

# Compliance Document

No. D 086470 0100 Rev. 00

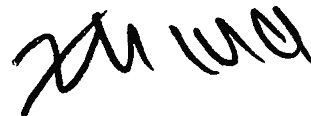
**Holder of Certificate:** **Ginlong Technologies Co., Ltd.**  
No.57 Jintong Road  
Binhai Industrial Park, Xiangshan  
315712 Ningbo, Zhejiang  
PEOPLE'S REPUBLIC OF CHINA

**Product:** **Converter**  
**Off-grid 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.:** 704092103642-00

**Date,** 2022-04-08



( Zhengdong Ma )

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**Model(s):** S5-EO1P4K-48, S5-EO1P4K-48-P,  
S5-EO1P5K-48, S5-EO1P5K-48-P.

## Parameters:

|                                |  |
|--------------------------------|--|
| PV input port:                 |  |
| Max. input voltage:            | d.c. 500 V   |
| MPPT voltage range:            | d.c. 90 - 480 V  |
| Max. input current:            | d.c. 13 A / 13A  |
| Isc PV(absolute maximum):      | d.c. 32 A  |
| Battery input port:            |  |
| Battery voltage range:         | d.c. 40 - 60 V   |
| Max. charge current:           | d.c. 100 A   |
| Max. discharge current:        | d.c. 100 A   |
| AC output port (Stand-alone):  |  |
| Max. output power:             | 4 kVA / 4 kW (S5-EO1P4K-48, S5-EO1P4K-48-P)<br>5 kVA / 5 kW (S5-EO1P5K-48, S5-EO1P5K-48-P) |
| Nominal output voltage:        | a.c. 230 V   |
| Rated output frequency:        | 50 Hz  |
| Max. output current:           | a.c. 20 A (S5-EO1P4K-48, S5-EO1P4K-48-P)<br>a.c. 25 A (S5-EO1P5K-48, S5-EO1P5K-48-P)       |
| AC input port:                 |  |
| Nominal input voltage:         | a.c. 230 V   |
| Max. input continuous current: | a.c. 26 A (S5-EO1P4K-48, S5-EO1P4K-48-P)<br>a.c. 30 A (S5-EO1P5K-48, S5-EO1P5K-48-P)       |
| Nominal input frequency:       | 50 Hz  |
| Other ratings:                 |  |
| Protective class:              | I  |
| Ingress protection:            | IP21   |
| Overvoltage category:          | III(AC), II(DC)  |
| Ambient temperature:           | -10 °C...+60 °C  |

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| Measurement results of efficiency               |     |                         |       |       |         |       |                        |         |       |       |  |
|---|-----|-------------------------|-------|-------|---------|-------|------------------------|---------|-------|-------|--|
| Extract from test report according to IEC 61683 |     |                         |       |       |         |       |                        |         |       |       |  |
| S5-EO1P4K-48 / S5-EO1P4K-48-P                   |     |                         |       |       |         |       |                        |         |       |       |  |
| Input voltage [Vdc]                             |     | Power (Resistive load)  |       |       |         |       |                        |         |       |       |  |
|   |     | 5%                      | 10%   | 25%   | 50%     | 75%   | 100%                   |         |       |       |  |
|   |     | $\eta$ in %             |       |       |         |       |                        |         |       |       |  |
| $U_{MPPmin}$                                    | 171 | 79.04                   | 87.84 | 92.65 | 94.56   | 94.39 | 93.86                  |         |       |       |  |
| $U_{MPPrated}$                                  | 285 | 79.67                   | 88.27 | 93.19 | 95.07   | 95.33 | 95.10                  |         |       |       |  |
| $U_{MPPmax}$                                    | 400 | 88.03                   | 93.23 | 95.77 | 96.28   | 96.52 | 96.58                  |         |       |       |  |
| Input voltage [Vdc]                             |     | Power (Reactive load)   |       |       |         |       |                        |         |       |       |  |
|   |     | PF=0.25                 |       |       | PF=0.50 |       |                        | PF=0.75 |       |       |  |
|   |     | 25%                     | 50%   | 100%  | 25%     | 50%   | 100%                   | 25%     | 50%   | 100%  |  |
|   |     | $\eta$ in %             |       |       |         |       |                        |         |       |       |  |
| $U_{MPPmin}$                                    | 171 | 77.82                   | 83.04 | 85.29 | 87.65   | 90.09 | 91.20                  | 90.87   | 92.99 | 93.01 |  |
| $U_{MPPrated}$                                  | 285 | 78.07                   | 83.31 | 85.67 | 87.27   | 90.53 | 91.86                  | 91.13   | 93.21 | 94.03 |  |
| $U_{MPPmax}$                                    | 400 | 86.07                   | 88.01 | 89.15 | 92.05   | 93.33 | 93.99                  | 94.55   | 95.34 | 95.73 |  |
| Input voltage [Vdc]                             |     | Power (Non-linear load) |       |       |         |       |                        |         |       |       |  |
|   |     | NL= 25% of rated power  |       |       |         |       | NL= 50% of rated power |         |       |       |  |
|   |     | 25%                     | 50%   | 100%  | 50%     | 100%  |                        |         |       |       |  |
|   |     | $\eta$ in %             |       |       |         |       |                        |         |       |       |  |
| $U_{MPPmin}$                                    | 171 | 90.85                   | 94.00 | 93.96 | 95.23   | 94.64 |                        |         |       |       |  |
| $U_{MPPrated}$                                  | 285 | 91.70                   | 94.78 | 95.13 | 96.43   | 96.15 |                        |         |       |       |  |
| $U_{MPPmax}$                                    | 400 | 94.33                   | 96.57 | 96.66 | 95.88   | 96.59 |                        |         |       |       |  |
| Input voltage [Vdc]                             |     | Power (Complex load)    |       |       |         |       |                        |         |       |       |  |
|   |     | 50%                     |       |       |         |       | 100%                   |         |       |       |  |
|   |     | $\eta$ in %             |       |       |         |       |                        |         |       |       |  |
| $U_{MPPmin}$                                    | 171 | 93.29                   |       |       |         |       | 92.94                  |         |       |       |  |
| $U_{MPPrated}$                                  | 285 | 94.02                   |       |       |         |       | 93.93                  |         |       |       |  |
| $U_{MPPmax}$                                    | 400 | 96.09                   |       |       |         |       | 95.51                  |         |       |       |  |

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| Measurement results of efficiency               |     |                         |       |       |         |       |                        |         |       |       |     |      |     |  |      |  |
|---|-----|-------------------------|-------|-------|---------|-------|------------------------|---------|-------|-------|-----|------|-----|--|------|--|
| Extract from test report according to IEC 61683 |     |                         |       |       |         |       |                        |         |       |       |     |      |     |  |      |  |
| S5-EO1P5K-48 / S5-EO1P5K-48-P                   |     |                         |       |       |         |       |                        |         |       |       |     |      |     |  |      |  |
| Input voltage [Vdc]                             |     | Power (Resistive load)  |       |       |         |       |                        |         |       |       |     |      |     |  |      |  |
|   |     | 5%                      |       |       | 10%     |       |                        | 25%     |       |       | 50% |      | 75% |  | 100% |  |
|   |     | $\eta$ in %             |       |       |         |       |                        |         |       |       |     |      |     |  |      |  |
| $U_{MPPmin}$                                    | 215 | 82.20                   | 88.65 | 93.83 | 94.69   | 94.71 | 94.48                  |         |       |       |     |      |     |  |      |  |
| $U_{MPPrated}$                                  | 308 | 82.90                   | 90.13 | 94.14 | 95.09   | 95.37 | 95.23                  |         |       |       |     |      |     |  |      |  |
| $U_{MPPmax}$                                    | 400 | 89.83                   | 93.90 | 95.68 | 96.44   | 96.52 | 96.45                  |         |       |       |     |      |     |  |      |  |
| Input voltage [Vdc]                             |     | Power (Reactive load)   |       |       |         |       |                        |         |       |       |     |      |     |  |      |  |
|   |     | PF=0.25                 |       |       | PF=0.50 |       |                        | PF=0.75 |       |       |     |      |     |  |      |  |
|   |     | 25%                     |       | 50%   |         | 100%  |                        | 25%     |       | 50%   |     | 100% |     |  |      |  |
|   |     | $\eta$ in %             |       |       |         |       |                        |         |       |       |     |      |     |  |      |  |
| $U_{MPPmin}$                                    | 215 | 78.22                   | 83.59 | 84.66 | 89.09   | 90.93 | 91.15                  | 91.92   | 93.26 | 93.10 |     |      |     |  |      |  |
| $U_{MPPrated}$                                  | 308 | 79.25                   | 85.09 | 86.45 | 89.66   | 91.88 | 92.49                  | 92.45   | 94.13 | 94.50 |     |      |     |  |      |  |
| $U_{MPPmax}$                                    | 400 | 82.85                   | 86.18 | 87.93 | 90.23   | 92.30 | 93.41                  | 93.00   | 94.53 | 95.27 |     |      |     |  |      |  |
| Input voltage [Vdc]                             |     | Power (Non-linear load) |       |       |         |       |                        |         |       |       |     |      |     |  |      |  |
|   |     | NL= 25% of rated power  |       |       |         |       | NL= 50% of rated power |         |       |       |     |      |     |  |      |  |
|   |     | 25%                     |       | 50%   |         | 100%  |                        | 50%     |       | 100%  |     |      |     |  |      |  |
|   |     | $\eta$ in %             |       |       |         |       |                        |         |       |       |     |      |     |  |      |  |
| $U_{MPPmin}$                                    | 215 | 92.23                   | 94.49 | 94.49 | 93.90   | 94.42 |                        |         |       |       |     |      |     |  |      |  |
| $U_{MPPrated}$                                  | 308 | 92.79                   | 94.93 | 95.30 | 94.31   | 95.42 |                        |         |       |       |     |      |     |  |      |  |
| $U_{MPPmax}$                                    | 400 | 94.79                   | 96.39 | 96.58 | 95.76   | 96.47 |                        |         |       |       |     |      |     |  |      |  |
| Input voltage [Vdc]                             |     | Power (Complex load)    |       |       |         |       |                        |         |       |       |     |      |     |  |      |  |
|   |     | 50%                     |       |       |         |       | 100%                   |         |       |       |     |      |     |  |      |  |
|   |     | $\eta$ in %             |       |       |         |       |                        |         |       |       |     |      |     |  |      |  |
|   |     | $U_{MPPmin}$            | 215   | 93.71 | 93.68   |       |                        |         |       |       |     |      |     |  |      |  |
| $U_{MPPrated}$                                  | 308 | 94.39                   | 94.40 |       |         |       |                        |         |       |       |     |      |     |  |      |  |
| $U_{MPPmax}$                                    | 400 | 95.88                   | 95.41 |       |         |       |                        |         |       |       |     |      |     |  |      |  |

**Tested according to:**

IEC 61683:1999  
 IEC 60068-2-1:2007  
 IEC 60068-2-2:2007  
 IEC 60068-2-14:2009  
 IEC 60068-2-30:2005