# MIN 2500~6000 TL-X

- Maximum efficiency 98.4%
- Dual MPP trackers
- Type II SPD on DC side
- Supports export control
- Touch key and OLED display
- Data storage up to 25 years

POWER-INGO TOMO-RROWO

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| Datasheet | MIN 2500TL-X | MIN 3000TL-X | MIN 3600TL-X | MIN 4200TL-X | MIN 4600TL-X | MIN 5000TL-X | MIN 6000TL-X |
|---|---|---|---|---|---|---|---|
| **Input data (DC)** | | | | | | | |
| Max. recommended PV power (for module STC) | 3500W | 4200W | 5040W | 5880W | 6440W | 7000W | 8100W |
| Max. DC voltage | 500V | 500V | 550V | 550V | 550V | 550V | 550V |
| Start voltage | 100V | | | | | | |
| Nominal voltage | 360V | | | | | | |
| MPP voltage range | 80V-500V | 80V-500V | 80V-550V | 80V-550V | 80V-550V | 80V-550V | 80V-550V |
| No. of MPP trackers | 2 | | | | | | |
| No. of PV strings per MPP tracker | 1 | | | | | | |
| Max. input current per MPP tracker | 13.5A* | | | | | | |
| Max. short-circuit current per MPP tracker | 16.9A | | | | | | |
| **Output data (AC)** | | | | | | | |
| AC nominal power | 2500W | 3000W | 3600W | 4200W | 4600W | 5000W | 6000W |
| Max. AC apparent power | 2500VA | 3000VA | 3600VA | 4200VA | 4600VA | 5000VA | 6000VA |
| Nominal AC voltage (range*) | 230V (180-280V) | | | | | | |
| AC grid frequency (range*) | 50/60 Hz (45-55Hz/55-65 Hz) | | | | | | |
| Max. output current | 11.3A | 13.6A | 16A | 19A | 20.9A | 22.7A | 27.2A |
| Adjustable power factor | 0.8leading…0.8lagging | | | | | | |
| THDi | <3% | | | | | | |
| AC grid connection type | Single phase | | | | | | |
| **Efficiency** | | | | | | | |
| Max.efficiency | 98.2% | 98.2% | 98.2% | 98.4% | 98.4% | 98.4% | 98.4% |
| European efficiency | 97.1% | 97.1% | 97.2% | 97.5% | 97.5% | 97.5% | 97.5% |
| MPPT efficiency | 99.9% | | | | | | |
| **Protection devices** | | | | | | | |
| DC reverse polarity protection | Yes | | | | | | |
| DC switch | Yes | | | | | | |
| AC/DC surge protection | Type III/Type II | | | | | | |
| Insulation resistance monitoring | Yes | | | | | | |
| AC short-circuit protection | Yes | | | | | | |
| Ground fault monitoring | Yes | | | | | | |
| Grid monitoring | Yes | | | | | | |
| Anti-islanding protection | Yes | | | | | | |
| Residual-current monitoring unit | Yes | | | | | | |
| AFCI protection | Optional | | | | | | |
| **General data** | | | | | | | |
| Dimensions (W / H / D) | 375/350/160mm | | | | | | |
| Weight | 10.8kg | | | | | | |
| Operating temperature range | −25°C ... +60°C | | | | | | |
| Noise emission (typical) | ≤35 dB(A) | | | | | | |
| Nighttime power consumption | <1W | | | | | | |
| Topology | Transformerless | | | | | | |
| Cooling | Natural convection | | | | | | |
| Protection degree | IP65 | | | | | | |
| Relative humidity | 0-100% | | | | | | |
| Altitude | 4000m | | | | | | |
| DC connection | H4/MC4(Optional) | | | | | | |
| AC connection | Connector | | | | | | |
| Display | OLED+LED/WIFI+APP | | | | | | |
| Interfaces: RS485/USB/WiFi/ GPRS/RF/LAN | Yes/Yes/Optional/Optional/Optional/Optional | | | | | | |
| Warranty: 5 years / 10 years | Yes/Optional | | | | | | |
| | CE, IEC62109, VDE0126-1-1, AS4777, VDE-AR-N4105, CQC, IEC61683, IEC60068, IEC611727, IEC62116, INMETRO, AS/NZS 4777.2,UKCA，G99G98，IEEE 1547,PO12.2，UNE206007, UNE217001，NTS Type A | | | | | | |

* Only the latest version with max. input current 13.5A per MPP tracker, for details please contact Growatt.
* The AC voltage and frequency range may vary depending on specific country grid standard.
All specifications are subject to change without notice.

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