

Comprehensive data sheet SolarInvert



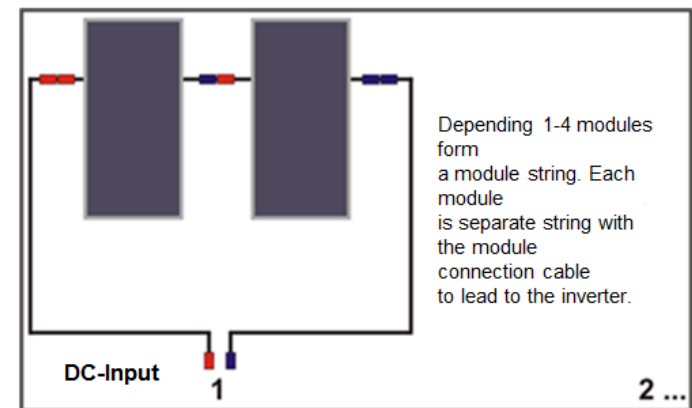
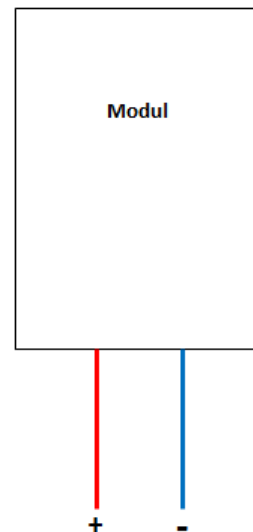
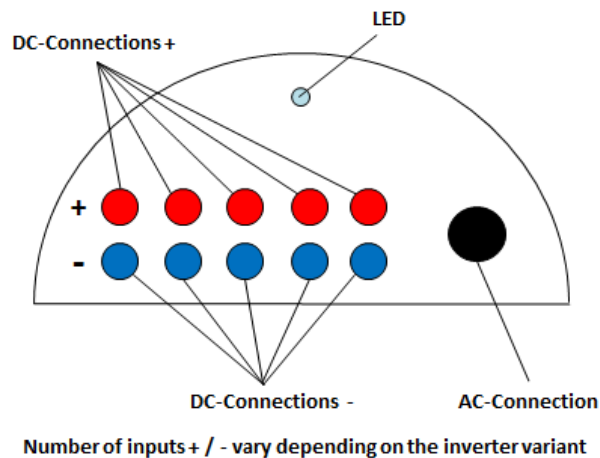
The line-commutated inverter solar have been designed for the safe and efficient processing of energy from solar panels and feed into the network via a separate independent disconnection device.

The innovative connection enables the operation of the photovoltaic system as a safe low voltage system with a high degree of shading and performance tolerance. Thus permanently highest yields can be.

Low (> 90V) or extra low voltage system (<70V nominal module voltage)

The low voltage solar module string and small currents also prevent the event of an error (marten bites or contact problems) occurring arc, thus reducing the risk of fire almost completely. Also the touch of a defective module may cause no danger to persons, because it is in this solar system a low DC voltage inverter.

Many grid and safety paramters are adjustable by factory delivery.



Device type	SI 200-35	SI 300-18	SI 300-35	SI 400-50	SI 500-30
Power facts					
Recommended solar power	200 Wp +5/-25%	300 Wp +5/-25%	300 Wp +5/-25%	400 Wp +5/-25%	500 Wp +5/-25%
Rated power output AC	160 W	220 W	230 W	330 W	410 W
Max. AC apparent power	180 VA	270 VA	270 VA	370 VA	450 VA
Max. power output* AC	180 W	270 W	270 W	370 W	450 W
Max. efficiency	92,60%	91,50%	93,40%	94,40%	92,80%
EURO efficiency	91,50%	89,00%	92,50%	92,70%	91,60%
MPP tracking efficiency**	99%	99%	99%	99%	99%
find time the MPP point***	20 s	20 s	20 s	20 s	20 s
Waiting time to Injection	10 s (up to -180s after grid fail)	10 s (up to -180s after grid fail)	10 s (up to -180s after grid fail)	10 s (up to -180s after grid fail)	10 s (up to -180s after grid fail)
Power consumption at	2 W	3 W	3 W	3,5 W	4 W
Standby-loss	0 W	0 W	0 W	0 W	0 W
Max. input voltage	70 V DC	38 V DC	70 V DC	110 V DC	55 V DC
MPP-voltage range	28 V - 50 V DC	14 V - 23 V DC	28 V - 50 V DC	42 V - 70 V DC	24 V - 43 V DC
Rated- / input voltage	35 V DC	18 V DC	35 V DC	50 V DC	30 V DC
Output voltage	230 V AC +10 / -20 %	230 V AC +10 / -20 %	230 V AC +10 / -20 %	230 V AC +10 / -20 %	230 V AC +10 / -20 %
Output current	regulated sine, power frequency 59,5-60,5 Hz or adjustable	regulated sine, power frequency 59,5-60,5 Hz or adjustable	regulated sine, power frequency 59,5-60,5 Hz or adjustable	regulated sine, power frequency 59,5-60,5 Hz or adjustable	regulated sine, power frequency 59,5-60,5 Hz or adjustable
Power factor adjustable fixed factory	0,9 - 1 underexcited	0,9 - 1 underexcited	0,9 - 1 underexcited	0,9 - 1 underexcited	0,9 - 1 underexcited
Power reduction to 70%	Optional factory fix adjustable	Optional factory fix adjustable	Optional factory fix adjustable	Optional factory fix adjustable	Optional factory fix adjustable
Phase symmetry >13,68 KVA	With external 3 Phase – asymmetry monitoring relays	With external 3 Phase – asymmetry monitoring relays	With external 3 Phase – asymmetry monitoring relays	With external 3 Phase – asymmetry monitoring relays	With external 3 Phase – asymmetry monitoring relays
Enviroment					
Enviromental temperature	-25° bis +70° C	-25° bis +70° C	-25° bis +70° C	-25° bis +70° C	-25° bis +70° C
Permitted humidity	0 - 95 %	0 - 95 %	0 - 95 %	0 - 95 %	0 - 95 %
Circuit feedback	DIN VDE 0838, EN 60555, EN 50178, EN 61000-3-2, EN 61000-3-3, EN 61000-6-2, EN 61000-6-3	DIN VDE 0838, EN 60555, EN 50178, EN 61000-3-2, EN 61000-3-3, EN 61000-6-2, EN 61000-6-3	DIN VDE 0838, EN 60555, EN 50178, EN 61000-3-2, EN 61000-3-3, EN 61000-6-2, EN 61000-6-3	DIN VDE 0838, EN 60555, EN 50178, EN 61000-3-2, EN 61000-3-3, EN 61000-6-2, EN 61000-6-3	DIN VDE 0838, EN 60555, EN 50178, EN 61000-3-2, EN 61000-3-3, EN 61000-6-2, EN 61000-6-3
Sound emission	35 dB	35 dB	35 dB	35 dB	35 dB
Saftey class of case	IP 54	IP 54	IP 54	IP 54	IP 54
Potential separation	NF-toroidal transformer	NF-toroidal transformer	NF-toroidal transformer	NF-toroidal transformer	NF-toroidal transformer
Testmark	CE	CE	CE	CE	CE
overvoltage protection	Varistor Typ 2	Varistor Typ 2	Varistor Typ 2	Varistor Typ 2	Varistor Typ 2
Dimensions	264 / 300 x 475 x 157 mm	264 / 300 x 475 x 157 mm	264 / 300 x 475 x 157 mm	264 / 300 x 475 x 157 mm	264 / 300 x 475 x 157 mm
Weight	7 kg	8 kg	8 kg	8,6 kg	9,6 kg
Number of DC-Input	1 Eingang /je max. 8A	2 Eingänge /je max. 10A	2 Eingänge /je max. 10A	2 Eingänge /je max. 10A	3 Eingänge /je max. 16A

* Solar power at recommended ** at 25-100% of the input power (including 95-99%) *** voltage jump at about 2%, technical changes and errors reserved

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Device type	SI 600-17	SI 600-30	SI 600-35	SI 600-50	SI 700-30
Power facts					
Recommended solar power	600 Wp +/-25%	600 Wp +/-25%	600 Wp +/-25%	600 Wp +/-25%	700 Wp +/-25%
Rated power output AC	460 W	470 W	480 W	500 W	540 W
Max. AC apparent power	520 VA	530 VA	540 VA	550 VA	610 VA
Max. power output* AC	520 W	530 W	540 W	550 W	610 W
Max. efficiency	93,00%	93,40%	94,80%	95,20%	93,60%
EURO efficiency	91,20%	91,80%	92,70%	92,90%	92,00%
MPP tracking efficiency**	99%	99%	99%	99%	99%
find time the MPP point***	20 s	20 s	20 s	20 s	20 s
Waiting time to Injection	10 s (up to -180s after grid fail)	10 s (up to -180s after grid fail)	10 s (up to -180s after grid fail)	10 s (up to -180s after grid fail)	10 s (up to -180s after grid fail)
Power consumption at	5 W	5 W	5 W	5 W	5,5 W
Standby-loss	0 W	0 W	0 W	0 W	0 W
Max. input voltage	40 V DC	55 V DC	85 V DC	110 V DC	55 V DC
MPP-voltage range	14 V -25 V DC	24 V -43 V DC	28 V - 50 V DC	42 V - 110 V DC	24 V -43 V DC
Rated- / input voltage	17 V DC	30 V DC	35 V DC	50 V DC	30 V DC
Output voltage	230 V AC +10 / -20 %	230 V AC +10 / -20 %	230 V AC +10 / -20 %	230 V AC +10 / -20 %	230 V AC +10 / -20 %
Output current	regulated sine, power frequency 59,5-60,5 Hz or adjustable	regulated sine, power frequency 59,5-60,5 Hz or adjustable	regulated sine, power frequency 59,5-60,5 Hz or adjustable	regulated sine, power frequency 59,5-60,5 Hz or adjustable	regulated sine, power frequency 59,5-60,5 Hz or adjustable
Power factor adjustable fixed factory	0,9 - 1 underexcited	0,9 - 1 underexcited	0,9 - 1 underexcited	0,9 - 1 underexcited	0,9 - 1 underexcited
Power reduction to 70%	Optional factory fix adjustable	Optional factory fix adjustable	Optional factory fix adjustable	Optional factory fix adjustable	Optional factory fix adjustable
Phase symmetry >13,68 KVA	With external 3 Phase – asymmetry monitoring relays	With external 3 Phase – asymmetry monitoring relays	With external 3 Phase – asymmetry monitoring relays	With external 3 Phase – asymmetry monitoring relays	With external 3 Phase – asymmetry monitoring relays
Enviroment					
Enviromental temperature	-25° bis +70° C	-25° bis +70° C	-25° bis +70° C	-25° bis +70° C	-25° bis +70° C
Permitted humidity	0 - 95 %	0 - 95 %	0 - 95 %	0 - 95 %	0 - 95 %
Circuit feedback	DIN VDE 0838, EN 60555, EN 50178, EN 61000-3-2, EN 61000-3-3, EN 61000-6-2, EN 61000-6-3	DIN VDE 0838, EN 60555, EN 50178, EN 61000-3-2, EN 61000-3-3, EN 61000-6-2, EN 61000-6-3	DIN VDE 0838, EN 60555, EN 50178, EN 61000-3-2, EN 61000-3-3, EN 61000-6-2, EN 61000-6-3	DIN VDE 0838, EN 60555, EN 50178, EN 61000-3-2, EN 61000-3-3, EN 61000-6-2, EN 61000-6-3	DIN VDE 0838, EN 60555, EN 50178, EN 61000-3-2, EN 61000-3-3, EN 61000-6-2, EN 61000-6-3
Sound emission	35 dB	35 dB	35 dB	35 dB	35 dB
Saftey class of case	IP 54	IP 54	IP 54	IP 54	IP 54
Potential separation	NF-toroidal transformer	NF-toroidal transformer	NF-toroidal transformer	NF-toroidal transformer	NF-toroidal transformer
Testmark	CE	CE	CE	CE	CE
overvoltage protection	Varistor Typ 2	Varistor Typ 2	Varistor Typ 2	Varistor Typ 2	Varistor Typ 2
Dimensions	264 / 300 x 475 x 157 mm	264 / 300 x 475 x 157 mm	264 / 300 x 475 x 157 mm	264 / 300 x 475 x 157 mm	264 / 300 x 475 x 157 mm
Weight	10,8 kg	10,4 kg	10,2 kg	9,8 kg	10,4 kg
Number of DC-Input	3 Eingänge /je max. 16A	3 Eingänge /je max. 16A	3 Eingänge /je max. 16A	3 Eingänge /je max. 16A	3 Eingänge /je max. 16A

* Solar power at recommended ** at 25-100% of the input power (including 95-99%) *** voltage jump at about 2%, technical changes and errors reserved

Device type	SI 700-35	SI 800-70	SI 900-50	SI 900-60	SI 900-70
Power facts					
Recommended solar power	700 Wp +/-25%	800 Wp +/-25%	900 Wp +/-25%	900 Wp +/-25%	900 Wp +/-25%
Rated power output AC	560 W	700 W	730 W	740 W	750 W
Max. AC apparent power	640 VA	740 VA	810 VA	820 VA	830 VA
Max. power output* AC	640 W	740 W	810 W	820 W	830 W
Max. efficiency	95,00%	97,20%	95,20%	95,20%	95,60%
EURO efficiency	92,80%	95,60%	93,30%	93,30%	93,80%
MPP tracking efficiency**	99%	99%	99%	99%	99%
find time the MPP point***	20 s	20 s	20 s	20 s	20 s
Waiting time to Injection	10 s (up to -180s after grid fail)	10 s (up to -180s after grid fail)	10 s (up to -180s after grid fail)	10 s (up to -180s after grid fail)	10 s (up to -180s after grid fail)
Power consumption at	5,5 W	4 W	5 W	5 W	5 W
Standby-loss	0 W	0 W	0 W	0 W	0 W
Max. input voltage	85 V DC	110 V DC	110 V DC	110 V DC	110 V DC
MPP-voltage range	28 V - 50 V DC	56 V - 100 V DC	42 V - 70 V DC	42 V - 70 V DC	42 V - 70 V DC
Rated- / input voltage	35 V DC	70 V DC	50 V DC	60 V DC	70 V DC
Output voltage	230 V AC +10 / -20 %	230 V AC +10 / -20 %	230 V AC +10 / -20 %	230 V AC +10 / -20 %	230 V AC +10 / -20 %
Output current	regulated sine, power frequency 59,5-60,5 Hz or adjustable	regulated sine, power frequency 59,5-60,5 Hz or adjustable	regulated sine, power frequency 59,5-60,5 Hz or adjustable	regulated sine, power frequency 59,5-60,5 Hz or adjustable	regulated sine, power frequency 59,5-60,5 Hz or adjustable
Power factor adjustable fixed factory	0,9 - 1 underexcited	0,9 - 1 underexcited	0,9 - 1 underexcited	0,9 - 1 underexcited	0,9 - 1 underexcited
Power reduction to 70%	Optional factory fix adjustable	Optional factory fix adjustable	Optional factory fix adjustable	Optional factory fix adjustable	Optional factory fix adjustable
Phase symmetry >13,68 KVA	With external 3 Phase – asymmetry monitoring relays	With external 3 Phase – asymmetry monitoring relays	With external 3 Phase – asymmetry monitoring relays	With external 3 Phase – asymmetry monitoring relays	With external 3 Phase – asymmetry monitoring relays
Environment					
Environmental temperature	-25° bis +70° C	-25° bis +70° C	-25° bis +70° C	-25° bis +70° C	-25° bis +70° C
Permitted humidity	0 - 95 %	0 - 95 %	0 - 95 %	0 - 95 %	0 - 95 %
Circuit feedback	DIN VDE 0838, EN 60555, EN 50178, EN 61000-3-2, EN 61000-3-3, EN 61000-6-2, EN 61000-6-3	DIN VDE 0838, EN 60555, EN 50178, EN 61000-3-2, EN 61000-3-3, EN 61000-6-2, EN 61000-6-3	DIN VDE 0838, EN 60555, EN 50178, EN 61000-3-2, EN 61000-3-3, EN 61000-6-2, EN 61000-6-3	DIN VDE 0838, EN 60555, EN 50178, EN 61000-3-2, EN 61000-3-3, EN 61000-6-2, EN 61000-6-3	DIN VDE 0838, EN 60555, EN 50178, EN 61000-3-2, EN 61000-3-3, EN 61000-6-2, EN 61000-6-3
Sound emission	35 dB	35 dB	35 dB	35 dB	35 dB
Safety class of case	IP 54	IP 54	IP 54	IP 54	IP 54
Potential separation	NF-toroidal transformer	NF-toroidal transformer	NF-toroidal transformer	NF-toroidal transformer	NF-toroidal transformer
Testmark	CE	CE	CE	CE	CE
overvoltage protection	Varistor Typ 2	Varistor Typ 2	Varistor Typ 2	Varistor Typ 2	Varistor Typ 2
Dimensions	264 / 300 x 475 x 157 mm	264 / 300 x 475 x 157	264 / 300 x 475 x 157	264 / 300 x 475 x 157	264 / 300 x 475 x 157
Weight	10,2 kg	11,1 kg	11 kg	11 kg	11,2 kg
Number of DC-Input	3 Eingänge /je max. 16A	3 Eingänge /je max. 16A	3 Eingänge /je max. 16A	3 Eingänge /je max. 16A	3 Eingänge /je max. 16A

* Solar power at recommended ** at 25-100% of the input power (including 95-99%) *** voltage jump at about 2%, technical changes and errors reserved

Device type	SI 900-90	SI 1100-30	SI 1100-70	SI 1200-50	SI 1200-60
Power facts					
Recommended solar power	900 Wp +5/-25%	1100 Wp +5/-25%	1100 Wp +5/-25%	1200 Wp +5/-25%	1200 Wp +5/-25%
Rated power output AC	750 W	870 W	935 W	990 W	990 W
Max. AC apparent power	830 VA	960 VA	1030 VA	1100 VA	1100 VA
Max. power output* AC	830 W	960 W	1030 W	1100 W	1100 W
Max. efficiency	96,80%	94,80%	96,60%	96,40%	96,60%
EURO efficiency	95,60%	93,20%	95,30%	95,20%	95,40%
MPP tracking efficiency**	99%	99%	99%	99%	99%
find time the MPP point***	20 s	20 s	20 s	20 s	20 s
Waiting time to Injection	10 s (up to -180s after grid fail)	10 s (up to -180s after grid fail)	10 s (up to -180s after grid fail)	10 s (up to -180s after grid fail)	10 s (up to -180s after grid fail)
Power consumption at	5 W	5 W	6 W	7 W	7 W
Standby-loss	0 W	0 W	0 W	0 W	0 W
Max. input voltage	140 V DC	55 V DC	110 V DC	110 V DC	110 V DC
MPP-voltage range	68 V - 132 V DC	24 V-43 V DC	56 V - 100 V DC	42 V - 70 V DC	42 V - 70 V DC
Rated- / input voltage	90 V DC	30 V DC	70 V DC	50 V DC	60 / 58 V DC
Output voltage	230 V AC +10 / -20 %	230 V AC +10 / -20 %	230 V AC +10 / -20 %	230 V AC +10 / -20 %	230 V AC +10 / -20 %
Output current	regulated sine, power frequency 59,5-60,5 Hz or adjustable	regulated sine, power frequency 59,5-60,5 Hz or adjustable	regulated sine, power frequency 59,5-60,5 Hz or adjustable	regulated sine, power frequency 59,5-60,5 Hz or adjustable	regulated sine, power frequency 59,5-60,5 Hz or adjustable
Power factor adjustable fixed factory	0,9 - 1 underexcited	0,9 - 1 underexcited	0,9 - 1 underexcited	0,9 - 1 underexcited	0,9 - 1 underexcited
Power reduction to 70%	Optional factory fix adjustable	Optional factory fix adjustable	Optional factory fix adjustable	Optional factory fix adjustable	Optional factory fix adjustable
Phase symmetry >13,68 KVA	With external 3 Phase – asymmetry monitoring relays	With external 3 Phase – asymmetry monitoring relays	With external 3 Phase – asymmetry monitoring relays	With external 3 Phase – asymmetry monitoring relays	With external 3 Phase – asymmetry monitoring relays
Enviroment					
Enviromental temperature	-25° bis +70° C	-25° bis +70° C	-25° bis +70° C	-25° bis +70° C	-25° bis +70° C
Permitted humidity	0 - 95 %	0 - 95 %	0 - 95 %	0 - 95 %	0 - 95 %
Circuit feedback	DIN VDE 0838, EN 60555, EN 50178, EN 61000-3-2, EN 61000-3-3, EN 61000-6-2, EN 61000-6-3	DIN VDE 0838, EN 60555, EN 50178, EN 61000-3-2, EN 61000-3-3, EN 61000-6-2, EN 61000-6-3	DIN VDE 0838, EN 60555, EN 50178, EN 61000-3-2, EN 61000-3-3, EN 61000-6-2, EN 61000-6-3	DIN VDE 0838, EN 60555, EN 50178, EN 61000-3-2, EN 61000-3-3, EN 61000-6-2, EN 61000-6-3	DIN VDE 0838, EN 60555, EN 50178, EN 61000-3-2, EN 61000-3-3, EN 61000-6-2, EN 61000-6-3
Sound emission	35 dB	35 dB	35 dB	35 dB	35 dB
Saftey class of case	IP 54	IP 54	IP 54	IP 54	IP 54
Potential separation	NF-toroidal transformer	NF-toroidal transformer	NF-toroidal transformer	NF-toroidal transformer	NF-toroidal transformer
Testmark	CE	CE	CE	CE	CE
overvoltage protection	Varistor Typ 2	Varistor Typ 2	Varistor Typ 2	Varistor Typ 2	Varistor Typ 2
Dimensions	264 / 300 x 475 x 157	372 x 533 x 204 mm	264 / 300 x 475 x 157	264 / 300 x 475 x 157 mm	264 / 300 x 475 x 157 mm
Weight	13,8 kg	16,5 kg	12,8 kg	18,2 kg	18,2 kg
Number of DC-Input	3 Eingänge /je max. 16A	5 Eingänge /je max. 16A	3 Eingänge /je max. 16A	3 Eingänge /je max. 16A	3 Eingänge /je max. 16A

* Solar power at recommended ** at 25-100% of the input power (including 95-99%) *** voltage jump at about 2%, technical changes and errors reserved

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Device type	SI 1200-70	SI 1300-35	SI 1400-70	SI 1500-90	SI 1600-50
Power facts					
Recommended solar power	1200 Wp +5/-25%	1300 Wp +5/-25%	1400 Wp +5/-25%	1500 Wp +5/-25%	1600 Wp +5/-25%
Rated power output AC	1010 W	1000 W	1190 W	1280 W	1350 W
Max. AC apparent power	1120 VA	1120 VA	1320 VA	1400 VA	1450 VA
Max. power output* AC	1120 W	1120 W	1320 W	1400 W	1450 W
Max. efficiency	96,90%	93,80%	97,30%	96,30%	95,60%
EURO efficiency	95,60%	92,50%	95,70%	95,20%	93,70%
MPP tracking efficiency**	99%	99%	0,99	99%	0,99
find time the MPP point***	20 s	20 s	20 s	20 s	20 s
Waiting time to Injection	10 s (up to -180s after grid fail)	10 s (up to -180s after grid fail)	10 s (up to -180s after grid fail)	10 s (up to -180s after grid fail)	10 s (up to -180s after grid fail)
Power consumption at	6 W	6 W	7 W	7 W	8 W
Standby-loss	0 W	0 W	0 W	0 W	0 W
Max. input voltage	110 V DC	70 V	110 V DC	140 V DC	110 V DC
MPP-voltage range	56 V - 100 V DC	28 - 50 V DC	56 V - 100 V DC	68 V - 132 V DC	42 V - 110 V DC
Rated- / input voltage	70 V DC	35 V DC	70 V DC	90 V DC	50 / 50 V DC
Output voltage	230 V AC +10 / -20 %	230 V AC +10 / -20 %	230 V AC +10 / -20 %	230 V AC +10 / -20 %	230 V AC +10 / -20 %
Output current	regulated sine, power frequency 59,5-60,5 Hz or adjustable	regulated sine, power frequency 59,5-60,5 Hz or adjustable	regulated sine, power frequency 59,5-60,5 Hz or adjustable	regulated sine, power frequency 59,5-60,5 Hz or adjustable	regulated sine, power frequency 59,5-60,5 Hz or adjustable
Power factor adjustable fixed factory	0,9 - 1 underexcited	0,9 - 1 underexcited	0,9 - 1 underexcited	0,9 - 1 underexcited	0,9 - 1 underexcited
Power reduction to 70%	Optional factory fix adjustable	Optional factory fix adjustable	Optional factory fix adjustable	Optional factory fix adjustable	Optional factory fix adjustable
Phase symmetry >13,68 KVA	With external 3 Phase – asymmetry monitoring relays	With external 3 Phase – asymmetry monitoring relays	With external 3 Phase – asymmetry monitoring relays	With external 3 Phase – asymmetry monitoring relays	With external 3 Phase – asymmetry monitoring relays
Enviroment					
Enviromental temperature	-25° bis +70° C	-25° bis +70° C	-25° bis +70° C	-25° bis +70° C	-25° bis +70° C
Permitted humidity	0 - 95 %	0 - 95 %	0 - 95 %	0 - 95 %	0 - 95 %
Circuit feedback	DIN VDE 0838, EN 60555, EN 50178, EN 61000-3-2, EN 61000-3-3, EN 61000-6-2, EN 61000-6-3	DIN VDE 0838, EN 60555, EN 50178, EN 61000-3-2, EN 61000-3-3, EN 61000-6-2, EN 61000-6-3	DIN VDE 0838, EN 60555, EN 50178, EN 61000-3-2, EN 61000-3-3, EN 61000-6-2, EN 61000-6-3	DIN VDE 0838, EN 60555, EN 50178, EN 61000-3-2, EN 61000-3-3, EN 61000-6-2, EN 61000-6-3	DIN VDE 0838, EN 60555, EN 50178, EN 61000-3-2, EN 61000-3-3, EN 61000-6-2, EN 61000-6-3
Sound emission	35 dB	35 dB	35 dB	35 dB	35 dB
Saftey class of case	IP 54	IP 54	IP 54	IP 54	IP 54
Potential separation	NF-toroidal transformer	NF-toroidal transformer	NF-toroidal transformer	NF-toroidal transformer	NF-toroidal transformer
Testmark	CE	CE	CE	CE	CE
overvoltage protection	Varistor Typ 2	Varistor Typ 2	Varistor Typ 2	Varistor Typ 2	Varistor Typ 2
Dimensions	264 / 300 x 475 x 157 mm	372 x 533 x 204 mm	372 x 533 x 204	372 x 533 x 204	372 x 533 x 204
Weight	13,6 kg	18 kg	18,5 kg	22,2 kg	21,6 kg
Number of DC-Input	3 Eingänge /je max. 16A	5 Eingänge /je max. 16A	4 Eingänge /je max. 16A	3 Eingänge /je max. 16A	4 Eingänge /je max. 16A

* Solar power at recommended ** at 25-100% of the input power (including 95-99%) *** voltage jump at about 2%, technical changes and errors reserved

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Device type	SI 1600-60	SI 1600-70	SI 1900-60	SI 1900-70	SI 2200-90
Power facts					
Recommended solar power	1600 Wp +5/-25%	1600 Wp +5/-25%	1900 Wp +5/-25%	1900 Wp +5/-25%	2200 Wp +5/-25%
Rated power output AC	1360W	1370 W	1530 W	1580 W	1800 W
Max. AC apparent power	1460 VA	1470 VA	1700 VA	1750 VA	2000 VA
Max. power output* AC	1460 W	1470 W	1700 W	1750 W	2000 W
Max. efficiency	95,20%	97,50%	95,40%	97,70%	96,70%
EURO efficiency	93,60%	96,30%	94,20%	96,80%	96,10%
MPP tracking efficiency**	0,99	99%	99%	99%	99%
find time the MPP point***	20 s	20 s	20 s	20 s	20 s
Waiting time to Injection	10 s (up to -180s after grid fail)	10 s (up to -180s after grid fail)	10 s (up to -180s after grid fail)	10 s (up to -180s after grid fail)	10 s (up to -180s after grid fail)
Power consumption at	6, 5 W	8 W	10 W	9 W	12 W
Standby-loss	0 W	0 W	0 W	0 W	0 W
Max. input voltage	110 V DC	110 V DC	110 V DC	110 V DC	170 V DC
MPP-voltage range	42 V - 110 V DC	56 V - 100 V DC	48 V - 76 V DC	56 V - 100 V DC	68 V - 132 V DC
Rated- / input voltage	60 / 58 V DC	70 V DC	60 / 58 V DC	70 V DC	90 V DC
Output voltage	230 V AC +10 / -20 %	230 V AC +10 / -20 %	230 V AC +10 / -20 %	230 V AC +10 / -20 %	230 V AC +10 / -20 %
Output current	regulated sine, power frequency 59,5-60,5 Hz or adjustable	regulated sine, power frequency 59,5-60,5 Hz or adjustable	regulated sine, power frequency 59,5-60,5 Hz or adjustable	regulated sine, power frequency 59,5-60,5 Hz or adjustable	regulated sine, power frequency 59,5-60,5 Hz or adjustable
Power factor adjustable fixed factory	0,9 - 1 underexcited	0,9 - 1 underexcited	0,9 - 1 underexcited	0,9 - 1 underexcited	0,9 - 1 underexcited
Power reduction to 70%	Optional factory fix adjustable	Optional factory fix adjustable	Optional factory fix adjustable	Optional factory fix adjustable	Optional factory fix adjustable
Phase symmetry >13,68 KVA	With external 3 Phase – asymmetry monitoring relays	With external 3 Phase – asymmetry monitoring relays	With external 3 Phase – asymmetry monitoring relays	With external 3 Phase – asymmetry monitoring relays	With external 3 Phase – asymmetry monitoring relays
Enviroment					
Enviromental temperature	-25° bis +70° C	-25° bis +70° C	-25° bis +70° C	-25° bis +70° C	-25° bis +70° C
Permitted humidity	0 - 95 %	0 - 95 %	0 - 95 %	0 - 95 %	0 - 95 %
Circuit feedback	DIN VDE 0838, EN 60555, EN 50178, EN 61000-3-2, EN 61000-3-3, EN 61000-6-2, EN 61000-6-3	DIN VDE 0838, EN 60555, EN 50178, EN 61000-3-2, EN 61000-3-3, EN 61000-6-2, EN 61000-6-3	DIN VDE 0838, EN 60555, EN 50178, EN 61000-3-2, EN 61000-3-3, EN 61000-6-2, EN 61000-6-3	DIN VDE 0838, EN 60555, EN 50178, EN 61000-3-2, EN 61000-3-3, EN 61000-6-2, EN 61000-6-3	DIN VDE 0838, EN 60555, EN 50178, EN 61000-3-2, EN 61000-3-3, EN 61000-6-2, EN 61000-6-3
Sound emission	35 dB	35 dB	35 dB	35 dB	35 dB
Saftey class of case	IP 54	IP 54	IP 54	IP 54	IP 54
Potential separation	NF-toroidal transformer	NF-toroidal transformer	NF-toroidal transformer	NF-toroidal transformer	NF-toroidal transformer
Testmark	CE	CE	CE	CE	CE
overvoltage protection	Varistor Typ 2	Varistor Typ 2	Varistor Typ 2	Varistor Typ 2	Varistor Typ 2
Dimensions	372 x 533 x 204	372 x 533 x 204	372 x 533 x 204	372 x 533 x 204	372 x 533 x 204
Weight	21,5 kg	21,4 kg	24,5 kg	24,5 kg	26,4 kg
Number of DC-Input	4 Eingänge /je max. 16A	4 Eingänge /je max. 16A	5 Eingänge /je max. 16A	5 Eingänge /je max. 16A	4 Eingänge /je max. 16A

* Solar power at recommended ** at 25-100% of the input power (including 95-99%) *** voltage jump at about 2%, technical changes and errors reserved

Device type	SI 2400-120				
Power facts					
Recommended solar power	2400 Wp +5/-25%				
Rated power output AC	1900 W				
Max. AC apparent power	2200 VA				
Max. power output* AC	2200 W				
Max. efficiency	96,90%				
EURO efficiency	96,50%				
MPP tracking efficiency**	99%				
find time the MPP point***	20 s				
Waiting time to Injection	10 s (up to -180s after grid fail)				
Power consumption at	14 W				
Standby-loss	0 W				
Max. input voltage	230 V DC				
MPP-voltage range	90 V - 160 V DC				
Rated- / input voltage	120 V DC				
Output voltage	230 V AC +10 / -20 %				
Output current	regulated sine, power frequency 59,5-60,5 Hz or adjustable				
Power factor adjustable fixed factory	0,9 - 1 underexcited				
Power reduction to 70%	Optional factory fix adjustable				
Phase symmetry >13,68 KVA	With external 3 Phase – asymmetry monitoring relays				
Environment					
Environmental temperature	-25° bis +70° C				
Permitted humidity	0 - 95 %				
Circuit feedback	DIN VDE 0838, EN 60555, EN 50178, EN 61000-3-2, EN 61000-3- 3, EN 61000-6-2, EN 61000-6-3				
Sound emission	35 dB				
Safety class of case	IP 54				
Potential separation	NF-toroidal transformer				
Testmark	CE				
overvoltage protection	Varistor Typ 2				
Dimensions	372 x 533 x 204				
Weight	28,5 kg				
Number of DC-Input	4 Eingänge /je max. 16A				

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