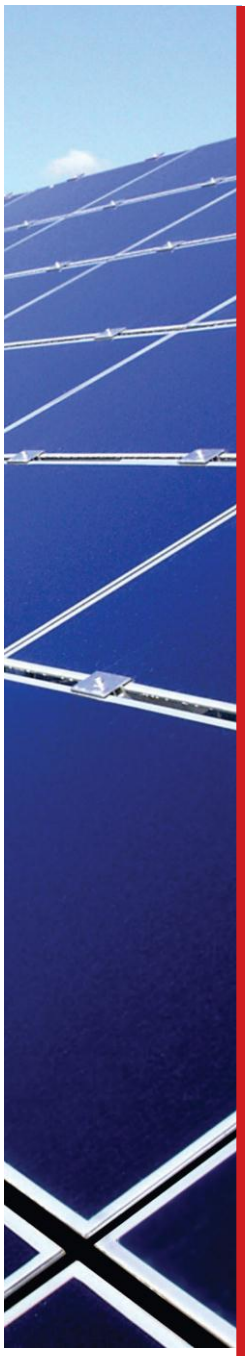

Application Note
Compatible Inverters with galvanic isolation for FS Series 2 and FS Series 3 PV Modules

This document provides a list of inverters that are compatible and approved for the usage with the First Solar FS Series 2 and FS Series 3 Modules. This list does not provide performance evaluations or comparisons between inverters and does not recommend a specific inverter manufacturer. Absence from the list does not indicate that there is an incompatibility with an inverter, only that First Solar has not done a estimation or doesn't completed the verification of the component in this point of time.

First Solar warrants its FS-Series 2 & 3 modules according to the First Solar Module Warranty Terms & Conditions (PD-5-102-EU) provided the modules are installed, operated and serviced as described in the First Solar User Guide (PD-5-200, "User Guide") and in the System Design and Application document (PD-2-303, "SDA").

First Solar requires all system designs to be submitted for review and approval via its SDA process. For warranty purposes, every system with First Solar modules must be covered by a SDA. Project developer should request this particular document from direct First Solar customers.

Approval of the following listed inverter is based upon and in accordance with the datasheet effective at the time of evaluation. Changes in the inverter parameter(s) lead automatically to a lapse of the confirmation of compatibility. First Solar reserves the right to change the approval requirements for the inverter as well as a possible revocation of the inverter approval list.

Compatible Inverters with galvanic isolation for FS Series 2 and FS Series 3 PV Modules:[1][2]

Manufacturer	Series Name	Type	Transformer	VOC Max	max modules in series (FS2)	max modules in series (FS3)
ABB	PVS800	57-0100kW-A	Yes	900	9	13
ABB	PVS800	57-0250kW-A	Yes	900	9	13
ABB	PVS800	57-0500kW-A	Yes	900	9	13
Advanced Energy	PV Powered	PVP 35kW	Yes	600	6	9
Advanced Energy	PV Powered	PVP 50kW	Yes	600	6	9
AMK Antriebs- und Steuerungstechnik GmbH & Co. KG	AMKASYN	S 100-WT	Yes	1000	10	15
AMK Antriebs- und Steuerungstechnik GmbH & Co. KG	AMKASYN	S 88-WT	Yes	1000	10	15
Answer Drives S.r.l.	Solargate	PV7L	Yes	800	8	12

[1] Calculation for max. number of modules in series is based on -10°C cell temperature and 700W/m² irradiation.
[2] Transformer „yes" means that for the usage of the inverter an internal or an external transformer is mandatory.

Answer Drives S.r.l.	Solargate	PV7M	Yes	800	8	12
Answer Drives S.r.l.	Solargate	PV8L	Yes	900	9	13
Answer Drives S.r.l.	Solargate	PV8M	Yes	900	9	13
Aros	Sirio	125k	Yes	800	8	12
Aros	Sirio	125K-HV	Yes	880	8	13
Aros	Sirio	16k	Yes	800	8	12
Aros	Sirio	20k	Yes	800	8	12
Aros	Sirio	30k	Yes	800	8	12
Aros	Sirio	K100	Yes	800	8	12
Aros	Sirio	K100 HV	Yes	880	8	13
Aros	Sirio	K12	Yes	800	8	12
Aros	Sirio	K250	Yes	800	8	12
Aros	Sirio	K40	Yes	800	8	12
Aros	Sirio	K40 HV	Yes	880	8	13
Aros	Sirio	K80	Yes	800	8	12
Aros	Sirio	K80 HV	Yes	880	8	13
Beijing Corona Science & Technology Co., Ltd.	KNGI900	500HEA	Yes	900	9	13
Bonfiglioli Vectron	RPS 450	120	Yes	900	9	13
Bonfiglioli Vectron	RPS 450	170	Yes	900	9	13
Bonfiglioli Vectron	RPS 450	30	Yes	900	9	13
Bonfiglioli Vectron	RPS 450	60	Yes	900	9	13
Bonfiglioli Vectron	RPS TL	0280	Yes	900	9	13
Bonfiglioli Vectron	RPS TL	0310	Yes	900	9	13
Bonfiglioli Vectron	RPS TL	0340	Yes	900	9	13
Bonfiglioli Vectron	RPS TL	0380	Yes	900	9	13
Bonfiglioli Vectron	RPS TL	0420 (1000V option)	Yes	1000	10	15
Bonfiglioli Vectron	RPS TL	0470	Yes	900	9	13
Bonfiglioli Vectron	RPS TL	0510	Yes	900	9	13
Bonfiglioli Vectron	RPS TL	0570	Yes	900	9	13
Bonfiglioli Vectron	RPS TL	0620 (1000V option)	Yes	1000	10	15
Bonfiglioli Vectron	RPS TL	0680	Yes	900	9	13
Bonfiglioli Vectron	RPS TL	0760	Yes	900	9	13
Bonfiglioli Vectron	RPS TL	0830 (1000V option)	Yes	1000	10	15
Bonfiglioli Vectron	RPS TL	0850	Yes	900	9	13
Bonfiglioli Vectron	RPS TL	0940	Yes	900	9	13
Bonfiglioli Vectron	RPS TL	1040 (1000V option)	Yes	1000	10	15
Bonfiglioli Vectron	RPS TL	1110	Yes	900	9	13
Bonfiglioli Vectron	RPS TL	1220 (1000V option)	Yes	1000	10	15
Bonfiglioli Vectron	RPS TL	1460 (1000V option)	Yes	1000	10	15
Conergy AG	Conergy Central	30	Yes	800	8	12
Conergy AG	Conergy Central	40	Yes	800	8	12
Conergy AG	Conergy Central	50	Yes	800	8	12
Conergy AG	IPG C	200 C	Yes	1000	10	15
Conergy AG	IPG C	300 C	Yes	1000	10	15
Conergy AG	IPG K	110K	Yes	1000	10	15
Conergy AG	IPG K	280K	Yes	1000	10	15

Conergy AG	IPG K	300K	Yes	1000	10	15
Conergy AG	IPG K	40K	Yes	1000	10	15
Conergy AG	IPG K	60K	Yes	1000	10	15
Conergy AG	IPG K	80K	Yes	1000	10	15
Conergy AG	Sun Profi	SP1300	Yes	450	4	6
Conergy AG	Sun Profi	SP2500	Yes	450	4	6
Conergy AG	Sun Profi	SP3100	Yes	450	4	6
Conergy AG	Sun Profi	SP3400	Yes	600	6	9
CONVERTEAM SAS	ConverSOL	1000AI	Yes	900	9	13
CONVERTEAM SAS	ConverSOL	1275LI	Yes	1200	10	15
CONVERTEAM SAS	ConverSOL	1500LI	Yes	1200	10	15
CONVERTEAM SAS	ConverSOL	1700LI	Yes	1200	10	15
CONVERTEAM SAS	ConverSOL	425 LI	Yes	1200	10	15
CONVERTEAM SAS	ConverSOL	500 AI	Yes	900	9	13
CONVERTEAM SAS	ConverSOL	670AI	Yes	900	9	13
CONVERTEAM SAS	ConverSOL	850LI	Yes	1200	10	15
CONVERTEAM SAS	PSC	430MV - L - QC	Yes	1000	10	15
CONVERTEAM SAS	PSC	500MV - L - QC	Yes	1000	10	15
Danfoss Solar Inverters A/S	ULX	1800	Yes	550	5	8
Danfoss Solar Inverters A/S	ULX	3000	Yes	550	5	8
Danfoss Solar Inverters A/S	ULX	3600	Yes	550	5	8
Danfoss Solar Inverters A/S	ULX	5400	Yes	550	5	8
Delta Energy Systems	CI	100	Yes	900	9	13
Delta Energy Systems	SI	2000	Yes	540	5	8
Delta Energy Systems	SI	2500	Yes	540	5	8
Delta Energy Systems	SI	3300	Yes	540	5	8
Delta Energy Systems	SI	5000	Yes	540	5	8
Delta Energy Systems	Solivia	2.5	Yes	540	5	8
Delta Energy Systems	Solivia	3.0	Yes	540	5	8
Delta Energy Systems	Solivia	3.3	Yes	540	5	8
Delta Energy Systems	Solivia	5.0	Yes	540	5	8
Delta Energy Systems	Solivia	CM 100	Yes	900	9	13
Delta Energy Systems	Solivia	CM 77	Yes	900	9	13
Delta Energy Systems	Solivia	CM 88	Yes	900	9	13
Delta Energy Systems	Solivia	CS 44	Yes	900	9	13
Delta Energy Systems	Solivia	CS 55	Yes	900	9	13
Delta Energy Systems	Solivia	CS 66	Yes	900	9	13
Diehl Ako Stiftung & Co. KG	Platinum	100CS	Yes	900	9	13
Diehl Ako Stiftung & Co. KG	Platinum	2100S	Yes	480	4	7
Diehl Ako Stiftung & Co. KG	Platinum	2800S	Yes	780	7	11
Diehl Ako Stiftung & Co. KG	Platinum	3100S	Yes	780	7	11
Diehl Ako Stiftung & Co. KG	Platinum	3800S	Yes	780	7	11
Diehl Ako Stiftung & Co. KG	Platinum	4300S	Yes	780	7	11
Diehl Ako Stiftung & Co.	Platinum	4600S	Yes	780	7	11

KG						
Elettronica Santerno	Sunway M Plus	M Plus 1300 E	Yes	600	6	9
Elettronica Santerno	Sunway M Plus	M Plus 2600 E	Yes	600	6	9
Elettronica Santerno	Sunway M Plus	M Plus 3600	Yes	600	6	9
Elettronica Santerno	Sunway M Plus	M Plus 3600 E	Yes	600	6	9
Elettronica Santerno	Sunway M Plus	M Plus 4300	Yes	600	6	9
Elettronica Santerno	Sunway M Plus	M Plus 4300 E	Yes	600	6	9
Elettronica Santerno	Sunway M Plus	M Plus 5300	Yes	600	6	9
Elettronica Santerno	Sunway M Plus	M Plus 6000	Yes	600	6	9
Elettronica Santerno	Sunway M Plus	M Plus 6400	Yes	600	6	9
Elettronica Santerno	Sunway M Plus	M Plus 7500	Yes	600	6	9
Elettronica Santerno	Sunway M Plus	M Plus 7800	Yes	600	6	9
Elettronica Santerno	Sunway TG 1000V TE	TG 750 1000V TE	Yes	1000	10	15
Elettronica Santerno	Sunway TG 600V	TG 110 600V	Yes	740	7	11
Elettronica Santerno	Sunway TG 600V	TG 135 600V	Yes	740	7	11
Elettronica Santerno	Sunway TG 600V	TG 14 600V	Yes	740	7	11
Elettronica Santerno	Sunway TG 600V	TG 19 600V	Yes	740	7	11
Elettronica Santerno	Sunway TG 600V	TG 26 600V	Yes	740	7	11
Elettronica Santerno	Sunway TG 600V	TG 30 600V	Yes	740	7	11
Elettronica Santerno	Sunway TG 600V	TG 37 600V	Yes	740	7	11
Elettronica Santerno	Sunway TG 600V	TG 42 600	Yes	740	7	11
Elettronica Santerno	Sunway TG 600V	TG 61 600	Yes	740	7	11
Elettronica Santerno	Sunway TG 600V	TG 90 600V	Yes	740	7	11
Elettronica Santerno	Sunway TG 600V TE	TG 180 600V TE	Yes	740	7	11
Elettronica Santerno	Sunway TG 600V TE	TG 230 600V TE	Yes	740	7	11
Elettronica Santerno	Sunway TG 600V TE	TG 280 600V TE	Yes	740	7	11
Elettronica Santerno	Sunway TG 600V TE	TG 290 600V TE	Yes	740	7	11
Elettronica Santerno	Sunway TG 600V TE	TG 365 600V TE	Yes	740	7	11
Elettronica Santerno	Sunway TG 600V TE	TG 455 600V TE	Yes	740	7	11
Elettronica Santerno	Sunway TG 600V TE	TG 550 600V TE	Yes	740	7	11
Elettronica Santerno	Sunway TG 800V	TG 120 800V	Yes	880	8	13
Elettronica Santerno	Sunway TG 800V	TG 145 800V	Yes	880	8	13
Elettronica Santerno	Sunway TG 800V	TG 35 800V	Yes	880	8	13
Elettronica Santerno	Sunway TG 800V	TG 49 800V	Yes	880	8	13
Elettronica Santerno	Sunway TG 800V	TG 57 800V	Yes	880	8	13
Elettronica Santerno	Sunway TG 800V	TG 82 800V	Yes	880	8	13
Elettronica Santerno	Sunway TG 800V TE	TG 175 800V TE	Yes	880	8	13
Elettronica Santerno	Sunway TG 800V TE	TG 240 800V TE	Yes	880	8	13
Elettronica Santerno	Sunway TG 800V TE	TG 300 800V TE	Yes	880	8	13
Elettronica Santerno	Sunway TG 800V TE	TG 310 800V TE	Yes	880	8	13
Elettronica Santerno	Sunway TG 800V TE	TG 385 800V TE	Yes	880	8	13
Elettronica Santerno	Sunway TG 800V TE	TG 485 800V TE	Yes	880	8	13
Elettronica Santerno	Sunway TG 800V	TG 610 800V	Yes	880	8	13

	TE	TE				
Elettronica Santerno	Sunway TG 800V TE	TG 730 800V TE	Yes	880	8	13
Eltek Valere	THEIA	100kW	Yes	900	9	13
Eltek Valere	THEIA	2.0 HE-t	Yes	600	6	9
Eltek Valere	THEIA	2.9 HE-t	Yes	600	6	9
Eltek Valere	THEIA	20kW	Yes	900	9	13
Eltek Valere	THEIA	3.8 HE-t	Yes	600	6	9
Eltek Valere	THEIA	30kW	Yes	900	9	13
Eltek Valere	THEIA	4.4 HE-t	Yes	600	6	9
Eltek Valere	THEIA	50kW	Yes	900	9	13
Eltek Valere	THEIA TL	150kW	Yes	900	9	13
Eltek Valere	THEIA TL	200kW	Yes	900	9	13
Eltek Valere	THEIA TL	250kW	Yes	900	9	13
Eltek Valere	THEIA TL	350kW	Yes	900	9	13
Eltek Valere	THEIA TL	500kW	Yes	900	9	13
Eltek Valere	THEIA TL	500KW with EIV Kit	Yes	950	9	14
Elvi_Universal	QCC	100k	Yes	800	8	12
Elvi_Universal	QCC	30K	Yes	800	8	12
Elvi_Universal	QCC	55k	Yes	800	8	12
Emerson	SSL	0100	Yes	1000	10	15
Emerson	SSL	0250	Yes	1000	10	15
Emerson	SSL	0500	Yes	1000	10	15
Emerson	SSL	1000	Yes	1000	10	15
FRIEM S.p.A.	RECon	30H-150	Yes	900	9	13
FRIEM S.p.A.	RECon	30H-150-T	Yes	900	9	13
FRIEM S.p.A.	RECon	30H-300	Yes	900	9	13
FRIEM S.p.A.	RECon	30H-300-T	Yes	900	9	13
FRIEM S.p.A.	RECon	30H-450	Yes	900	9	13
FRIEM S.p.A.	RECon	30H-450-T	Yes	900	9	13
FRIEM S.p.A.	RECon	30H-600	Yes	900	9	13
FRIEM S.p.A.	RECon	30H-600-T	Yes	900	9	13
FRIEM S.p.A.	RECon	30L-100	Yes	700	7	10
FRIEM S.p.A.	RECon	30L-100-T	Yes	700	7	10
FRIEM S.p.A.	RECon	30L-200	Yes	700	7	10
FRIEM S.p.A.	RECon	30L-200-T	Yes	700	7	10
FRIEM S.p.A.	RECon	30L-300	Yes	700	7	10
FRIEM S.p.A.	RECon	30L-300-T	Yes	700	7	10
FRIEM S.p.A.	RECon	30L-400	Yes	700	7	10
FRIEM S.p.A.	RECon	30L-400-T	Yes	700	7	10
FRIEM S.p.A.	RECon	60H-1200	Yes	900	9	13
FRIEM S.p.A.	RECon	60H-1200-T	Yes	900	9	13
FRIEM S.p.A.	RECon	60H-300	Yes	900	9	13
FRIEM S.p.A.	RECon	60H-300-T	Yes	900	9	13
FRIEM S.p.A.	RECon	60H-600	Yes	900	9	13
FRIEM S.p.A.	RECon	60H-600-T	Yes	900	9	13
FRIEM S.p.A.	RECon	60H-900	Yes	900	9	13
FRIEM S.p.A.	RECon	60H-900-T	Yes	900	9	13
FRIEM S.p.A.	RECon	60L-200	Yes	700	7	10
FRIEM S.p.A.	RECon	60L-200-T	Yes	700	7	10

FRIEM S.p.A.	RECon	60L-400	Yes	700	7	10
FRIEM S.p.A.	RECon	60L-400-T	Yes	700	7	10
FRIEM S.p.A.	RECon	60L-600	Yes	700	7	10
FRIEM S.p.A.	RECon	60L-600-T	Yes	700	7	10
FRIEM S.p.A.	RECon	60L-800	Yes	700	7	10
FRIEM S.p.A.	RECon	60L-800-T	Yes	700	7	10
Fronius International GmbH	CL	36.0	Yes	600	6	9
Fronius International GmbH	CL	48.0	Yes	600	6	9
Fronius International GmbH	CL	60.0	Yes	600	6	9
Fronius International GmbH	IG	15	Yes	500	5	7
Fronius International GmbH	IG	20	Yes	500	5	7
Fronius International GmbH	IG	2000	Yes	500	5	7
Fronius International GmbH	IG	2500-LV	Yes	500	5	7
Fronius International GmbH	IG	30	Yes	500	5	7
Fronius International GmbH	IG	300	Yes	530	5	7
Fronius International GmbH	IG	3000	Yes	500	5	7
Fronius International GmbH	IG	390	Yes	530	5	7
Fronius International GmbH	IG	40	Yes	500	5	7
Fronius International GmbH	IG	400	Yes	530	5	7
Fronius International GmbH	IG	4000	Yes	500	5	7
Fronius International GmbH	IG	4500LV	Yes	500	5	7
Fronius International GmbH	IG	500	Yes	530	5	7
Fronius International GmbH	IG	5100	Yes	500	5	7
Fronius International GmbH	IG	60 HV	Yes	530	5	7
Fronius International GmbH	IG Plus	100	Yes	600	6	9
Fronius International GmbH	IG Plus	100 V	Yes	600	6	9
Fronius International GmbH	IG Plus	11.4-1 Uni	Yes	600	6	9
Fronius International GmbH	IG Plus	120	Yes	600	6	9
Fronius International GmbH	IG Plus	120 V	Yes	600	6	9
Fronius International GmbH	IG Plus	150	Yes	600	6	9
Fronius International GmbH	IG Plus	150 V	Yes	600	6	9
Fronius International GmbH	IG Plus	30 V	Yes	600	6	9
Fronius International GmbH	IG Plus	35	Yes	600	6	9
Fronius International GmbH	IG Plus	35 V	Yes	600	6	9
Fronius International GmbH	IG Plus	50	Yes	600	6	9

Fronius International GmbH	IG Plus	50 V	Yes	600	6	9
Fronius International GmbH	IG Plus	70	Yes	600	6	9
Fronius International GmbH	IG Plus	70 V	Yes	600	6	9
Gamesa Corporación Tecnológica S.A.	Central Inverter	100kW	Yes	900	9	13
Gamesa Corporación Tecnológica S.A.	Central Inverter	500kW PLUS	Yes	1000	10	15
GEFRAN S.p.A.	Radius Industrial	APV 100k-TL	Yes	1000	10	15
GEFRAN S.p.A.	Radius Industrial	APV 250k-TL	Yes	1000	10	15
GEFRAN S.p.A.	Radius Industrial	APV 270k-TL	Yes	1000	10	15
GEFRAN S.p.A.	Radius Industrial	APV 330k-TL	Yes	1000	10	15
Green Power	Power PV	10	Yes	900	9	13
Green Power	Power PV	100	Yes	900	9	13
Green Power	Power PV	20	Yes	900	9	13
Green Power	Power PV	250	Yes	1000	10	15
Green Power	Power PV	30	Yes	900	9	13
Green Power	Power PV	5	Yes	600	6	9
Green Power	Power PV	50	Yes	900	9	13
Green Power	Power PV	500	Yes	1000	10	15
Helios Systems	HS	100	Yes	900	9	13
Helios Systems	HSI	500	Yes	900	9	13
IBC Solar AG	ServeMaster	1650 HV	Yes	600	6	9
IBC Solar AG	ServeMaster	1650 MV	Yes	450	4	6
IBC Solar AG	ServeMaster	3300 HV	Yes	600	6	9
IBC Solar AG	ServeMaster	3300 MV	Yes	450	4	6
IBC Solar AG	ServeMaster	4600 HV	Yes	600	6	9
IBC Solar AG	ServeMaster	4600 MV	Yes	450	4	6
IDS Trade AG	SOLO	500	Yes	1000	10	15
Ingeteam GmbH	IngeconSun	500HE	Yes	900	9	13
Ingeteam GmbH	IngeconSun	500HE (1000V option)	Yes	1000	10	15
Ingeteam GmbH	IngeconSun Lite	2,5	Yes	550	5	8
Ingeteam GmbH	IngeconSun Lite	3,3	Yes	550	5	8
Ingeteam GmbH	IngeconSun Lite	5	Yes	550	5	8
Ingeteam GmbH	IngeconSun Power	100	Yes	900	9	13
Ingeteam GmbH	IngeconSun Power	50	Yes	900	9	13
Ingeteam GmbH	IngeconSun Power	60	Yes	900	9	13
Ingeteam GmbH	IngeconSun Power	70	Yes	900	9	13
Ingeteam GmbH	IngeconSun Power	80	Yes	900	9	13
Ingeteam GmbH	IngeconSun Power	90	Yes	900	9	13
Ingeteam GmbH	IngeconSun Smart	10	Yes	900	9	13
Ingeteam GmbH	IngeconSun Smart	12,5	Yes	900	9	13
Ingeteam GmbH	IngeconSun Smart	15	Yes	900	9	13
Ingeteam GmbH	IngeconSun Smart	20	Yes	900	9	13
Ingeteam GmbH	IngeconSun Smart	25	Yes	900	9	13
Ingeteam GmbH	IngeconSun Smart	30	Yes	900	9	13

JEMA	IF	100	Yes	900	9	13
JEMA	IF	20	Yes	900	9	13
JEMA	IF	25	Yes	900	9	13
JEMA	IF	30	Yes	900	9	13
JEMA	IF	50	Yes	900	9	13
JEMA	IF	60	Yes	900	9	13
JEMA	IF	80	Yes	900	9	13
KACO Gerätetechnik GmbH	Blueplanet 02xi Series	1502xi	Yes	550	5	8
KACO Gerätetechnik GmbH	Blueplanet 02xi Series	2502xi	Yes	550	5	8
KACO Gerätetechnik GmbH	Blueplanet 02xi Series	3502xi	Yes	600	6	9
KACO Gerätetechnik GmbH	Blueplanet 02xi Series	5002xi	Yes	600	6	9
KACO Gerätetechnik GmbH	Blueplanet XP100-U	H2	Yes	600	6	9
KACO Gerätetechnik GmbH	Blueplanet XP100-U	H4	Yes	600	6	9
KACO Gerätetechnik GmbH	Powador	14.0 TR3	Yes	600	6	9
KACO Gerätetechnik GmbH	Powador	1501xi	Yes	500	5	7
KACO Gerätetechnik GmbH	Powador	16.0 TR3	Yes	600	6	9
KACO Gerätetechnik GmbH	Powador	18.0 TR3	Yes	600	6	9
KACO Gerätetechnik GmbH	Powador	2002	Yes	600	6	9
KACO Gerätetechnik GmbH	Powador	3002	Yes	600	6	9
KACO Gerätetechnik GmbH	Powador	3501xi	Yes	500	5	7
KACO Gerätetechnik GmbH	Powador	4202	Yes	600	6	9
KACO Gerätetechnik GmbH	Powador	4501xi	Yes	500	5	7
KACO Gerätetechnik GmbH	Powador	5002	Yes	600	6	9
KACO Gerätetechnik GmbH	Powador	6002	Yes	600	6	9
KACO Gerätetechnik GmbH	Powador	TS20-HV	Yes	800	8	12
KACO Gerätetechnik GmbH	Powador	TS21-HV	Yes	800	8	12
KACO Gerätetechnik GmbH	Powador XP	100-HV	Yes	1000	10	15
KACO Gerätetechnik GmbH	Powador XP	200-HV	Yes	1000	10	15
KACO Gerätetechnik GmbH	Powador XP	200-HV TL	Yes	1000	10	15
KACO Gerätetechnik GmbH	Powador XP	250-HV	Yes	1000	10	15
KACO Gerätetechnik GmbH	Powador XP	250-HV TL	Yes	1000	10	15
KACO Gerätetechnik GmbH	Powador XP	350-HV TL	Yes	1000	10	15
Kostal Solar Electric GmbH	Piko	100	Yes	1000	10	15
Leonics	Apollo GTP-500	GTP-501	Yes	600	6	9
Leonics	Apollo GTP-500	GTP-502	Yes	600	6	9
Leonics	Apollo GTP-500	GTP-503	Yes	600	6	9
Leonics	Apollo GTP-500	GTP-504	Yes	600	6	9

Leonics	Apollo GTP-500	GTP-505	Yes	600	6	9
Leonics	Apollo GTP-500	GTP-506	Yes	600	6	9
Leonics	Apollo GTP-500	GTP-507	Yes	600	6	9
Leonics	Apollo GTP-500	GTP-508	Yes	780	7	11
Leonics	Apollo GTP-500	GTP-509	Yes	780	7	11
Leonics	Apollo GTP-500	GTP-510	Yes	780	7	11
Leonics	Apollo GTP-500	GTP-511	Yes	780	7	11
Leonics	Apollo GTP-500	GTP-512	Yes	780	7	11
LTi REEnergy GmbH	PVmaster II	PVM 450-075 TT	Yes	900	9	13
LTi REEnergy GmbH	PVmaster II	PVM 450-090 TT	Yes	900	9	13
LTi REEnergy GmbH	PVmaster II	PVM 450-100 TT	Yes	900	9	13
LTi REEnergy GmbH	PVmaster II	PVM 450-110 TT	Yes	900	9	13
LTi REEnergy GmbH	PVmaster II	PVM 450-132 EN/EM	Yes	900	9	13
LTi REEnergy GmbH	PVmaster II	PVM 450-175 EN/EM	Yes	900	9	13
LTi REEnergy GmbH	PVmaster II	PVM 450-230 EN/EM	Yes	900	9	13
LTi REEnergy GmbH	PVmaster II	PVM 450-270 EN/EM	Yes	900	9	13
Mastervolt	SunMaster	QS 1200	Yes	450	4	6
Mastervolt	SunMaster	QS 2000	Yes	450	4	6
Mastervolt	SunMaster	QS 3200	Yes	450	4	6
Mastervolt	SunMaster	QS 3200 Max-I	Yes	450	4	6
Mastervolt	SunMaster	QS 3500 Max-I	Yes	325	3	4
Mastervolt	SunMaster	QS 6400	Yes	450	4	6
Mastervolt	SunMaster	QS 6400 Max-I	Yes	450	4	6
Mastervolt	XL	10	Yes	550	5	8
Mastervolt	XL	15	Yes	600	6	9
Mastervolt	XS	2000	Yes	450	4	6
Mastervolt	XS	3200	Yes	600	6	9
Mastervolt	XS	4300	Yes	550	5	8
Mastervolt	XS	6500	Yes	600	6	9
Motech Industries Inc.	PVMate	2800E	Yes	600	6	9
Motech Industries Inc.	PVMate	2900U	Yes	600	6	9
Motech Industries Inc.	PVMate	3800E	Yes	600	6	9
Motech Industries Inc.	PVMate	3840U	Yes	600	6	9
Motech Industries Inc.	PVMate	4000E	Yes	600	6	9
Motech Industries Inc.	PVMate	4900U	Yes	600	6	9
Motech Industries Inc.	PVMate	5000E	Yes	600	6	9
Motech Industries Inc.	PVMate	5300U	Yes	600	6	9
Nedap	Power Router	PR30S	Yes	600	6	9
Nedap	Power Router	PR37S	Yes	600	6	9
Nedap	Power Router	PR50S	Yes	600	6	9
Nextronex Energy Systems	RAY-MAX	150	Yes	1000	10	15
Oelmaier Technology GmbH	HS	100	Yes	900	9	13
PAIRAN GmbH	pesos	PVI 2300 T	Yes	500	5	7
Power Electronics	freesun HES	0250OH	Yes	900	9	13

Power Electronics	freesun HES	0300OH	Yes	900	9	13
Power Electronics	freesun HES	0400OH	Yes	900	9	13
Power Electronics	freesun HES	0500OH	Yes	900	9	13
Power Electronics	freesun HES	0600OH	Yes	900	9	13
Power Electronics	freesun HES	0700OH	Yes	900	9	13
Power Electronics	freesun HES	0800OH	Yes	900	9	13
Power Electronics	freesun HES	0900OH	Yes	900	9	13
Power Electronics	freesun HES	1000OH	Yes	900	9	13
Power Electronics	freesun LVT	0020	Yes	900	9	13
Power Electronics	freesun LVT	0025	Yes	900	9	13
Power Electronics	freesun LVT	0030	Yes	900	9	13
Power Electronics	freesun LVT	0035	Yes	900	9	13
Power Electronics	freesun LVT	0040	Yes	900	9	13
Power Electronics	freesun LVT	0050	Yes	900	9	13
Power Electronics	freesun LVT	0060	Yes	900	9	13
Power Electronics	freesun LVT	0080	Yes	900	9	13
Power Electronics	freesun LVT	0100	Yes	900	9	13
Power One Italy SpA	Aurora Lite	PVI-250.0-TL-CN	Yes	1000	10	15
Power One Italy SpA	Aurora Lite	PVI-500.0TL-CN	Yes	1000	10	15
Power One Italy SpA	Aurora Plus	PVI-110.0	Yes	1000	10	15
Power One Italy SpA	Aurora Plus	PVI-110.0-TL	Yes	1000	10	15
Power One Italy SpA	Aurora Plus	PVI-165.0	Yes	1000	10	15
Power One Italy SpA	Aurora Plus	PVI-165.0-TL	Yes	1000	10	15
Power One Italy SpA	Aurora Plus	PVI-220.0	Yes	1000	10	15
Power One Italy SpA	Aurora Plus	PVI-220.0-TL	Yes	1000	10	15
Power One Italy SpA	Aurora Plus	PVI-275.0	Yes	1000	10	15
Power One Italy SpA	Aurora Plus	PVI-275.0-TL	Yes	1000	10	15
Power One Italy SpA	Aurora Plus	PVI-330.0	Yes	1000	10	15
Power One Italy SpA	Aurora Plus	PVI-330.0-TL	Yes	1000	10	15
Power One Italy SpA	Aurora Plus	PVI-55.0	Yes	1000	10	15
Power One Italy SpA	Aurora Plus	PVI-Central-100	Yes	900	9	13
Power One Italy SpA	Aurora Plus	PVI-Central-100-TL	Yes	900	9	13
Power One Italy SpA	Aurora Plus	PVI-Central-150	Yes	900	9	13
Power One Italy SpA	Aurora Plus	PVI-Central-150-TL	Yes	900	9	13
Power One Italy SpA	Aurora Plus	PVI-Central-200	Yes	900	9	13
Power One Italy SpA	Aurora Plus	PVI-Central-200-TL	Yes	900	9	13
Power One Italy SpA	Aurora Plus	PVI-Central-250	Yes	900	9	13
Power One Italy SpA	Aurora Plus	PVI-Central-250-TL	Yes	900	9	13
Power One Italy SpA	Aurora Plus	PVI-Central-300	Yes	900	9	13
Power One Italy SpA	Aurora Plus	PVI-Central-300-TL	Yes	900	9	13
Power One Italy SpA	Aurora Plus	PVI-Central-50	Yes	900	9	13
Power One Italy SpA	Aurora Trio	PVI-10.0-I-OUTD	Yes	520	5	7
Power One Italy SpA	Aurora Trio	PVI-12.0-I-	Yes	520	5	7

		OUTD				
Power One Italy SpA	Aurora Ultra	1050.0-TL-OUTD-690	Yes	1100	10	15
Power One Italy SpA	Aurora Ultra	1400.0-TL-OUTD-690	Yes	1100	10	15
Power One Italy SpA	Aurora Ultra	700.0-TL-OUTD-690	Yes	1100	10	15
Power One Italy SpA	Aurora Uno	PVI-3.8-I-OUTD	Yes	520	5	7
Power One Italy SpA	Aurora Uno	PVI-4.6-I-OUTD	Yes	520	5	7
RefuSol GmbH	Refu Sol	100K	Yes	850	8	12
RefuSol GmbH	Refu Sol	160K	Yes	850	8	12
RefuSol GmbH	Refu Sol	500K	Yes	950	9	14
RefuSol GmbH	Refu Sol	630K	Yes	950	9	14
RIELLO UPS	Helios Power	HP 100	Yes	800	8	12
RIELLO UPS	Helios Power	HP 25	Yes	800	8	12
RIELLO UPS	Helios Power	HP 33	Yes	800	8	12
RIELLO UPS	Helios Power	HP 40	Yes	800	8	12
RIELLO UPS	Helios Power	HP 64	Yes	800	8	12
RIELLO UPS	Helios Power	HP 80	Yes	800	8	12
Satcon	PowerGate Plus	100 kW	Yes	900	9	13
Satcon	PowerGate Plus	135 kW	Yes	600	6	9
Satcon	PowerGate Plus	1MW	Yes	900	9	13
Satcon	PowerGate Plus	250 kW	Yes	900	9	13
Satcon	PowerGate Plus	30 kW	Yes	600	6	9
Satcon	PowerGate Plus	375 kW	Yes	600	6	9
Satcon	PowerGate Plus	50 kW	Yes	600	6	9
Satcon	PowerGate Plus	500 kW	Yes	900	9	13
Satcon	PowerGate Plus	75 kW	Yes	600	6	9
Satcon	Solstice	500kW-CE	Yes	900	9	13
Satcon	Solstice	500kW-UL/CSA	Yes	600	6	9
Schüco International KG	IPE	100CT	Yes	900	9	13
Schüco International KG	IPE	30CT	Yes	900	9	13
Schüco International KG	IPE	60CT	Yes	900	9	13
Schüco International KG	SGI plus	1500 T	Yes	500	5	7
Schüco International KG	SGI plus	3500 T	Yes	500	5	7
Schüco International KG	SGI plus	4500 T	Yes	500	5	7
SIAC	SOLEIL DSP	10	Yes	780	7	11
SIAC	SOLEIL DSP	100	Yes	780	7	11
SIAC	SOLEIL DSP	125	Yes	780	7	11
SIAC	SOLEIL DSP	15	Yes	780	7	11
SIAC	SOLEIL DSP	20	Yes	780	7	11
SIAC	SOLEIL DSP	200	Yes	780	7	11
SIAC	SOLEIL DSP	25	Yes	780	7	11
SIAC	SOLEIL DSP	250	Yes	780	7	11
SIAC	SOLEIL DSP	30	Yes	780	7	11
SIAC	SOLEIL DSP	40	Yes	780	7	11
SIAC	SOLEIL DSP	400	Yes	780	7	11
SIAC	SOLEIL DSP	50	Yes	780	7	11
SIAC	SOLEIL DSP	500	Yes	780	7	11
SIAC	SOLEIL DSP	60	Yes	780	7	11

SIAC	SOLEIL DSP	80	Yes	780	7	11
Siemens AG	SINVERT	1000 MS TL	Yes	1000	10	15
Siemens AG	SINVERT	1000MS	Yes	900	9	13
Siemens AG	SINVERT	1300 MS	Yes	900	9	13
Siemens AG	SINVERT	1400MS	Yes	900	9	13
Siemens AG	SINVERT	1500 MS TL	Yes	1000	10	15
Siemens AG	SINVERT	1700 MS	Yes	900	9	13
Siemens AG	SINVERT	2000 MS TL	Yes	1000	10	15
Siemens AG	SINVERT	350M	Yes	900	9	13
Siemens AG	SINVERT	420M	Yes	900	9	13
Siemens AG	SINVERT	500 M TL	Yes	1000	10	15
Siemens AG	SINVERT	700MS	Yes	900	9	13
Siemens AG	SINVERT	850MS	Yes	900	9	13
Siemens AG	SINVERT PVS	1000	Yes	1000	10	15
Siemens AG	SINVERT PVS	1500	Yes	1000	10	15
Siemens AG	SINVERT PVS	2000	Yes	1000	10	15
Siemens AG	SINVERT PVS	500	Yes	1000	10	15
SMA Solar Technology AG	Sunny Boy	1200	Yes	400	4	6
SMA Solar Technology AG	Sunny Boy	1700	Yes	400	4	6
SMA Solar Technology AG	Sunny Boy	2000 HF	Yes	700	7	10
SMA Solar Technology AG	Sunny Boy	2500	Yes	600	6	9
SMA Solar Technology AG	Sunny Boy	2500 HF	Yes	700	7	10
SMA Solar Technology AG	Sunny Boy	3000	Yes	600	6	9
SMA Solar Technology AG	Sunny Boy	3000 HF	Yes	700	7	10
SMA Solar Technology AG	Sunny Boy	3300	Yes	500	5	7
SMA Solar Technology AG	Sunny Boy	3800	Yes	500	5	7
SMA Solar Technology AG	Sunny Boy	5000US	Yes	600	6	9
SMA Solar Technology AG	Sunny Boy	6000US	Yes	600	6	9
SMA Solar Technology AG	Sunny Boy	7000US	Yes	600	6	9
SMA Solar Technology AG	Sunny Boy	700US	Yes	250	2	3
SMA Solar Technology AG	Sunny Central	100	Yes	900	9	13
SMA Solar Technology AG	Sunny Central	1000MV	Yes	1000	10	15
SMA Solar Technology AG	Sunny Central	1250 MV	Yes	1000	10	15
SMA Solar Technology AG	Sunny Central	200	Yes	880	8	13
SMA Solar Technology AG	Sunny Central	250	Yes	880	8	13
SMA Solar Technology AG	Sunny Central	250HE	Yes	880	8	13
SMA Solar Technology AG	Sunny Central	350	Yes	880	8	13
SMA Solar Technology AG	Sunny Central	400HE	Yes	1000	10	15
SMA Solar Technology AG	Sunny Central	400MV	Yes	1000	10	15
SMA Solar Technology AG	Sunny Central	500CP	Yes	1000	10	15
SMA Solar Technology AG	Sunny Central	500HE	Yes	1000	10	15
SMA Solar Technology AG	Sunny Central	500HE-20	Yes	1000	10	15
SMA Solar Technology AG	Sunny Central	500MV	Yes	1000	10	15
SMA Solar Technology AG	Sunny Central	630CP	Yes	1000	10	15
SMA Solar Technology AG	Sunny Central	630HE	Yes	1000	10	15
SMA Solar Technology AG	Sunny Central	630HE-20	Yes	1000	10	15
SMA Solar Technology AG	Sunny Central	630MV	Yes	1000	10	15
SMA Solar Technology AG	Sunny Central	720 CP	Yes	1000	10	15
SMA Solar Technology AG	Sunny Central	800MV	Yes	1000	10	15
SMA Solar Technology AG	Sunny Mini	4600A	Yes	600	6	9

	Central					
SMA Solar Technology AG	Sunny Mini Central	5000A	Yes	600	6	9
SMA Solar Technology AG	Sunny Mini Central	6000A	Yes	600	6	9
SMA Solar Technology AG	Sunny Mini Central	7000HV	Yes	800	8	12
Socomec	SUNSYS	P03	Yes	900	9	13
Socomec	SUNSYS	R01	Yes	900	9	13
Socomec	SUNSYS	R02	Yes	900	9	13
Solectria Renewables, LLC	PVI	10KW	Yes	475	4	7
Solectria Renewables, LLC	PVI	13KW	Yes	475	4	7
Solectria Renewables, LLC	PVI	15KW	Yes	475	4	7
SOLUTRONIC GmbH	SOLEIL DSP	10	Yes	780	7	11
SOLUTRONIC GmbH	SOLEIL DSP	100	Yes	780	7	11
SOLUTRONIC GmbH	SOLEIL DSP	125	Yes	780	7	11
SOLUTRONIC GmbH	SOLEIL DSP	15	Yes	780	7	11
SOLUTRONIC GmbH	SOLEIL DSP	20	Yes	780	7	11
SOLUTRONIC GmbH	SOLEIL DSP	200	Yes	780	7	11
SOLUTRONIC GmbH	SOLEIL DSP	25	Yes	780	7	11
SOLUTRONIC GmbH	SOLEIL DSP	250	Yes	780	7	11
SOLUTRONIC GmbH	SOLEIL DSP	30	Yes	780	7	11
SOLUTRONIC GmbH	SOLEIL DSP	40	Yes	780	7	11
SOLUTRONIC GmbH	SOLEIL DSP	400	Yes	780	7	11
SOLUTRONIC GmbH	SOLEIL DSP	50	Yes	780	7	11
SOLUTRONIC GmbH	SOLEIL DSP	500	Yes	780	7	11
SOLUTRONIC GmbH	SOLEIL DSP	60	Yes	780	7	11
SOLUTRONIC GmbH	SOLEIL DSP	80	Yes	780	7	11
Sputnik Engineering GmbH	SolarMax C	100C	Yes	900	9	13
Sputnik Engineering GmbH	SolarMax C	20C	Yes	900	9	13
Sputnik Engineering GmbH	SolarMax C	25C	Yes	900	9	13
Sputnik Engineering GmbH	SolarMax C	300C	Yes	900	9	13
Sputnik Engineering GmbH	SolarMax C	30C	Yes	900	9	13
Sputnik Engineering GmbH	SolarMax C	330C-SV	Yes	900	9	13
Sputnik Engineering GmbH	SolarMax C	35C	Yes	900	9	13
Sputnik Engineering GmbH	SolarMax C	50C	Yes	900	9	13
Sputnik Engineering GmbH	SolarMax C	80C	Yes	900	9	13
Sputnik Engineering GmbH	SolarMax TS	100TS	Yes	900	9	13
Sputnik Engineering GmbH	SolarMax TS	300TS	Yes	900	9	13
Sputnik Engineering GmbH	SolarMax TS	50TS	Yes	900	9	13
Sputnik Engineering GmbH	SolarMax TS	80TS	Yes	900	9	13
Sungrow Power Supply Co., Ltd.	SG	100K3	Yes	900	9	13
Sungrow Power Supply Co., Ltd.	SG	250K3	Yes	900	9	13
Sungrow Power Supply	SG	500K3	Yes	900	9	13

Co., Ltd.						
Sungrow Power Supply Co., Ltd.	SG	500KTL	Yes	900	9	13
Sungrow Power Supply Co., Ltd.	SG	50K3	Yes	900	9	13
Sungrow Power Supply Co., Ltd.	SG	630KTL	Yes	1000	10	15
SunTechnics	STW	2000	Yes	800	8	12
SunTechnics	STW	2800	Yes	800	8	12
SunTechnics	STW	3800	Yes	800	8	12
SunTechnics	STW	5000	Yes	800	8	12
Vacon	NXV	0600-4	Yes	900	9	13
Voltwerk electronics GmbH	VC	WL 110	Yes	1000	10	15
Voltwerk electronics GmbH	VC	WL 280	Yes	1000	10	15
Voltwerk electronics GmbH	VC	WL 300	Yes	1000	10	15
Xantrex Technologies Inc.	GT	100-480	Yes	600	6	9
Xantrex Technologies Inc.	GT	100E	Yes	650	6	9
Xantrex Technologies Inc.	GT	2.8	Yes	600	6	9
Xantrex Technologies Inc.	GT	250-480	Yes	600	6	9
Xantrex Technologies Inc.	GT	3.8	Yes	600	6	9
Xantrex Technologies Inc.	GT	5.0	Yes	600	6	9
Xantrex Technologies Inc.	GT	500E	Yes	940	9	14
Xantrex Technologies Inc.	GT	500-MVX	Yes	600	6	9
Xantrex Technologies Inc.	GT	540E	Yes	1000	10	15
Xantrex Technologies Inc.	XC	540	Yes	1000	10	15
Xantrex Technologies Inc.	XC	630	Yes	1000	10	15
Zigor CORPORACIÓN S.A.	Sunzet	100 T	Yes	800	8	12
Zigor CORPORACIÓN S.A.	Sunzet	30 T	Yes	800	8	12
Zigor CORPORACIÓN S.A.	Sunzet	50 T	Yes	800	8	12