

# CERTIFICATE

**TÜV NORD CERT GmbH**  
herewith declares that

**Emrys Solar GmbH**  
Sontraer Str. 9  
60386  
Frankfurt am Main

is authorized to provide the product mentioned below with the mark as illustrated:

**Description of product (details see Annex 2):**

**Crystalline Silicon Terrestrial Photovoltaic (PV) Modules**



Valid from: 2023-07-24

Valid until: 2027-07-05

Certification program:	P12-VA-01 Rev. 17 09.20
Certification fundamental(s):	IEC / EN 61215-1:2016; IEC / EN 61215-1-1:2016; IEC 61215-2:2016 / EN 61215-2:2017 + AC:2017 + AC:2018; IEC 61730-1:2016 / EN IEC 61730-1:2018 + AC:2018; IEC 61730-2:2016 / EN IEC 61730-2:2018 + AC:2018.
Registered No.:	44 780 23 406749 - 224
Test Report	492012580.001
No.: File No.:	PVP06169/23P-02



**TÜV NORD CERT GmbH**  
Certification Body  
Consumer Products



Essen, 2023-07-24

Please also pay attention to the information stated overleaf.

**Description of product(s):**

Module types:	<b>PV Modules with 182mm Mono-crystalline Silicon Half-cut Solar Cells</b> 156 cells: ESxxxM78-S2 (xxx = 565-595, in increment of 5) 144 cells: ESxxxM72-S2 (xxx = 520-565, in increment of 5) 132 cells: ESxxxM66-S2 (xxx = 480-515, in increment of 5) 120 cells: ESxxxM60-S2 (xxx = 435-470, in increment of 5) 108 cells: ESxxxM54-S2 (xxx = 395-420, in increment of 5)
Maximum system voltage:	1500V
Fuse rating:	25A
Electrical protection class:	Class II
Pollution degree:	1
Material group:	I
Design load (positive / negative):	3600Pa / 1600Pa
Safety factors:	1.5
Fire safety class:	Class C according to ANSI/UL 1703-2018 (as per ANSI/UL 790-2018)

Module types:	<b>PV Modules with 210mm Mono-crystalline Silicon Half-cut Solar Cells</b> 132 cells: ESxxx-M66-S3 (xxx = 640-670, in increment of 5) 120 cells: ESxxx-M60-S3 (xxx = 585-605, in increment of 5) 108 cells: ESxxx-M54-S3 (xxx = 525-545, in increment of 5) 96 cells: ESxxx-M48-S3 (xxx = 465-485, in increment of 5) 84 cells: ESxxx-M42-S3 (xxx = 405-425, in increment of 5) 110 cells: ESxxx-M55-S3 (xxx = 530-555, in increment of 5) 100 cells: ESxxx-M66-S3 (xxx = 480-505, in increment of 5) 90 cells: ESxxx-M45-S3 (xxx = 430-455, in increment of 5) 80 cells: ESxxx-M40-S3 (xxx = 390-400, in increment of 5)
Maximum system voltage:	1500V
Fuse rating:	30A
Electrical protection class:	Class II
Pollution degree:	1
Material group:	I
Design load (positive / negative):	3600Pa / 1600Pa
Safety factors:	1.5
Fire safety class:	Class C according to ANSI/UL 1703-2018 (as per ANSI/UL 790-2018)



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Module types:	<b>PV Modules with 210mm Mono-crystalline Silicon 1/3-cut Solar Cells</b> 150 cells: ESxxxM75-S3 (xxx = 485-510, in increment of 5) 120 cells: ESxxxM60-S3 (xxx = 385-405, in increment of 5)
Maximum system voltage:	1500V
Fuse rating:	20A
Electrical protection class:	Class II
Pollution degree:	1
Material group:	I
Design load (positive / negative):	3600Pa / 1600Pa
Safety factors:	1.5
Fire safety class:	Class C according to ANSI/UL 1703-2018 (as per ANSI/UL 790-2018)

Module types:	<b>PV Modules with Half-cut 182mm TOPCon Mono-crystalline Silicon Solar Cells:</b> 156 cells: ESxxxM78-NT2 (xxx = 605-630, in increment of 5) 144 cells: ESxxxM72-NT2 (xxx = 560-580, in increment of 5) 132 cells: ESxxxM66-NT2 (xxx = 510-530, in increment of 5) 120 cells: ESxxxM60-NT2 (xxx = 465-485, in increment of 5) 108 cells: ESxxxM54-NT2 (xxx = 420-435, in increment of 5)
Maximum system voltage:	1500V
Fuse rating:	25A
Electrical protection class:	Class II
Pollution degree:	1
Material group:	I
Design load (positive / negative):	3600Pa / 1600Pa
Safety factors:	1.5
Fire safety class:	Class C according to ANSI/UL 1703-2018 (as per ANSI/UL 790-2018)

## Remark:

For detailed product information, please refer to CDF (Constructional Data Form) in Annex 1 of test report.