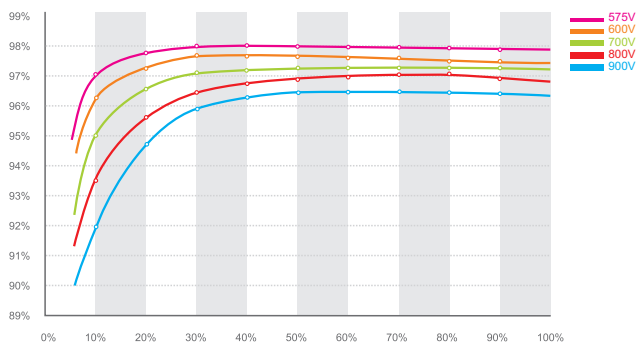


## Leading - edge Technology

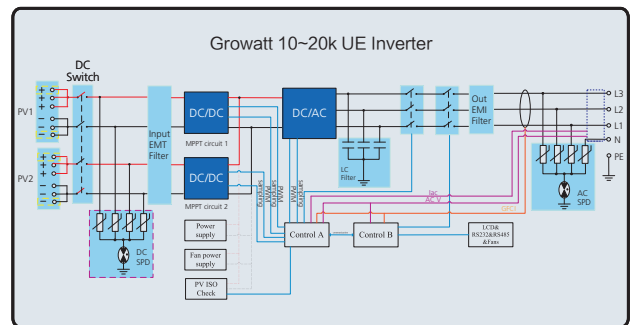
- ▶ DC input voltage up to 1000V
- ▶ Maximum efficiency of 98%
- ▶ Internal DC switch
- ▶ Transformerless
- ▶ Compact design
- ▶ Multi MPP controller
- ▶ MTL - String
- ▶ Ethernet/RF technology/WiFi
- ▶ Sound control
- ▶ Easy installation
- ▶ Comprehensive Growatt warranty program



Growatt 20000UE efficiency



Growatt 10~20k UE topology



Datasheet	Growatt 10000UE	Growatt 12000UE	Growatt 18000UE	Growatt 20000UE
<b>Input Data</b>				
Max. DC power	11000W	13200W	19800W	22000W
Max DC voltage	1000V	1000V	1000V	1000V
Start Voltage	350V	350V	350V	350V
PV voltage range	180V - 1000V	180V - 1000V	180V - 1000V	180V - 1000V
MPP voltage range / nominal voltage	300V - 1000V / 600V	300V - 1000V / 600V	300V - 1000V / 600V	300V - 1000V / 600V
Full load DC voltage range	400V - 800V	400V - 800V	400V - 800V	400V - 800V
Number of MPP trackers/ strings per MPP tracker	2/2	2/2	2/3	2/3
Max. input current	15A / 15A	17A / 17A	23A / 23A	26A / 26A
Max. input current per string	20A	20A	20A	20A
<b>Output (AC)</b>				
Rated AC output power	10kW	12kW	18kW	20kW
Max. AC apparent power	10kVA	12kVA	18kVA	20kVA
Max. output current	16A	19A	28.6A	32A
AC nominal voltage; range	230V/400V 184 - 275V	230V/400V 184 - 275V	230V/400V 184 - 275V	230V/400V 184 - 275V
AC grid frequency; range	50-60Hz; 44-55Hz/54-65Hz	50-60Hz; 44-55Hz/54-65Hz	50-60Hz; 44-55Hz/54-65Hz	50-60Hz; 44-55Hz/54-65Hz
Power factor at rated power	1	1	1	1
Displacement power factor configurable	0 overexcited to 0 underexcited	0 overexcited to 0 underexcited	0 overexcited to 0 underexcited	0 overexcited to 0 underexcited
THDI	<3%	<3%	<3%	<3%
AC connection	3/N/PE, 3W+PE(Opt)	3/N/PE, 3W+PE(Opt)	3/N/PE, 3W+PE(Opt)	3/N/PE 3W+PE(Opt)
<b>Efficiency</b>				
Max. efficiency	98%	98%	98%	98%
Euro - eta	97.5%	97.5%	97.5%	97.5%
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 AC overcurrent 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)	490/740/235 mm	490/740/235 mm	570/740/235 mm	570/740/235 mm
Weight	41kg	41kg	60kg	60kg
Operating temperature range	-25 °C ... +60 °C (with derating above45°C)	-25 °C ... +60 °C (with derating above45°C)	-25 °C ... +60 °C (with derating above45°C)	-25 °C ... +60 °C (with derating above45°C)
Noise emission (typical)	≤ 55 dB(A)	≤ 55 dB(A)	≤ 55 dB(A)	≤ 55 dB(A)
Self-Consumption (night)	<0.5W	<0.5W	<0.5W	<0.5W
Standby consumption	12W	12W	12W	12W
Topology	Transformerless	Transformerless	Transformerless	Transformerless
Cooling concept	Smart cooling	Smart cooling	Smart cooling	Smart cooling
Environmental Protection Rating	IP65	IP65	IP65	IP65
Altitude	2000m without derating	2000m without derating	2000m without derating	2000m without derating
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/R485/LAN/RF/WiFi/GPRS	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 years / 10 years	yes / opt	yes / opt	yes / opt	yes / opt

#### Certificates and Approvals

VDE-AR-N4105, CEI 0-21, CEI 0-16, CE, VDE 0126-1-1, IEC 62109, RD 1663, G59, C-tick, AS4777, AS/NZS 3100, IEC61727, IEC62116, BDEW(For 18-20k), IEC 60068, IEC 61683, NRS 097-2-1, PEA, G59, EN50438, PEA, MEA