



**BUREAU
VERITAS**

Factory inspection-Certificate Certificato di ispezione di fabbrica

Applicant:
Richiedente:

Huawei Technologies Co., Ltd.
Administration Building, Headquarters of Huawei Technologies Co., Ltd.
Bantian, Longgang District, Shenzhen, 518129, P.R. China

Product type:
Tipo prodotto:
Model:
Modello:

Grid-tied photovoltaic inverter

SUN2000L-2KTL, SUN2000L-3KTL, SUN2000L-3.68KTL, SUN2000L-4KTL, SUN2000L-4.6KTL
SUN2000L-5KTL, SUN2000-33KTL-A, SUN2000-36KTL, SUN2000-42KTL
SUN2000-100KTL-H1, SUN2000-105KTL-H1, SUN2000-168KTL-H1; SUN2000-185KTL-H1,
SUN2000-200KTL-H2
SUN2000-3KTL-M0, SUN2000-4KTL-M0, SUN2000-5KTL-M0, SUN2000-6KTL-M0
SUN2000-8KTL-M0, SUN2000-10KTL-M0, SUN2000-12KTL-M0, SUN2000-15KTL-M0
SUN2000-17KTL-M0, SUN2000-20KTL-M0
SUN2000-3KTL-M1, SUN2000-4KTL-M1, SUN2000-5KTL-M1, SUN2000-6KTL-M1
SUN2000-8KTL-M1, SUN2000-10KTL-M1, SUN2000-100KTL-M1
SUN2000-8KTL-M2, SUN2000-10KTL-M2, SUN2000-12KTL-M2, SUN2000-15KTL-M2
SUN2000-17KTL-M2, SUN2000-20KTL-M2
SUN2000-2KTL-L1; SUN2000-3KTL-L1, SUN2000-3.68KTL-L1, SUN2000-4KTL-L1,
SUN2000-4.6KTL-L1, SUN2000-5KTL-L1, SUN2000-6KTL-L1

Ratings:
Caratteristiche:

See Annex / Vedi Allegato

Factory inspection made in accordance with the "APPLICATION RULES FOR SUBSCRIPTION TO REGISTERS AND APPROVAL OF INCENTIVE RATES UNDER THE DM 5. JULY 2012 (FIFTH ENERGY ACCOUNT FOR PHOTOVOLTAIC)", § 4.6.4-Inverter

Ispezione di fabbrica svolta in accordo alle "REGOLE APPLICATIVE PER L'ISCRIZIONE AL REGISTRI E PER L'ACCESSO ALLE TARIFFE INCENTIVANTI DM 5 IUGLIO 2012 (QUINTO CONTO ENERGIA)", §4.6.4-INVERTER

- The factory inspection was based on: / *La verifica in fabbrica si è basata su:*
CEI 0-21 for LV connection and CEI 0-16 (or TERN A annex A70) for MV/HV connection.
- The report of the factory inspection includes the requirements of GSE applicative rules about the manufacturing quality process and used materials.
Il rapporto di ispezione di fabbrica include i requisiti delle regole GSE applicabili al processo di qualità costruttiva e dei materiali utilizzati.
- Components check has been performed in order to guarantee a constant quality level as based on a detailed description supplied by Licence Holder to BV CPS Germany, as requested by:
Controllo dei componenti è stato effettuato allo scopo di garantire un costante livello di qualità come prescritto nella dettagliata descrizione fornita dal titolare della licenza a BV CPS Germany come consentito dalla: Delibera AEEG n. 84/2012/R/EEL e documenti GSE "Quinto Conto Energia: chiarimenti su definizione edificio energeticamente certificabile e sulle Certificazioni/Attestazioni riguardanti i moduli fotovoltaici ed i gruppi di conversione (inverter)";

Factory location:
Sito aziendale:

Huawei Machine Co., Ltd.
No.2 City Avenue Song Shan Hu Science & Technology Industrial Park
Dongguan Guangdong, 523808, P.R. China

with main production steps: development, assembly, measuring and testing
secondo i seguenti principali processi: progettazione, assemblaggio, misura e controllo

Report No.:
Rapporto N°:

16TH0239-CEI 0-16_3, 16TH0239-CEI 0-21_3, 17TH0333-CEI 0-21_2, 19TH0316-CEI 0-21_2
19TH0316-CEI 0-16_1, 18TH0255-CEI 0-21_0, 19TH0240-CEI 0-16_0, 19TH0240-DEWA2016_2
PVSP190424N048-1, PVSP190424N048-5, PVUK 180906N022, 19TH0506-CEI 0-21_1; 19TH0506-
CEI 0-16_0, 20TH0346-CEI 0-21_1, PV191219N027, 18TH0387-EN50549-2_0

Certificate No.:
Certificato N°:
Issued / Emesso il:

20-006

2020-08-25

Gültig bis / Valid until:

2021-08-24

The details of the factory inspection are documented in Report No:
I dettagli della Ispezione di fabbrica sono documentati nel rapporto N°:

Huawei_CIG023 from /da 2020-08-11

Zertifizierungsstelle / Certification Department

Holger Schaffer





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Annex 1 to certificate 20-006

Allegato 1 al certificato

Ratings / Caratteristiche:

Ratings	SUN2000L-2KTL	SUN2000L-3KTL	SUN2000L-3.68KTL
Input DC voltage [V]	600 Max.		
MPP DC voltage range [V]	90-500		
Input DC current [A]	11 / 11		
Isc PV [A]	15 / 15		
Output AC voltage [V]	220 / 230 / 240Va.c., 50/60Hz		
Max. Output AC current [A]	10	15	16
Rated Output power [kVA]	2	3	3,68
Max. Output power [kVA]	2,2	3,3	3,68
Battery input voltage [V]	600V Max.		
Battery current [A]	10A Max.		

Ratings	SUN2000L-4KTL	SUN2000L-4.6KTL	SUN2000L-5KTL
Input DC voltage [V]	600 Max.		
MPP DC voltage range [V]	90-500		
Input DC current [A]	11 / 11		
Isc PV [A]	15 / 15		
Output AC voltage [V]	220 / 230 / 240Va.c., 50/60Hz		
Max. Output AC current [A]	20	23	25
Rated Output power [kVA]	4	4,6	5
Max. Output power [kVA]	4,4	5	5,5
Battery input voltage [V]	600V Max.		
Battery current [A]	10A Max.		

Ratings	SUN2000-33KTL-A	SUN2000-36KTL	SUN2000-42KTL
MPP DC voltage range [V]	480-800	480-850V or 580-850V	580-850V
Input DC voltage range [V]	200-1000V, Max. 1100		
Input DC current [A]	Max. 22.0 x 4		
Output AC voltage [V]	400, 3(N)~ + PE, 50Hz	400, 3(N)~* + PE, or 480, 3~ + PE, 50Hz	480, 3~ + PE, 50Hz
Output AC current [A]	Max. 48,0 x 3	Max. 57,8 x3 (400Vac) or Max. 48,2A x3 (480Vac)	Max. 56,6 x3
Output power [VA]	Max. 33000	Max. 40000	Max. 47000
*Choose whether to connect the neutral wire to the SUN2000-36KTL based on the application scenario.			



Annex 2 to certificate 20-006
Allegato 2 al certificato

Ratings / Caratteristiche:

Ratings:	SUN2000-168KTL-H1	SUN2000-185KTL-H1
MPP DC voltage range [V]:	500 - 1500	
Input DC voltage range [V]:	830 - 1300	830 - 1300
Input DC current [A]:	Max. 9 x 26	
Output AC voltage [V]:	800, 3~ + PE, 50/60Hz	
Output AC current [A]:	Max. 122,5	Max. 134,9
Nominal Output power [kW]:	150	175
Maximum Output power [kVA]:	168	185

Ratings:	SUN2000-100KTL-H1	SUN2000-105KTL-H1	SUN2000-200KTL-H2
Input DC voltage range [V]:	600 - 1500		
Full load MPP DC voltage range [V]:	880 - 1300	880 - 1300	930-1300
Input DC current [A]:	Max. 22A*6	Max. 25A*6	Max. 9 x 30
Output AC voltage [V]:	800, 3~ + PE, 50/60Hz		
Output AC current [A]:	Max. 80,2	Max. 84,6	Max. 155,2
Nominal Output power [kW]:	100	105	185
Maximum Output power [kVA]:	105	116	215

Ratings:	SUN2000-3KTL-M0 SUN2000-3KTL-M1	SUN2000-4KTL-M0 SUN2000-4KTL-M1	SUN2000-5KTL-M0 SUN2000-5KTL-M1
MPP DC voltage range [V]:	140-980		
Input DC voltage range [V]:	140-1100, max. 1100		
Input DC current [A]:	Max. 11 x 2 strings		
Battery side DC voltage range [V]:	max.1100		
Battery side DC current [A]:	Max. 16		
Output AC voltage [V]:	230/400, 3(N)~ + PE, 50Hz		
Output AC current [A]:	Max. 5,1	Max. 6,8	Max. 8,5
Nominal Output power [kVA]:	3,0	4,0	5,0
Maximum Output power [kVA]:	3,3	4,4	5,5



Annex 3 to certificate 20-006
Allegato 2 al certificato

Ratings:	SUN2000-6KTL-M0 SUN2000-6KTL-M1	SUN2000-8KTL-M0 SUN2000-8KTL-M1	SUN2000-10KTL-M0 SUN2000-10KTL-M1
MPP DC voltage range [V]:	140-980		
Input DC voltage range [V]:	140-1100, max. 1100		
Input DC current [A]:	Max. 11 x 2 strings		
Battery side DC voltage range [V]:	max.1100		
Battery side DC current [A]:	Max. 16		
Output AC voltage [V]:	230/400, 3(N)~ + PE, 50Hz		
Output AC current [A]:	Max. 10,1	Max. 13,5	Max. 16,9
Nominal Output power [kVA]:	6,0	8,0	10,0
Maximum Output power [kVA]:	6,6	8,8	11,0

Ratings:	SUN2000-8KTL-M0 SUN2000-8KTL-M2	SUN2000-10KTL-M0 SUN2000-10KTL-M2	SUN2000-12KTL-M0 SUN2000-12KTL-M2
MPP DC voltage range [V]:	160-950		
Input DC voltage range [V]:	160-1080		
Input DC current [A]:	Max. 22 x 2 strings		
Output AC voltage [V]:	230/400, 3(N)~ + PE, 50Hz/60Hz		
Output AC current [A]:	Max. 13,4	Max. 17,0	Max. 20,0
Nominal Output power [kVA]:	8,0	10,0	12,0
Maximum Output power [kVA]:	8,8	11,0	13,2

Ratings:	SUN2000-15KTL-M0 SUN2000-15KTL-M2	SUN2000-17KTL-M0 SUN2000-17KTL-M2	SUN2000-20KTL-M0 SUN2000-20KTL-M2
MPP DC voltage range [V]:	160-950		
Input DC voltage range [V]:	160-1080		
Input DC current [A]:	Max. 22 x 2 strings		
Output AC voltage [V]:	230/400, 3(N)~ + PE, 50Hz/60Hz		
Output AC current [A]:	Max. 25,2	Max. 28,5	Max. 33,5
Nominal Output power [kVA]:	15,0	17,0	20,0
Maximum Output power [kVA]:	16,5	18,7	22,0



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Annex 4 to certificate 20-006
Allegato 2 al certificato

Ratings / Caratteristiche:

Ratings:	SUN2000-100KTL-M1
MPP DC voltage range [V]:	200-1000
Input DC voltage range [V]:	200-1100
Input DC current [A]:	Max. 26A*10
Output AC voltage [V]:	400 Vac, 3W+N+PE; 50Hz 480 Vac, 3W+PE, 50Hz
Output AC current [A]:	Max. 160.4 A (400 Vac) Max. 133.7 A (480 Vac)
Nominal Output power [kVA]:	100
Maximum Output power [kVA]:	110

Ratings:	SUN2000-2KTL-L1	SUN2000-3KTL-L1	SUN2000-3.68KTL-L1
Input DC voltage [V]:	Max. 600		
MPP DC voltage range [V]:	90-560		
Input DC current [A]:	12,5/12,5		
Isc PV [A]:	18 / 18		
Output AC voltage [V]:	230Va.c., 50Hz		
Max. Output AC current [A]:	10	15	16
Rated Output power [kVA]:	2	3	3,68
Max Output power [kVA]:	2,2	3,3	3,68
Battery input voltage [V]:	Max. 600		
Battery current [A]:	Max. 15		

Ratings:	SUN2000-4KTL-L1	SUN2000-4.6KTL-L1	SUN2000-5KTL-L1	SUN2000-6KTL-L1
Input DC voltage [V]:	Max. 600			
MPP DC voltage range [V]:	90-560			
Input DC current [A]:	12,5/12,5			
Isc PV [A]:	18 / 18			
Output AC voltage [V]:	230Va.c., 50Hz			
Max. Output AC current [A]:	20	23	25	27,3
Rated Output power [kVA]:	4	4,6	5,0	6,0
Max Output power [kVA]:	4,4	5,0	5,5	6,0
Battery input voltage [V]:	Max. 600			
Battery current [A]:	Max. 15			