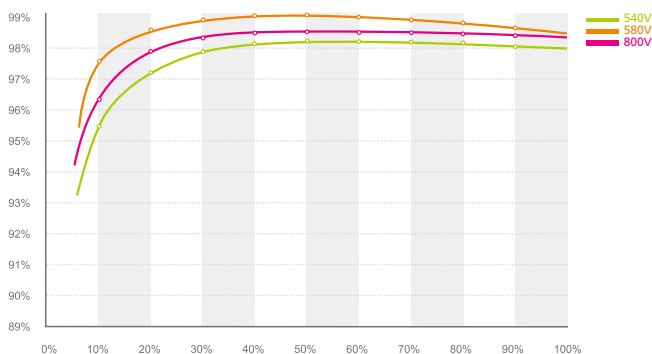


## Leading - edge Technology

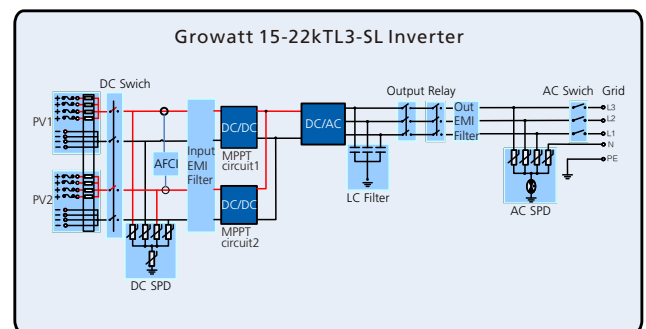
- ▶ Maximum efficiency of 98.8%
- ▶ Multi MPP controller and MTL string
- ▶ 8 strings intelligent monitoring and Fuse protection
- ▶ Leading IPM (Intelligent Power Module), more reliable
- ▶ Internal DC switch and Transformerless
- ▶ Type II surge arresters for both DC and AC
- ▶ Anti-PID for PV module
- ▶ Supporting AC power supply
- ▶ Compact design and easy installation
- ▶ Comprehensive warranty program



Growatt 22000TL3-SL efficiency



Growatt 15-22kTL3-SL topology



Datasheet	Growatt 15000 TL3-SL	Growatt 20000 TL3-SL	Growatt 22000 TL3-SL
<b>Input Data</b>			
Max. recommended PV power(for module STC)	19500W	26000W	28600W
Max. DC voltage	800V	800V	800V
Start voltage	250V	250V	250V
Nominal voltage	360V	360V	360V
MPP voltage range	300V-650V	300V-650V	300V-650V
No. of MPP trackers	2	2	2
No. of PV strings per MPP trackers	4	4	4
Max. input current per MPP trackers	38	38	38
Max. short-circuit current per MPP trackers	64	64	64
<b>Output data(AC)</b>			
AC nominal power	15000W	20000W	22000W
Max. AC apparent power	16600VA	22200VA	24400VA
Nominal AC voltage/range	127V/220V ; 101.6-139.7V	127V/220V ; 101.6-139.7V	127V/220V ; 101.6-139.7V
AC grid frequency/range	60 Hz / 57.5-62 Hz	60 Hz / 57.5-62 Hz	60 Hz / 57.5-62 Hz
Max. output current	43.6A	58.3A	64.1A
Power factor(@nominal power)	>0.99	>0.99	>0.99
Adjustable 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
<b>Efficiency</b>			
Max. efficiency	98.8%	98.8%	98.8%
Euro - eta	98%	98%	98%
<b>Protection Devices</b>			
DC reverse-polarity protection	yes	yes	yes
DC Switch	yes	yes	yes
DC Surge protection	Type II	Type II	Type II
Insulation resistance monitoring	yes	yes	yes
AC surge protection	Type II	Type II	Type II
AC short-circuit protection	yes	yes	yes
Grid monitoring	yes	yes	yes
Anti-islanding protection	yes	yes	yes
Residual-current monitoring unit	yes	yes	yes
String Fuse protection	yes	yes	yes
String monitoring	yes	yes	yes
Anti-PID function	yes	yes	yes
AFCI protection	opt	opt	opt
<b>General Data</b>			
Dimensions (W / H / D)	470/754/270 mm	470/754/270 mm	470/754/270 mm
Weight	48kg	48kg	48kg
Operating temperature range	- 25°C ... +60°C (>45°C Derating)	- 25°C ... +60°C (>45°C Derating)	- 25°C ... +60°C (>45°C Derating)
Noise emission (typical)	≤50 dB(A)	≤50 dB(A)	≤50 dB(A)
Altitude	4000m	4000m	4000m
Internal consumption at night	<1W	<1W	<1W
Topology	Transformerless	Transformerless	Transformerless
Cooling	Fan cooling	Fan cooling	Fan cooling
Electronics protection degree	IP65	IP65	IP65
Relative humidity	0~100%	0~100%	0~100%
DC connection	H4/MC4(OPT)	H4/MC4(OPT)	H4/MC4(OPT)
AC connection	Cable gland+OT terminal	Cable gland+OT terminal	Cable gland+OT terminal
<b>Features</b>			
Display	Graphic LCD	Graphic LCD	Graphic LCD
Interfaces: RS232/R485/WiFi/GPRS/4G	yes / yes / opt / opt / opt	yes / yes / opt / opt / opt	yes / yes / opt / opt / opt