Certificate of compliance

Applicant:	**Shenzhen Yixing Information Technology Co., Ltd.** **Room 203, Wanwei Building, No. 5, Gongye 5th Road, Yanshan Community, Zhaoshang Street, Nanshan District, Shenzhen City, China**
Product:	**Energy Storage System**
Model:	**CME06-2BM250** **CME06-2BM250-08**

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.

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Certificate number:	**U26-0380**	**Date of issue:**	**2026-04-28**

Certification body

Georg LORITZ
Lab Supervisor Energy Systems

Accreditation

EUROPEAN RECOGNITION
DAkkS Deutsche Akkreditierungsstelle D-ZE-12024-01-00

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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Type Approval and declaration of compliance with the requirements of EN 50549-1 and Commission Regulation (EU) 2016/631 of 14 April 2016				
Manufacturer	Shenzhen Yixing Information Technology Co., Ltd. Room 203, Wanwei Building, No. 5, Gongye 5th Road, Yanshan Community, Zhaoshang Street, Nanshan District, Shenzhen City, China			
Product type	Energy Storage System			
Static converter model	CME06-2BM250	CME06-2BM250-08	--	--
Input DC (battery)				
DC voltage range [V]	21,6-28,8	21,6-28,8	--	--
Rated Charge/Discharge Current [A]	50/50	50/50	--	--
Max. Charge/Discharge Current [A]	70/70	70/70	--	--
Output AC				
Rated AC voltage [V]	220V / 230V, L+N+PE, 50 Hz	220V / 230V, L+N+PE, 50 Hz	--	--
Max. input current [A]	10,5	10,5	--	--
Max. output current [A]	6,6	3,5	--	--
Max. converter output (P_{NINV}) [W]	1500	800	--	--
Max. apparent power [VA]	2400	2400	--	--
On-grid battery mode AC (feed-in power / charge power)				
P_{sn} (nom. discharge power) [W]	1500	800	--	--
P_{cn} (nom. charging power) [W]	2400	2400	--	--
P_{smax} (max. discharge power) [W]	1500	800	--	--
P_{cmax} (max. charging power) [W]	2400	2400	--	--
Type	Bidirectional	Bidirectional	--	--
Off-grid battery mode AC (feed-in power)				
P_{sn} (nom. discharge power) [W]	2400	2400	--	--
P_{smax} (max. discharge power) [W]	2400	2400	--	--

Note

P_{sn} = rated discharge power, the maximum power that the system can deliver across the entire CUS range.

P_{cn} = rated charge power, the maximum power that the system can charge across the entire CUS range.

P_{smax} = maximum discharge power; the discharge power that the system must be able to deliver in the range from 10% to 90% of the CUS.

P_{cmax} = maximum charging power; the charging power that the system must guarantee in the range from 10% to 90% of the CUS.

CUS = usable capacity of the storage system; the amount of energy available at the connections of the storage system between the minimum and maximum state of charge.

Interface protection system and interface switch (Network and system protection "NS-protection")	
Type of protection	integrated NS-protection
Assigned to generation unit type	CME06-2BM250, CME06-2BM250-08
Integrated interface switch	Type of switching equipment 1: Relay (Model HF140FF-G or CHI05-V-212H1A2H) Type of switching equipment 2: Relay (Model HF140FF-G or CHI05-V-212H1A2H)
	Note: The output is switched off by the inverter bridge and two relay in series in each line and neutral.
Software	
Firmware version	V1.01.02

Note

The settings of the product are password protected adjustable.

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.

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.

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

Parameter Table

Name of parameter set		"EN50549"					
Clause(s) / subclause(s) of EN 50549-1:2019+A1:2023	**Parameter**	**Remarks / additional information**	**configurable value range**	**Step size**	**unit**	**default value**	
4.4.2 Operating frequency range	Internal parameter not configurable	Requirement acc. EN 50549-1, table 1 can be met	---	---	---	---	
4.4.3 Minimal requirement for active power delivery at under frequency	Internal parameter not configurable	---	not configurable	---	---	---	
4.4.4 Continuous operating voltage range	Upper limit	---	not configurable	---	$\%U_n$	110	
	Lower limit	---	not configurable	---	$\%U_n$	85	
4.5.2 Rate of change of frequency (ROCOF) immunity	Internal parameter not configurable	ROCOF withstand capability ≥ 2Hz/s	not configurable	---	Hz/s	2	
4.5.3.2 Under-voltage ride through (UVRT)	Maximum power resumption time	---	Not configurable	---	s	0.75	
	Enable under voltage ride through	---	Enable | Disable	---	---	Disable	
	Voltage-Time-Diagram	Voltage-Time-Diagram definition	Requirement acc. EN 50549-1, figure 6 (default requirement) can be met			Time	U
	V1		0.0 – 100.0	0.1	$\%U_n$		15.0
	T1		0.00 – 60.00	0.01	s	0.00	
	V2		0.0 – 100.0	0.1	$\%U_n$		72.0
	T2		0.00 – 60.00	0.01	s	0.15	
	V3		0.0 – 100.0	0.1	$\%U_n$		80.0
	T3		0.00 – 60.00	0.01	s	1.50	
4.5.4 Over-voltage ride through (OVRT)	Enable over voltage ride through	---	Enable | Disable	---	---	Disable	
	Voltage-Time-Diagram	Voltage-Time-Diagram definition	Requirement acc. EN 50549-1, figure 8 can be met			Time	U
	V1		0.0 – 130.0	0.1	$\%U_n$		125.0
	T1		0.00 – 60.00	0.01	s	0.10	
	V2		0.0 – 130.0	0.1	$\%U_n$		120.0
	T2		0.00 – 60.00	0.01	s	5.00	
	V3		0.0 – 130.0	0.1	$\%U_n$		115.0
	T3		0.00 – 60.00	0.01	s	60.00	
4.6.1 Power response to overfrequency (LFSM-O)	Activation frequency	Threshold frequency f1	50.00 – 65.00	0.01	Hz	50.20	
	Power gradient	Droop	2.0 – 12.0	0.1	%	5.0	
	Overfrequency reference power section	Power reference	P_M | P_{max}	---	---	P_{max}	
	Delay time	Intentional delay	0.0 – 60.0	0.1	s	0.0	

	Deactivation threshold fstop	---	50.00 – 50.20	0.01	Hz	deactivated
	Deactivation time tstop	---	0.0 - 600.0	0.1	s	0.0
4.6.2 Power response to under frequency (LFSM-U)	Activation frequency	Threshold frequency f1	45.00 – 50.00	0.01	Hz	49.80
	Power gradient	Droop	2.0 – 12.0	0.1	%	5.0
	Underfrequency reference power section	Power reference	P_M | P_{max}	---	---	P_{max}
	Delay time	Intentional delay	0.0 – 60.0	0.1	s	0.0
4.7.2.2 voltage support by reactive power - Capabilities	Reactive power range overexcited	---	0.0 – 60.0	0.1	$\%S_n$	60.0
	Reactive power range underexcited	---	-60.0 – 0.0	0.1	$\%S_n$	-60.0
	Active factor range underexcited	---	0.80 - 1.00	0.01	---	0.80
	Active factor range overexcited	---	0.80 - 1.00	0.01	---	0.80
4.7.2.3 Control modes	Enabled control mode	---	Q setpoint Q(U) Q(P) cosφ setpoint cosφ(P)	---	---	Q setpoint
4.7.2.3.2 Set point control modes (Q setpoint and excitation)	Reactive power setting value	---	-60.0 – 60.0	0.1	$\%S_n$	0
	Delay time	---	0.0 – 60.0	0.1	s	0.0
	Tau value	PT1-filtering time constant	0.0 – 60.0	0.1	s	3.0
4.7.2.3.2 Set point control modes (cosφ setpoint and excitation)	cosφ setting value	---	0.80 - 1.00 - 0.80	0.01	---	0.80
	Delay time	---	0.0 – 60.0	0.1	s	0.0
	Tau value	PT1-filtering time constant	0.0 – 60.0	0.1	s	3.3
4.7.2.3.3 Voltage related control modes - Q(U)	Voltage node 1	---	0 – 200	1	%Un	93
	Voltage node 2	---	0 – 200	1	%Un	94
	Voltage node 3	---	0 – 200	1	%Un	106
	Voltage node 4	---	0 – 200	1	%Un	108
	Reactive Power responding node 1	---	-100 – 100	1	$\%Q_{max}$	100
	Reactive Power responding node 2	---	-100 – 100	1	$\%Q_{max}$	0
	Reactive Power responding node 3	---	-100 – 100	1	$\%Q_{max}$	0
	Reactive Power responding node 4	---	-100 – 100	1	$\%Q_{max}$	-100
	Delay time	---	0.0 – 60.0	0.1	s	0.0
	Tau value	PT1-filtering time constant	0.0 – 60.0	0.1	s	3.0
	Min cos φ	---	0.0-1.0	0.1	---	0.4
	Lock-in power	---	0.0 – 20.0	0.1	%Pn	20.0
	Lock-out power	---	0.0 – 20.0	0.1	%Pn	5.0
	PF Node 1	---	0.00 – 1.00	0.01	---	1.00

4.7.2.3.4 Power related control mode - cosφ(P)	PF Node 2	---	0.00 – 1.00	0.01	---	1.00
	PF Node 3	---	-1.00 – 1.00	0.01	---	-0.95
	Power node 1	---	0.0 – 100.0	0.1	%S_n	0.0
	Power node 2	---	0.0 - 100.0	0.1	%S_n	50.0
	Power node 3	---	0.0 – 100.0	0.1	%S_n	100.0
	Tau Value	PT1-filtering time constant	0.0 – 60.0	0.1	s	3.0
4.7.4.2.2 Zero current mode for converter connected generating technology	Threshold value of under voltage	---	20.0 – 100.0	0.1	%Un	50.0
	Threshold value of over voltage	---	100.0 – 120.0	0.1	%Un	120.0
4.9.3 Requirements on voltage and frequency protection	Undervoltage Protection value Level_1(V)	Undervoltage threshold stage 1	0.0 – 300.0	0.1	V	184.0
	Undervoltage Disconnection Time Level_1(V)	Undervoltage operate time stage 1	0 - 60000	1	ms	3000
	Undervoltage Protection value Level_2(V)	Undervoltage threshold stage 2	0.0 – 300.0	0.1	V	103.5
	Undervoltage Disconnection Time Level_2(V)	Undervoltage operate time stage 2	0 - 60000	1	ms	500
	Overvoltage Protection value Level_1(V)	Overvoltage threshold stage 1	0.0 – 300.0	0.1	V	253.0
	Overvoltage Disconnection Time Level_1(V)	Overvoltage operate time stage 1	0 - 60000	1	ms	100
	Overvoltage Protection value Level_2(V)	Overvoltage threshold stage 2	0.0 – 300.0	0.1	V	287.5
	Overvoltage Disconnection Time Level_2(V)	Overvoltage operate time stage 2	0 - 60000	1	ms	120
	10min overvoltage Protection Value	Overvoltage threshold 10min mean protection	0.0 – 300.0	0.1	V	253.0
	10-min mean Disconnection Time	Overvoltage operate time 10 min mean protection	---	---	---	10 min (update every 3s)
	Underfrequency Protection value Level_1	Underfrequency threshold stage 1	45.0 – 65.0	0.1	Hz	47.5Hz
	Underfrequency Disconnection Time Level_1	Underfrequency operate time stage 1	0 - 60000	1	ms	80
	Overfrequency Protection value Level_2	Underfrequency threshold stage 2	45.0 – 65.0	0.1	Hz	---
	Overfrequency Disconnection Time Level_2	Underfrequency operate time stage 2	0 - 60000	1	ms	---
	Overfrequency Protection value Level_1	Overfrequency threshold stage 1	45.0 – 65.0	0.1	Hz	51.5
	Overfrequency Disconnection Time Level_1	Overfrequency operate time stage 1	0 - 60000	1	ms	80

	Level-2 overfrequency frequency value	Overfrequency threshold stage 2	45.0 – 65.0	0.1	Hz	---
	Level-2 overfrequency trip delay time	Overfrequency operate time stage 2	0 - 60000	1	ms	---
4.9.4.1 ROCOF tripping	Frequency rate of change protection value	---	1.0-10.0	0.1	Hz/s	2.0
	Frequency rate of change protection time	---	0-65535	1	ms	200
4.10.2 Automatic reconnection after tripping	Start up time follewing grid error	---	0 - 900	1	s	68
	Power gradient follewing grid error (%/min)	---	0.0 – 100.0	0.1	%/min	8.0
	Max. grid reconnection voltage	---	0.0 – 300.0	0.1	V	253.0
	Min. grid reconnection voltage	---	0.0 – 300.0	0.1	V	195.5
	Max. grid reconnection frequency	---	45.0 – 65.0	0.1	Hz	50.2
	Min. grid reconnection frequency	---	45.0 – 65.0	0.1	Hz	49.5
4.10.3 Starting to generate electrical power	Start up time	---	0.0 – 900.0	0.1	s	60.0
	Power gradient	---	0.0 – 100.0	0.1	%/min	10.0
	Max. grid start voltage	---	0.0 – 300.0	0.1	V	253.0
	Min. grid start voltage	---	0.0 – 300.0	0.1	V	195.5
	Max. grid start frequency	---	45.0 – 65.0	0.1	Hz	50.1
	Min. grid start frequency	---	45.0 – 65.0	0.1	Hz	49.5
4.11.1 Ceasing active power	---	---	---	---	---	RS485
4.11.2 Reduction of active power on set point	Temporary Active Power Setting	---	0 – 1500	1	W	100
	Active Power Slope Setting	---	0 – 10000	1	%/min	9000
4.12 Remote information exchange	---	---	---	---	---	---