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Manufacturer's Declaration for Type A Power Park Modules equipped with PV converters

Compliance monitoring for equipment certification as a part of A and B type of power generating modules compliance with EU Regulation *2016/631 of 14 April 2016*
establishing a network code on requirements for grid connection of generators, (NC RfG)
regarding to:

"Om fastställande av nätföreskrifter med krav för nätanslutning av generatorer" , samt den svenska föreskriften EIFS 2018:2 "

For the following		
Equipment/Series:	: Huawei FusionSolar SUN2000 Inverter : Huawei FusionHome SUN2000 Inverter	
Models:	: SUN2000-36KTL /Huawei : SUN2000-12KTL-M0/M2 Huawei : SUN2000-15KTL-M0/M2 Huawei : SUN2000-17KTL-M0/ M2 Huawei : SUN2000-20KTL-M0/ M2 Huawei : SUN2000-50KTL-M0 /Huawei : SUN2000-60KTL-M0 /Huawei	: SUN2000L-2KTL /Huawei : SUN2000L-3KTL /Huawei : SUN2000L-3.68KTL /Huawei : SUN2000L-4KTL /Huawei : SUN2000L-4.6KTL /Huawei : SUN2000L-5KTL /Huawei : SUN2000-3KTL-M0/M1 /Huawei : SUN2000-4KTL- M0/M1 /Huawei : SUN2000-5KTL- M0/M1 /Huawei : SUN2000-6KTL- M0/M1 /Huawei : SUN2000-8KTL- M0/M1 /Huawei : SUN2000-10KTL- M0/M1 /Huawei
Manufacturer's Name	: Huawei Technologies Co., Ltd.	
Manufacturer's Address	: Administration Building, Headquarters of Huawei Technologies Co., Ltd., Bantian, Longgang District, Shenzhen, 518129, P.R.C.	

Statement Content:

According to "Requirements of general application" established by local TSO and procedures for use relevant equipment certificates (NC RfG, Article 41, letter a,f,g) established by relevant system operator. Huawei SUN2000 Inverter as a Power Park Modules (PPM) component comply with listed in Table 1 requirements for type A power generation modules.

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Listed features are supported by default or will require manual adjustment based on user manual during first commissioning. All settings are password protected and consecutive changes will be logged by the device.

For grid code 50438-SE		
Parameter	**Clearance time**	**Trip setting**
Over voltage (OVP stage 2)	0,2 s	230 V +15%
Over voltage (OVP stage 1)	60 s	230 V +11%
Under voltage (UVP stage 1)	0,2 s	230 V -15%
Over frequency (OFP)	0,5 s	51,0 Hz
Under frequency (UFP)	0,5 s	47,0 Hz
LoM (Loss of Mains)	Based on IEC62116, proven by EN 50438[1]	Based on IEC62116, proven by EN 50438[1]

Requirement:	**Support**	**Comment**
Flickering and voltage fluctuations	Yes	According to 61000-3-3 / 11 proven by EN50438[1] test report and CE[2] declaration
Continuous frequency operation range	Yes	47-51 Hz without limitation; **Can be adjusted** by OFP/UFP change; Proven by EN 50438[1] - 4.2.3
LFSM-O (power derating frequency response to over-frequency)	Yes	Default: f_{start} = 50,2 Hz, droop = 5% **Can be adjusted:** f_{start} = 50,5 Hz, droop = 8% proven by EN50438[1] test report
Response to under-frequencies: Less than 3%/Hz reduction <49Hz	Yes	No power reduction proven by EN50438[1] test report
Automatic reconnection frequency range: 47,5-50,1 Hz, observation time T_O= 180 s	Yes	Default f range: 47,5 Hz-50,05 Hz / T_O = 60 s **Can be adjusted:** 47,5 – 50,1 Hz / T_O = 180 s proven by EN50438[1] test report
Output power increase gradient: 10% of Pm per minute	Yes	Default: ΔP = 10%/min proven by EN50438[1] test report

[1]Appendix: EN50438 Certificate, [2]Appendix: CE declaration

Table 1

On behalf of Huawei Technologies

Yours Faithfully,

Signed: Ye Liang Date: 25.07.2019

25.07.2019

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