



**BUREAU
VERITAS**

Certificate

Manufacturer / applicant: REFU Elektronik GmbH
Marktstraße 185
72793 Pfullingen
Germany

Product type: Grid-tied photovoltaic Inverter
Model: REFUsol 08K (867P008)
REFUsol 10K (867P010)
REFUsol 13K (867P013)
REFUsol 17K (867P017)
REFUsol 20K (867P020)
REFUsol 23K (867P023)

The certificate refers to the stated model(s) which passed the tests according to the applicable standard(s):

IEC 62109-1:2010, EN 62109-1:2010, DIN EN 62109-1:2011
Safety of power converters for use in photovoltaic power systems – Part 1: General requirements

IEC 62109-2:2011, EN 62109-2:2011, DIN EN 62109-2:2012
Safety of power converters for use in photovoltaic power systems - Part 2: Particular requirements for inverters

Report number: 14TH0086

Certificate number: 16-016

Date of issue: 2016-03-07

Certification body



Dieter Zitzmann



Deutsche
Akkreditierungsstelle
D-ZE-12024-01-00

Certification body of Bureau Veritas Consumer Products Services Germany GmbH
Accredited according to DIN EN ISO/IEC 17065

Grid-tied photovoltaic inverter ratings

Ratings:	REFUsol 17K (867P017)	REFUsol 20K (867P020)	REFUsol 23K (867P023)
MPP DC voltage range [V]:	460 - 850	490 - 850	575 - 850
Input DC voltage range [V]:	1000		
Input DC current [A]:	38,3	41,8	41,0
Output AC voltage [V]:	3AC400+N, 50Hz		3AC460+N, 50Hz
Output AC current [A]:	3x 29,2	3x 29,2	3x 29,2
Output power [kVA]:	17	20	23

Ratings:	REFUsol 08K (867P008)	REFUsol 10K (867P010)	REFUsol 13K (867P013)
MPP DC voltage range [V]:	370 - 850	410 - 850	480 - 850
Input DC voltage range [V]:	1000		
Input DC current [A]:	23,0	25,0	31,0
Output AC voltage [V]:	3AC400+N, 50Hz		
Output AC current [A]:	3x 12,0	3x 16,0	3x 21,0
Output power [kVA]:	8,25	10	13