

# Growatt 12000~15000TL3-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	12000TL3-S	13000TL3-S	15000TL3-S
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### 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	230V/400V 184~275V ; 320-478V	230V/400V 184~275V ; 320-478V	230V/400V 184~275V ; 320-478V
AC grid frequency	50/60Hz, ±5Hz	50/60Hz, ±5Hz	50/60Hz, ±5Hz
Power factor	0.8leading - 0.8lagging	0.8leading - 0.8lagging	0.8leading - 0.8lagging
THDI	<3%	<3%	<3%
AC grid connection type	3W+N+PE	3W+N+PE	3W+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	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

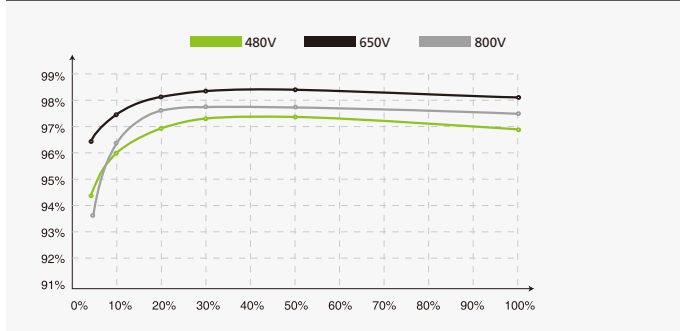
### General Data

Dimensions (W / H / D) in mm	480/448/200	480/448/200	480/448/200
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)
Self-Consumption (night)	<0.5W	<0.5W	<0.5W
Topology	Transformerless	Transformerless	Transformerless
Cooling concept	Natural	Natural	Natural
Environmental Protection Rating	IP65	IP65	IP65
Altitude	3000m	3000m	3000m
Relative Humidity	0~100%	0~100%	0~100%

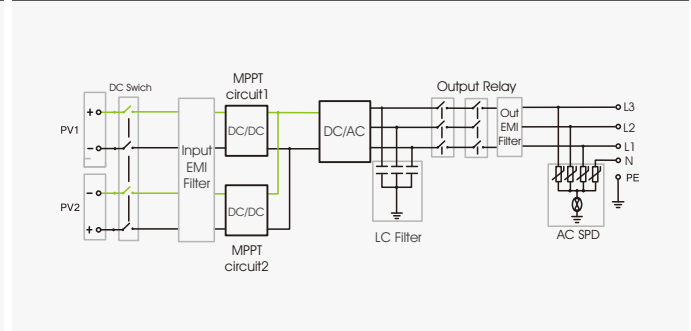
### Features

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

### Growatt 15000TL3-S efficiency



### Growatt 12-15kTL3-S topology



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