

Type Approval
CERTIFICATE

N. C01 09C474002 R01

Issued by: **EuroTest Laboratori S.r.l.**

Seeing test reports: PVC01 CdO 09C474002

Issued by Eurotest Laboratori Srl Via dell'Industria, 18 – Brugine (PD) - Italy

We declare that the following product:

Photovoltaic Modules

Models list:

tested type: **AP 72-280**

extended by similarity (*)

AP YY-XXX, AP YY-XXX ST, AP YY A-XXX ST, AP YY S-XXX ST

License holder:

Ferrania Solis S.r.l.

Viale della Libertà 57 - Ferrania
17014 Cairo Montenotte (SV) - Italy

Manufacturer:

Ferrania Solis S.r.l.

Viale della Libertà 57 - Ferrania
17014 Cairo Montenotte (SV) - Italy

as results of test made complies the standard:

EN 61215:2005/IEC 61215:2005
Crystalline silicon terrestrial photovoltaic (PV) modules. Design qualification and type approval.

EN 61730-1:2007, EN 61730-2:2007
Photovoltaic (PV) module safety qualification

To be used in plants at a total voltage up to

1000 Vdc (application Class A)

(*) The manufacturer declares that these products are constructed using the same materials, components and processes as the tested type AP 72-280. Further details on certified models are reported on the attachment.

Technical data, materials and components description are into the indicated test reports. Any changes of the design, materials, components or processing may require the repetition of some of the qualification tests in order to retain type approval.

This certificate has a validity of 5 years.

Brugine, 14/06/2010

Laboratory head
Roberto Bolzonaro

Performed certification on tested model:

- complete certification
 retest performed according to IEC60385 "Retesting guideline" for similarity with model
(certificate n° released by in date).

with differences in:

Tested type:

| Model name | cell number | cell size | cell technology | rated power |
|------------|-------------|-----------|-----------------|-------------|
| AP 72-280 | 72 | 156x156 | polycrystalline | 280 |

Types extended for similarity:

| Model name | cell number | cell size | cell technology | rated power |
|--------------|-------------|-----------|-----------------|----------------------------------------|
| AP 72-XXX | 72 | 156x156 | polycrystalline | 255, 260, 265, 270, 275, 280, 285, 290 |
| AP 60-XXX | 60 | 156x156 | polycrystalline | 210, 215, 220, 225, 230, 235, 240, 245 |
| AP 54-XXX | 54 | 156x156 | polycrystalline | 190, 195, 200, 205, 210, 215, 220 |
| AP 48-XXX | 48 | 156x156 | polycrystalline | 170, 175, 180, 185, 190, 195 |
| AP 36-XXX | 36 | 156x156 | polycrystalline | 125, 130, 135, 140, 145 |
| AP 32-XXX | 32 | 156x156 | polycrystalline | 124 |
| AP 28-XXX | 28 | 156x156 | polycrystalline | 108 |
| AP 24-XXX | 24 | 156x156 | polycrystalline | 93 |
| AP 21-XXX | 21 | 156x156 | polycrystalline | 81 |
| AP 15-XXX | 15 | 156x156 | polycrystalline | 58 |
| AP 12-XXX | 12 | 156x156 | polycrystalline | 46 |
| AP 9-XXX | 9 | 156x156 | polycrystalline | 35 |
| AP 6-XXX | 6 | 156x156 | polycrystalline | 23 |
| AP 4-XXX | 4 | 156x156 | polycrystalline | 15 |
| AP 72-XXX ST | 72 | 156x156 | polycrystalline | 255, 260, 265, 270, 275, 280, 285, 290 |
| AP 60-XXX ST | 60 | 156x156 | polycrystalline | 210, 215, 220, 225, 230, 235, 240, 245 |
| AP 54-XXX ST | 54 | 156x156 | polycrystalline | 190, 195, 200, 205, 210, 215, 220 |
| AP 48-XXX ST | 48 | 156x156 | polycrystalline | 170, 175, 180, 185, 190, 195 |
| AP 36-XXX ST | 36 | 156x156 | polycrystalline | 125, 130, 135, 140, 145 |
| AP 32-XXX ST | 32 | 156x156 | polycrystalline | 124 |
| AP 28-XXX ST | 28 | 156x156 | polycrystalline | 108 |
| AP 24-XXX ST | 24 | 156x156 | polycrystalline | 93 |
| AP 21-XXX ST | 21 | 156x156 | polycrystalline | 81 |
| AP 15-XXX ST | 15 | 156x156 | polycrystalline | 58 |
| AP 12-XXX ST | 12 | 156x156 | polycrystalline | 46 |
| AP 9-XXX ST | 9 | 156x156 | polycrystalline | 35 |
| AP 6-XXX ST | 6 | 156x156 | polycrystalline | 23 |
| AP 4-XXX ST | 4 | 156x156 | polycrystalline | 15 |

| | | | | |
|----------------|----|---------|-----------------|----------------------------------------|
| AP 72 A-XXX ST | 72 | 156x156 | polycrystalline | 255, 260, 265, 270, 275, 280, 285, 290 |
| AP 60 A-XXX ST | 60 | 156x156 | polycrystalline | 210, 215, 220, 225, 230, 235, 240, 245 |
| AP 54 A-XXX ST | 54 | 156x156 | polycrystalline | 190, 195, 200, 205, 210, 215, 220 |
| AP 48 A-XXX ST | 48 | 156x156 | polycrystalline | 170, 175, 180, 185, 190, 195 |
| AP 36 A-XXX ST | 36 | 156x156 | polycrystalline | 125, 130, 135, 140, 145 |
| AP 32 A-XXX ST | 32 | 156x156 | polycrystalline | 124 |
| AP 28 A-XXX ST | 28 | 156x156 | polycrystalline | 108 |
| AP 24 A-XXX ST | 24 | 156x156 | polycrystalline | 93 |
| AP 21 A-XXX ST | 21 | 156x156 | polycrystalline | 81 |
| AP 15 A-XXX ST | 15 | 156x156 | polycrystalline | 58 |
| AP 12 A-XXX ST | 12 | 156x156 | polycrystalline | 46 |
| AP 9 A-XXX ST | 9 | 156x156 | polycrystalline | 35 |
| AP 6 A-XXX ST | 6 | 156x156 | polycrystalline | 23 |
| AP 4 A-XXX ST | 4 | 156x156 | polycrystalline | 15 |
| AP 72 S-XXX ST | 72 | 156x156 | polycrystalline | 255, 260, 265, 270, 275, 280, 285, 290 |
| AP 60 S-XXX ST | 60 | 156x156 | polycrystalline | 210, 215, 220, 225, 230, 235, 240, 245 |
| AP 54 S-XXX ST | 54 | 156x156 | polycrystalline | 190, 195, 200, 205, 210, 215, 220 |
| AP 48 S-XXX ST | 48 | 156x156 | polycrystalline | 170, 175, 180, 185, 190, 195 |
| AP 36 S-XXX ST | 36 | 156x156 | polycrystalline | 125, 130, 135, 140, 145 |
| AP 32 S-XXX ST | 32 | 156x156 | polycrystalline | 124 |
| AP 28 S-XXX ST | 28 | 156x156 | polycrystalline | 108 |
| AP 24 S-XXX ST | 24 | 156x156 | polycrystalline | 93 |
| AP 21 S-XXX ST | 21 | 156x156 | polycrystalline | 81 |
| AP 15 S-XXX ST | 15 | 156x156 | polycrystalline | 58 |
| AP 12 S-XXX ST | 12 | 156x156 | polycrystalline | 46 |
| AP 9 S-XXX ST | 9 | 156x156 | polycrystalline | 35 |
| AP 6 S-XXX ST | 6 | 156x156 | polycrystalline | 23 |
| AP 4 S-XXX ST | 4 | 156x156 | polycrystalline | 15 |

Additional notes

suffix -XXX indicates rated power, -YY number of cells
 additional test performed to certificate an alternative diode included in the report PVC01 CdO 09C474002

Revision R01: this revision includes also the models AP YY-XXX ST, AP YY A-XXX ST, AP YY S-XXX ST created for changes in the manufacturer's coding structure

Laboratory head
Roberto Bolzonaro