

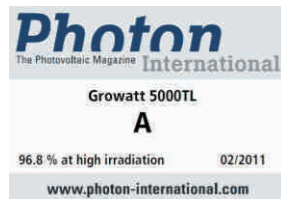
# Growatt 1500TL / 2000TL / 3000TL / 4400TL / 5000TL

## Leading - edge Technology

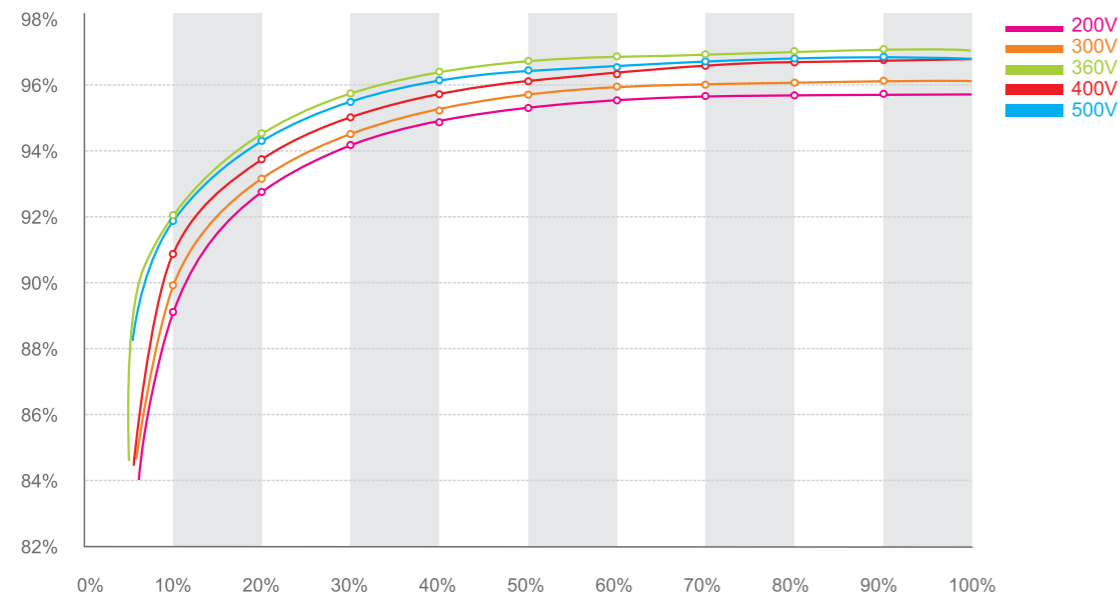
- ▶ Maximum efficiency of 97.8% and wide input voltage range
- ▶ Internal DC switch
- ▶ Transformerless GT topology
- ▶ Compact design
- ▶ MTL - String
- ▶ Bluetooth / RF technology / ZigBee
- ▶ Sound control
- ▶ Easy installation
- ▶ Comprehensive Growatt warranty program

## Europe ENS

- ▶ Simple national setting of line supply monitoring(ENS)
- ▶ Easy country configuration
- ▶ Multi - language display
- ▶ Currently available for Germany, Austria, France, Switzerland, UK, Italy and Spain etc.



## 5k efficiency



## Datasheet

	Growatt 1500TL	Growatt 2000TL	Growatt 3000TL	Growatt 4400TL	Growatt 5000TL
<b>Input Data</b>					
Max. DC power	1800W	2300W	3200W	4600W	5000W/5200W
Max. DC voltage	450V	500V	500V	580V	580V
Full load Mpp-Voltage range	175V - 430V	195V - 450V	250V - 450V	250V - 500V	250V - 500V
PV voltage range MPPT	120V - 450V	120V - 450V	120V - 450V	120V - 500V	120V - 500V
Initial / shut-down voltage	100V / 70V	100V / 70V	100V / 70V	100V / 70V	100V / 70V
Start voltage	150V	150V	150V	150V	150V
Max. number of parallel strings	1	2	2	3	3
Number of MPP trackers	1	1	1	1	1
Max. input current	10A	12A	15A	20A	20A
<b>Output (AC)</b>					
Nominal AC output power	1600W	2000W	2850W	4200W	4600W/5000W *
Max. AC power	1650W	2200W	3000W	4400W	4600W/5200W
Max. output current	8A	11A	13A	21A	22.3A
AC voltage range	180V - 280V	180V - 280V	180V - 280V	180V - 280V	180V - 280V
AC grid frequency range	50Hz, 60Hz±5Hz	50Hz, 60Hz±5Hz	50Hz, 60Hz±5Hz	50Hz, 60Hz±5Hz	50Hz, 60Hz±5Hz
Phase shift	1	1	1	1	1
THDI	<3%	<3%	<3%	<3%	<3%
AC connection	Single phase	Single phase	Single phase	Single phase	Single phase
<b>Efficiency</b>					
Max. efficiency	97%	97%	97%	97.8%	97.8%
Euro-eta	96%	96%	96.5%	97.4%	97.4%
MPPT efficiency	99.5%	99.5%	99.5%	99.5%	99.5%
<b>Protection Devices</b>					
DC reverse polarity protection	yes	yes	yes	yes	yes
AC short-circuit protection	yes	yes	yes	yes	yes
Ground fault monitoring	yes	yes	yes	yes	yes
Grid monitoring	yes	yes	yes	yes	yes
Integrated all-pole sensitive leakage current monitoring unit	yes	yes	yes	yes	yes
<b>General Data</b>					
Dimensions (W / H / D) in mm	362/329/132	362/329/132	362/329/132	406/406/192	406/406/192
Weight	11.5KG	11.7KG	12.2KG	21KG	21KG
Operating temperature range	-25 °C ... +60 °C	-25 °C ... +60 °C	-25 °C ... +60 °C	-25 °C ... +60 °C	-25 °C ... +60 °C
Noise emission (typical)	≤25 dB(A)	≤25 dB(A)	≤25 dB(A)	≤25 dB(A)	≤25 dB(A)
Consumption: operating (standby)/ night	< 5W / < 0.5 W	< 5W / < 0.5 W	< 5W / < 0.5 W	< 5W / < 0.5 W	< 5W / < 0.5 W
Topology	Transformerless	Transformerless	Transformerless	Transformerless	Transformerless
Cooling concept	No fan	No fan	No fan	No fan	No fan
Installation: Indoors / Outdoors (IP65 )	yes / yes	yes / yes	yes / yes	yes / yes	yes / yes
Altitude	Up to 2000m without power derating	Up to 2000m without power derating	Up to 2000m without power derating	Up to 2000m without power derating	Up to 2000m without power derating
Humidity	0 ~ 95%, no condensation	0 ~ 95%, no condensation	0 ~ 95%, no condensation	0 ~ 95%, no condensation	0 ~ 95%, no condensation
<b>Features</b>					
DC connection:(H4 / MC4)	yes / opt	yes / opt	yes / opt	yes / opt	yes / opt
AC connection: Terminals	yes	yes	yes	yes	yes
LCD display	yes	yes	yes	yes	yes
Interfaces: RS485/RS232/Bluetooth/RF/ZigBee	yes/yes/opt/opt/opt	yes/yes/opt/opt/opt	yes/yes/opt/opt/opt	yes/yes/opt/opt/opt	yes/yes/opt/opt/opt
Warranty: 5 years / 10 years	yes / opt	yes / opt	yes / opt	yes / opt	yes / opt
<b>Certificates and Approvals</b>					
CE / TUV, EN50178, VDE0126-1-1, EN61000-3-2, EN61000-6-1, EN61000-6-2, EN61000-6-3, EN61000-6-4, IEC-62109,DK5940, G83,RD1663, VDE-AR-N4105, CEI 0-21				* Optionally provide 5000W	