



IEC 62716:2013

Photovoltaic (PV) modules

- Ammonia corrosion testing -

Confirmation of test results

VDE Renewables File Ref.: 10004/2020-40295

Applicant: Changzhou EGing Photovoltaic Technology Co., Ltd.
No. 18 Jinwu Road, 213213 Jintan City, China

Product: Crystalline silicon Photovoltaic (PV)-Modules

Type: A) EG-XXXP72-C, B) EG-XXXP60-C, C) EG-XXXM72-C,
D) EG-XXXM60-C, E) EG-XXXM72-12BB-C, F) EG-XXXM60-12BB-C,
G) EG-XXXP72-CV, H) EG-XXXP60-CV, I) EG-XXXM72-CV,
J) EG-XXXM60-CV, K) EG-XXXM72-HC, L) EG-XXXM60-HC,
M) EG-XXXP72-HC, N) EG-XXXP60-HC, O) EG-XXXM72-C-DG,
P) EG-XXXM60-C-DG, Q) EG-XXXP72-C-DG, R) EG-XXXP60-C-DG,
S) EG-XXXM72-C/BF-DG, T) EG-XXXM60-C/BF-DG, U) EG-XXXM72-HC/BF-DG,
V) EG-XXXM60-HC/BF-DG, W) EG-XXXM72-12BB-CV, X) EG-XXXM60-12BB-CV,
Y) EG-XXXP72-12BB-CV, Z) EG-XXXP60-12BB-CV, AA) EG-XXXM72-HCV,
AB) EG-XXXM60-HCV, AC) EG-XXXP72-HCV, AD) EG-XXXP60-HCV,
AE) EG-XXXP72-12BB-C, AF) EG-XXXP60-12BB-C, AG) EG-XXXM72-DV,
AH) EG-XXXM60-DV, AI) EG-XXXM72-HDV, AJ) EG-XXXM60-HDV,
AK) EG-XXXM72-D, AL) EG-XXXM60-D, AM) EG-XXXM72-HD,
AN) EG-XXXM60-HD, AO) EG-XXXM72-HD/BF-DG, AP) EG-XXXM60-HD/BF-DG,
AQ) EG-XXXM72-D/BF-DG, AR) EG-XXXM60-D/BF-DG, AS) EG-XXXM72-HE/BF-DG,
AT) EG-XXXM60-HE/BF-DG, AU) EG-XXXM72-HEV, AV) EG-XXXM60-HEV,
AW) EG-XXXM72-HE, AX) EG-XXXM60-HE, AY) EG-XXXM84-HEV,
AZ) EG-XXXM78-HEV, BA) EG-XXXM84-HE, BB) EG-XXXM78-HE,
BC) EG-XXXM84-HE/BF-DG, BD) EG-XXXM78-HE/BF-DG, BE) EG-XXXM78-HDV,
BF) EG-XXXM66-HDV, BG) EG-XXXM78-HD, BH) EG-XXXM66-HD,
BI) EG-XXXM78-HD/BF-DG, BJ) EG-XXXM66-HD/BF-DG

XXX in the type replaces the power in Watt and can be any number between:

235 - 350 for A), G)	200 - 290 for B), H)	240 - 400 for C), I)	200 - 330 for D), J)
330 - 385 for E), W)	275 - 320 for F), X)	345 - 405 for K), AA)	290 - 335 for L), AB)
320 - 365 for M), AC)	270 - 305 for N), AD)	280 - 370 for O),	235 - 310 for P),
280 - 355 for Q)	235 - 295 for R),	280 - 390 for S),	235 - 325 for T),
340 - 400 for U),	285 - 325 for V),	310 - 350 for Y), AE)	255 - 290 for Z), AF)
350 - 420 for AG), AK)	290 - 350 for AH), AL)	300 - 365 for AJ), AN)	300 - 360 for AP)
360 - 440 for AI), AM), AO)	355 - 425 for AQ)	300 - 350 for AR)	425 - 480 for AS), AU), AW)
350 - 400 for AT), AV), AX)	500 - 560 for AY), BA), BC)		455 - 520 for AZ), BB), BD)
420 - 470 for BE), BG), BI)	355 - 400 for BF), BH), BJ)		

Manufacturer: Changzhou EGing Photovoltaic Technology Co., Ltd.

Standard: IEC 62716:2013, Ammonia corrosion testing

Test conditions

Hours including heating up:	8 h
NH ₃ -concentration (ppm):	6667
Chamber temperature:	60°C
Relative Humidity:	100 %
Hours including cooling:	16 h
NH ₃ -concentration (ppm):	0
Chamber temperature:	23°C
Relative Humidity:	75 %



Pass criteria

Power degradation: < 5%

Dry Insulation: > 40 MΩm²

Wet insulation: > 40 MΩm²

Ground continuity: < 0.1Ω

Bypass diode functionality: Shall be functional after test

Summary of test results:

Maximum power degradation:	allowed	max. 5 %
	measured	max. 2.27 %

The measured degradation is below the allowed degradation.

Dry insulation resistance:	required	min. 19.9 MΩ
	measured	>1000 MΩ

The measured dry insulation resistance is above the limit.

Wet insulation resistance:	required	min. 19.9 MΩ
	measured	>1000 MΩ

The measured wet insulation resistance is above the limit.

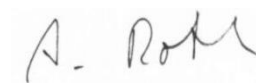
Ground continuity test:	required	max. 0.1Ω
	measured	max. 0.001Ω

Bypass diode functionality test: Still functional after test

The complete test results and the relevant bill of materials are given in Test Report No.: TRPVM-2020-40295-1 and TRPVM-2020-40295-2.

VDE Renewables GmbH


Dean Wen


Arnd Roth

63755 Alzenau, 2020-08-27