Certificate

of Conformity

Hoymiles Power Electronics Inc.
No.18 Kangjing Road, Hangzhou,
Zhejiang Province,
P.R.China

Type of equipment	Micro Storage System				
Product Name	HB-4020-X, HB-4020-X-1, HB-4020-X-2, HB-4020-X-3 HB-4020-XM, HB-4020-XM-1, HB-4020-XM-2, HB-4020-XM-3 HB-4020-AC, HB-4020-AC-1, HB-4020-AC-2, HB-4020-AC-3 HB-4020-ACM, HB-4020-ACM-1, HB-4020-ACM-2, HB-4020-ACM-3				
Technical data	Rated active power: Rated voltage: Frequency:		P_n = U_n = f_n =	0.8-2.5 230 50	kW V Hz
Certification scheme	P30VA01 Rev. 11/10.25	TÜV NORD Certification Process for Grid Integration Certification			
Network connection rule	EN 50549-1 2019+A1:2023	Requirements for generating plants to be connected in parallel with distribution networks Part 1: Connection to a LV distribution network — Generating plants up to and including Type B			
Test requirement	EN 50549-10: 2022	Requirements for generating plants to be connected in parallel with distribution networks - Part 10: Tests for conformity assessment of generating units			

This certificate of conformity is based on the evaluation of samples of the product The power generating units comply with the requirements of the network connection rule specified above. It does not imply an assessment of the production and it does not permit the use of a mark of conformity or of a safety mark of TÜV NORD. For further details and technical specifications, please refer to Annex 1, which consists of 11 pages.

Certificate Registration No. 44 799 26 406749 - 174
Evaluation Report No. 492014483.001

valid from 2026-05-22
Type 1a Certificate

Essen, 2026-05-22
Rev. 1.0

Iris Zheng

Certification body of TÜV NORD CERT GmbH

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Scan the QR code or visit https://cis.tuv-nord.com.cn to verify the validity of the certificate

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to the Certificate with the Registration No.错误!未找到引用源。

Hoymiles Power Electronics Inc.
No.18 Kangjing Road, Hangzhou,
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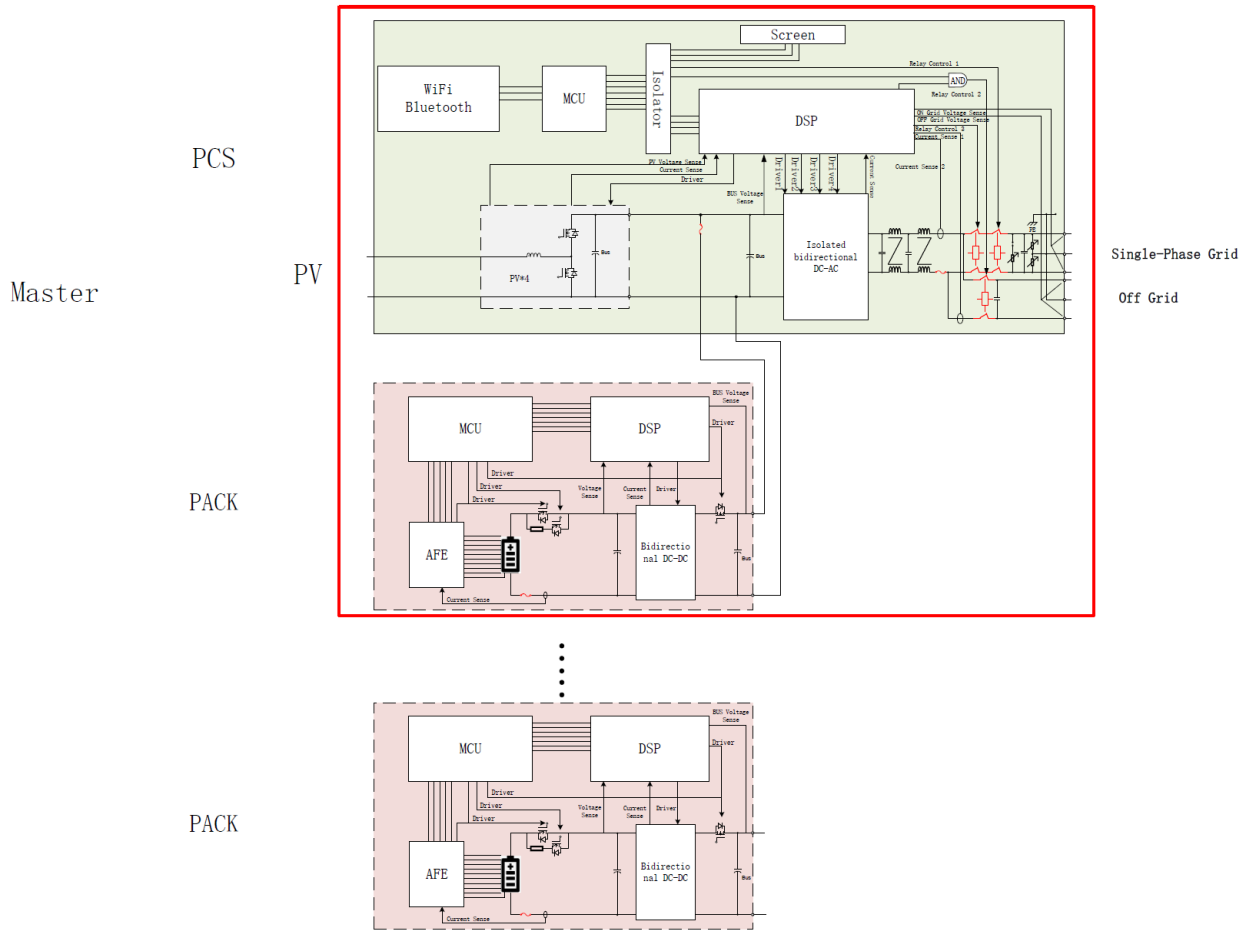
P.R.China

Schematic structure:

HB-4020-X, HB-4020-X-1, HB-4020-X-2, HB-4020-X-3,
HB-4020-XM, HB-4020-XM-1, HB-4020-XM-2, HB-4020-XM-3



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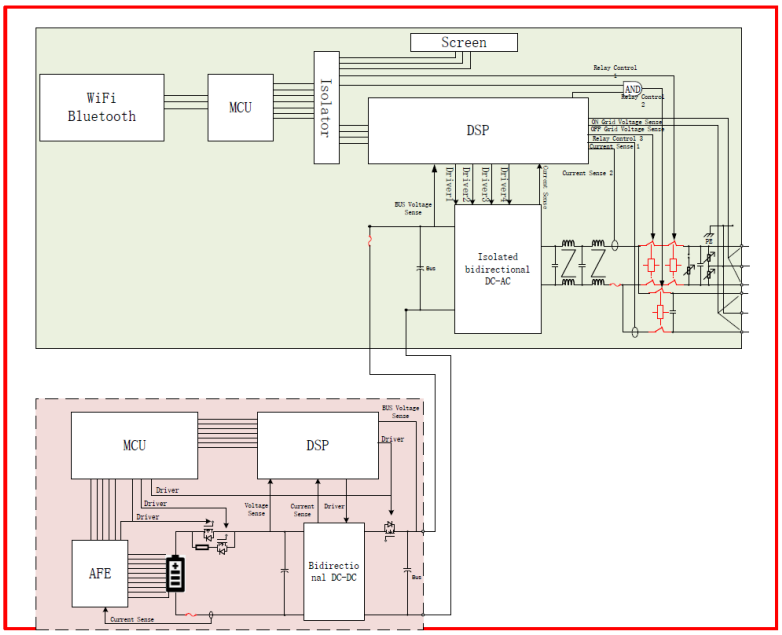
HB-4020-AC, HB-4020-AC-1, HB-4020-AC-2, HB-4020-AC-3,
HB-4020-ACM, HB-4020-ACM-1, HB-4020-ACM-2, HB-4020-ACM-3



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Technical data:

Model or Type designation	HB-4020-X	HB-4020-X-1	HB-4020-X-2	HB-4020-X-3
PV terminal				
Max. PV Input Voltage [Vd.c.]	60			
MPPT Voltage Range [Vd.c.]	16-60			
Max. PV Input Current [Ad.c.]	4*32			
Isc [Ad.c.]	4*40			
Battery Parameter				
Battery Type	Rechargeable Li-ion Industrial Battery			
Battery Rated Voltage [Vd.c.]	12.8			
Max. Charge/ Discharge Current [Ad.c.]	180			
Rated Energy [Wh]	4020	8040	12060	16080
Battery Number HB-4020-S	0	1	2	3
AC Input/Output (On-gird terminal)				
AC Normal Voltage [Va.c.]	230/180-270; L/N/PE			
AC Normal Frequency [Hz]	50			
Max. AC Input/Output Current [Aa.c.]	10.87/3.48			
Max. AC Input/Output Power [W]	2500/800			
Power Factor cosφ [λ]	＞0.99, 0.8 leading-0.8 lagging			
Backup Output				

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AC Normal Output Voltage [Va.c.]	230; L/N/PE
AC Normal Output Frequency [Hz]	50
Max. AC Input/Output Current [Aa.c.]	10.87
Max. AC Input/Output apparent Power [VA]	2500
Power Factor cosφ [λ]	＞0.99, 0.8 leading-0.8 lagging
System	
Type of inverter	Isolated
Protective Class	Class I
Ingress protection	IP66
Operating Temperature Range [°C]	-20 ~ + 55 (>40 derating)
Software version	PCS V01.00.08, PACK V01.00.07 ARM V1.00.01, WIFI V1.00.01

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Model or Type designation	HB-4020-XM	HB-4020-XM-1	HB-4020-XM-2	HB-4020-XM-3
PV terminal				
Max. PV Input Voltage [Vd.c.]	60			
MPPT Voltage Range [Vd.c.]	16-60			
Max. PV Input Current [Ad.c.]	4*32			
Isc [Ad.c.]	4*40			
Battery Parameter				
Battery Type	Rechargeable Li-ion Industrial Battery			
Battery Rated Voltage [Vd.c.]	12.8			
Max. Charge/ Discharge Current [Ad.c.]	180			
Rated Energy [Wh]	4020	8040	12060	16080
Battery Number HB-4020-S	0	1	2	3
AC Input/Output (On-gird terminal)				
AC Normal Voltage [Va.c.]	230/180-270; L/N/PE			
AC Normal Frequency [Hz]	50			
Max. AC Input/Output Current [Aa.c.]	10.87/10.87			
Max. AC Input/Output Power [W]	2500/2500			
Power Factor cosφ [λ]	＞0.99, 0.8 leading-0.8 lagging			
Backup Output				

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AC Normal Output Voltage [Va.c.]	230; L/N/PE
AC Normal Output Frequency [Hz]	50
Max. AC Input/Output Current [Aa.c.]	10.87
Max. AC Input/Output apparent Power [VA]	2500
Power Factor cosφ [λ]	＞0.99, 0.8 leading-0.8 lagging
System	
Type of inverter	Isolated
Protective Class	Class I
Ingress protection	IP66
Operating Temperature Range [°C]	-20 ~ + 55 (>40 derating)
Software version	PCS V01.00.08, PACK V01.00.07 ARM V1.00.01, WIFI V1.00.01

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Model or Type designation	HB-4020-AC	HB-4020-AC-1	HB-4020-AC-2	HB-4020-AC-3
Battery Parameter				
Battery Type	Rechargeable Li-ion Industrial Battery			
Battery Rated Voltage [Vd.c.]	12.8			
Max. Charge/ Discharge Current [Ad.c.]	180			
Rated Energy [Wh]	4020	8040	12060	16080
Battery Number HB-4020-S	0	1	2	3
AC Input/Output (On-gird terminal)				
AC Normal Voltage [Va.c.]	230/180-270; L/N/PE			
AC Normal Frequency [Hz]	50			
Max. AC Input/Output Current [Aa.c.]	10.87/3.48			
Max. AC Input/Output Power [W]	2500/800			
Power Factor cosφ [λ]	＞0.99, 0.8 leading-0.8 lagging			
Backup Output				
AC Normal Output Voltage [Va.c.]	230; L/N/PE			
AC Normal Output Frequency [Hz]	50			
Max. AC Input/Output Current [Aa.c.]	10.87			

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Max. AC Input/Output apparent Power [VA]	2500
Power Factor cosφ [λ]	＞0.99, 0.8 leading-0.8 lagging
System	
Type of inverter	Isolated
Protective Class	Class I
Ingress protection	IP66
Operating Temperature Range [°C]	-20 ~ + 55 (>40 derating)
Software version	PCS V01.00.08, PACK V01.00.07 ARM V1.00.01, WIFI V1.00.01

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Model or Type designation	HB-4020-ACM	HB-4020-ACM-1	HB-4020-ACM-2	HB-4020-ACM-3
Battery Parameter				
Battery Type	Rechargeable Li-ion Industrial Battery			
Battery Rated Voltage [Vd.c.]	12.8			
Max. Charge/ Discharge Current [Ad.c.]	180			
Rated Energy [Wh]	4020	8040	12060	16080
Battery Number HB-4020-S	0	1	2	3
AC Input/Output (On-gird terminal)				
AC Normal Voltage [Va.c.]	230/180-270; L/N/PE			
AC Normal Frequency [Hz]	50			
Max. AC Input/Output Current [Aa.c.]	10.87/10.87			
Max. AC Input/Output Power [W]	2500/2500			
Power Factor cosφ [λ]	＞0.99, 0.8 leading-0.8 lagging			
Backup Output				
AC Normal Output Voltage [Va.c.]	230; L/N/PE			
AC Normal Output Frequency [Hz]	50			
Max. AC Input/Output Current [Aa.c.]	10.87			

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Max. AC Input/Output apparent Power [VA]	2500
Power Factor cosφ [λ]	＞0.99, 0.8 leading-0.8 lagging
System	
Type of inverter	Isolated
Protective Class	Class I
Ingress protection	IP66
Operating Temperature Range [°C]	-20 ~ + 55 (>40 derating)
Software version	PCS V01.00.08, PACK V01.00.07 ARM V1.00.01, WIFI V1.00.01

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Remarks	Additional technical data is given in the evaluation report (appendix A1). The use of a modified software version is permitted if the changes to the above-mentioned software versions have been checked by TÜV NORD CERT GmbH. The validity of a new software version is confirmed to the manufacturer in writing. This confirmation then forms part of the certificate.
Restriction	None
Appendix	A1. Evaluation report no. 492014483.001 version 1.0

Essen, Iris Zheng

Certification body of TÜV NORD CERT GmbH

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