

## Product Model

**Growatt 2500TL-X | 3000TL-X | 3600TL-X  
4500TL-X | 5000TL-X | 6000TL-X**



## Leading - edge Technology

### High Yields

- Max. efficiency 98.7%
- DC/AC ratio up to 1.4

### Safe & Reliable

- Type II SPD on DC side
- DC switch optiona

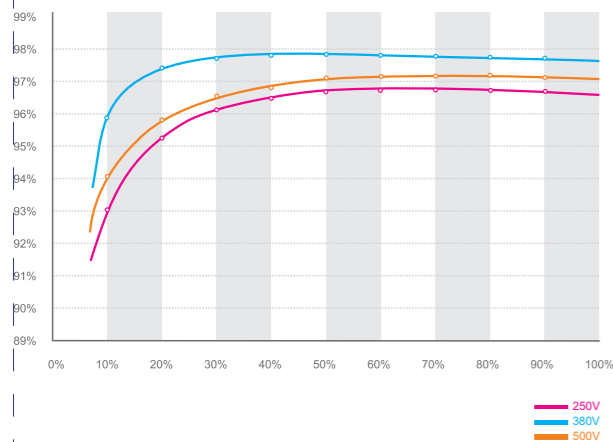
### User Friendly

- Touch key and OLED display
- Support zero-export application

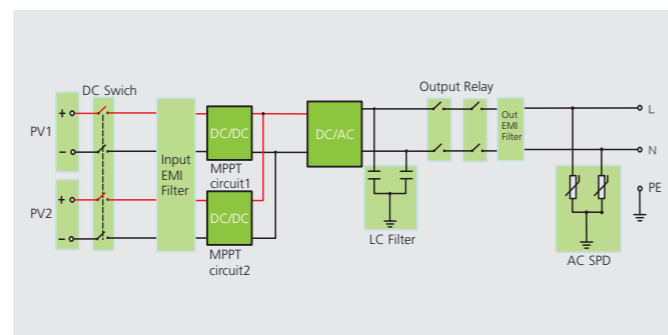
### Easy Maintenance

- Free online service
- Remote upgrade!

Growatt 6000TL-X efficiency



Growatt 2.5-6kTL-X topology



## Datasheet

### Input Data (DC)

	Growatt 2500TL-X	Growatt 3000TL-X	Growatt 3600TL-X	Growatt 4500TL-X	Growatt 5000TL-X	Growatt 6000TL-X
Max. recommended PV power (for module STC)	3500W	4200W	5040W	5880W	7000W	8100W
Max. DC voltage	500V	500V	550V	550V	550V	550V
Start voltage	100V	100V	100V	100V	100V	100V
MPP work voltage range/nominal voltage	70V-550V /360V	70V-550V /360V	70V-550V /360V	70V-550V /360V	70V-550V /360V	70V-550V /360V
Full load dc voltage range	130V-500V	160V-500V	190V-500V	220V-500V	250V-500V	280V-500V
Max. input current of tracker A/tracker B	12.5A/12.5A	12.5A/12.5A	12.5A/12.5A	12.5A/12.5A	12.5A/12.5A	12.5A/12.5A
Number of independent MPP trackers / strings per MPP tracker	2/1	2/1	2/1	2/1	2/1	2/1

### Output (AC)

	Growatt 2500TL-X	Growatt 3000TL-X	Growatt 3600TL-X	Growatt 4500TL-X	Growatt 5000TL-X	Growatt 6000TL-X
Rated AC output power	2500W	3000W	3600W	4200W	5000W*1	6000W
Max. AC apparent power	2500VA	3000VA	3600VA	4200VA	5000VA	6000VA
Max. output current	12A	14.9A	17.2A	20A	23.9A*2	28.7A
AC nominal voltage	220V/230V /240V	220V/230V/240V	220V/230V/240V	220V/230V/240V	220V/230V/240V	220V/230V/240V
AC grid frequency	50Hz/60Hz	50Hz/60Hz	50Hz/60Hz	50Hz/60Hz	50Hz/60Hz	50Hz/60Hz
Adjustable power factor	0.8leading...0.8lagging	0.8leading...0.8lagging	0.8leading...0.8lagging	0.8leading...0.8lagging	0.8leading...0.8lagging	0.8leading...0.8lagging
THDi	<3%	<3%	<3%	<3%	<3%	<3%
AC connection	Single phase	Single phase	Single phase	Single phase	Single phase	Single phase

### Efficiency

	Growatt 2500TL-X	Growatt 3000TL-X	Growatt 3600TL-X	Growatt 4500TL-X	Growatt 5000TL-X	Growatt 6000TL-X
Max. efficiency	98.5%	98.5%	98.5%	98.7%	98.7%	98.7%
Euro weighted efficiency	98%	98%	98%	98.2%	98.2%	98.2%
MPPT efficiency	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%

### Protection Devices

	Growatt 2500TL-X	Growatt 3000TL-X	Growatt 3600TL-X	Growatt 4500TL-X	Growatt 5000TL-X	Growatt 6000TL-X
DC reverse polarity protection	yes	yes	yes	yes	yes	yes
DC switch	yes	yes	yes	yes	yes	yes
DC surge protection	Type II	Type II	Type II	Type II	Type II	Type II
Output over current protection	yes	yes	yes	yes	yes	yes
Output over voltage protection-varistor	yes	yes	yes	yes	yes	yes
Ground fault monitoring	yes	yes	yes	yes	yes	yes
Grid monitoring	yes	yes	yes	yes	yes	yes
Integrated all - pole sensitive leakage current monitoring unit	yes	yes	yes	yes	yes	yes

### General Data

	Growatt 2500TL-X	Growatt 3000TL-X	Growatt 3600TL-X	Growatt 4500TL-X	Growatt 5000TL-X	Growatt 6000TL-X
Dimensions (W / H / D) in mm	415/378/143	415/378/143	415/378/143	415/378/143	415/378/143	415/378/143
Weight	10.8KG	10.8KG	10.8KG	10.8KG	10.8KG	10.8KG
Operating temperature range	-35°C ... +60°C	-35°C ... +60°C	-35°C ... +60°C	-35°C ... +60°C	-35°C ... +60°C	-35°C ... +60°C
Noise emission (typical)	≤30 dB(A)	≤30 dB(A)	≤30 dB(A)	≤30 dB(A)	≤30 dB(A)	≤30 dB(A)
Altitude	3000m	3000m	3000m	3000m	3000m	3000m
Self-Consumption night	< 0.5 W	< 0.5 W	< 0.5 W	< 0.5 W	< 0.5 W	< 0.5 W
Topology	Transformerless	Transformerless	Transformerless	Transformerless	Transformerless	Transformerless
Cooling concept	Natural	Natural	Natural	Natural	Natural	Natural
Environmental Protection Rating	IP65	IP65	IP65	IP65	IP65	IP65
Relative humidity	100%	100%	100%	100%	100%	100%

### Features

	Growatt 2500TL-X	Growatt 3000TL-X	Growatt 3600TL-X	Growatt 4500TL-X	Growatt 5000TL-X	Growatt 6000TL-X
DC connection	H4/MC4(opt)	H4/MC4(opt)	H4/MC4(opt)	H4/MC4(opt)	H4/MC4(opt)	H4/MC4(opt)
AC connection	Connector	Connector	Connector	Connector	Connector	Connector
Display	OLED	OLED	OLED	OLED	OLED	OLED
Interfaces: RS485 / USB / Wi-Fi / LAN / GPRS / RF	yes / yes / opt / opt / opt / opt	yes / yes / opt / opt / opt / opt	yes / yes / opt / opt / opt / opt	yes / yes / opt / opt / opt / opt	yes / yes / opt / opt / opt / opt	yes / yes / opt / opt / opt / opt
Warranty: 5 years / 10 years	yes / opt	yes / opt	yes / opt	yes / opt	yes / opt	yes / opt

### Certificates and Approvals

CE, IEC62109, G83, VDE0126-1-1, VFR2014, G59, AS4777, AS/NZS 3100, CEI0-21, VDE-AR-N4105, EN50438, CQC, IEC61683, IEC60068, IEC61727, IEC62116

\*1 For VDE-AR-N4105 output power is 4600W  
\*2 For AS4777, Iac max.:21.7A