630, 635, 640, 645	/	/	/
Nominal short-circuit current at STC [A]	13.57, 13.63, 13.69, 13.75, 13.81, 13.87, 13.93	13.57, 13.63, 13.69, 13.75, 13.81, 13.87, 13.93	/	/	/
Nominal open-circuit voltage at STC [V]	56.31, 56.53, 56.75, 56.97, 57.14, 57.32, 57.51	56.31, 56.53, 56.75, 56.97, 57.14, 57.32, 57.51	/	/	/

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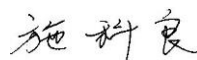

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Tolerance of rating at STC (P _{mp} / I _{sc} / V _{oc}) [%]	± 3/ ± 3/ ± 3	± 3/ ± 3/ ± 3	/	/	/
Nominal maximum output power at BNPI [W]	677, 682, 688, 693, 699, 704, 710	677, 682, 688, 693, 699, 704, 710	/	/	/
Nominal short-circuit current at BNPI [A]	14.93, 14.99, 15.06, 15.13, 15.19, 15.26, 15.32	14.93, 14.99, 15.06, 15.13, 15.19, 15.26, 15.32	/	/	/
Nominal open-circuit voltage at BNPI [V]	56.31, 56.53, 56.75, 56.97, 57.14, 57.32, 57.51	56.31, 56.53, 56.75, 56.97, 57.14, 57.32, 57.51	/	/	/
Tolerance of rating at BNPI (P _{mp} / I _{sc} / V _{oc}) [%]	± 3/ ± 3/ ± 3	± 3/ ± 3/ ± 3	/	/	/
Bifaciality coefficient	80%±5%	80%±5%	/	/	/
Dimensions (L x W x H) [mm]	2465x1134x30	2465x1134x30	/	/	/
Module area [m ²]	2.80	2.80	/	/	/
Class (IEC 61730-1:2016)	II	II	/	/	/
Maximum system voltage [V _{DC}]	1500	1500	/	/	/
Pollution degree	I	I	/	/	/
Qualified as cemented joint design	No	No	/	/	/
Over-current protection rating [A]	30	30	/	/	/
Defined min. creepage distance [mm]	12.3±1	12.3±1	/	/	/
Defined min. clearance distance [mm]	12.3±1	12.3±1	/	/	/

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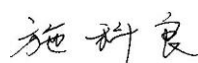

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Max. operational altitude [masl]	2000	2000	/	/	/
Design load – downwards [Pa]	3600	3600	/	/	/
Design load – upwards [Pa]	1600	1600	/	/	/
Safety factor for mechanical load	1.5	1.5	/	/	/
Number of solar cells	156	156	/	/	/
Connection of cells (S, SP, PS)	SPS	SPS	/	/	/
Number of diodes	3	3	/	/	/
Cells per diode	52	52	/	/	/

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Copy of marking plate:



PV MODULE

Sany Silicon Energy (Zhuzhou) Co., LTD
Sany Energy Equipment Industrial Park,
No.320 Qingshui Road, Shifeng District,
Zhuzhou City, Hunan Province 412005
China
<https://www.sanyglobal.com/product/>

SYM156TBD 615

Test conditions STC
Max. power (P_{max}) 615W
Max. power tolerance +3%
Voltage at max. power (V_{mpp}) 46.80V
Current at max. power (I_{mp}) 13.14A
Open-circuit voltage (V_{oc}) 55.53V ± 3% 55.53V ± 3%
Short-circuit current (I_{sc}) 13.72A ± 3% 15.06 ± 3% 16.48 ± 3%
The following coefficients measured at STC according to IEC TS
60904-1-2: Efficiency:
qP_{max}30% ± 5% qI_{sc}80% ± 5% qV_{oc}98% ± 1%

Module(T88)(max(°C)
Design Load (Pa)
Series Fuse Rating
Maximum system voltage
operating temperature range
protect. rage
module wprotecteight
module size
STC
BNPI
Connector

70
+3600/1600
30A
1500VDC
40°C ~ +85°C
II
34.3(kg)
2485 × 1134 × 30(mm)
1000W/m², AM1.5, 25°C
front 1000W/m², rear 135W/m²
Refer to manual



warning

Only the professionals can install and
maintain the components Be careful of the
dangerous high DC voltage when connecting
the components Never damage or scratch the
back of the assembly

Certified in accordance with IEC 61215:2021 and IEC
61730:2016

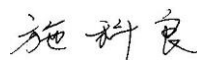
MADE IN CHINA

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Constructional Data Form for Photovoltaic Modules

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	Hunan Kibing Solar Technology Co., Ltd.	Semi-tempered AR coated glass	Thickness = 2.0mm±0.2mm	—	—
Front cover 2	CSG HOLDING CO., LTD.	Semi-tempered AR coated glass	Thickness = 2.0mm±0.2mm	—	—
Rear cover 1	Hunan Kibing Solar Technology Co., Ltd.	Semi-Tempered back glass	Thickness = 2.0mm±0.2mm	—	—
Rear cover 2	CSG HOLDING CO., LTD.	Semi-Tempered back glass	Thickness = 2.0mm±0.2mm	—	—
Encapsulation material 1	HANGZHOU FIRST APPLIED MATERIAL CO., LTD	EP304 (near glass)	Thickness = 0.5mm±10% gram weight: 380g/m ² ±10%; 360g/m ² ±10%	—	—
		F406PS (near back glass)	Thickness = 0.5mm±10% gram weight: 400g/m ² ±10%; 380g/m ² ±10%		
Encapsulation material 2	Nantong Golden Wrapping Materials Co., Ltd.	GW601 (near glass)	Thickness = 0.5mm±10% gram weight: 400g/m ² ±10%	—	—
		GW801A (near back glass)	Thickness = 0.5mm±10% gram weight: 400g/m ² ±10%		
Encapsulation material 3	CHANGZHOU BETTERIAL FILM TECHNOLOGIES CO., LTD	B602M (near glass)	Thickness = 0.5mm±10% gram weight: 380g/m ² ±10%; 360g/m ² ±10%	—	—
		B601HP (near back glass)	Thickness = 0.5mm±10% gram weight: 400g/m ² ±10%; 380g/m ² ±10%		
Solar cell 1	Sany Silicon Energy (Zhuzhou) Co., Ltd.	SYCN182T1634 (combined with Encapsulation material 1,2,3,4)	L x W x T [mm]: 182.2 x 91 (±0.25) x 0.13 (±0.015) 182.2 x 91.875 (±0.25) x 0.13 (±0.015) Topcon Mono-Si, 16BB	—	—
Solar cell 2	Sany Silicon Energy (Zhuzhou) Co., Ltd.	SYCN191T1638 (combined with Encapsulation material 1,2,3,4)	L x W x T [mm]: 182.2 x 95.8 (±0.25) x 0.13 (±0.015) 191.6 x 91.1 (±0.25) x 0.13 (±0.015) Topcon Mono-Si, 16BB	—	—

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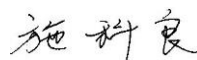
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Object	Manufacturer / trademark	Type / model	Technical data / ratings	Standard (if applicable)	Certificates (if applicable)
Cell connectors 1	Suzhou bonide Photovoltaic Technology Co., Ltd	Sn60Pb40	Dimensions [mm]: Ø= 0.26±0.026mm Ø= 0.23±0.023mm	—	—
Cell connectors 2	Jiangsu Xingdarui Optical Power Co., Ltd	Sn60Pb40	Dimensions [mm]: Ø= 0.26±0.026mm Ø= 0.23±0.023mm	—	—
Cell connectors 3	Changzhou Shengyue metal new material Co., Ltd	Sn60Pb40	Dimensions [mm]: Ø= 0.26±0.026mm Ø= 0.23±0.023mm	—	—
Cell connectors 4	Suzhou YourBest new-type materials Co., Ltd	Sn60Pb40	Dimensions [mm]: Ø= 0.26±0.026mm Ø= 0.23±0.023mm	—	—
String connectors 1	Suzhou bonide Photovoltaic Technology Co., Ltd	Sn60Pb40	Dimensions [mm]: 0.3±0.03mm x 6.0±0.6mm 0.3±0.03mm x 4.0±0.4mm	—	—
String connectors 2	Jiangsu Xingdarui Optical Power Co., Ltd	Sn60Pb40	Dimensions [mm]: 0.3±0.03mm x 6.0±0.6mm 0.3±0.03mm x 4.0±0.4mm	—	—
String connectors 3	Changzhou Shengyue metal new material Co., Ltd	Sn60Pb40	Dimensions [mm]: 0.3±0.03mm x 6.0±0.6mm 0.3±0.03mm x 4.0±0.4mm	—	—
String connectors 4	Suzhou YourBest new-type materials Co., Ltd	Sn60Pb40	Dimensions [mm]: 0.3±0.03mm x 6.0±0.6mm 0.3±0.03mm x 4.0±0.4mm	—	—
Frame parts 1	Jiangsu Jiachen Aluminium Technology Co., Ltd	Anodized Aluminium Alloy 6005-T6 (Silver)	H(mm) x W(mm): 1. 30x33mm (long frame) 30x18mm (short frame) 2. 30x30mm (long frame) 30x15mm (short frame)	—	—

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Object	Manufacturer / trademark	Type / model	Technical data / ratings	Standard (if applicable)	Certificates (if applicable)
Frame parts 2	CHANGSHU DONGNENG SOLAR TECHNOLOGY CO., LTD	Anodized Aluminium Alloy 6005-T6 (Silver)	H(mm) x W(mm): 1. 30x33mm (long frame) 30x18mm (short frame) 2. 30x30mm (long frame) 30x15mm (short frame)	—	—
Frame parts 3	Jiangyin Chaoyang Photovoltaic Co., Ltd.	Anodized Aluminium Alloy 6005-T6 (Silver)	H(mm) x W(mm): 30x30mm (long frame) 30x15mm (short frame)	—	—
Adhesive (frame) 1	Shanghai Huitian New Material Co., Ltd.	HT906Z	Color: White	—	—
Adhesive (frame) 2	Guangzhou Jointas Chemical Co., Ltd.	179W	Color: White	—	—
Adhesive (frame) 3	Jiangsu Tianchen New Materials CO., LTD	HT-8258	Color: White	—	—
Fluxing agent 1	Zhuhai Changxian New Materials Technology Co., Ltd	CX700	—	—	—
Fluxing agent 2	ASAHI SOLDER TECHNOLOGY(WUXI) CO., LTD	SF180	—	—	—
Fluxing agent 3	Shenzhen Tongfang Electronic New-Material CO., LTD	AATF9800-MBB	—	—	—
Fixing tape 1	SuZhou Rongzhi Electronic Technology Co., Ltd	D60F6-2	Thickness= 100µm±40µm	—	—
Fixing tape 2	Guangdong Sunrui New Material Co., Ltd.	HZ UV-100	Thickness= 100µm±40µm	—	—
Fixing tape 3	SuZhou Rongzhi Electronic Technology Co., Ltd	D60F6-6	Thickness= 100µm±40µm	—	—
Fixing tape 4	Guangdong Sunrui New Material Co., Ltd.	HZ UV-3	Thickness= 100µm±40µm	—	—
Insulation tape	—	—	—	—	—

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Object	Manufacturer / trademark	Type / model	Technical data / ratings	Standard (if applicable)	Certificates (if applicable)
(Optional) Accessories	—	—	—	—	—
Junction box 1	QC Solar (Suzhou) Corporation	3Qxy (x=1 or 2 or 3 or 4; y=1 or 2 or 3 or 4)	Rated voltage =1500VDC Rated current =20A (x=1;y=1 or 2 or 3 or 4) Rated current =22A (x=2;y=1 or 2 or 3) Rated current =25A (x=3;y=1 or 2 or 3 or 4) Rated current =30A (x=4;y=1 or 2 or 3 or 4) Reverse current=40A IP68	IEC 62790: 2020 EN IEC 62790: 2020	R 50510013
Cable	QC Solar (Suzhou) Corporation	62930 IEC 131 1 x 2,5mm ² / 1 x 4,0mm ² / 1 x 6,0mm ² / 1 x 10,0mm ² HALOGEN FREE LOW SMOKE	Max. Voltage = 1500VDC	IEC 62930	R 50447239
Connector	QC Solar (Suzhou) Corporation	QC4.10-cds	Max. Voltage = 1500VDC Max. Current = 41A	IEC 62852: 2014	R 50505605
Bypass diode	QC Solar (Suzhou) Corporation	QCM4045	Tj max =200 °C;	—	—
Adhesive (junction box) 1	Shanghai Huitian New Material Co., Ltd.	HT906Z	Color: White	—	—
Adhesive (junction box) 2	Jiangsu Tianchen New Materials CO., LTD	HT-8258	Color: White	—	—
Adhesive (junction box) 3	Guangzhou Jointas Chemical Co., Ltd.	179W	Color: White	—	—
Potting (junction box) 1	Shanghai Huitian New Material Co., Ltd.	5299W-S	Color: White	—	—
Potting material 2	Jiangsu Tianchen New Materials CO., LTD	HT-6360 A/B	Color: White	—	—

Shanghai, 2024-09-29

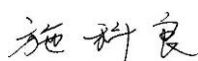

TÜV Rheinland Group

Zhuzhou

(City)

2024-09-29

(Date)



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Constructional Data Form for Photovoltaic Modules

List of Critical Components (add lines for multiple material sources)					
Object	Manufacturer / trademark	Type / model	Technical data / ratings	Standard (if applicable)	Certificates (if applicable)
Potting material 3	Guangzhou Jointas Chemical Co., Ltd.	162 A/B	Color: White	—	—
Junction box 2	Changshu Friends connector Technology CO., LTD	F20-01 X	Rated voltage =1500VDC 25A for F20-01 X (x=003a); 30A for F20-01 X (x=003b) Reverse current=41A IP68	IEC 62790: 2020 EN IEC 62790: 2020	R 50576603
Cable	Changshu Friends connector Technology CO., LTD	62930 IEC 131 1 x 1,5 ... 35mm2 HALOGEN FREE LOW SMOKE	Max. Voltage = 1500VDC	IEC 62930	R 50538772
Connectors	Changshu Friends connector Technology CO., LTD	PV5e	Max. Voltage = 1500VDC Rated Current = 35A	IEC 62852: 2014	R 50525017
Bypass diode	Changshu Friends connector Technology CO., LTD	30SQ045	Tj max =200 °C;		
Adhesive (junction box) 1	Shanghai Huitian New Material Co., Ltd.	HT906Z	Color: White	—	—
Adhesive (junction box) 2	Jiangsu Tianchen New Materials CO., LTD	HT-8258	Color: White	—	—
Adhesive (junction box) 3	Guangzhou Jointas Chemical Co., Ltd.	179W	Color: White	—	—
Potting (junction box) 1	Shanghai Huitian New Material Co., Ltd.	5299W-S	Color: White	—	—
Potting material 2	Jiangsu Tianchen New Materials CO., LTD	HT-6360 A/B	Color: White	—	—
Potting material 3	Guangzhou Jointas Chemical Co., Ltd.	162 A/B	Color: White	—	—

Shanghai, 2024-09-29

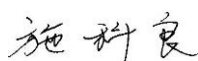

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Constructional Data Form for Photovoltaic Modules

List of Critical Components (add lines for multiple material sources)					
Object	Manufacturer / trademark	Type / model	Technical data / ratings	Standard (if applicable)	Certificates (if applicable)
Junction box 3	ZHEJIANG FORSOL ENERGY CO., LTD	F303x Plus	Rated voltage =1500VDC 20A for F303x Plus (x=D); 25A for F303x Plus (x=F); 30A for F303x Plus (x=G) Reverse current=40A IP68	IEC 62790: 2020 EN IEC 62790: 2020	R 50603479
Cable	ZHEJIANG FORSOL ENERGY CO., LTD	62930 IEC 131 1 x 1,5 ... 6mm ² HALOGEN FREE LOW SMOKE	Max. Voltage = 1500VDC	IEC 62930	R 50515986
Connectors	ZHEJIANG FORSOL ENERGY CO., LTD	FC4	Max. Voltage = 1500VDC Max. Current = 41A	IEC 62852: 2014	R 50513372
Bypass diode	ZHEJIANG FORSOL ENERGY CO., LTD	FSL-4050	Tj max =200 °C;	—	—
Adhesive (junction box) 1	Shanghai Huitian New Material Co., Ltd.	HT906Z	Color: White	—	—
Adhesive (junction box) 2	Jiangsu Tianchen New Materials CO., LTD	HT-8258	Color: White	—	—
Adhesive (junction box) 3	Guangzhou Jointas Chemical Co., Ltd.	179W	Color: White	—	—
Potting (junction box) 1	Shanghai Huitian New Material Co., Ltd.	5299W-S	Color: White	—	—
Potting material 2	Jiangsu Tianchen New Materials CO., LTD	HT-6360 A/B	Color: White	—	—
Potting material 3	Guangzhou Jointas Chemical Co., Ltd.	162 A/B	Color: White	—	—

Shanghai, 2024-09-29

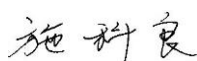

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