



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

Europe / Australia ENS

- ▶ Simple national setting of line supply monitoring(ENS)
- ▶ Easy country configuration
- ▶ Multi - language display
- ▶ Currently available for Germany, Austria, France, UK
- ▶ Switzerland, Italy and Spain etc.

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| Datasheet | Growatt 10000UE | Growatt 12000UE | Growatt 18000UE | Growatt 20000UE |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|---------------------------------------------|---------------------------------------------|---------------------------------------------|
| Input Data | | | | |
| 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 |
| Output (AC) | | | | |
| 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 | 0~0.8leading-0~0.8lagging | 0~0.8leading-0~0.8lagging | 0~1leading -0~1lagging | 0~1leading - 0~1lagging |
| 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) |
| Efficiency | | | | |
| 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% |
| Protection Devices | | | | |
| 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 |
| General Data | | | | |
| 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 | IP 65 | IP 65 | IP 65 | IP 65 |
| Altitude | 2000m without derating | 2000m without derating | 2000m without derating | 2000m without derating |
| 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 | Screw terminal | Screw terminal | Screw terminal | Screw terminal |
| Display | LCD | LCD | LCD | LCD |
| Interfaces: RS232/R485/Ethernet/RF/WiFi | 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 | | | | |
| 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 | | | | |