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Certificate of compliance

Applicant: Hangzhou Yixing Intelligent Technology Co., Ltd.
Room S408-2, 4th Floor, South Building, Zhifudi Building No. 181 Jingda Road,
Xihu District, Hangzhou, Zhejiang
China

Product: Photovoltaic and battery inverter (Hybrid-Inverter)

Model: CME03-2BS204, CME03-2BS204-19, CME03-2BS204-08,
CME03-2BS204-1, CME03-2BS204-19-1, CME03-2BS204-08-1,
CME03-2BS204-2, CME03-2BS204-19-2, CME03-2BS204-08-2,
CME03-2BS204-3, CME03-2BS204-19-3, CME03-2BS204-08-3,
CME03-2BS204-4, CME03-2BS204-19-4, CME03-2BS204-08-4,
CME03-2BS204-5, CME03-2BS204-19-5, CME03-2BS204-08-5

The device is designed to work as a generation unit of the type: A

Inverter for single-phase parallel connection to the public grid. The network monitoring and disconnection device is an integral part of the above-mentioned model.

Applied rules and standards:

EN 50549-1:2019/A1:2023

Requirements for parallel connection of installations with distribution networks - Part 1: Connection to an LV distribution network - Production of installations up to and including Type B

- 4.4 Normal operating range
- 4.5 Immunity to disturbances
- 4.6 Active response to frequency deviation
- 4.7 Power response to voltage variations and voltage changes
- 4.8 EMC and power quality
- 4.9 Interface protection
- 4.10 Connection and starting to generate electrical power
- 4.11 Ceasing and reduction of active power on set point
- 4.13 Requirements regarding single fault tolerance of interface protection system and interface switch

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

Compliance with the parameters in Annex C of the standard

(see appendix parameter table)

Commission Regulation (EU) 2016/631 of 14 April 2016

Establishing a network code on requirements for grid connection of generators (NC RFG).
Type approval for generation units to use in Type A plants.

At the time of issue of this certificate, the safety concept of an aforementioned representative product corresponds to the valid safety specifications for the specified use in accordance with regulations.

Report number: LS2A25062404EGEU01

Certification Program: NSOP-0032-DEU-ZE-ES-V10

Certificate number: U25-0907

Date of issue: 2025-10-16

Certification body

Accreditation



Georg LORITZ
Lab Supervisor Energy Systems



Accredited certification body by Deutsche Akkreditierungsstelle GmbH (DAkkS) according to ISO/IEC 17065. The accreditation is valid only for the scope listed in the annex of the accreditation certificate D-ZE-12024-01-00. The Deutsche Akkreditierungsstelle GmbH (DAkkS) is signatory of the multilateral arrangements of EA, ILAC and IAF for mutual recognition.

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Extract from test report LS2A25062404EGEU01 issued by a testing laboratory accredited by "A2LA" according to ISO/IEC 17025. The accreditation is only valid for the scope listed in the annex of the accreditation certificate "5200.02".

Type Approval and declaration of compliance with the requirements of EN 50549-1 and Commission Regulation (EU) 2016/631 of 14 April 2016

Manufacturer	Hangzhou Yixing Intelligent Technology Co., Ltd. Room S408-2, 4th Floor, South Building, Zhifudi Building No. 181 Jingda Road, Xihu District, Hangzhou, Zhejiang China			
Product type	Photovoltaic and battery inverter (Hybrid-Inverter)			
Static converter model	CME03-2BS204 CME03-2BS204-1* CME03-2BS204-2 * CME03-2BS204-3* CME03-2BS204-4* CME03-2BS204-5*	CME03-2BS204-19 CME03-2BS204-19-1* CME03-2BS204-19-2* CME03-2BS204-19-3* CME03-2BS204-19-4* CME03-2BS204-19-5*	CME03-2BS204-08 CME03-2BS204-08-1* CME03-2BS204-08-2* CME03-2BS204-08-3* CME03-2BS204-08-4* CME03-2BS204-08-5*	--
Input DC (photovoltaic)				
MPP voltage range [V]	16-60	16-60	16-60	--
Max. input voltage [V]	60	60	60	--
Max. input current per MPPT [A]	4 x 18	4 x 18	4 x 18	--
Input DC (battery)				
DC voltage range [V]	51,2	51,2	51,2	--
Standard charge / discharge current [A]	20 / 20	20 / 20	20 / 20	--
Max. charge / discharge current [A]	40 / 45	40 / 45	40 / 45	--
Output AC				
Rated AC voltage [V]	220V / 230V, L+N+PE, 50 Hz	220V / 230V, L+N+PE, 50 Hz	220V / 230V, L+N+PE, 50 Hz	--
Rated output current [A]	11	9	3,5	--
Max. output current [A]	11	11	11	--
Nom. converter output (P _{NINV}) [W]	2500	1999	800	--
Rated apparent power [VA]	2500	1999	800	--
On-grid battery mode AC (feed-in power / charge power)				
P _{sn} (nom. discharge power) [W]	2500	1999	800	--
P _{cn} (nom. charging power) [W]	2500	2500	2500	--
P _{smax} (max. discharge power) [W]	2500	1999	800	--
P _{cmax} (max. charging power) [W]	2500	2500	2500	--
Type	Bidirectional	Bidirectional	Bidirectional	--
Off-grid battery mode AC (feed-in power)				
P _{sn} (nom. discharge power) [W]	2500	2500	2500	--
P _{smax} (max. discharge power) [W]	2500	2500	2500	--

Interface protection system and interface switch (Network and system protection "NS-protection")	
Type of protection	Integrated NS-protection
Assigned to generation unit type	CME03-2BS204, CME03-2BS204-19, CME03-2BS204-08, CME03-2BS204-1, CME03-2BS204-19-1, CME03-2BS204-08-1, CME03-2BS204-2, CME03-2BS204-19-2, CME03-2BS204-08-2, CME03-2BS204-3, CME03-2BS204-19-3, CME03-2BS204-08-3, CME03-2BS204-4, CME03-2BS204-19-4, CME03-2BS204-08-4, CME03-2BS204-5, CME03-2BS204-19-5, CME03-2BS204-08-5
Integrated interface switch	Type of switching equipment 1: Galvanic separation HF-Transformer Type of switching equipment 2: Relais (Model HF3FF)
Software	
Firmware version	V1.10
Note	
<p>The settings of the product are password protected adjustable.</p> <p>In case the generators are used with an external protection device, the protection settings of the inverters are to be adjusted according to the manufacturer's declaration.</p> <p>The above stated generators are tested according to the requirements in the EN 50549-1 and the Commission Regulation (EU) 2016/631 of 14 April 2016. Any modification that affects the stated tests must be named by the manufacturer/supplier of the product to ensure that the product meets all requirements.</p>	



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Parameter list						
Name of parameter set		8				
Clause(s) / subclause(s) of EN 50549-1:2019+A1:2023	Parameter	Remarks / additional information	configurable value range	Step size	unit	default value
4.3.2 Interface switch	Single fault tolerance for interface switch required	Requirement met	---	---	---	---
4.4.2 Operating frequency range	LowFrequencyProtectPoint1	Requirement acc. EN 50549-1, table 1 can be met	47.49-50.0	0.01	Hz	47.49
	HighFrequencyProtectPoint1	Requirement acc. EN 50549-1, table 1 can be met	50.0-51.51	0.01	Hz	51.51
4.4.3 Minimal requirement for active power delivery at under frequency	UnderFrequencyStartFrequency1	Requirement acc. EN 50549-1, clause 4.4.3 can be met	---	---	Hz	49.8
4.4.4 Continuous operating voltage range	LowVoltageProtectPoint1	---	180-207.0	0.1	V	193.5
	HighVoltageProtectPoint1	---	253.0-276.0	0.1	V	255.3
4.5.2 Rate of change of frequency (ROCOF) immunity	---	ROCOF withstand capability $\geq 2\text{Hz/s}$	not configurable	---	Hz/s	2
4.5.3.2 Generating plant with non-synchronous generating technology (FRT)	LowThroughRevTime	---	Not configurable	---	---	$\leq 1\text{s}$
	LVRT_Enable	Enable under voltage ride through	1: Enable, 0: Disable	---	---	1
	LVRT_V1	LVRT-voltage level1	0.0-100.0	0.1	%Un	85.0
	LVRT_V2	LVRT-voltage level2	0.0-100.0	0.1	%Un	5.0
	LVRT_T1	LVRT-time level1	0.00-60.00	0.01	s	3.00
	LVRT_T2	LVRT-time level2	0.00-60.00	0.01	s	0.25
	LVRT_Vin	LVRT-entry voltage	0.0-100.0	0.1	V	85.0
	LVRT_Vout	LVRT-exit voltage	0.0-100.0	0.1	V	90.0
	LVRT_ZCM	LVRT-zero current mode	0-1	1	---	0
4.5.4 Over-voltage ride through (OVRT)	LVRT_ZCTV	LVRT-zero current trigger voltage	0.0-100.0	0.1	V	80.0
	HVRT_Enable	Enable over voltage ride through	1: Enable, 0: Disable	---	---	0
	HVRT_V1	HVRT-voltage level1	0.0 - 150.0	0.1	%Un	115.0
	HVRT_V2	HVRT-voltage level2	0.0 - 150.0	0.1	%Un	120.0
	HVRT_V3	HVRT-voltage level3	0.0 - 150.0	0.1	%Un	125.0
	HVRT_T1	HVRT-time level1	0.00 - 60.00	0.01	s	60.00
	HVRT_T2	HVRT-time level2	0.00 - 60.00	0.01	s	5.00
	HVRT_T3	HVRT-time level3	0.00 - 60.00	0.01	s	0.10
	HVRT_Vin	HVRT-entry voltage	100.0 - 150.0	0.1	V	115.0
	HVRT_Vout	HVRT-exit voltage	100.0 - 150.0	0.1	V	110.0
	HVRT_ZCM	HVRT-zero current mode	0-1	1	---	0
HVRT_ZCTV	HVRT-zero current trigger voltage	100.0-150.0	0.1	V	115.0	



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4.6.1 Power response to over frequency (LFSSM-O)	OverFrequencyStartPoint	Threshold frequency f1	50.00 - 52.00	0.01	Hz	50.20
	P-OF-F1	---	47.50-52.50	0.01	Hz	50.00
	P-OF -P1	---	5.0-15.0	0.1	%	10.0
	P-OF-F2	---	47.50-52.50	0.01	Hz	50.20
	P-OF -P2	---	5.0-15.0	0.1	%	10.0
	P-OF-F3	---	50.00-55.00	0.01	Hz	52.70
	P-OF -P3	---	0.0-10.0	0.1	%	0.0
	P_OF_F_R	---	47.50-52.50	0.01	Hz	50.20
	P_OF_Tin	---	0-50	1	s	10
	P_OF_Tout	---	0-50	1	s	10
	P_OF_PrefSet	---	0-2000	1	---	1000
	P_OF_SSRin	---	6-6000	10	%Pn/min	100
	P_OF_RRout	---	6-6000	100	%Pn/min	6000
4.6.2 Power response to under frequency (LFSSM-U)	P-LF-F1	---	47.50-52.50	0.01	Hz	50.00
	P-LF -P1	---	0.0-10.0	0.1	%	0.0
	P-LF-F2	---	47.50-52.50	0.01	Hz	49.80
	P-LF -P2	---	0.0-10.0	0.1	%	0.0
	P-LF-F3	---	45.00-52.50	0.01	Hz	47.30
	P-LF -P3	---	0.0-100.0	0.1	%	100.0
	P-LF-F_R	---	47.50-52.50	0.01	Hz	49.80
	P_LF_Tin	---	0-10	1	s	1
	P_LF_Tout	---	0-10	1	s	1
	P_LF_PrefSet	---	0-100	1	---	1000
	P_LF_SSRin	---	6-600	10	%Pn/min	100
	P_LF_RRout	---	6-600	100	%Pn/min	100
	4.7.2.2 voltage support by reactive power - Capabilities	Reactive power range	---	-1087 - 1087	1	Var
PfSet		---	-0.90 - 1.00 - 0.90	0.01	---	1.00
4.7.2.3 Control modes	VQEnable	---	Q setpoint Q(U) cosφ setpoint cosφ(P)	---	---	Q setpoint
4.7.2.3.2 Set point control modes (Q setpoint and excitation)	Reactive power setting value	---	-1087 - 1087	1	Var	0
	tau	PT1-filtering time constant	0.00 - 60.00	0.01	s	3.33
4.7.2.3.2 Set point control modes (cosφ setpoint and excitation)	cosφ setting value	---	-0.90 - 1.00 - 0.90	0.01	---	1.00
	Tau value	PT1-filtering time constant	0.00 - 60.00	0.01	s	3.33



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4.7.2.3.3 Voltage related control modes - Q(U)	QU -U1	---	90.0-110.0	0.1	%	93.0
	QU -Q1	---	-100.0 - 100.0	0.1	%Q _n	100.0
	QU -U2	---	90.0-110.0	0.1	%	94.0
	QU -Q2	---	-100.0 - 100.0	0.1	%Q _n	0.0
	QU -U3	---	90.0-110.0	0.1	%	100.0
	QU -Q3	---	-100.0 - 100.0	0.1	%Q _n	0.0
	QU -U4	---	90.0-110.0	0.1	%	106.0
	QU -Q4	---	-100.0 - 100.0	0.1	%Q _n	0.0
	QU -U5	---	90.0-110.0	0.1	%	108.0
	QU -Q5	---	-100.0 - 100.0	0.1	%Q _n	-100.0
	tau	PT1-filtering time constant	0.0 - 60.0	0.1	s	2.0
	QU_Pin	---	---	0.1	%	0
	QU_Pout	---	---	0.1	%	0
	QU_PFmin	---	---	0.01	---	40
4.7.2.3.4 Power related control mode - cosφ(P)	Cosφ-P Ctrl	Cos φ (P) curve Mode 1: Cosφ-P 0: Disable	[0 / 1]	---	---	0
	Cosφ-P-P1	---	0.0-100.0	0.1	%S _n	10.0
	Cosφ-P-F1	---	-0.90 – 0.90	0.01	---	0.90
	Cosφ-P-P2	---	0.0-100.0	0.1	% S _n	20.0
	Cosφ-P-F2	---	-0.90 – 0.90	0.01	---	0.10
	Cosφ-P-P3	---	0.0-100.0	0.1	% S _n	50.0
	Cosφ-P-F3	---	-0.90 – 0.90	0.01	---	1.00
	Cosφ-P-P4	---	0.0-100.0	0.1	% S _n	80.0
	Cosφ-P-F4	---	-0.90 – 0.90	0.01	---	0.10
	Cosφ-P-P5	---	0.0-100.0	0.1	% S _n	90.0
	Cosφ-P-F5	---	-0.90 – 0.90	0.01	---	-0.90
	tau	PT1-filtering time constant	0.0 - 60.0	0.1	s	2.0
	Cosφ-P-Vin	---	---	0.1	%	0.0
	Cosφ-P-Vout	---	---	0.1	%	0.0
Cosφ-P-Pout	---	---	0.1	%	0.0	
4.7.4.2.2 Zero current mode for converter connected generating technology	LVRT_ZCTV	---	0.00-1.00	0.01	%U _n	0.80
	HVRT_ZCTV	---	1.00-1.25	0.01	%U _n	1.15



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4.9.2 Requirements on voltage and frequency protection	LowVoltageProtectPoint1	Undervoltage threshold stage 1	180.0 - 207.0	0.1	V	193.5
	LowVoltageTripTime1	Undervoltage operate time stage 1	100 - 100000	100	ms	10000
	LowVoltageProtectPoint2	Undervoltage threshold stage 2	92.0 - 161.0	0.1	V	114.0
	LowVoltageTripTime2	Undervoltage operate time stage 2	100 - 5000	10	ms	120
	HighVoltageProtectPoint1	Overvoltage threshold stage 1	253.0-276.0	0.1	V	276.0
	HighVoltageTripTime1	Overvoltage operate time stage 1	100 - 100000	100	ms	10000
	HighVoltageProtectPoint2	Overvoltage threshold stage 2	276.0 – 288.5	0.1	V	288.5
	HighVoltageTripTime2	Overvoltage operate time stage 2	100 - 5000	100	ms	200
	OverVoltageProtectVoltage10Minute	Overvoltage threshold 10min mean protection	230.0 – 264.5	0.1	V	253.0
	LowFrequencyProtectPoint1	Underfrequency threshold stage 1	47.49 – 50.00	0.01	Hz	47.49
	LowFrequencyTripTime1	Underfrequency operate time stage 1	100 - 100000	100	ms	2000
	LowFrequencyProtectPoint2	Underfrequency threshold stage 2	46.99 – 47.50	0.01	Hz	46.99
	LowFrequencyTripTime2	Underfrequency operate time stage 2	100 - 5000	100	ms	120
	HighFrequencyProtectPoint1	Overfrequency threshold stage 1	50.00 – 51.51	0.01	Hz	51.51
	HighFrequencyTripTime1	Overfrequency operate time stage 1	100 - 100000	100	ms	2000
	HighFrequencyProtectPoint2	Overfrequency threshold stage 2	51.00 - 52.50	0.01	Hz	52.01
	HighFrequencyTripTime2	Overfrequency operate time stage 2	100 - 5000	10	ms	120
	4.10.2 Automatic reconnection after tripping	OnGirdWaitTime2	---	10.0 - 600.0	0.1	s
ReconnectUpwardSlope		---	6 - 3000	10	s/100%Pn	660
ConnectVoltageMaxThreshold2		---	230.0 - 276.0	0.1	V	253.0
ConnectVoltageMinThreshold2		---	190.0 - 230.0	0.1	V	195.5
ConnectFrequencyMaxThreshold2		---	50.00 – 50.50	0.01	Hz	50.20
ConnectFrequencyMaxThreshold2		---	47.00 - 50.00	0.01	Hz	49.50
4.10.3 Starting to generate electrical power	OnGirdWaitTime1	---	10.0 - 600.0	0.1	s	60.0
	ReconnectUpwardSlope	---	6 - 3000	10	s/100%Pn	660
	ConnectVoltageMaxThreshold1	---	230.0 - 276.0	0.1	V	253.0
	ConnectVoltageMinThreshold1	---	115.0 - 230.0	0.1	V	195.5
	ConnectFrequencyMaxThreshold1	---	50.00 - 52.00	0.01	Hz	50.10
	ConnectFrequencyMinThreshold1	---	47.00 - 50.00	0.01	Hz	49.50



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4.11.1 Ceasing active power	---	---	---	---	---	RS485
4.11.2 Reduction of active power on set point	ActivePowerControlPower	---	0.0 - 100.0	0.1	%	100.0
	ActivePowerSlope	---	6 - 3000	10	s/100%Pn	660
4.12 Remote information exchange	---	---	---	---	---	---