CERTIFICATE OF CONFORMITY

Issued to:	Anker Innovations Limited Unit 56, 8th Floor, Tower 2, Admiralty Centre, 18 Harcourt Road, Hong Kong
For the product:	Energy Storage System
Trade name:	ANKER SOLIX
Type/Model:	A17C53Z1, A17C53Z1-1, A17C53Z1-2, A17C53Z1-3, A17C53Z1-4, A17C53Z1-5, A17C53Z1-20, A17C53Z1-20-1, A17C53Z1-20-2, A17C53Z1-20-3, A17C53Z1-20-4, A17C53Z1-20-5
Ratings:	See the annex
Manufactured by:	Anker Innovations Limited Unit 56, 8th Floor, Tower 2, Admiralty Centre, 18 Harcourt Road, Hong Kong
Requirements:	VDE-AR-N 4105:2018-11 DIN VDE V 0124-100:2020-06

This Test Certificate is granted on account of an examination by DEKRA, the results of which are laid down in a confidential file no. 4936746.50.

The examination has been carried out on one single specimen of the product. The Attestation does not include an assessment of the manufacturer's production. Conformity of this production with the specimen tested by DEKRA is not the responsibility of DEKRA.

This Test Certificate expires at the latest on 22 May 2030 or expires upon withdrawal of one of the above-mentioned standards.

Shanghai, 22 May 2025 Number: 4936746.01COC

DEKRA Testing and Certification (Shanghai) Ltd.

Rosa Zhou
Certification Manager

PCA-141

DEKRA Testing and Certification (Shanghai) Ltd.
No.250, Jiangchangsan Road, Jing'an District, Shanghai, 200436 People's Republic of China
T +86 21 6056 7600 F +86 21 6056 7555 www.dekra-product-safety.com

Annex to 4936746.01COC

Ratings of the PGU:

Model		A17C53Z1	A17C53Z1-1	A17C53Z1-2
PV input	Max. PV voltage [V_{DC}]	60		
	MPPT voltage range [V_{DC}]	16-60		
	Full load MPPT voltage range [V_{DC}]	25-45		
	Max. input current [A_{DC}]	32*4		
	Isc PV [A_{DC}]	40*4		
	Max. input power [W]	900*4		
Battery	Rated DC Range [V_{DC}]	25.6		
	Max. charge current [A_{DC}]	70		
	Max. discharge current [A_{DC}]	75		
	Battery capacity [Wh]	2688	5376	8064
AC Grid Input	Max. Input Power [W]	2000		
	Max. Input Apparent power [VA]	2000		
	Max. Input Current [A_{AC}]	10		
	Max. AC charge Power [W]	1200		
	Max. AC charge Current [A_{AC}]	5.3		
	Rated Output Voltage [V_{AC}]	230, L+N+PE		
	Rated Output Frequency [Hz]	50/60		
	Power factor	0.8 leading ~ 0.8 lagging (adjustable)		
AC Grid Output	Rated Output Power [W]	800		
	Max. Output Power [W]	1200		
	Max. Apparent power [VA]	1200		
	Rated Output Current [A_{AC}]	3.5		
	Max. Output Current [A_{AC}]	5.3		
	Rated Output Voltage [V_{AC}]	230, L+N+PE		
	Rated Output Frequency [Hz]	50/60		
	Power factor	0.8 leading ~ 0.8 lagging (adjustable)		
Off-Grid Output	Rated Output Voltage [V_{AC}]	230, L+N+PE		
	Rated Output Frequency [Hz]	50/60		
	Max. Output Power [W]	1200		
	Max. Output Current [A_{AC}]	5.3		
	Max. AC Bypass Output Power [W]	2000		
	Max. AC Bypass Output Current [A_{AC}]	10		
General	Type of inverter	Isolated		
	Ingress Protection	IP65		
	Operating Temperature Range [ºC]	-20 ~ 55 (>45 derating)		
	Size W×D×H [mm]	460*254*279	460*254*464	460*254*649
	Weight [kg]	29.2	53.0	77.0

Annex to 4936746.01COC

Model		A17C53Z1-3	A17C53Z1-4	A17C53Z1-5
PV input	Max. PV voltage [V_{DC}]	60		
	MPPT voltage range [V_{DC}]	16-60		
	Full load MPPT voltage range [V_{DC}]	25-45		
	Max. input current [A_{DC}]	32*4		
	Isc PV [A_{DC}]	40*4		
	Max. input power [W]	900*4		
Battery	Rated DC Range [V_{DC}]	25.6		
	Max. charge current [A_{DC}]	70		
	Max. discharge current [A_{DC}]	75		
	Battery capacity [Wh]	10752	13440	16128
AC Grid Input	Max. Input Power [W]	2000		
	Max. Input Apparent power [VA]	2000		
	Max. Input Current [A_{AC}]	10		
	Max. AC charge Power [W]	1200		
	Max. AC charge Current [A_{AC}]	5.3		
	Rated Output Voltage [V_{AC}]	230, L+N+PE		
	Rated Output Frequency [Hz]	50/60		
	Power factor	0.8 leading ~ 0.8 lagging（adjustable)		
AC Grid Output	Rated Output Power [W]	800		
	Max. Output Power [W]	1200		
	Max. Apparent power [VA]	1200		
	Rated Output Current [A_{AC}]	3.5		
	Max. Output Current [A_{AC}]	5.3		
	Rated Output Voltage [V_{AC}]	230, L+N+PE		
	Rated Output Frequency [Hz]	50/60		
	Power factor	0.8 leading ~ 0.8 lagging（adjustable)		
Off-Grid Output	Rated Output Voltage [V_{AC}]	230, L+N+PE		
	Rated Output Frequency [Hz]	50/60		
	Max. Output Power [W]	1200		
	Max. Output Current [A_{AC}]	5.3		
	Max. AC Bypass Output Power [W]	2000		
	Max. AC Bypass Output Current [A_{AC}]	10		
General	Type of inverter	Isolated		
	Ingress Protection	IP65		
	Operating Temperature Range [ºC]	-20 ~ 55 (>45 derating)		
	Size W×D×H [mm]	460*254*834	460*254*1019	460*254*1204
	Weight [kg]	101.0	125.0	149.0

Annex to 4936746.01COC

Model		A17C53Z1-20	A17C53Z1-20-1	A17C53Z1-20-2
PV input	Max. PV voltage [V_{DC}]	60		
	MPPT voltage range [V_{DC}]	16-60		
	Full load MPPT voltage range [V_{DC}]	25-45		
	Max. input current [A_{DC}]	32*4		
	Isc PV [A_{DC}]	40*4		
	Max. input power [W]	900*4		
Battery	Rated DC Range [V_{DC}]	25.6		
	Max. charge current [A_{DC}]	70		
	Max. discharge current [A_{DC}]	75		
	Battery capacity [Wh]	2688	5376	8064
AC Grid Input	Max. Input Power [W]	2000		
	Max. Input Apparent power [VA]	2000		
	Max. Input Current [A_{AC}]	10		
	Max. AC charge Power [W]	1200		
	Max. AC charge Current [A_{AC}]	5.3		
	Rated Output Voltage [V_{AC}]	230, L+N+PE		
	Rated Output Frequency [Hz]	50/60		
	Power factor	0.8 leading ~ 0.8 lagging（adjustable)		
AC Grid Output	Rated Output Power [W]	800		
	Max. Output Power [W]	800		
	Max. Apparent power [VA]	800		
	Rated Output Current [A_{AC}]	3.5		
	Max. Output Current [A_{AC}]	3.5		
	Rated Output Voltage [V_{AC}]	230, L+N+PE		
	Rated Output Frequency [Hz]	50/60		
	Power factor	0.8 leading ~ 0.8 lagging（adjustable)		
Off-Grid Output	Rated Output Voltage [V_{AC}]	230, L+N+PE		
	Rated Output Frequency [Hz]	50/60		
	Max. Output Power [W]	1200		
	Max. Output Current [A_{AC}]	5.3		
	Max. AC Bypass Output Power [W]	2000		
	Max. AC Bypass Output Current [A_{AC}]	10		
General	Type of inverter	Isolated		
	Ingress Protection	IP65		
	Operating Temperature Range [ºC]	-20 ~ 55 (>45 derating)		
	Size W×D×H [mm]	460*254*279	460*254*464	460*254*649
	Weight [kg]	29.2	53.0	77.0

Annex to 4936746.01COC

Model		A17C53Z1-20-3	A17C53Z1-20-4	A17C53Z1-20-5
PV input	Max. PV voltage [V_{DC}]	60		
	MPPT voltage range [V_{DC}]	16-60		
	Full load MPPT voltage range [V_{DC}]	25-45		
	Max. input current [A_{DC}]	32*4		
	Isc PV [A_{DC}]	40*4		
	Max. input power [W]	900*4		
Battery	Rated DC Range [V_{DC}]	25.6		
	Max. charge current [A_{DC}]	70		
	Max. discharge current [A_{DC}]	75		
	Battery capacity [Wh]	10752	13440	16128
AC Grid Input	Max. Input Power [W]	2000		
	Max. Input Apparent power [VA]	2000		
	Max. Input Current [A_{AC}]	10		
	Max. AC charge Power [W]	1200		
	Max. AC charge Current [A_{AC}]	5.3		
	Rated Output Voltage [V_{AC}]	230, L+N+PE		
	Rated Output Frequency [Hz]	50/60		
	Power factor	0.8 leading ~ 0.8 lagging（adjustable)		
AC Grid Output	Rated Output Power [W]	800		
	Max. Output Power [W]	800		
	Max. Apparent power [VA]	800		
	Rated Output Current [A_{AC}]	3.5		
	Max. Output Current [A_{AC}]	3.5		
	Rated Output Voltage [V_{AC}]	230, L+N+PE		
	Rated Output Frequency [Hz]	50/60		
	Power factor	0.8 leading ~ 0.8 lagging（adjustable)		
Off-Grid Output	Rated Output Voltage [V_{AC}]	230, L+N+PE		
	Rated Output Frequency [Hz]	50/60		
	Max. Output Power [W]	1200		
	Max. Output Current [A_{AC}]	5.3		
	Max. AC Bypass Output Power [W]	2000		
	Max. AC Bypass Output Current [A_{AC}]	10		
General	Type of inverter	Isolated		
	Ingress Protection	IP65		
	Operating Temperature Range [ºC]	-20 ~ 55 (>45 derating)		
	Size W×D×H [mm]	460*254*834	460*254*1019	460*254*1204
	Weight [kg]	101.0	125.0	149.0

E.4 Unit certificate

Unit certificate		
Manufacturer / Address:	Anker Innovations Limited Unit 56, 8th Floor, Tower 2, Admiralty Centre, 18 Harcourt Road, Hong Kong	
Type of power generation unit:	Energy Storage System A17C53Z1, A17C53Z1-1, A17C53Z1-2, A17C53Z1-3, A17C53Z1-4, A17C53Z1-5, A17C53Z1-20, A17C53Z1-20-1, A17C53Z1-20-2, A17C53Z1-20-3, A17C53Z1-20-4, A17C53Z1-20-5	
☒ Inverter	☐ Asynchronous generator	☐ Synchronous generator
☐ Stirling generator	☐ Fuel cell	☐ Others
Assessment values	Max. active power P_{Emax}	1200 W (A17C53Z1, A17C53Z1-1, A17C53Z1-2, A17C53Z1-3, A17C53Z1-4, A17C53Z1-5)
	Max. apparent power S_{Emax}	1200 VA (A17C53Z1, A17C53Z1-1, A17C53Z1-2, A17C53Z1-3, A17C53Z1-4, A17C53Z1-5)
	Rated voltage	230V (W+N+PE)
	Rated current (AC) I_r	3.5 A (A17C53Z1, A17C53Z1-1, A17C53Z1-2, A17C53Z1-3, A17C53Z1-4, A17C53Z1-5)
	Initial short-circuit AC current I_k	10 A
Network connection rule	**VDE-AR-N 4105 "Generators connected to the low-voltage distribution network"** Technical minimum requirements for connection and parallel operation of power generation systems connected to the low-voltage network	
Test requirement	**DIN VDE V 0124-100 (VDE V 0124-100) "Network integration of power generation systems – Low voltage"** Test requirements for power generation units intended for connection to and parallel operation on the low-voltage network	
Test report	4936746.50 from (2025-05-22)	
The above designated power generation unit meets the requirements of VDE-AR-N 4105.		

E.6 Certificate of the network and system protection

Certificate of NS protection		
Manufacturer	Anker Innovations Limited Unit 56, 8th Floor, Tower 2, Admiralty Centre, 18 Harcourt Road, Hong Kong	
Type of NS protection	Integrated NS protection	
Central NS protection	☐	
Integrated NS protection	☒	Assigned to power generation unit of type: A17C53Z1, A17C53Z1-1, A17C53Z1-2, A17C53Z1-3, A17C53Z1-4, A17C53Z1-5, A17C53Z1-20, A17C53Z1-20-1, A17C53Z1-20-2, A17C53Z1-20-3, A17C53Z1-20-4, A17C53Z1-20-5
Network connection rule	**VDE-AR-N 4105 "Generators connected to the low-voltage distribution network"** Technical minimum requirements for connection and parallel operation of power generation systems connected to the low-voltage network	
Test requirement	**DIN VDE V 0124-100 (VDE V 0124-100) "Network integration of power generation systems – Low voltage"** Test requirements for power generation units intended for connection to and parallel operation on the low-voltage network	
Test report	4936746.50 from (2025-05-22)	
The network and system protection designated above meets the requirements of VDE-AR-N 4105.		

E.7 Requirements for the test report for the NS protection

Extract from test report for NS protection "Determination of electrical properties"			Report No.: 4936746.50
Test report NS protection			
Type of NS protection:	Integrated NS protection		**Other Manufacturer indications**
Software version:	V1.0		N/A
Manufacturer:	Anker Innovations Limited Unit 56, 8th Floor, Tower 2, Admiralty Centre, 18 Harcourt Road, Hong Kong		
Measuring period:	From 2024-12-17 to 2025-05-07		

	Inverter		
Protection function	**Setting value**	**Tripping value**	**Tripping time NS protection***
Rise-in-voltage protection *U* >>	1.25 * U_n	L-N: 287.6 V	L-N: 166 ms
Rise-in-voltage protection *U* >	1.10 * U_n	1.10 * U_n, ≤ 100 ms**	
Voltage drop protection *U* <	0.8 * U_n	L-N: 183.5 V	L-N: 3.076 s
Voltage drop protection *U* <<	0.45 * U_n	L-N: 103.0 V	L-N: 364 ms
Frequency decrease protection *f* <	47.5 Hz	47.51 Hz	147 ms
Frequency increase protection *f* >	51.5 Hz	51.50 Hz	145 ms

*: The tripping time includes the period from the limit value violation U/f until the tripping signal to the interface switch.

When planning the power generation system, the response time of the interface switch shall be added to the maximum time value obtained as indicated above.

The disconnection time (sum of tripping time of the NS protection plus response time of the interface switch) shall not exceed 200 ms.

**: Verification disconnection time of moving 10-min-average value. Disconnecting time as below:

(497.76) s (L-N from 600 s @ 100% U_n to 112% U_n)

Continuous operation (L-N from 600 s @ 100% U_n to 108% U_n)

(295.56) s (L-N from 600 s @ 106% U_n to 114% U_n)

☒ **For integrated NS protection**

Assigned to power generation unit type	A17C53Z1, A17C53Z1-1, A17C53Z1-2, A17C53Z1-3, A17C53Z1-4, A17C53Z1-5, A17C53Z1-20, A17C53Z1-20-1, A17C53Z1-20-2, A17C53Z1-20-3, A17C53Z1-20-4, A17C53Z1-20-5
Integrated interface switch type	Series-connected relays for all phase conductors each Relay type: HF140FF-G/012-2HSWTF(456)
Response time of interface switch for integrated NS protection	Release time: max. 15 ms
Verification of the entire functional chain "integrated NS protection – interface switch" has resulted in successful disconnection.	☒

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