SG3400/3125/2500HV-20



Turnkey Station for 1500 Vdc System



HIGH YIELD

 Advanced three-level technology, max. inverter efficiency 99 %

SAVED INVESTMENT

- Low transportation and installation cost due to 10-foot container design
- DC 1500 V system, low system cost
- Q at night function optional

EASY O&M

- Integrated current and voltage monitoring function for online analysis and fast trouble shooting
- · Modular design, easy for maintenance
- Convenient external touch screen

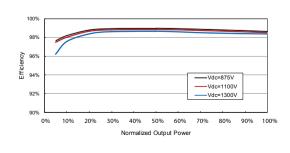
GRID SUPPORT

- Compliance with standards: IEC 62116, IEC 61727
- Low/High voltage ride through (L/HVRT)
- Active & reactive power control and power ramp rate control

CIRCUIT DIAGRAM

DC + 1 DC - 1 DC

EFFICIENCY CURVE (SG3400HV-20)





MPP voltage range for nominal power 875 – 1300 V 875 – 1300 V 800 – 12 No. of independent MPP inputs 18 (optional: 22/24 inputs negative grounding) 18 − 1	Type designation	SG3400HV-20	SG3125HV-20	SG2500HV-20
Min. PV input voltage / Startup input voltage	Input (DC)			
MPP voltage range for nominal power 875 – 1300 V 875 – 1300 V 800 – 11 No. of Independent MPP inputs 18(optional: 22/24 inputs negative grounding) 18 – 1 Max. PV input current 4178 A 3508 Max. DC short-circuit current 5000 A 5000 A 4800 Output (AC) 3593 kVA @ 25° C 3593 kVA @ 25° C 3457 kVA @ 45° C 2750 kVA@ 480° C 2500 kVA Max. AC output power 3593 kVA @ 25° C 3125 kVA@ 50° C 2500 kVA 3458 A 3458 A 286 Nominal AC voltage 600 V 600 V 500 450 – 6 3500 kVA 3458 A 286 3458 A 286 360 V 450 – 6 3500 kVA 480 – 690 V 480 – 690 V <td< td=""><td>Max. PV input voltage</td><td></td><td>1500 V</td><td></td></td<>	Max. PV input voltage		1500 V	
No. of independent MPP inputs No. of DC inputs 18(optional: 22/24 inputs negative grounding)	Min. PV input voltage / Startup input voltage	875 V / 915 V	875 V / 915 V	800 V / 840 V
No. of DC inputs 18 (optional: 22/2½ inputs negative grounding) 18 - in or floating; 28 inputs negative grounding) 18 - in or floating; 28 inputs negative grounding) 18 - in or floating; 28 inputs negative grounding) 18 - in or floating; 28 inputs negative grounding) 18 - in or floating; 28 inputs negative grounding) 18 - in or floating; 28 inputs negative grounding) 18 - in or floating; 28 inputs negative grounding) 18 - in or floating; 28 inputs negative grounding) 18 - in or floating; 28 inputs negative grounding) 18 - in or floating; 28 inputs negative grounding) 18 - in or floating; 28 inputs negative grounding) 18 - in or floating; 28 inputs negative grounding) 18 - in or floating; 28 inputs negative grounding) 18 - in or floating; 28 inputs negative grounding) 18 - in or floating; 28 inputs negative grounding) 18 - in or floating; 28 inputs negative grounding) 18 - in or floating; 28 inputs negative grounding) 18 - in or floating; 28 inputs negative grounding) 18 - in or floating; 28 inputs negative grounding ne		875 – 1300 V	875 – 1300 V	800 – 1300 V
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Max. PV input current	. ,	18(optional: 22/2	4 inputs negative grounding	18 – 24
Max. PV input current 4178 A 4178 A 3506 Max. DC short-circuit current 5000 A 5000 A 4600 Output (AC) 3593 kVA @ 25° C / 3593 kVA@ 25° C / 3437 kVA@ 45° C / 2750 kVA@ 337 kVA @ 45° C 3125 kVA@ 50° C 2500 kVA 3437 kVA @ 45° C 3125 kVA@ 50° C 2500 kVA 2500 kVA Max. AC output current 3438 A 3458 A 3458 A 2888 3688 A 2888 2888 Nominal AC voltage 600 V 480 −690 V 480 −690 V 495 −65 Hz 450 −690 V 480 −690 V 495 −65 Hz 450 −690 V 480 −690 V 495 −65 Hz 450 −690 V 495 −65 Hz 450 −690 V 480 −690 V 495 −65 Hz 450 −690 V 480 −690 V 495 −65 Hz 450 −690 V 480 −690 V 495 −65 Hz 450 −690 V 480 −690 V 495 −65 Hz 450 −690 V 480 −690 V 495 −65 Hz 450 −690 V 480 −690 V 495 −65 Hz 450 −690 V 480 −690 V 495 −65 Hz 450 −690 V 480 −690 V 495 −65 Hz 450 −690 V 480 −690 V 495 −65 Hz 450 −690 V 480 −690 V 495 −65 Hz 450 −690 V 495 −65 Hz				
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Output (AC) AC output power 3593 kVA @ 25°C / 3593 kVA@ 25°C / 3593 kVA@ 55°C 2750 kVA@ 3437 kVA@ 45°C 2750 kVA@ 3437 kVA@ 45°C 3125 kVA@ 50°C 2500 kVA@ 3437 kVA @ 45°C 3125 kVA@ 50°C 2500 kVA@ 3458 A 2886 A 3458 A 2886 A 2886 A 2001 Good V 600 V 550 A 2001 Good V 550 A 2001 Good V 480 - 690 V 480 V	Max. DC short-circuit current	5000 A	5000 A	4800 A
AC output power 3593 kVA @ 25°C / 3593 kVA @ 25°C / 3437 kVA @ 45°C 2750 kVA @ 3437 kVA @ 45°C 3125 kVA @ 50°C 2500 kVA @ 3437 kVA @ 45°C 3125 kVA @ 50°C 2500 kVA @ 3458 A 2888 Nominal AC voltage 600 V 600 V 550 AC voltage range 480 - 690 V 490 - 690 V 480 - 690 V 490 - 690 V 480 - 690 V 480 - 690 V 480 - 690 V 490 V				
Max. AC output current 3437 kVA @ 45°C 3125 kVA@ 50°C 2500 kVA Max. AC output current 3458 A 3458 A 3458 A 2888 Nominal AC voltage 600 V 600 V 550 AC voltage range 480 – 690 V 480 – 690 V 495 – 65 Hz Nominal grid frequency / Grid frequency range 50 Hz / 45 – 55 Hz, 60 Hz / 55 – 65 Hz 1 THD Courrent injection < 0.5 % In		3593 kVA @ 25°C /	3593 kVA@ 25°C / 3437 kVA@ 45°C /	2750 kVA@ 45°C /
Max. AC output current 3458 A 3458 A 2866 Nominal AC voltage 600 V 600 V 550 AC voltage range 480 – 690 V 480 – 690 V 495 – 6 Nominal grid frequency / Grid frequency range 50 Hz / 45 – 55 Hz, 60 Hz / 55 – 65 Hz THD < 3% (at nominal power)				2500 kVA@ 50°C
Nominal Ac voltage 600 V 600 V 550 AC voltage range 480 – 690 V 480 – 690 V 495 – 65 Nominal grid frequency / Grid frequency range 50 Hz / 45 – 55 Hz, 60 Hz / 55 – 65 Hz THD DC current injection < \$3 % (at nominal power)	May AC output current			2886 A
AC voltage range				550 V
Nominal grid frequency / Grid frequency range 50 Hz / 45 – 55 Hz, 60 Hz / 55 – 66 Hz THD < 3 % (at nominal power)	-			495 – 605 V
THD < 3 % (at nominal power) DC current injection < 0.5 % In		460 - 690 V		493 – 603 V
DC current injection				
Power factor at nominal power / Adjustable power factor \$0.99 / 0.8 leading = 0.8 lagging		, ,		
Feed-in phases / Connection phases 3 / 3 Efficiency 99.0% Inverter Max. efficiency 98.7% Inverter Euro. efficiency 98.7% Protection and Function DC input protection Courput protection Courput protection Covervoltage protection Overvoltage protection DC Type I + II / AC Type II Grid monitoring / Ground fault monitoring Yes / Yes Insulation monitoring Yes Overheat protection Yes Q at night function Optional General Data Optional Dimensions (W"H"D) 2991*2591*2438 mm Weight 6.5 T Isolation method Transformerless Degree of protection IPSS IPSS Operating ambient temperature range -35 to 60°C -25% Cooling method Temperature controlled forced air cooling Max. operating alti	,			
Efficiency Inverter Max. efficiency 99.0% Inverter Euro. efficiency 98.7% Protection and Function DC input protection Load break switch + fuse AC output protection Circuit breaker Overvoltage protection DC Type I + II / AC Type II Grid monitoring / Ground fault monitoring Yes / Yes Insulation monitoring Yes Overheat protection Yes Q at night function Optional General Data Dimensions (W*H*D) 2991*2591*2438 mm Weight 6.5 T Isolation method Transformerless Degree of protection IP55 IP55 IP5 Operating ambient temperature range -35 to 60 °C -35 to 60 °C -35 to 60 °C -35 to 60 °C Allowable relative humidity range (non-condensing) O - 95 % Cooling method Temperature controlled forced air cooling Max. operating altitude 4000 m 4000 m 4000 m 4000 m Communication Standard: RS485, Ethernet; Optional: optical fiber<				
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Inverter Euro. efficiency Protection and Function DC input protection AC output protection AC output protection Circuit breaker Overvoltage protection Ocirty I I AC Type II I AC Type II Ordinonitoring / Ground fault monitoring Overvoltage protection Overvoltage protection Ordinonitoring / Ground fault monitoring Overheat protection Overheat protection Qat night function Optional Ceneral Data Dimensions (W*H*D) Overheat protection Optional Ceneral Data Dimensions (W*H*D) Optional Optiona				
Protection and Function DC input protection AC output protection AC output protection Circuit breaker Overvoltage protection Orid monitoring Yes Yes Overheat protection Qat night function Qeneral Data Dimensions (W*H*D) Degree of protection Degree of protection Ip55 Ip55 Ip55 Ip55 Operating ambient temperature range Allowable relative humidity range (non-condensing) Max. operating altitude Display Display Display Display Compliance Degree of Protection Degree of Protection Allowable relative function of the protection of the p	-			
DC input protection AC output protection Circuit breaker Overvoltage protection DC Type I + II / AC Type II Grid monitoring / Ground fault monitoring Yes / Yes Insulation monitoring Overheat protection Other protection Qat night function Ceneral Data Dimensions (W*H*D) Weight Isolation method Transformerless Degree of protection IP55 IP56 Operating ambient temperature range -35 to 60 °C (> 45 °C derating) Cooling method Temperature controlled forced air cooling Max. operating altitude 4000 m 4000 m (> 2300 m derating) Communication Ceneral Data Ceneral Data Dimensions (W*H*D) Allowable relative humidity range (non-condensing) Communication Standard: RS485, Ethernet; Optional: optical fiber Ceneral Data Circuit breaker Circui	Inverter Euro. efficiency		98.7%	
AC output protection Circuit breaker Overvoltage protection DC Type I + II / AC Type II Grid monitoring / Ground fault monitoring Insulation monitoring Yes Overheat protection Yes Q at night function Optional General Data Dimensions (W*H*D) Weight Solation method Transformerless Degree of protection IP55 IP56 Operating ambient temperature range -35 to 60 ° C -35 to 60 °	Protection and Function			
Overvoltage protection	DC input protection	Load break switch + fuse		
Grid monitoring / Ground fault monitoring Insulation monitoring Overheat protection Q at night function General Data Dimensions (W*H*D) Weight Isolation method Diegree of protection Operating ambient temperature range Allowable relative humidity range (non-condensing) Max. operating altitude Max. operating altitude Diegree of posterion Operating ambient Allowable relative humidity range (non-condensing) Diegree of protection Operating ambient Temperature controlled forced air cooling Max. operating altitude Aloon Max. operating altitude Aloon Max. operating altitude Optional Yes Yes Optional Pass Sp91*2591*2438 mm 6.5 T Transformerless IP56 (> 45 ° C derating) (> 50 ° C derating) (> 2000 m derating) Display Touch screen Communication Standard: RS485, Ethernet; Optional: optical fiber Compliance	AC output protection	Circuit breaker		
Insulation monitoring Overheat protection Q at night function Optional Oeneral Data Dimensions (W*H*D) Weight Solation method Transformerless Degree of protection Operating ambient temperature range Allowable relative humidity range (non-condensing) Max. operating altitude Allowable vertical forced air cooling Max. operating altitude Optional Yes Optional Optional Seneral Data Dimensions (W*H*D) Solation Optional Option	Overvoltage protection	DC Type I + II / AC Type II		
Overheat protection Yes Q at night function Optional General Data Dimensions (W*H*D) Weight 6.5 T Isolation method Transformerless Degree of protection IP55 IP55 IP56 Operating ambient temperature range -35 to 60°C -25 to 60°C -35 to 60°C -25 to 60°C	Grid monitoring / Ground fault monitoring	Yes / Yes		
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Weight Isolation method Degree of protection Degree of protection Operating ambient temperature range Operating ambient temperature range Allowable relative humidity range (non-condensing) Cooling method Temperature controlled forced air cooling Max. operating altitude Allowable relative humidity range Operating altitude Allowable relative humidity range (non-condensing) Operating altitude Operating altitude Operating altitude Operating altitude Operating Operating (page 4000 mg 40	General Data			
Isolation method Degree of protection Degree of protection Operating ambient temperature range -35 to 60°C (> 45°C derating) Operating ambient temperature range Allowable relative humidity range (non-condensing) Cooling method Temperature controlled forced air cooling Max. operating altitude 4000 m 4000 m 4000 m 4000 m 52300 m derating) Display Touch screen Communication Standard: RS485, Ethernet; Optional: optical fiber Compliance CE, IEC 62109, IEC 61727, IEC 62116	Dimensions (W*H*D)		2991*2591*2438 mm	
Degree of protection IP55 IP55 IP55 IP56 Operating ambient temperature range -35 to 60°C -35 to 60°C (> 45°C derating) (> 50°C derating) (Weight	6.5 T		
Operating ambient temperature range -35 to 60°C -35 to	Isolation method		Transformerless	
Operating ambient temperature range -35 to 60°C (> 45°C derating) O - 95 % Cooling method Temperature controlled forced air cooling Max. operating altitude 4000 m (> 2300 m derating) Display Touch screen Communication Ce, IEC 62109, IEC 61727, IEC 62116	Degree of protection	IP55	IP55	IP54
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Allowable relative humidity range (non-condensing) Cooling method Max. operating altitude Alt				(> 50 °C derating)
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Display Touch screen Communication Standard: RS485, Ethernet; Optional: optical fiber Compliance CE, IEC 62109, IEC 61727, IEC 62116				(> 2000 m derating
Communication Standard: RS485, Ethernet; Optional: optical fiber Compliance CE, IEC 62109, IEC 61727, IEC 62116	Display	(* 2500 III derating)		(* 2000 III delatilig
Compliance CE, IEC 62109, IEC 61727, IEC 62116				
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	Grid support	Q at night function (optional), L/HVRT, active & reactive power control and power ramp rate control		

