



#### Certificado de producto número / Certificate number

2619/0414-CER/E1

Fabricante / Manufacturer

Shenzhen Growatt New Energy Technology Co., Ltd.
1st Eas & 3rd floor of Building A, Building B. Juayu Industrial Parl #28
GuangHui Road, LongTeng Community, Shiyan Street, Baoan District

Shenzhen - China.

Marca / Trademark

rowatt

Modelo ensayado / Tested model Modelos variantes /

Variant models

MIN 6000TL-XE

MIN 5000TL-XE, MIN 4600TL-XE, MIN 4200TL-XE, MIN 3600TL-XE, MIN 3000TL-XE, MIN 2500TL-XE, MIN 6000TL-XH, MIN 5000TL-XH, MIN 4600TL-XH, MIN 4200TL-XH, MIN 3600TL-XH, MIN 3000TL-XH,

MIN 2500TL-XH.

MIN 6000TL-X, MIN 5000TL-X, MIN 4600TL-X, MIN 4200TL-X, MIN 3600TL-X, MIN 3000TL-X, MIN

2500TL-X.

Tipo de aparato / Type of product Datos técnicos / Rated characteristics Inversor monofásico / Single phase inverter

Potencia nominal / Rated Power [kW]

Tensión nominal / Rated Voltage [V]

Frecuencia nominal / Rated Frequency [Hz]

Versión Firmware / Firmware version

Número de fases / Number of phases

Transformador de aislamiento / Isolation transformer

Elemento de control / Control device

Ver páginas / See pages 2, 3, 4

Ver páginas / See page 2, 3, 4

50

AL1.0

Monofásico / Single-Phase

NO

Internal (ver páginas / See page 2, 3, 4)

Normativa / Standard

UNE 217001 IN: 2015. Requisitos y ensayos para sistemas que eviten el vertido de energía a la red de distribución.

El equipo antes mencionado está certificado conforme con el procedimiento interno de SGS PE.T-ECPE-51 de acuerdo con los requisitos de la norma UNE-EN ISO/IEC 17065. / Aforementioned equipment is certified according to SGS internal procedure PE.T-ECPE-51 according to requirements established on standard UNE-EN ISO/IEC 17065.

El certificado contiene la siguiente información / This certificate contains the following information:

Datos técnicos de los generadores de potencia / Technical information of power generators.

Datos técnicos del analizador de potencia y modelos asimilables / Technical information on power analyzer and models.

Esquema de la instalación de limitación de potencia con los elementos que la componen y tipo de comunicaciones empleado. / Scheme covering the elements and the installation to limit power injection and the used type of communication.

Número máximo de unidades generadoras a conectar. / Maximum number of generators to be connected in parallel.

Este certificado cancela y sustituye al certificado n. 2619/0414-CER con fecha de emisión original del 9 de Enero de 2020. / This certificate cancels and supersedes certificate n. 2619/0414-CER with original issuing date 9th January 2020. Este certificado es válido hasta el: 9 de Enero de 2023. / This certificate is valid until the 9th of January 2023.

Madrid, 14 de enero de 2020

Daniel Arranz Certification Manager







# **Generadores / Generators**

Familia XE / Family XE

| Model Specifications                        | MIN 6000<br>TL-XE                       | MIN 5000<br>TL-XE | MIN 4600<br>TL-XE | MIN 4200<br>TL-XE | MIN 3600<br>TL-XE | MIN 3000<br>TL-XE | MIN2500<br>TL-XE |
|---|---|-------------------|-------------------|-------------------|-------------------|-------------------|------------------|
| nput data (PV)                              |   |                   |                   |                   |                   |                   |                  |
| Max. recommended PV power (for module STC)  | 8100W                                   | 7000W             | 6440W             | 5880W             | 5040W             | 4200W             | 3500W            |
| Max. PV voltage                             | 550V                                    |                   |                   |                   |                   | 50                | 0V               |
| MPP voltage range                           | 80V - 550V                              |                   |                   | 80V - 500V        |                   |                   |                  |
| MPP voltage range at Full Power             | 250V-<br>500V                           | 210V-<br>500V     | 195V-<br>500V     | 180V-<br>500V     | 155V-<br>500V     | 130V-<br>450V     | 110V-<br>450V    |
| Max. input current per MPP trackers         | 12.5A                                   |                   |                   |                   |                   |                   |                  |
| Max. short-circuit current per MPP trackers | 16A                                     |                   |                   |                   |                   |                   |                  |
| Output data (AC Grid)                       | 1900 1900 1900 1900 1900 1900 1900 1900 |                   |                   |                   |                   |                   |                  |
| AC nominal power                            | 6000W                                   | 5000W             | 4600W             | 4200W             | 3600W             | 3000W             | 2500W            |
| Max. AC apparent power                      | 6000VA                                  | 5000VA            | 4600VA            | 4200VA            | 3600VA            | 3000VA            | 2500VA           |
| Nominal AC voltage                          | 230V                                    |                   |                   |                   |                   |                   |                  |
| AC grid frequency                           | 50Hz                                    |                   |                   |                   |                   |                   |                  |
| Max. output current                         | 27.2A                                   | 22.7A             | 20.9A             | 19.0A             | 16.0A             | 13.6A             | 11.3A            |
| Rated output current                        | 26.1A                                   | 21.7A             | 20.0A             | 18.3A             | 15.7A             | 13.0A             | 10.9A            |
| Adjustable power factor                     | 0.8leading~0.8lagging                   |                   |                   |                   |                   |                   |                  |







# **Generadores / Generators**

Familia XH / Family XH

| Model Specifications                        | MIN 6000<br>TL-XH  | MIN 5000<br>TL-XH | MIN 4600<br>TL-XH                       | MIN 4200<br>TL-XH                       | MIN 3600<br>TL-XH           | MIN 3000<br>TL-XH                 | MIN2500<br>TL-XH |  |
|---|--|-------------------|---|---|-----------------------------|-----------------------------------|------------------|--|
| Input data (PV)                             |  |                   |   |   |                             |                                   |                  |  |
| Max. recommended PV power (for module STC)  | 8100W  | 7000W             | 6440W                                   | 5880W                                   | 5040W                       | 4200W                             | 3500W            |  |
| Max. PV voltage                             | 550V   |                   |   |   |                             | 50                                | 500V             |  |
| MPP voltage range                           | 80V - 550V   |                   |   | 80V - 500V                              |                             |                                   |                  |  |
| MPP voltage range at Full Power             | 250V-<br>500V  | 210V-<br>500V     | 195V-<br>500V                           | 180V-<br>500V                           | 155V-<br>500V               | 130V-<br>450V                     | 110V-<br>450V    |  |
| Max. input current per MPP trackers         | 12.5A  |                   |   |   |                             |                                   |                  |  |
| Max. short-circuit current per MPP trackers | 16A  |                   |   |   |                             |                                   |                  |  |
| Input data (DC)                             |  |                   | SGSGCGSGSGSGSGSGSGSGSGSGSGSGSGSGSGSGSGS | 666565656565<br>6665656565656565        |                             |                                   |                  |  |
| DC input voltage range                      | 350V-480V  |                   |   |   |                             |                                   |                  |  |
| Max. Input current                          | 10A  |                   |   |   |                             |                                   |                  |  |
| Output data (AC Grid)                       | MISMISSES GROSS Gr |                   | SECTION AND SECTIONS                    | 6656566036565656163<br>9463686563636363 | 61 5656565<br>613 565656565 | 55555<br>55555<br>555555<br>55555 |                  |  |
| AC nominal power                            | 6000W  | 5000W             | 4600W                                   | 4200W                                   | 3600W                       | 3000W                             | 2500W            |  |
| Max. AC apparent power                      | 6000VA   | 5000VA            | 4600VA                                  | 4200VA                                  | 3600VA                      | 3000VA                            | 2500VA           |  |
| Nominal AC voltage                          | 230V   |                   |   |   |                             |                                   |                  |  |
| AC grid frequency                           | 50Hz   |                   |   |   |                             |                                   |                  |  |
| Max. output current                         | 27.2A  | 22.7A             | 20.9A                                   | 19.0A                                   | 16.0A                       | 13.6A                             | 11.3A            |  |
| Rated output current                        | 26.1A  | 21.7A             | 20.0A                                   | 18.3A                                   | 15.7A                       | 13.0A                             | 10.9A            |  |
| Adjustable power factor                     | 0.8leading~0.8lagging  |                   |   |   |                             |                                   |                  |  |







# **Generadores / Generators**

Familia X / Family X

| Model                                       | MIN 6000              |               | MIN 4600      | MIN 4200      |               |               | MIN2500       |
|---|-----------------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Specifications                              | TL-X                  | TL-X          | TL-X          | TL-X          | TL-X          | TL-X          | TL-X          |
| Input data (PV)                             |                       |               |               |               |               |               |               |
| Max. recommended PV power (for module STC)  | 8100W                 | 7000W         | 6440W         | 5880W         | 5040W         | 4200W         | 3500W         |
| Max. PV voltage                             | 550V                  |               |               |               |               | 500V          |               |
| MPP voltage range                           | 80V - 550V            |               |               | 80V - 500V    |               |               |               |
| MPP voltage range at Full Power             | 250V-<br>500V         | 210V-<br>500V | 195V-<br>500V | 180V-<br>500V | 155V-<br>500V | 130V-<br>450V | 110V-<br>450V |
| Max. input current per MPP trackers         | 12.5A                 |               |               |               |               |               |               |
| Max. short-circuit current per MPP trackers | 16A                   |               |               |               |               |               |               |
| Output data (AC Grid)                       |                       |               |               |               |               |               |               |
| AC nominal power                            | 6000W                 | 5000W         | 4600W         | 4200W         | 3600W         | 3000W         | 2500W         |
| Max. AC apparent power                      | 6000VA                | 5000VA        | 4600VA        | 4200VA        | 3600VA        | 3000VA        | 2500VA        |
| Nominal AC voltage                          | 230V                  |               |               |               |               |               |               |
| AC grid frequency                           | 50Hz                  |               |               |               |               |               |               |
| Max. output current                         | 27.2A                 | 22.7A         | 20.9A         | 19.0A         | 16.0A         | 13.6A         | 11.3A         |
| Rated output current                        | 26.1A                 | 21.7A         | 20.0A         | 18.3A         | 15.7A         | 13.0A         | 10.9A         |
| Adjustable power factor                     | 0.8leading~0.8lagging |               |               |               |               |               |               |



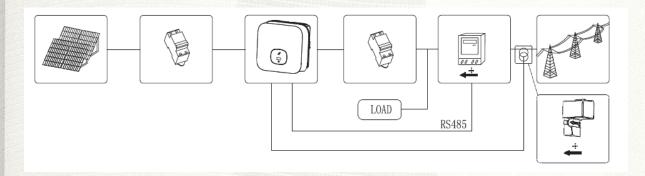




#### Analizador de potencia / Power analyzer:

| Analizador de potencia / Power analyzer:            | EASTRON                               | Zhejiang CHINT                              |
|---|---------------------------------------|---|
| Modelo / Model:                                     | SDM230-Modbus                         | DDSU666 5(80)A                              |
| Fabricante / Manufacturer.                          | Zhejiang Eastron Electronic Co., Ltd. | Zhejiang CHINT Instrument & Meter Co., Ltd. |
| Modo de conexión / Connection method:               | 1p2w – Monofásico                     | 1p2w – Monofásico                           |
| Tensión nominal / Nominal<br>Voltage:               | 230V                                  | 230V  |
| Intensidad nominal / Nominal Current:               | 0,5-10(100)A                          | 5(80)A                                      |
| Clase / Class:                                      | Cl.1                                  | CI.1  |
| Puerto de comunicación serie / Communications port: | RS485 (Modbus)                        | RS485                                       |
| Grado de protección / Protection degree:            | IP51                                  | IP56  |

#### Esquema de la instalación / Installation scheme



El número máximo de generadores a conectar en paralelo es / Maximum number of inverters to be connected in parallel is:



