

Growatt 3000~6000TL3-S

- Max. Efficiency 98.4%
- Dual MPP trackers
- Supports export limitation
- Integrated DC switch
- Max.DC voltage 1000VDC
- Natural cooling



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Datasheet	3000TL3-S	4000TL3-S	5000TL3-S	6000TL3-S
Input Data				
Max. recommended PV power (for module STC)	3600W	4800W	6000W	7200W
Max. DC voltage	1000V	1000V	1000V	1000V
Start Voltage	140V	140V	140V	140V
MPP work voltage range	160V-1000V	200V-1000V	200V-1000V	200V-1000V
Nominal voltage	620V	620V	620V	620V
Max. input current	11A/11A	11A/11A	11A/11A	11A/11A
Number of independent MPP trackers/strings per MPP tracker	2/1	2/1	2/1	2/1
Output (AC)				
Rated AC output power	3000W	4000W	5000W	6000W
Max. AC apparent power	3000VA	4000VA	5000VA	6000VA
Max. output current	5.1A	6.8A	8.5A	10.2A
AC nominal voltage	230V/400V ; 320-478V	230V/400V ; 320-478V	230V/400V ; 320-478V	230V/400V ; 320-478V
AC grid frequency	50Hz/60Hz, ±5Hz	50Hz/60Hz, ±5Hz	50Hz/60Hz, ±5Hz	50Hz/60Hz, ±5Hz
Power factor	0.8leading - 0.8laging	0.8leading - 0.8laging	0.8leading - 0.8laging	0.8leading - 0.8laging
THDI	<3%	<3%	<3%	<3%
AC grid connection type	3W+N+PE	3W+N+PE	3W+N+PE	3W+N+PE
Efficiency				
Max.efficiency	97.5%	97.8%	98.0%	98.0%
Euro - eta	96.5%	96.7%	96.9%	97.1%
MPPT efficiency	99.5%	99.5%	99.5%	99.5%
Protection Devices				
DC reverse polarity protection	yes	yes	yes	yes
DC switch	yes	yes	yes	yes
Output over current protection	yes	yes	yes	yes
Output AC overvoltage Protection - Varistor	yes	yes	yes	yes
Ground fault monitoring	yes	yes	yes	yes
Grid monitoring	yes	yes	yes	yes
Integrated all-pole sensitive leakage current monitoring unit	yes	yes	yes	yes
General Data				
Dimensions (W / H / D) in mm	480/448/200	480/448/200	480/448/200	480/448/200
Weight	21.2kg	21.2kg	21.2kg	21.2kg
Operating temperature range	-25 °C ... +60 °C	-25 °C ... +60 °C	-25 °C ... +60 °C	-25 °C ... +60 °C
Noise emission (typical)	≤35 dB(A)	≤35 dB(A)	≤35 dB(A)	≤35 dB(A)
Altitude	3000m	3000m	3000m	3000m
Self-consumption night	< 0.5W	< 0.5W	< 0.5W	< 0.5W
Topology	Transformerless	Transformerless	Transformerless	Transformerless
Cooling concept	Natural	Natural	Natural	Natural
Environmental Protection Rating	IP65	IP65	IP65	IP65
Relative humidity	0~100%	0~100%	0~100%	0~100%
Features				
DC connection	H4/MC4(opt)	H4/MC4(opt)	H4/MC4(opt)	H4/MC4(opt)
AC connection	Connector	Connector	Connector	Connector
Display	LCD	LCD	LCD	LCD
Interfaces:RS232/RS485/RF/Ethernet/Wi-Fi	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
CE, IEC 62109-1/2, VDE 0126-1-1, Greece, UTE C 15-712, VDE-AR-N4105, G83, EN50438, CEI 0-21, AS4777, IEC 61727, IEC 62116, CQC				

Growatt 7000~11000TL3-S

- Max. Efficiency 98%
- Dual MPP trackers
- Supports export limitation
- Integrated DC switch
- Max. DC voltage 1000VDC
- Natural cooling



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Datasheet	7000TL3-S	8000TL3-S	9000TL3-S	10000TL3-S	11000TL3-S
Input Data					
Max. recommended PV power (for module STC)	8400W	9600W	10800W	12000W	13200W
Max. DC voltage	1000V	1000V	1000V	1000V	1000V
Start Voltage	160V	160V	160V	160V	160V
MPP work voltage range	200V-1000V	200V-1000V	200V-1000V	200V-1000V	200V-1000V
Nominal voltage	600V	600V	600V	600V	600V
Max. input current	11.5A/11.5A	11.5A/11.5A	11.5A/11.5A	13A/13A	13A/13A
Number of independent MPP trackers/strings per MPP tracker	2/1	2/1	2/1	2/1	2/1
Output (AC)					
Rated AC output power	7kW	8kW	9kW	10kW	11kW
Max. AC apparent power	7.7kVA	8.8kVA	9.9kVA	11kVA	12.1kVA
Max. output current	11.7A	13.3A	15A	16.7A	18.3A
AC nominal voltage	230V/400V ; 320-478V	230V/400V ; 320-478V	230V/400V ; 320-478V	230V/400V ; 320-478V	230V/400V ; 320-478V
AC grid frequency	50/60Hz, ±5Hz	50/60Hz, ±5Hz	50/60Hz, ±5Hz	50/60Hz, ±5Hz	50/60Hz, ±5Hz
Power factor	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%
AC grid connection type	3W+N+PE	3W+N+PE	3W+N+PE	3W+N+PE	3W+N+PE
Efficiency					
Max. efficiency	98.3%	98.3%	98.4%	98.4%	98.4%
Euro - eta	97.5%	97.8%	98%	98%	98%
MPPT efficiency	99.5%	99.5%	99.5%	99.5%	99.5%
Protection Devices					
DC reverse polarity protection	yes	yes	yes	yes	yes
DC switch	yes	yes	yes	yes	yes
Output over current protection	yes	yes	yes	yes	yes
Output AC overvoltage Protection - Varistor	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
General Data					
Dimensions (W / H / D) in mm	480/448/200	480/448/200	480/448/200	480/448/200	480/448/200
Weight	21.6kg	21.6kg	21.6kg	21.6kg	21.6kg
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)	≤35 dB(A)	≤35 dB(A)	≤35 dB(A)	≤35 dB(A)	≤35 dB(A)
Altitude	3000m	3000m	3000m	3000m	3000m
Self-consumption night	< 0.5W	< 0.5W	< 0.5W	< 0.5W	< 0.5W
Topology	Transformerless	Transformerless	Transformerless	Transformerless	Transformerless
Cooling concept	Natural	Natural	Natural	Natural	Natural
Environmental Protection Rating	IP65	IP65	IP65	IP65	IP65
Relative humidity	0~100%	0~100%	0~100%	0~100%	0~100%
Features					
DC connection	H4/MC4(opt)	H4/MC4(opt)	H4/MC4(opt)	H4/MC4(opt)	H4/MC4(opt)
AC connection	Screw terminal	Screw terminal	Screw terminal	Screw terminal	Screw terminal
Display	LCD	LCD	LCD	LCD	LCD
Interfaces:RS232/RS485/RF/Wi-Fi	yes/yes/opt/opt	yes/yes/opt/opt	yes/yes/opt/opt	yes/yes/opt/opt	yes/yes/opt/opt
Warranty:5 years/10 years	yes/opt	yes/opt	yes/opt	yes/opt	yes/opt

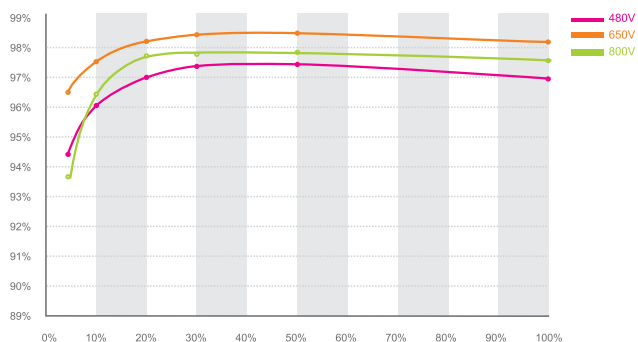
CE, IEC 62109-1/2, VDE 0126-1-1, Greece, VFR 2014, VDE-AR-N4105, G83, EN50438, CEI 0-21, AS4777, IEC 61727, IEC 62116, CQC

Leading - edge Technology

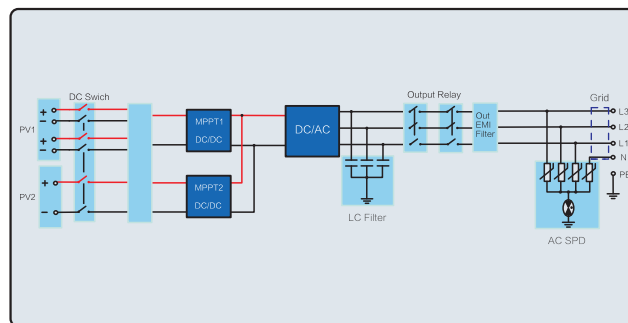
- ▶ Max. DC Voltage up to 1000V
- ▶ Max efficiency 98.4%
- ▶ Compact design
- ▶ Multi MPP controller
- ▶ 2+1 strings for flexible configuration
- ▶ Natural cooling, fanless design
- ▶ High power density, offer lighter and easy installation
- ▶ Flexible communication connection, support RF, WiFi, Ethernet
- ▶ Comprehensive Growatt warranty program



Growatt 12000TL3-S efficiency



Growatt 12000-15000TL3-S topology



Datasheet	Growatt 12000TL3-S	Growatt 13000TL3-S	Growatt 15000TL3-S
Input data			
Max. recommended PV power (for module STC)	14400W	15600W	18000W
Max. DC voltage	1000V	1000V	1000V
Start Voltage	160V	160V	160V
PV voltage range	160V-1000V	160V-1000V	160V-1000V
Nominal voltage	600V	600V	600V
MPP voltage range at Full Power	480V-850V	480V-850V	520V-850V
Max. input current	20A/10A	20A/10A	20A/10A
Number of independent MPP trackers/ strings per MPP tracker	2/2+1	2/2+1	2/2+1
Output (AC)			
Rated AC output power	12kW	13kW	15kW
Max AC apparent power	13.2kVA	14.3kVA	16.5kVA
Max. output current	19A	20.6A	23.8A
AC nominal voltage; range	230V/400V 184~275V	230V/400V 184~275V	230V/400V 184~275V
AC grid frequency	50/60Hz	50/60Hz	50/60Hz
Power factor	0.8leading - 0.8lagging	0.8leading - 0.8lagging	0.8leading - 0.8lagging
THDi	<3%	<3%	<3%
AC grid connection type	3/N/PE	3/N/PE	3/N/PE
Efficiency			
Max. efficiency	98.4%	98.4%	98.4%
Euro - eta	97.8%	98%	98%
MPPT efficiency	99.5%	99.5%	99.5%
Protection Devices			
DC reverse polarity protection	yes	yes	yes
DC switch for each MPPT	yes	yes	yes
Output over current protection	yes	yes	yes
Output AC overvoltage Protection - Varistor	yes	yes	yes
Ground fault monitoring	yes	yes	yes
Grid monitoring	yes	yes	yes
Integrated all-pole sensitive leakage current monitoring unit	yes	yes	yes
General Data			
Dimensions(W/H/D)	480/448/200 mm	480/448/200 mm	480/448/200 mm
Weight	23.5kg	23.5kg	23.5kg
Operating temperature range	-25 °C ... +60 °C	-25 °C ... +60 °C	-25 °C ... +60 °C
Noise emission (typical)	≤35 dB(A)	≤35 dB(A)	≤35 dB(A)
Altitude	3000m	3000m	3000m
Self-consumption night	< 0.5W	< 0.5W	< 0.5W
Topology	Transformerless	Transformerless	Transformerless
Cooling concept	Natural	Natural	Natural
Environmental Protection Rating	IP65	IP65	IP65
Relative humidity	0~100%	0~100%	0~100%
Features			
DC connection	H4/MC4(opt)	H4/MC4(opt)	H4/MC4(opt)
AC connection	Screw terminal	Screw terminal	Screw terminal
Display	LCD	LCD	LCD
Interfaces:RS232/RS485/RF/Ethernet/Wi-Fi	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
Certificates and Approvals			

Growatt 17000~25000TL3-S

- Max. Efficiency 99%
- Dual MPP trackers
- Supports Export limitation
- Integrated DC switch
- String fuse and string monitoring
- Anti-PID function
- Smart cooling
- Type II DC and AC SPDs



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Datasheet	17000TL3-S	20000TL3-S	25000TL3-S
Input Data			
Max. recommended PV power (for module STC)	21250W	25000W	31250W
Max. DC voltage	1000V	1000V	1000V
Start Voltage	250V	250V	250V
MPP work voltage range	200V-1000V	200V-1000V	200V-1000V
Nominal voltage	580V	580V	580V
Max. input current	37.5A/37.5A	37.5A/37.5A	37.5A/37.5A
Max. input current per string	12.5A	12.5A	12.5A
Number of independent MPP trackers/strings per MPP tracker	2/3	2/3	2/3
Output (AC)			
Rated AC output power	17000W	20000W	25000W
Max. AC apparent power	18800VA	22200VA	27700VA
Max. output current	27.5A	32.2A	40.3A
AC nominal voltage	230V/400V;340-440V	230V/400V;340-440V	230V/400V;340-440V
AC grid frequency	50Hz/60Hz, ±5Hz	50Hz/60Hz, ±5Hz	50Hz/60Hz, ±5Hz
Power factor	0.8 leading - 0.8 lagging	0.8 leading - 0.8 lagging	0.8 leading - 0.8 lagging
THDi	<3%	<3%	<3%
AC grid connection type	3W+N+PE	3W+N+PE	3W+N+PE
Efficiency			
Max. efficiency	98.7%	98.7%	98.7%
Euro - eta	98.4%	98.4%	98.4%
MPPT efficiency	99.5%	99.5%	99.5%
Protection Devices			
DC reverse polarity protection	yes	yes	yes
DC Switch	yes	yes	yes
DC Surge protection	Typell	Typell	Typell
Ground fault monitoring	yes	yes	yes
Output short circuit protection	yes	yes	yes
AC Surge protection	Typell	Typell	Typell
String Fuse protection	yes	yes	yes
String fault monitoring	yes	yes	yes
Anti-PID protection	yes	yes	yes
General Data			
Dimensions (W / H / D) in mm	470/754/270	470/754/270	470/754/270
Weight	48kg	48kg	48kg
Operating temperature range	-25 °C ... +60 °C	-25 °C ... +60 °C	-25 °C ... +60 °C
Noise emission (typical)	≤40 dB(A)	≤40 dB(A)	≤40 dB(A)
Self-Consumption (night)	<1W	<1W	<1W
Topology	Transformerless	Transformerless	Transformerless
Cooling concept	Smart cooling	Smart cooling	Smart cooling
Environmental Protection Rating	IP65	IP65	IP65
Altitude	4000m	4000m	4000m
Relative Humidity	0~100%	0~100%	0~100%
Features			
Display	LED+ LCD	LED+ LCD	LED+ LCD
Interfaces: RS232/R485/WIFI	yes / yes / opt	yes / yes / opt	yes / yes / opt
Warranty:5 years / 10 years	yes / opt	yes / opt	yes / opt
CE, VDE 0126-1-1, VDE-AR-N4105, G59, CEI 0-21, CEI 0-16, VFR 2014, EN50438, IEC 62116, IEC 61727, IEC 61683, IEC 60068			