

## CERTIFICADO DE CONFORMIDAD

By the product certificate number / Por medio del Certificado de producto número

No: 2620/0160/A-CER

Issued to / Emitido a

Manufacturer /  
Fabricante

**Shenzhen Growatt New Energy Technology Co., Ltd**  
1st East & 3rd Floor of Building A, Building B, Jiayu Industrial Park,  
#28, GuangHui Road, LongTeng Community, Shiyan Street, Baoan  
District, Shenzhen, P.R.China



Trademark / Marca

**Growatt**

It is certified that the product / Se certifica que el producto

Type of product /  
Tipo de aparato

**Hybrid Inverter / Inversor híbrido**

Models / Modelos

**Growatt SPH3000 / Growatt SPH3600 / Growatt SPH4000 / Growatt SPH4600 / Growatt SPH5000 /  
Growatt SPH6000**

Technical Data /  
Datos Técnicos

**Rated Power / Potencia Nominal**

**See page 2.**  
Ver página 2.

**Rated Voltage / Tensión Nominal**

230 V

**Rated Frequency / Frecuencia Nominal**

50 Hz

**Firmware version / Versión de Firmware**

RA1.0

**Number of phases / Número de fases**

Singular-phase / Monofásico

**Isolation transformer / Transformador de aislamiento**

Transformerless / Sin transformador

Is in compliance with / Está en cumplimiento con

Standard / Norma

**UNE 206 007-1 IN:2013,**

Requisitos de conexión a la red eléctrica. Inversores para conexión a la red de distribución.

They are considered protective functions requirements for voltage and frequency abnormal variations in the grid stated in the Real Decreto 1699/2011 / Se consideran los requisitos para funciones de protección ante variaciones anormales de tensión y frecuencia en la red según viene definido en el Real Decreto 1699/2011.

The above-mentioned generating unit is certified according to the SGS internal procedure PE.T-ECPE-23 based on the requirements of the UNE-EN ISO / IEC 17065 / El equipo antes mencionado está certificado conforme con el procedimiento interno de SGS PE.T-ECPE-23 de acuerdo con los requisitos de la norma UNE-EN ISO/IEC 17065.

This certificate is valid until / Este certificado es válido hasta el: 17<sup>th</sup> June 2023 / 17 de Junio de 2023.

Madrid, 17 de Junio de 2020

Daniel Arranz Muñiz  
Certification Manager



**Rated characteristics / Características nominales:**

| Product Model                              | Growatt<br>SPH<br>3000          | Growatt<br>SPH<br>3600 | Growatt<br>SPH<br>4000 | Growatt<br>SPH<br>4600 | Growatt<br>SPH<br>5000 | Growatt<br>SPH<br>6000 |
|--|---------------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| <b>PV input (DC)</b>                       |                                 |                        |                        |                        |                        |                        |
| Max. recommended PV power (for module STC) | 3300/<br>3300                   | 3300/<br>3300          | 3300/<br>3300          | 4000/<br>4000          | 4000/<br>4000          | 4000/<br>4000          |
| Max. DC voltage                            | 550V                            |                        |                        |                        |                        |                        |
| Start voltage                              | 150V                            |                        |                        |                        |                        |                        |
| PV voltage range                           | 120V-550V                       |                        |                        |                        |                        |                        |
| MPPT word voltage range / Nominal voltage  | 150V-550V/360V                  |                        |                        |                        |                        |                        |
| Full load DC voltage range                 | 275V-<br>440V                   | 275V-<br>440V          | 275V-<br>440V          | 340V-<br>440V          | 340V-<br>440V          | 340V-<br>440V          |
| Max. input current per MPP trackers        | 12A/12A                         |                        |                        |                        |                        |                        |
| <b>Output (AC)</b>                         |                                 |                        |                        |                        |                        |                        |
| Max AC output power                        | 3000W                           | 3680W                  | 4000W                  | 4600W                  | 4999W                  | 6000W                  |
| Max AC output current                      | 16A                             | 16A                    | 22A                    | 22A                    | 22A                    | 27A                    |
| Rated AC output current                    | 13 A                            | 16A                    | 17.4A                  | 20A                    | 21.7A                  | 26.1A                  |
| Nominal grid voltage                       | 230V                            |                        |                        |                        |                        |                        |
| Nominal frequency                          | 50Hz                            |                        |                        |                        |                        |                        |
| Power factor                               | 0.8 leading to 0.8 lagging      |                        |                        |                        |                        |                        |
| Operating temperature range                | -25°C~60°C (Derating over 45°C) |                        |                        |                        |                        |                        |
| <b>Batteries input (DC)</b>                |                                 |                        |                        |                        |                        |                        |
| Battery voltage range                      | 42V~59V                         |                        |                        |                        |                        |                        |
| Max. charging voltage                      | 58V                             |                        |                        |                        |                        |                        |
| Max. charging and discharging power        | 3000W                           |                        |                        |                        |                        |                        |
| Degree of protection                       | IP65                            |                        |                        |                        |                        |                        |
| Protective class                           | Class I                         |                        |                        |                        |                        |                        |

