

CERTIFICATE

INVT Solar Technology (ShenZhen) Co., Ltd

6th Floor, Block A, INVT Guangming Technology Building, Kejie Fourth Road, Shutianpu Community, Matian, Guangming District, Shenzhen, PEOPLE'S REPUBLIC OF CHINA

is authorized to provide the product(s) mentioned below with the mark as illustrated:



Description of product(s) (details see Annex 2):

Hybrid Solar Inverter

It is certified by TÜV NORD CERT GmbH that the product(s) described above has(have) been assessed according to the certification program mentioned below and found in compliance with the requirements of below specified certification fundamental(s). This certification is based on evaluation results as documented in test report(s) referenced below and production site(s) audit results as documented in factory inspection report(s) referenced in Annex 1. This certificate is valid in conjunction with these quoted report(s).

Certification program:	P31-VA-01 Rev. 02 04.20	
Certification fundamental(s):	IEC 62109-1:2010; IEC 62109-2:2011	
Registered no.:	44 780 21 406749 - 036	
Manufacturer:	See Annex 1	
Test report no.:	492011628.001	Valid from: 2021-03-17
File no.:	PVP02046/21E-05	Valid until: 2025-01-20



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Energy Storage System



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Manufacturer:

INVT Solar Technology (ShenZhen) Co., Ltd

6th Floor, Block A, INVT Guangming Technology Building, Kejie Fourth Road, Shutianpu Community,
Matian, Guangming District, Shenzhen,
PEOPLE'S REPUBLIC OF CHINA

Factory(-ies):

Factory :

Shenzhen INVT Electric Co.,Ltd. Bao'an Branch Factory

F1-F4, No.3 Building, Emerson Industrial Park, Fengtang Road, Tangwei Community,
Fuhai, Bao'an District, Shenzhen City,
Guangdong Province, 518103, P.R. China

Factory inspection report no.: 862010524.001

Remark:

Factory inspection is mandatory to be performed annually. Please refer to factory inspection report for detailed information.

A blue ink signature that reads "Alanne Uler".

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Description of product(s):

Model type	BD3KTL-RL1		
General information			
Safety class.....	Class II	Relative humidity	0-95%
IP grade	IP65	Altitude.....	2000m
Type of Isolation.....	Non Isolated	Operating temperature	-25-+60°C (> 45 derating)
Firmware [DSP / MCU]	V1.01.01	LCD [version].....	V1.00.01
Weight.....	25kg	Size (W x D x H) [mm]	550×520×200
Number of DC connection:	2 PV&1 Battery		
DC input(PV)			
Max. input voltage.....	500Vd.c.	Isc	17.5*2 Ad.c.
MPP Voltage Range	125-500Vd.c.	MPP Full Power Voltage Range:	150-500Vd.c.
Max. Input Current	14Ad.c.	MPPT tracking	2
Max. input Power	4.6kW	-	-
Battery parameter			
Battery Rated Voltage	48Vd.c	Cut off Voltage	40 Vd.c.
Max. Charging Voltage	58Vd.c	Max. Charging Current	95 Ad.c
Max. Discharging Current	62.5 Ad.c	Max. Charging Power	5kW
Max. Discharging Power	3kW		
AC output (On-grid)			
Max. Output Apparent Power	3kVA	Max. Output Current	13Aa.c.
Rated voltage.....	230Va.c.	Rated Frequency	50/60Hz



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Power Factor $\cos\phi$ [λ]	[-0.99,0.99]	-	-
AC output (Back-up)			
Max. Output Apparent Power	3kVA	Max. Output Current	13Aa.c.
Rated voltage	230Va.c.	Rated Frequency	50/60Hz

Model type	BD3K6TL-RL1		
General information			
Safety class	Class II	Relative humidity	0-95%
IP grade	IP65	Altitude	2000m
Type of Isolation	Non Isolated	Operating temperature	-25-+60°C (> 45 derating)
Firmware [DSP / MCU]	V1.01.01	LCD [version]	V1.00.01
Weight	25kg	Size (W x D x H) [mm]	550×520×200
Number of DC connection:	2 PV&1 Battery		
DC input(PV)			
Max. input voltage	500Vd.c.	Isc	17.5*2 Ad.c.
MPP Voltage Range	125-500Vd.c.	MPP Full Power Voltage Range:	150-500Vd.c.
Max. Input Current	14Ad.c.	MPPT tracking	2
Max. input Power	4.6kW	-	-
Battery parameter			
Battery Rated Voltage	48Vd.c	Cut off Voltage	40 Vd.c.
Max. Charging Voltage	58Vd.c	Max. Charging Current	95 Ad.c
Max. Discharging Current	75 Ad.c	Max. Charging Power	5kW



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Max. Discharging Power	3.6kW		
AC output (On-grid)			
Max. Output Apparent Power	3.6kVA	Max. Output Current	16Aa.c.
Rated voltage	230Va.c.	Rated Frequency	50/60Hz
Power Factor $\cos\phi$ [λ]	[-0.99,0.99]	-	-
AC output (Back-up)			
Max. Output Apparent Power	3.6kVA	Max. Output Current	16Aa.c.
Rated voltage	230Va.c.	Rated Frequency	50/60Hz

Model type	BD4KTL-RL1		
General information			
Safety class	Class II	Relative humidity	0-95%
IP grade	IP65	Altitude	2000m
Type of Isolation	Non Isolated	Operating temperature	-25-+60°C (> 45 derating)
Firmware [DSP / MCU]	V1.01.01	LCD [version]	V1.00.01
Weight	25kg	Size (W x D x H) [mm]	550×520×200
Number of DC connection:	2 PV&1 Battery		
DC input(PV)			
Max. input voltage	500Vd.c.	Isc	17.5*2 Ad.c.
MPP Voltage Range	125-500Vd.c.	MPP Full Power Voltage Range:	150-500Vd.c.
Max. Input Current	14Ad.c.	MPPT tracking	2
Max. input Power	6kW	-	-



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Battery parameter			
Battery Rated Voltage	48Vd.c	Cut off Voltage	40 Vd.c.
Max. Charging Voltage	58Vd.c	Max. Charging Current	95 Ad.c
Max. Discharging Current	83.3 Ad.c	Max. Charging Power	5kW
Max. Discharging Power	4kW		
AC output (On-grid)			
Max. Output Apparent Power	4kVA	Max. Output Current.....	17.4Aa.c.
Rated voltage.....	230Va.c.	Rated Frequency.....	50/60Hz
Power Factor cosφ [λ].....	[-0.99,0.99]	-	-
AC output (Back-up)			
Max. Output Apparent Power	4kVA	Max. Output Current.....	17.4Aa.c.
Rated voltage.....	230Va.c.	Rated Frequency.....	50/60Hz

Model type	BD4K6TL-RL1		
General information			
Safety class	Class II	Relative humidity	0-95%
IP grade	IP65	Altitude.....	2000m
Type of Isolation	Non Isolated	Operating temperature	-25-+60°C (> 45 derating)
Firmware [DSP / MCU].....	V1.01.01	LCD [version].....	V1.00.01
Weight.....	25kg	Size (W x D x H) [mm].....	550×520×200
Number of DC connection:	2 PV&1 Battery		
DC input(PV)			



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Max. input voltage..... :	500Vd.c.	Isc	17.5*2 Ad.c.
MPP Voltage Range	125-500Vd.c.	MPP Full Power Voltage Range:	170-500Vd.c.
Max. Input Current	14Ad.c.	MPPT tracking.....	2
Max. input Power..... :	6kW	-	-
Battery parameter			
Battery Rated Voltage	48Vd.c	Cut off Voltage	40 Vd.c.
Max. Charging Voltage	58Vd.c	Max. Charging Current	95 Ad.c
Max. Discharging Current	95.8 Ad.c	Max. Charging Power	5kW
Max. Discharging Power	4.6kW		
AC output (On-grid)			
Max. Output Apparent Power	4.6kVA	Max. Output Current.....	20Aa.c.
Rated voltage.....	230Va.c.	Rated Frequency	50/60Hz
Power Factor cosφ [λ].....	[-0.99,0.99]	-	-
AC output (Back-up)			
Max. Output Apparent Power	4.6kVA	Max. Output Current.....	20Aa.c.
Rated voltage.....	230Va.c.	Rated Frequency	50/60Hz

Model type	BD5KTL-RL1		
General information			
Safety class	Class II	Relative humidity	0-95%
IP grade	IP65	Altitude.....	2000m
Type of Isolation	Non Isolated	Operating temperature	-25-+60°C (> 45 derating)



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Firmware [DSP / MCU]	V1.01.01	LCD [version]	V1.00.01
Weight.....	25kg	Size (W x D x H) [mm]	550×520×200
Number of DC connection:	2 PV&1 Battery		
DC input(PV)			
Max. input voltage	500Vd.c.	Isc	17.5*2 Ad.c.
MPP Voltage Range	125-500Vd.c.	MPP Full Power Voltage Range:	180-500Vd.c.
Max. Input Current	14Ad.c.	MPPT tracking	2
Max. input Power	7kW	-	-
Battery parameter			
Battery Rated Voltage	48Vd.c	Cut off Voltage	40 Vd.c.
Max. Charging Voltage	58Vd.c	Max. Charging Current	95 Ad.c
Max. Discharging Current	104.2 Ad.c	Max. Charging Power	5kW
Max. Discharging Power	5kW		
AC output (On-grid)			
Max. Output Apparent Power	5kVA	Max. Output Current	21.7Aa.c.
Rated voltage.....	230Va.c.	Rated Frequency	50/60Hz
Power Factor cosφ [λ].....	[-0.99,0.99]	-	-
AC output (Back-up)			
Max. Output Apparent Power	5kVA	Max. Output Current	21.7Aa.c.
Rated voltage.....	230Va.c.	Rated Frequency	50/60Hz



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Model type	BD6KTL-RL1		
General information			
Safety class.....	Class II	Relative humidity	0-95%
IP grade	IP65	Altitude.....	2000m
Type of Isolation.....	Non Isolated	Operating temperature	-25-+60°C (> 45 derating)
Firmware [DSP / MCU]	V1.01.01	LCD [version]	V1.00.01
Weight.....	25kg	Size (W x D x H) [mm]	550×520×200
Number of DC connection:	2 PV&1 Battery		
DC input(PV)			
Max. input voltage.....	500Vd.c.	Isc	17.5*2 Ad.c.
MPP Voltage Range	125-500Vd.c.	MPP Full Power Voltage Range:	220-500Vd.c.
Max. Input Current	14Ad.c.	MPPT tracking.....	2
Max. input Power	7kW	-	-
Battery parameter			
Battery Rated Voltage	48Vd.c	Cut off Voltage	40 Vd.c.
Max. Charging Voltage	58Vd.c	Max. Charging Current.....	95 Ad.c
Max. Discharging Current	110 Ad.c	Max. Charging Power	5kW
Max. Discharging Power	5kW		
AC output (On-grid)			
Max. Output Apparent Power	6kVA	Max. Output Current.....	26Aa.c.
Rated voltage.....	230Va.c.	Rated Frequency	50/60Hz
Power Factor cosφ [λ].....	[-0.99,0.99]	-	-



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AC output (Back-up)			
Max. Output Apparent Power:	6kVA	Max. Output Current	26Aa.c.
Rated voltage.....:	230Va.c.	Rated Frequency	50/60Hz

Remark:

For detailed product information, please refer to CDF (Constructional Data Form) in Annex 1 of test report.

