

# Growatt MIN 2500~6000TL-XH

- Max. Efficiency 98.4%
- Dual MPP trackers
- Type II SPD on DC side
- 30% Lighter
- Storage ready
- Rapid shutdown & AFC optional
- Compatible with double-glass bifacial modules



P O W E R  
- I N G O  
T O M O -  
R R O W O



Datasheet	MIN 2500TL-XH	MIN 3000TL-XH	MIN 3680TL-XH	MIN 4000TL-XH	MIN 4600TL-XH	MIN 5000TL-XH	MIN 6000TL-XH
<b>Input Data (PV)</b>							
Max. recommended PV power (for module STC)	3500W	4200W	5150W	5600W	6440W	7000W	8100W
Max. PV voltage	550V	550V	550V	550V	550V	550V	550V
Start voltage	100V	100V	100V	100V	100V	100V	100V
Nominal voltage	360V	360V	360V	360V	360V	360V	360V
MPP voltage range	70V~550V	70V~550V	70V~550V	70V~550V	70V~550V	70V~550V	70V~550V
Number of independent MPP trackers / strings per MPP tracker	2/1	2/1	2/1	2/1	2/1	2/1	2/1
Max. input current per MPP trackers	12.5A	12.5A	12.5A	12.5A	12.5A	12.5A	12.5A
Max. short-circuit current per MPP trackers	30A	30A	30A	30A	30A	30A	30A
<b>Input Data (DC)</b>							
Max. Input voltage	480V	480V	480V	480V	480V	480V	480V
Nominal DC Input voltage	380V	380V	380V	380V	380V	380V	380V
Max. Input current	10A	10A	10A	10A	10A	10A	10A
<b>Output Data (AC Grid)</b>							
AC nominal power	2500W	3000W	3680W	4000W	4600W	5000W	6000W
Max. AC apparent power	2500VA	3000VA	3680VA	4000VA	4600VA	5000VA	6000VA
Nominal AC voltage/range	230V/187V~276V	230V/187V~276V	230V/187V~276V	230V/187V~276V	230V/187V~276V	230V/187V~276V	230V/187V~276V
AC grid frequency/range	50Hz/45Hz~55Hz	50Hz/45Hz~55Hz	50Hz/45Hz~55Hz	50Hz/45Hz~55Hz	50Hz/45Hz~55Hz	50Hz/45Hz~55Hz	50Hz/45Hz~55Hz
Max. output current	10.8A	13A	16A	17.4A	20A	21.7A	26A
Power factor(@nominal power)	>0.99	>0.99	>0.99	>0.99	>0.99	>0.99	>0.99
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	0.8leading~0.8lagging
THDI	<3%	<3%	<3%	<3%	<3%	<3%	<3%
AC grid connection type	L/N/PE	L/N/PE	L/N/PE	L/N/PE	L/N/PE	L/N/PE	L/N/PE
<b>Output Data (Backup Power)</b>							
AC nominal power	2500W	3000W	3000W	3000W	3000W	3000W	3000W
Max. AC apparent power	2500VA	3680VA	3680VA	3680VA	3680VA	3680VA	3680VA
Nominal AC voltage/range	230V/187V~276V	230V/187V~276V	230V/187V~276V	230V/187V~276V	230V/187V~276V	230V/187V~276V	230V/187V~276V
AC grid frequency/range	50Hz/45Hz~55Hz	50Hz/45Hz~55Hz	50Hz/45Hz~55Hz	50Hz/45Hz~55Hz	50Hz/45Hz~55Hz	50Hz/45Hz~55Hz	50Hz/45Hz~55Hz
THDv	<5%	<5%	<5%	<5%	<5%	<5%	<5%
<b>Efficiency</b>							
Max. efficiency	98.2%	98.2%	98.2%	98.4%	98.4%	98.4%	98.4%
Euro-eta	97.6%	97.6%	97.8%	98.0%	98.0%	98.0%	98.0%
<b>Protection Devices</b>							
DC reverse-polarity protection	yes	yes	yes	yes	yes	yes	yes
DC switch	yes	yes	yes	yes	yes	yes	yes
DC Surge protection	Type II	Type II	Type II	Type II	Type II	Type II	Type II
AC surge protection	Type III	Type III	Type III	Type III	Type III	Type III	Type III
AC short-circuit protection	yes	yes	yes	yes	yes	yes	yes
Ground fault monitoring	yes	yes	yes	yes	yes	yes	yes
Grid monitoring	yes	yes	yes	yes	yes	yes	yes
Residual-current monitoring unit	yes	yes	yes	yes	yes	yes	yes
AFCI protection	opt	opt	opt	opt	opt	opt	opt
<b>General Data</b>							
Dimensions (W / H / D) in mm	375/350/160	375/350/160	375/350/160	375/350/160	375/350/160	375/350/160	375/350/160
Weight	10.8KG	10.8KG	10.8KG	10.8KG	10.8KG	10.8KG	10.8KG
Operating temperature range	-25°C ... +60°C	-25°C ... +60°C	-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)	≤25 dB(A)	≤25 dB(A)
Altitude	4000m	4000m	4000m	4000m	4000m	4000m	4000m
Self-Consumption night	< 1W	< 1W	< 1W	< 1W	< 1W	< 1W	< 1W
Topology	Transformerless	Transformerless	Transformerless	Transformerless	Transformerless	Transformerless	Transformerless
Cooling concept	Nature Convection	Nature Convection	Nature Convection	Nature Convection	Nature Convection	Nature Convection	Nature Convection
Environmental Protection Rating	IP65	IP65	IP65	IP65	IP65	IP65	IP65
Relative humidity	100%	100%	100%	100%	100%	100%	100%
<b>Features</b>							
DC connection	H4/MC4(opt)	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	Connector
Display	OLED+LED/WIFI+APP	OLED+LED/WIFI+APP	OLED+LED/WIFI+APP	OLED+LED/WIFI+APP	OLED+LED/WIFI+APP	OLED+LED/WIFI+APP	OLED+LED/WIFI+APP
Interfaces: RS485/USB WIFI/GPRS/4G/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	yes / yes / opt/opt/opt/opt
Warranty: 5 / 10 years	yes / opt	yes / opt	yes / opt	yes / opt	yes / opt	yes / opt	yes / opt
CE, IEC62109, AS/NZS 4777.2, CEI 0-21, VDE-AR-N 4105, VDE 0126-1-1, UTE C 15-712-1, EN 50438, IEC 62116, IEC 61727, G59/3							