

# Compliance Document

No. D 120560 0002 Rev. 00

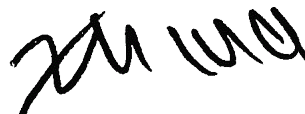
**Holder of Certificate:** **Slenergy Technology (A.H.) Co., Ltd.**  
No. 120 Yongyang Road  
239000 Chuzhou, Anhui  
PEOPLE'S REPUBLIC OF CHINA

**Product:** **PV inverter**  
**Micro inverter**

This Compliance document confirms the compliance with the listed standards on a voluntary basis. It refers only to the sample submitted for testing and certification and does not certify the quality or safety of the serial products. For details see: [www.tuvsud.com/ps-cert](http://www.tuvsud.com/ps-cert)

**Test report no.:** 5040923010522-00

**Date,** 2023-06-12



( Zhengdong Ma )



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**Model(s):** SL-M600, SL-M800, SL-M600-C, SL-M800-C

**Parameters:**  
Please see pages 3 to 6.

**Tested according to:** EN 50549-1:2019/AC:2019



Product Service

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Models	SL-M800	SL-M800-C	SL-M600	SL-M600-C
PV Input Parameters				
Max. input voltage	DC 60 V			
MPP voltage range	DC 25V, ..., 55 V			
Max. input current	DC 15/15 A			
Isc PV(absolute maximum)	DC 20/20 A			
AC Output Parameters				
Rated AC output active power	800 W		600 W	
Max. AC output apparent power	800 VA		600 VA	
Rated grid voltage	1/N/PE AC 230 V			
Rated grid frequency	50/60 Hz			
Max. continuous output current	AC 3.6 A		AC 2.7 A	

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Interface protection system default settings and power controls in inverter

Clause(s) / subclause(s) of this EN	Ref	Parameter	Typical value range	Value default														
4.3.2 Interface switch	n.a.	Single fault tolerance for interface switch required	yes   no	yes														
4.4.2 Operating frequency range	A,B	47.0 – 47.5 Hz Duration	0 – 20 s	Unlimited														
	A,B	47.5 – 48.5 Hz Duration	30 – 90 min	Unlimited														
	A,B	48.5 – 49.0 Hz Duration	30 – 90 min	Unlimited														
	A,B	49.0 – 51.0 Hz Duration	not configurable	Unlimited														
	A,B	51.0 – 51.5 Hz Duration	30 – 90 min	Unlimited														
4.4.3 Minimal requirement for active power delivery at underfrequency	A,B	Reduction threshold	49 Hz – 49.5 Hz	N/A														
	A,B	Maximum reduction rate	2 – 10 % P <sub>M</sub> /Hz	N/A														
4.4.4 Continuous operating voltage range	n.a.	Upper limit	not configurable	110%Un														
	n.a.	Lower limit	not configurable	85%Un														
4.5.2 Rate of change of frequency (ROCOF) immunity	A,B	ROCOF withstand capability (defined with a sliding measurement window of 500 ms)	not defined	2Hz/s														
		non-synchronous generating technology:		2Hz/s														
		synchronous generating technology:		N/A														
4.5.3.2 Generating plant with non-synchronous generating technology	B	Maximum power resumption time	not defined	N/A														
	B	Voltage-Time-Diagram	see Figure 6	<table border="1"> <thead> <tr> <th>Time [s]</th> <th>U [p.u.]</th> </tr> </thead> <tbody> <tr><td>-</td><td>-</td></tr> <tr><td>-</td><td>-</td></tr> <tr><td>-</td><td>-</td></tr> <tr><td>-</td><td>-</td></tr> <tr><td>-</td><td>-</td></tr> <tr><td>-</td><td>-</td></tr> </tbody> </table>	Time [s]	U [p.u.]	-	-	-	-	-	-	-	-	-	-	-	-
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4.5.3.3 Generating plant with synchronous generating technology	B	Maximum power resumption time	not defined	N/A														
	B	Voltage-Time-Diagram	see Figure 7 (N/A)	<table border="1"> <thead> <tr> <th>Time [s]</th> <th>U [p.u.]</th> </tr> </thead> <tbody> <tr><td>-</td><td>-</td></tr> <tr><td>-</td><td>-</td></tr> <tr><td>-</td><td>-</td></tr> <tr><td>-</td><td>-</td></tr> <tr><td>-</td><td>-</td></tr> <tr><td>-</td><td>-</td></tr> </tbody> </table>	Time [s]	U [p.u.]	-	-	-	-	-	-	-	-	-	-	-	-
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4.5.4 Over-voltage ride through (OVRT)	n.a.	Voltage-Time-Diagram	not configurable	<table border="1"> <thead> <tr> <th>Time [s]</th> <th>U [p.u.]</th> </tr> </thead> <tbody> <tr><td>-</td><td>-</td></tr> <tr><td>-</td><td>-</td></tr> <tr><td>-</td><td>-</td></tr> <tr><td>-</td><td>-</td></tr> <tr><td>-</td><td>-</td></tr> <tr><td>-</td><td>-</td></tr> </tbody> </table>	Time [s]	U [p.u.]	-	-	-	-	-	-	-	-	-	-	-	-
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4.6.1 Power response to overfrequency	A,B	Threshold frequency f <sub>1</sub>	50.2 Hz – 52 Hz	50.2 Hz														
	A,B	Droop	2 % – 12 %	5 %														
	A,B	Power reference	P <sub>M</sub>   P <sub>max</sub>	P <sub>M</sub>														
	n.a.	Intentional delay	0 – 2 s	0s														
	n.a.	Deactivation threshold f <sub>stop</sub>	50.0 Hz – f <sub>1</sub>	-														
	n.a.	Deactivation time t <sub>stop</sub>	0 – 600 s	-														
A	Acceptance of staged		yes   no	yes														

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		disconnection		
4.6.2 Power response to underfrequency	n.a.	Threshold frequency $f_1$	49.8 Hz – 46 Hz	-
	n.a.	Droop	2 – 12 %	-
	n.a.	Power reference	$P_M$   $P_{max}$	-
	n.a.	Intentional delay	0 – 2 s	-
4.7.2.2 Capabilities	B	Active factor range overexcited	0.9 – 1	-
	B	Active factor range underexcited	0.9 – 1	-
4.7.2.3 Control modes	n.a.	Enabled control mode	Q setp. Q(U) cos $\varphi$ setp. cos $\varphi$ (P)	-
4.7.2.3.2 Setpoint control modes	n.a.	Q setpoint and excitation	0 – 60 % $S_{max}$	-
	n.a.	cos $\varphi$ setpoint and excitation	1 – 0.9	-
4.7.2.3.3 Voltage related control modes	n.a.	Characteristic curve	-	-
	n.a.	Time constant	3 s – 60 s	-
	n.a.	Min cos $\varphi$	0.0 – 1	-
	n.a.	Lock in power	0 % – 20 %	-
	n.a.	Lock out power	0 % – 20 %	-
4.7.2.3.4 Power related control mode	n.a.	Characteristic curve	-	-
4.7.4.2.2 Zero current mode for converter connected generating technology	n.a.	Enabling	enable   disable	-
	n.a.	Static voltage range overvoltage	100 % $U_n$ – 120 % $U_n$	-
	n.a.	Static voltage range undervoltage	20 % $U_n$ – 100 % $U_n$	-
4.9.2 Requirements on voltage and frequency protection	n.a.	Threshold for protection as dedicated device [ in A or kW, kVA]	16 A – 250 kVA	Interface protection integrated
	B	Undervoltage threshold stage 1	0.2 $U_n$ – 1 $U_n$	0.85 $U_n$
	B	Undervoltage operate time stage 1	0.1 s – 100 s	96 s
	B	Undervoltage threshold stage 2	0.2 $U_n$ – 1 $U_n$	0.5 $U_n$
	B	Undervoltage operate time stage 2	0.1 s – 5 s	5 s
	B	Overvoltage threshold stage 1	1.0 $U_n$ – 1.2 $U_n$	1.2 $U_n$
	B	Overvoltage operate time stage 1	0.1 s – 100 s	96 s
	B	Overvoltage threshold stage 2	1.0 $U_n$ – 1.3 $U_n$	1.3 $U_n$
	B	Overvoltage operate time stage 2	0.1 s – 5 s	5 s
	B	Overvoltage threshold 10 min mean protection	1.0 $U_n$ – 1.15 $U_n$	1.1 $U_n$
	B	Underfrequency threshold stage 1	47.0 Hz – 50.0 Hz	47.5 Hz
	B	Underfrequency operate time stage 1	0.1 s – 100 s	96 s
	B	Underfrequency threshold stage 2	47.0 Hz – 50.0 Hz	47.0 Hz
	B	Underfrequency operate time stage 2	0.1 s – 5 s	5 s
	B	Overfrequency threshold stage 1	50.0 Hz – 52.0 Hz	51.5 Hz
	B	Overfrequency operate time stage 1	0.1 s – 100 s	96 s
B	Overfrequency threshold stage 2	50.0 Hz – 52.0 Hz	52.0 Hz	

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	B	Overfrequency operate time stage 2	0.1 s – 5 s	5 s
4.10.2 Automatic reconnection after tripping	B	Lower frequency	47.0 Hz – 50.0 Hz	49.5 Hz
	B	Upper frequency	50.0 Hz – 52.0 Hz	50.2 Hz
	B	Lower voltage	50 % $U_n$ – 100 % $U_n$	0.85 $U_n$
	B	Upper voltage	100 % $U_n$ – 120 % $U_n$	1.1 $U_n$
	B	Observation time	10 s – 600 s	60 s
	B	Active power increase gradient	6 % – 3000 %/min	9%/min
4.10.3 Starting to generate electrical power	A,B	Lower frequency	47.0 Hz – 50.0 Hz	49.5 Hz
	A,B	Upper frequency	50.0 Hz – 52.0 Hz	50.2 Hz
	A,B	Lower voltage	50 % – 100 % $U_n$	0.85 $U_n$
	A,B	Upper voltage	100 % – 120 % $U_n$	1.1 $U_n$
	A,B	Observation time	10 s – 600 s	60 s
	A,B	Active power increase gradient	6 % – 3000 %/min	9%/min
4.11.1 Ceasing active power	A,B	Remote operation of the logic interface	yes   no	Can be achieved by PGU. (Logic interface shall be specified by DNO)
4.11.2 Reduction of active power on set point	B	Remote operation NOTE: If yes further definition is provided by the DSO	yes   no	Can be achieved by PGU. (Logic interface shall be specified by DNO)
4.12 Remote information exchange	B	Remote information exchange required NOTE: If yes further definition is provided by the DSO	yes   no	yes (Definition shall be specified by DNO)

The Column Ref specifies if a parameter is relevant for COMMISSION REGULATION 2016/631 and for what type of generating module the parameter is relevant. If n.a. is set, this parameter is: not applicable for 2016/631, but is introduced into EN 50549-1 for local DSO network management reasons and is not considered as cross border issues.

Unauthorised access to factory safety parameters setting and software should be prohibited.

A reset to the factory safety parameters requires retesting and verification in conjunction with the end-use system.