

# CERTIFICATE

**TÜV NORD CERT GmbH**  
herewith declares that

**IFRI-SOL SARL**  
Industrial Area Enfidha Diet 4030  
TUNISIA

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: 2023-06-13

Valid until: 2024-01-02

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 22 406749 - 065R1M1
Manufacturer:	see Annex 1
Test Report No.:	492011976.002
File No.:	PVP04105/23P



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**Consumer Products**



Essen, 2022-06-13

Please also pay attention to the information stated overleaf.

**Description of product(s):**

Module types:	<b>Single Glass PV Modules with 6" Half-cut Mono-crystalline Silicon Solar Cells:</b> 144 cells: IF-HTMXXX-144 (xxx = 390 - 455, in increment of 5) 144 cells: IF-HWMXXX-144 (xxx = 390 - 405, 420 - 460, in increment of 5) 132 cells: IF-HMXXX-132 (xxx = 355 - 415, in increment of 5) 132 cells: IF-HWMXXX-132 (xxx = 385 - 420, in increment of 5) 120 cells: IF-HTMXXX-120 (xxx = 325 - 380, in increment of 5) 120 cells: IF-HWMXXX-120 (xxx = 350 - 385, in increment of 5) 120 cells: IF-HBMXXX-120 (xxx = 325 - 335, 350 - 380, 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>Single Glass PV Modules with 7" Half-cut Mono-crystalline Silicon Solar Cells:</b> 156 cells: IF-HTMXXX-156 (xxx = 560 - 605, in increment of 5) 156 cells: IF-HWMXXX-156(xxx = 560 - 605, in increment of 5) 144 cells: IF-HTMXXX-144 (xxx = 520 - 555, in increment of 5) 144 cells: IF-HWMXXX-144 (xxx = 520 - 555, in increment of 5) 132 cells: IF-HTMXXX-132 (xxx = 475 - 510, in increment of 5) 132 cells: IF-HWMXXX-132 (xxx = 475 - 510, in increment of 5) 132 cells: IF-HMXXX-132 (xxx = 480 - 505, in increment of 5) 120 cells: IF-HTMXXX-120 (xxx = 435 - 465, in increment of 5) 120 cells: IF-HWMXXX-120 (xxx = 435 - 465, in increment of 5) 108 cells: IF-HTMXXX-108 (xxx = 390 - 415, in increment of 5) 108 cells: IF-HWMXXX-108 (xxx = 390 - 415, in increment of 5) 108 cells: IF-HMXXX-108 (xxx = 390 - 415, in increment of 5) 156 cells:IF-HWMXXX/N-156 xxx=585 - 630, in increment of 5) 144 cells: IF-HWMXXX/N-144 xxx=585 - 630, in increment of 5) 132 cells:IF-HWMXXX/N-132 (xxx=495 - 530, in increment of 5) 120 cells:IF-HWMXXX/N-120 (xxx=450 - 485, in increment of 5)



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	108 cells:IF-HWMXXX/N-108 (xxx=405 - 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)

## Module types:

**Single Glass PV Modules with 8" Half-cut Mono-crystalline Silicon Solar Cells:**

150 cells: IF-HTMXXX-150 (xxx = 480 - 515, in increment of 5)  
150 cells: IF-HWMXXX-150 (xxx = 480 - 515, in increment of 5)  
140 cells: IF-HTMXXX-I (xxx = 450 - 480, in increment of 5)  
140 cells: IF-HTMXXX-140 (xxx = 450 - 480, in increment of 5)  
140 cells: IF-HWMXXX-I (xxx = 450 - 480, in increment of 5)  
130 cells: IF-HTMXXX-130 (xxx = 415 - 445, in increment of 5)  
120 cells: IF-HTMXXX-R (xxx = 385 - 410, in increment of 5)  
120 cells: IF-HTMXXX-120 (xxx = 385 - 410, in increment of 5)  
120 cells: IF-HBMXXX-R (xxx = 385 - 410, in increment of 5)  
120 cells: IF-HWMXXX-R (xxx = 385 - 410, in increment of 5)  
90 cells: IF-HTMXXX-90 (xxx = 290 - 310, in increment of 5)  
150 cells: IF-HMMXXX-150 (xxx = 480 - 515, in increment of 5)  
140 cells: IF-HMMXXX-140 (xxx = 450 - 480, in increment of 5)  
130 cells: IF-HMMXXX-130 (xxx = 415 - 445, in increment of 5)  
120 cells: IF-HMMXXX-120 (xxx = 385 - 410, in increment of 5)  
90 cells: IF-HMMXXX-90 (xxx = 290 - 310, in increment of 5)  
132 cells IF-HWMXXX-132 (xxx=630 - 670, in increment of 5)  
120 cells:IF-HWMXXX-120 (xxx=575 - 610, in increment of 5)  
110 cells:IF-HWMXXX-110 (xxx=575 - 610, in increment of 5)  
100 cells:IF-HWMXXX-100 (xxx=480 - 510, in increment of 5)  
90 cells:IF-HWMXXX-90 (xxx=430 - 455, in increment of 5)  
80 cells:IF-HWMXXX-80 (xxx=385 - 405, in increment of 5)

Maximum system voltage:	1500V
Fuse rating:	20/30A
Electrical protection class:	Class II



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