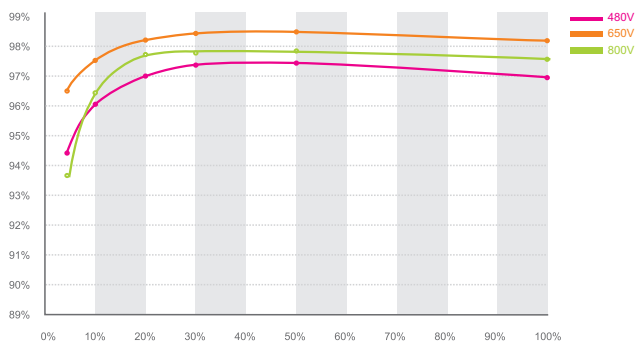


## Leading - edge Technology

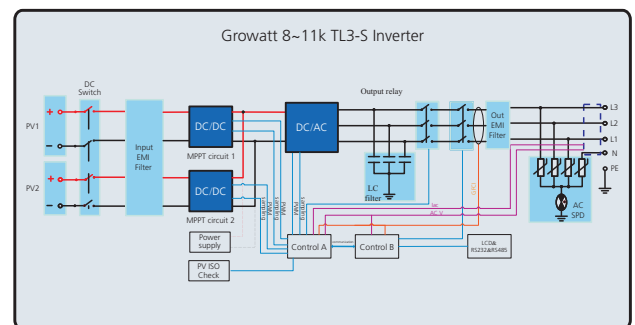
- ▶ Max. DC Voltage up to 1000V
- ▶ Max efficiency 98.4%
- ▶ Compact design
- ▶ Multi MPP controller
- ▶ Natural cooling, fanless design
- ▶ Max. DC/AC ratio up to 1.2
- ▶ Long-term overload at 1.1 Pn
- ▶ High power density, offer lighter and easy installation
- ▶ Flexible communication connection, support RF, WiFi, Ethernet
- ▶ Comprehensive Growatt warranty program



Growatt 11000TL3-S efficiency



Growatt 8-11kTL3-S topology



Datasheet	Growatt 8000TL3-S	Growatt 9000TL3-S	Growatt 10000TL3-S	Growatt 11000TL3-S
<b>Input data</b>				
Max. recommended PV power (for module STC)	9600W	10800W	12000W	13200W
Max. DC voltage	1000V	1000V	1000V	1000V
Start Voltage	250V	250V	250V	250V
PV voltage range	160V-1000V	160V-1000V	160V-1000V	160V-1000V
Nominal voltage	600V	600V	600V	600V
MPP voltage range at Full Power	360V-800V	400V-800V	450V-800V	450V-800V
Max. input current	11.5A/11.5A	11.5A/11.5A	13A/13A	13A/13A
Max. input current per string	12A	12A	12A	12A
Number of independent MPP trackers/ strings per MPP tracker	2/1	2/1	2/1	2/1
<b>Output (AC)</b>				
Rated AC output power	8kW	9kW	10kW	11kW
Max AC apparent power	8.8kVA	9.9kVA	11kVA	12.1kVA
Max. output current	13.3A	15A	16.7A	18.3A
AC nominal voltage; range	230V/400V 184~275V	230V/400V 184~275V	230V/400V 184~275V	230V/400V 184~275V
AC grid frequency	50/60Hz	50/60Hz	50/60Hz	50/60Hz
Power factor	0.8leading - 0.8laging	0.8leading - 0.8laging	0.8leading - 0.8laging	0.8leading - 0.8laging
THDi @Full load&Thdv<1%	<3%	<3%	<3%	<3%
AC grid connection type	3/N/PE	3/N/PE	3/N/PE	3/N/PE
<b>Efficiency</b>				
Max. efficiency	98.3%	98.4%	98.4%	98.4%
Euro - eta	97.8%	98%	98%	98%
MPPT efficiency	99.5%	99.5%	99.5%	99.5%
<b>Protection Devices</b>				
DC reverse polarity protection	yes	yes	yes	yes
DC switch for each MPPT	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
<b>General Data</b>				
Dimensions(W/H/D)	480/448/200 mm	480/448/200 mm	480/448/200 mm	480/448/200 mm
Weight	21.6kg	21.6kg	21.6kg	21.6kg
Operating temperature range	-25 °C ... +60 °C (with derating above 45°C)	-25 °C ... +60 °C (with derating above 45°C)	-25 °C ... +60 °C (with derating above 45°C)	-25 °C ... +60 °C (with derating above 45°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%
<b>Features</b>				
DC connection	H4/MC4(opt)	H4/MC4(opt)	H4/MC4(opt)	H4/MC4(opt)
AC connection	Screw terminal	Screw terminal	Screw terminal	Screw terminal
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

#### Certificates and Approvals

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