

# Certificate of Conformity

Certificate Number: CN-PVES-240564

On the basis of the tests undertaken, the sample<s> of the below product have been found to comply with the requirements of the referenced specification<s>/standard<s> at the time the tests were carried out. It does not imply that Intertek has performed any surveillance or control of the manufacture(s). The manufacturer(s) shall ensure that the manufacturing process assures compliance of the production units with the examined products mentioned in this certificate.

Applicant: NingBo Deye Inverter Technology Co., Ltd.

No. 26 South YongJiang Road, Daqi, Beilun, NingBo, China

**Product:** Hybrid Inverter

Ratings & Principle Characteristics:

See appendix of Certificate of Conformity

**Model:** SUN-xK-SG05LP1-EU (x=3.6, 4.6, 5, 6, 7, 7.6, 8)

SUN-yK-SG05LP1-EU-AM2-P, AI-W5.1-yP1-EU-B (y=3.6, 5, 6, 7, 7.6, 8)

Brand Name<s>: Deye

**Product Complies with:** NA/EEA-NE7:2020

**Certificate Issuing Office** Intertek Testing Services Ltd. Shanghai

Name & Address: West Area, 2<sup>nd</sup> Floor, No. 707, Zhangyang Road

China (Shanghai) Pilot Free Trade Zone, Shanghai, P. R. China

Accredited by ACCREDIA in accordance with ISO/IEC 17065:2012

**Test Report No.<s>:** 2411B2151SHA-001

Additional information in Appendix.

Signature

**Certification Manager: Qiao Qiao** 

Date: 24 December 2024



PRD N° 306B



This is an Appendix to Certificate of Conformity Number: CN-PVES-240564

### **Ratings & Principle Characteristics:**

	Model	SUN-3.6K- SG05LP1-EU	SUN-4.6K- SG05LP1-EU	SUN-5K- SG05LP1-EU	SUN-6K- SG05LP1-EU			
	V <sub>MAX</sub> Input [Vd.c.]		500					
	Input Voltage Range [Vd.c.]		150	-425				
side	MPPT Full Power Voltage Range[Vd.c.]	9 0 0	300-425					
put	Isc PV[Ad.c.]		17-	+17				
DC input side	Maximum DC Input Current [Ad.c.]		13-	+13				
	Start PV Voltage [Vdc]		1:	25				
	Backfeed Current [A]			0				
	Overvoltage Category (OVC)			I				
	Rated Input Voltage Range Vin [Vd.c.]		40-60					
ery	Max. input Voltage Vmax [Vd.c.]	60						
Battery	Max. battery charge current [A]	90	120	120	135			
	Max. battery discharge current [A]	90	120	120	135			
H	Battery Type	Lead-acid or Lithium-ion						
	Rated Output Voltage Ur [Va.c.]		L/N/P	E, 230				
	Rated Output Frequency F <sub>NETZ</sub> [Hz]		5	0				
	Rated Output Power P <sub>E</sub> [kW]	3.6	4.6	5 (Derating to 4.6kW in Germany)	6 (Derating to 4.6kW in Germany)			
ıt side	Max.Output Apparent Power[kVA]	3.96	4.6	5.5 (Derating to 4.6kVA in Germany)	6.6 (Derating to 4.6kVA in Germany)			
AC output side	Rated. Output Current Ir [Aa.c.]	15.7	20	21.7 (Derating to 20A in Germany)	26.1 (Derating to 20A in Germany)			
	Max. Output Current Imax [Aa.c.]	17.2	20	23.9 (Derating to 20A in Germany)	28.7 (Derating to 20A in Germany)			
	Power Factor cosφ [λ]		-0.8 to 0.8					
	Overvoltage Category (OVC)	III						



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	Rated Input Voltage [Va.c.]	L/N/PE, 230			
	Rated Input Frequency [Hz]			50	
ut rating	Max input apparent power [kVA]	3.96	4.6	5.5 (Derating to 4.6kVA in Germany)	6.6 (Derating to 4.6kVA in Germany)
Grid input rating	Max. input current [Aa.c.]	17.2	20	23.9 (Derating to 20A in Germany)	28.7 (Derating to 20A in Germany)
	Rated input Voltage Ur [Va.c.]		L/N/F	PE, 230	
	Rated input Frequency FNETZ [Hz]		N.	50	
	Rated input Power [kW]	3.6	4.6	5 (Derating to 4.6kW in Germany)	6 (Derating to 4.6kW in Germany)
GEN Port	Rated. input Current Ir [Aa.c.]	15.7	20	21.7 (Derating to 20A in Germany)	26.1 (Derating to 20A in Germany)
GE	Overvoltage Category (OVC)			III	
	Protective Class	- 0	- 0	1 /	
	Enclosure Protection (IP)		l II	P65	
	Operating Temperature Range [°C]	-40 to 60, >45°C Derating			
tem	Pollution degree (PD)		P	PD 3	
System	Altitude [m]		2	000	
	Weight [kg]		2	24.9	
	Dimension [W*H*D (mm)]	330*580*232			
	Type of inverter	- 0 '	non i	solated	
	Firmware version	5385			



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#### **Ratings & Principle Characteristics:**

	Model	SUN-7K- SG05LP1-EU	SUN-7.6K- SG05LP1-EU	SUN-8K- SG05LP1-EU	
	V <sub>MAX</sub> Input [Vd.c.]		500		
	Input Voltage Range [Vd.c.]		150-425		
side	MPPT Full Power Voltage Range[Vd.c.]	9 .	200-425		
DC input side	Isc PV[Ad.c.]		34+34		
O Fi	Maximum DC Input Current [Ad.c.]		26+26		
	Start PV Voltage [Vdc]		125	1	
	Backfeed Current [A]		0		
	Overvoltage Category (OVC)		П		
	Rated Input Voltage Range Vin [Vd.c.]		40-60		
Σie	Max. input Voltage Vmax [Vd.c.]	60			
Battery	Max. battery charge current [A]	175	190	190	P
	Max. battery discharge current [A]	175	190	190	p
	Battery Type	Lead-acid or Lithium-ion			
	Rated Output Voltage Ur [Va.c.]		L/N/PE, 230		
	Rated Output Frequency FNETZ [Hz]		50	//	
	Rated Output Power P <sub>E</sub> [kW]	7 (Derating to 4.6kW in Germany)	7.6 (Derating to 4.6kW in Germany)	8 (Derating to 4.6kW in Germany)	
output side	Max.Output Apparent Power[kVA]	7.7 (Derating to 4.6kVA in Germany)	8.36 (Derating to 4.6kVA in Germany)	8.8 (Derating to 4.6kVA in Germany)	
AC outpu	Rated. Output Current Ir [Aa.c.]	30.5 (Derating to 20A in Germany)	33.0 (Derating to 20A in Germany)	34.8 (Derating to 20A in Germany)	
	Max. Output Current Imax [Aa.c.]	33.5 (Derating to 20A in Germany)	36.3 (Derating to 20A in Germany)	38.3 (Derating to 20A in Germany)	
	Power Factor cosφ [λ]		-0.8 to 0.8		
	Overvoltage Category (OVC)		III		



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	Rated Input Voltage [Va.c.]					
	Rated Input Frequency [Hz]		50			
ut rating	Max input apparent power [kVA]	7.7 (Derating to 4.6kVA in Germany)	8.36 (Derating to 4.6kVA in Germany)	8.8 (Derating to 4.6kVA in Germany)	1	
Grid input rating	Max. input current [Aa.c.]	33.5 (Derating to 20A in Germany)	36.3 (Derating to 20A in Germany)	38.3 (Derating to 20A in Germany)	1	
	Rated input Voltage Ur [Va.c.]		L/N/PE, 230			
	Rated input Frequency FNETZ [Hz]		50			
	Rated input Power [kW]	7 (Derating to 4.6kW in Germany)	7.6 (Derating to 4.6kW in Germany)	8 (Derating to 4.6kW in Germany)	ł	
GEN Port	Rated. input Current Ir [Aa.c.]	30.5 (Derating to 20A in Germany)	33.0 (Derating to 20A in Germany)	34.8 (Derating to 20A in Germany)	) =	
35	Overvoltage Category (OVC)		III		-	
	Protective Class	- 1	1.0	1	-	
	Enclosure Protection (IP)		IP65			
	Operating Temperature Range [°C]		-40 to 60, >45°C Derating			
tem	Pollution degree (PD)		PD 3		-	
System	Altitude [m]		2000			
	Weight [kg]		24.9			
	Dimension [W*H*D (mm)]	1	330*580*232			
	Type of inverter	- 0 '	non isolated			
	Firmware version		5385			



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### **Ratings & Principle Characteristics:**

	Model	SUN-3.6K- SG05LP1-EU- AM2-P	SUN-5K- SG05LP1-EU- AM2-P	SUN-6K- SG05LP1-EU- AM2-P		
	V <sub>MAX</sub> Input [Vd.c.]	500				
	Input Voltage Range [Vd.c.]	150-425				
DC input side	MPPT Full Power Voltage Range[Vd.c.]		300-425			
put	Isc PV[Ad.c.]		27+27			
S Fi	Maximum DC Input Current [Ad.c.]		18+18			
	Start PV Voltage [Vdc]		125			
	Backfeed Current [A]	0				
	Overvoltage Category (OVC)	=				
	Rated Input Voltage Range Vin [Vd.c.]	40-60				
<u> </u>	Max. input Voltage Vmax [Vd.c.]		60			
	Max. battery charge current [A]	90	120	135		
Δ	Max. battery discharge current [A]	90	120	135		
	Battery Type	Le	ad-acid or Lithium-i	on		
	Rated Output Voltage Ur [Va.c.]		L/N/PE, 230	97		
	Rated Output Frequency FNETZ [Hz]		50	Y		
	Rated Output Power P <sub>E</sub> [kW]	3.6	5 (Derating to 4.6kW in Germany)	6 (Derating to 4.6kW in Germany)		
AC output side	Max.Output Apparent Power[kVA]	3.96	5.5 (Derating to 4.6kVA in Germany)	6.6 (Derating to 4.6kVA in Germany)		
AC o	Rated. Output Current Ir [Aa.c.]	15.7 21.7 (Derating to 20A in Germany		26.1 (Derating to 20A in Germany)		
	Max. Output Current Imax [Aa.c.]	17.2	23.9 (Derating to 20A in Germany)	28.7 (Derating to 20A in Germany)		
	Power Factor cosφ [λ]		-0.8 to 0.8			
	Overvoltage Category (OVC)		III			



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	Rated Input Voltage [Va.c.]	L/N/PE,230			
	Rated Input Frequency [Hz]	50			
Grid input rating	Max input apparent power [kVA]	3.96	5.5 (Derating to 4.6kVA in Germany)	6.6 (Derating to 4.6kVA in Germany)	
Grid ii	Max. input current [Aa.c.]	17.2	23.9 (Derating to 20A in Germany)	28.7 (Derating to 20A in Germany)	
	Rated input Voltage Ur [Va.c.]		L/N/PE, 230		
	Rated input Frequency FNETZ [Hz]		50		
	Rated input Power [kW]	3.6	5 (Derating to 4.6kW in Germany)	6 (Derating to 4.6kW in Germany)	
GEN Port	Rated. input Current Ir [Aa.c.]	15.7	21.7 (Derating to 20A in Germany)	26.1 (Derating to 20A in Germany)	
GE	Overvoltage Category (OVC)	III			
	Protective Class	0	9		
	Enclosure Protection (IP)	0	IP65	0	
	Operating Temperature Range [°C]	-40 to 60, >45°C Derating			
em	Pollution degree (PD)		PD 3	0	
System	Altitude [m]		2000	7	
	Weight [kg]		24.9		
	Dimension [W*H*D (mm)]		330*580*232		
	Type of inverter	0 /	non isolated		
	Firmware version	5385			



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#### **Ratings & Principle Characteristics:**

	Model Model	SUN-7K- SG05LP1-EU- AM2-P	SUN-7.6K- SG05LP1-EU- AM2-P	SUN-8K- SG05LP1-EU- AM2-P		
	V <sub>MAX</sub> Input [Vd.c.]	500				
	Input Voltage Range [Vd.c.]	150-425				
side	MPPT Full Power Voltage Range[Vd.c.]		200-425			
put	Isc PV[Ad.c.]		48+48			
DC input side	Maximum DC Input Current [Ad.c.]		32+32			
	Start PV Voltage [Vdc]		125	//		
	Backfeed Current [A]		0			
	Overvoltage Category (OVC)	II II				
ry	Rated Input Voltage Range Vin [Vd.c.]	40-60				
	Max. input Voltage Vmax [Vd.c.]	60				
Battery	Max. battery charge current [A]	175	190	190		
В	Max. battery discharge current [A]	175	190	190		
	Battery Type	Lead-acid or Lithium-ion				
	Rated Output Voltage Ur [Va.c.]		L/N/PE, 230			
	Rated Output Frequency F <sub>NETZ</sub> [Hz]		50			
	Rated Output Power P <sub>E</sub> [kW]	7 (Derating to 4.6kW in Germany)	7.6 (Derating to 4.6kW in Germany)	8 (Derating to 4.6kW in Germany)		
AC output side	Max.Output Apparent Power[kVA]	7.7 (Derating to 4.6kVA in Germany)	8.36 (Derating to 4.6kVA in Germany)	8.8 (Derating to 4.6kVA in Germany)		
AC o	Rated. Output Current Ir [Aa.c.]	30.5 (Derating to 20A in Germany)	33.0 (Derating to 20A in Germany)	34.8 (Derating to 20A in Germany)		
	Max. Output Current Imax [Aa.c.]	33.5 (Derating to 20A in Germany)	36.3 (Derating to 20A in Germany)	38.3 (Derating to 20A in Germany)		
	Power Factor cosφ [λ]		-0.8 to 0.8			
	Overvoltage Category (OVC)		III			



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	Rated Input Voltage [Va.c.]	L/N/PE,230			
	Rated Input Frequency [Hz]		50		
Grid input rating	Max input apparent power [kVA]	7.7 (Derating to 4.6kVA in Germany)	8.36 (Derating to 4.6kVA in Germany)	8.8 (Derating to 4.6kVA in Germany)	
Grid ii	Max. input current [Aa.c.]	33.5 (Derating to 20A in Germany)	36.3 (Derating to 20A in Germany)	38.3 (Derating to 20A in Germany)	
	Rated input Voltage Ur [Va.c.]		L/N/PE, 230		
	Rated input Frequency FNETZ [Hz]		50		
	Rated input Power [kW]	7 (Derating to 4.6kW in Germany)	7.6 (Derating to 4.6kW in Germany)	8 (Derating to 4.6kW in Germany)	
GEN Port	Rated. input Current Ir [Aa.c.]	30.5 (Derating to 20A in Germany)	33.0 (Derating to 20A in Germany)	34.8 (Derating to 20A in Germany)	
GE	Overvoltage Category (OVC)		III		
	Protective Class				
	Enclosure Protection (IP)		IP65	100	
	Operating Temperature Range [°C]		-40 to 60, >45°C Derating		
em	Pollution degree (PD)		PD 3		
System	Altitude [m]	4	2000		
	Weight [kg]		24.9		
	Dimension [W*H*D (mm)]	330*580*232			
	Type of inverter		non isolated		
	Firmware version	5385			



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### **Ratings & Principle Characteristics:**

	Model	AI-W5.1-3.6P1- EU-B	AI-W5.1-5P1-EU- B	AI-W5.1-6P1-EU- B		
	V <sub>MAX</sub> Input [Vd.c.]		500			
	Input Voltage Range [Vd.c.]	0	150-425			
DC input side	MPPT Full Power Voltage Range[Vd.c.]	300-425				
put	Isc PV[Ad.c.]		27+27			
S Fi	Maximum DC Input Current [Ad.c.]		18+18			
	Start PV Voltage [Vdc]		125			
	Backfeed Current [A]		0			
	Overvoltage Category (OVC)		II	//		
	Rated Input Voltage Range Vin [Vd.c.]	40-60				
>	Max. input Voltage Vmax [Vd.c.]	60				
Battery	Max. battery charge current [A]	90	120	135		
m	Max. battery discharge current [A]	90	120	135		
l +	Battery Type		Lithium-ion	//		
	Rated Output Voltage Ur [Va.c.]		L/N/PE, 230	//		
	Rated Output Frequency FNETZ [Hz]		50	7		
	Rated Output Power P <sub>E</sub> [kW]	3.6	5 (Derating to 4.6kW in Germany)	6 (Derating to 4.6kW in Germany)		
AC output side	Max.Output Apparent Power[kVA]	3.96	5.5 (Derating to 4.6kVA in Germany)	6.6 (Derating to 4.6kVA in Germany)		
AC ou	Rated. Output Current Ir [Aa.c.]	15.7	21.7 (Derating to 20A in Germany)	26.1 (Derating to 20A in Germany)		
	Max. Output Current Imax [Aa.c.]	17.2	23.9 (Derating to 20A in Germany)	28.7 (Derating to 20A in Germany)		
	Power Factor cosφ [λ]		-0.8 to 0.8			
	Overvoltage Category (OVC)		III			



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	Rated Input Voltage [Va.c.]	L/N/PE, 230			
	Rated Input Frequency [Hz]	50			
Grid input rating	Max input apparent power [kVA]	3.96	5.5 (Derating to 4.6kVA in Germany)	6.6 (Derating to 4.6kVA in Germany)	
Grid ii	Max. input current [Aa.c.]	17.2	23.9 (Derating to 20A in Germany)	28.7 (Derating to 20A in Germany)	
	Rated input Voltage Ur [Va.c.]		L/N/PE, 230		
	Rated input Frequency FNETZ [Hz]		50		
	Rated input Power [kW]	3.6	5 (Derating to 4.6kW in Germany)	6 (Derating to 4.6kW in Germany)	
GEN Port	Rated. input Current Ir [Aa.c.]	15.7	21.7 (Derating to 20A in Germany)	26.1 (Derating to 20A in Germany)	
99	Overvoltage Category (OVC)	III			
	Protective Class	9 -	9		
	Enclosure Protection (IP)	0	IP65		
	Operating Temperature Range [°C]		-40 to 60, >45°C Derating		
Eem.	Pollution degree (PD)		PD 3		
System	Altitude [m]		2000	-	
	Weight [kg]		31.6		
	Dimension [W*H*D (mm)]	720*399.2*256			
	Type of inverter	" 1	non isolated		
	Firmware version	5385			



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### **Ratings & Principle Characteristics:**

	Model	AI-W5.1-7P1-EU- B	AI-W5.1-7.6P1- EU-B	AI-W5.1-8P1-EU- B		
	V <sub>MAX</sub> Input [Vd.c.]		500			
	Input Voltage Range [Vd.c.]	0	150-425			
DC input side	MPPT Full Power Voltage Range[Vd.c.]	0 1	200-425			
put	Isc PV[Ad.c.]		48+48			
S Fi	Maximum DC Input Current [Ad.c.]		32+32			
	Start PV Voltage [Vdc]		125			
	Backfeed Current [A]		0			
	Overvoltage Category (OVC)		П	1		
	Rated Input Voltage Range Vin [Vd.c.]	40-60				
>	Max. input Voltage Vmax [Vd.c.]	60				
<del> </del>	Max. battery charge current [A]	175	190	190		
	Max. battery discharge current [A]	175	190	190		
	Battery Type		Lithium-ion	//		
	Rated Output Voltage Ur [Va.c.]		L/N/PE, 230	//		
	Rated Output Frequency FNETZ [Hz]		50	7		
	Rated Output Power P <sub>E</sub> [kW]	7 (Derating to 4.6kW in Germany)	7.6 (Derating to 4.6kW in Germany)	8 (Derating to 4.6kW in Germany)		
AC output side	Max.Output Apparent Power[kVA]	7.7 (Derating to 4.6kVA in Germany)	8.36 (Derating to 4.6kVA in Germany)	8.8 (Derating to 4.6kVA in Germany)		
AC ou	Rated. Output Current Ir [Aa.c.]	30.5 (Derating to 20A in Germany)	33.0 (Derating to 20A in Germany)	34.8 (Derating to 20A in Germany)		
	Max. Output Current Imax [Aa.c.]	33.5 (Derating to 20A in Germany)	36.3 (Derating to 20A in Germany)	38.3 (Derating to 20A in Germany)		
	Power Factor cosφ [λ]	-0.8 to 0.8				
	Overvoltage Category (OVC)		III			



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	Rated Input Voltage [Va.c.]		L/N/PE, 230			
	Rated Input Frequency [Hz]		50			
Grid input rating	Max input apparent power [kVA]	7.7 (Derating to 4.6kVA in Germany)	8.36 (Derating to 4.6kVA in Germany)	8.8 (Derating to 4.6kVA in Germany)		
Grid ii	Max. input current [Aa.c.]	33.5 (Derating to 20A in Germany)	36.3 (Derating to 20A in Germany)	38.3 (Derating to 20A in Germany)		
	Rated input Voltage Ur [Va.c.]		L/N/PE, 230			
	Rated input Frequency FNETZ [Hz]		50			
	Rated input Power [kW]	7 (Derating to 4.6kW in Germany)	7.6 (Derating to 4.6kW in Germany)	8 (Derating to 4.6kW in Germany)		
GEN Port	Rated. input Current Ir [Aa.c.]	30.5 (Derating to 20A in Germany)	33.0 (Derating to 20A in Germany)	34.8 (Derating to 20A in Germany)		
99	Overvoltage Category (OVC)		III			
	Protective Class					
	Enclosure Protection (IP)		IP65			
	Operating Temperature Range [°C]		-40 to 60, >45°C Derating			
em	Pollution degree (PD)		PD 3			
System	Altitude [m]		2000			
	Weight [kg]	31.6				
	Dimension [W*H*D (mm)]	720*399.2*256				
	Type of inverter		non isolated			
	Firmware version	5385				