

MIN 2500~6000TL-XH

- Max. Efficiency 98.4%
- Dual MPP trackers
- Type II SPD on DC side
- 30% Lighter
- Storage ready
- Rapid shutdown & AFCI optional
- Compatible with double-glass bifacial modules



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Datasheet	MIN 2500TL-XH	MIN 3000TL-XH	MIN 3600TL-XH	MIN 4200TL-XH	MIN 4600TL-XH	MIN 5000TL-XH	MIN 6000TL-XH
Input Data (PV)							
Max. recommended PV power (for module STC)	3500W	4200W	5150W	5880W	6440W	7000W	8100W
Max. PV voltage	500V	500V	550V	550V	550V	550V	550V
Start voltage	100V	100V	100V	100V	100V	100V	100V
Nominal voltage	360V	360V	360V	360V	360V	360V	360V
MPPT voltage range	70V~500V	70V~500V	70V~550V	70V~550V	70V~550V	70V~550V	70V~550V
Number of independent MPP trackers / strings per MPP tracker	2/1	2/1	2/1	2/1	2/1	2/1	2/1
Max. input current per MPP trackers	12.5A	12.5A	12.5A	12.5A	12.5A	12.5A	12.5A
Max. short-circuit current per MPP trackers	16A/16A	16A/16A	16A/16A	16A/16A	16A/16A	16A/16A	16A/16A
Input Data (DC)							
Max. Input voltage	480V	480V	480V	480V	480V	480V	480V
Nominal DC Input voltage	380V	380V	380V	380V	380V	380V	380V
Max. Input current	10A	10A	10A	10A	10A	10A	10A
Output Data (AC Grid)							
AC nominal power	2500W	3000W	3600W	4200W	4600W	5000W	6000W
Max. AC apparent power	2500VA	3000VA	3600VA	4200VA	4600VA	5000VA	6000VA
Nominal output voltage	230V/187V~276V	230V/187V~276V	230V/187V~276V	230V/187V~276V	230V/187V~276V	230V/187V~276V	230V/187V~276V
Nominal output frequency	50Hz/60Hz	50Hz/60Hz	50Hz/60Hz	50Hz/60Hz	50Hz/60Hz	50Hz/60Hz	50Hz/60Hz
Max. output current	11.3A	13.6A	16A	19A	20.9A	22.7A	27.2A
Adjustable power factor	0.8leading~0.8lagging	0.8leading~0.8lagging	0.8leading~0.8lagging	0.8leading~0.8lagging	0.8leading~0.8lagging	0.8leading~0.8lagging	0.8leading~0.8lagging
THDI	<3%	<3%	<3%	<3%	<3%	<3%	<3%
AC grid connection type	L/N/PE	L/N/PE	L/N/PE	L/N/PE	L/N/PE	L/N/PE	L/N/PE
Output Data (Backup Power)							
AC nominal power	2500W	3000W	3000W	3000W	3000W	3000W	3000W
Max. AC apparent power	2500VA	3680VA	3680VA	3680VA	3680VA	3680VA	3680VA
Nominal AC voltage/range	208V/230V~240V	208V/230V~240V	208V/230V~240V	208V/230V~240V	208V/230V~240V	208V/230V~240V	208V/230V~240V
AC grid frequency/range	50Hz/45Hz~55Hz	50Hz/45Hz~55Hz	50Hz/45Hz~55Hz	50Hz/45Hz~55Hz	50Hz/45Hz~55Hz	50Hz/45Hz~55Hz	50Hz/45Hz~55Hz
THDv	<5%	<5%	<5%	<5%	<5%	<5%	<5%
Efficiency							
Max. efficiency	98.2%	98.2%	98.2%	98.4%	98.4%	98.4%	98.4%
Euro-eta	97.1%	97.1%	97.2%	97.2%	97.5%	97.5%	97.5%
MPPT efficiency	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%
Protection Devices							
DC reverse-polarity protection	yes	yes	yes	yes	yes	yes	yes
DC switch	yes	yes	yes	yes	yes	yes	yes
DC Surge protection	Type II	Type II	Type II	Type II	Type II	Type II	Type II
AC surge protection-varistor	yes	yes	yes	yes	yes	yes	yes
AC short-circuit protection	yes	yes	yes	yes	yes	yes	yes
Ground fault monitoring	yes	yes	yes	yes	yes	yes	yes
Grid monitoring	yes	yes	yes	yes	yes	yes	yes
Residual-current monitoring unit	yes	yes	yes	yes	yes	yes	yes
AFCI protection	opt	opt	opt	opt	opt	opt	opt
General Data							
Dimensions (W / H / D) in mm	375/350/160	375/350/160	375/350/160	375/350/160	375/350/160	375/350/160	375/350/160
Weight	10.8KG	10.8KG	10.8KG	10.8KG	10.8KG	10.8KG	10.8KG
Operating temperature range	-25°C ... +60°C	-25°C ... +60°C	-25°C ... +60°C	-25°C ... +60°C	-25°C ... +60°C	-25°C ... +60°C	-25°C ... +60°C
Noise emission (typical)	≤25 dB(A)	≤25 dB(A)	≤25 dB(A)	≤25 dB(A)	≤25 dB(A)	≤25 dB(A)	≤25 dB(A)
Altitude	4000m (>2000 derating)	4000m (>2000 derating)	4000m (>2000 derating)	4000m (>2000 derating)	4000m (>2000 derating)	4000m (>2000 derating)	4000m (>2000 derating)
Self-Consumption night	< 10W	< 10W	< 10W	< 10W	< 10W	< 10W	< 10W
Topology	Transformerless	Transformerless	Transformerless	Transformerless	Transformerless	Transformerless	Transformerless
Cooling concept	Nature Convection	Nature Convection	Nature Convection	Nature Convection	Nature Convection	Nature Convection	Nature Convection
Environmental Protection Rating	IP65	IP65	IP65	IP65	IP65	IP65	IP65
Relative humidity	0%~100%	0%~100%	0%~100%	0%~100%	0%~100%	0%~100%	0%~100%
Features							
DC connection	H4/MC4(opt)	H4/MC4(opt)	H4/MC4(opt)	H4/MC4(opt)	H4/MC4(opt)	H4/MC4(opt)	H4/MC4(opt)
AC connection	Connector	Connector	Connector	Connector	Connector	Connector	Connector
Display	OLED+LED/WIFI+APP	OLED+LED/WIFI+APP	OLED+LED/WIFI+APP	OLED+LED/WIFI+APP	OLED+LED/WIFI+APP	OLED+LED/WIFI+APP	OLED+LED/WIFI+APP
Interfaces: RS485/USB WIFI/GPRS/4G/RF	yes / yes / opt/opt/opt/opt	yes / yes / opt/opt/opt/opt	yes / yes / opt/opt/opt/opt	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 / 10 years	yes / opt	yes / opt	yes / opt	yes / opt	yes / opt	yes / opt	yes / opt

CE, IEC62109, AS/NZS 4777.2, CEI 0-21, VDE-AR-N 4105, VDE 0126-1-1, UTE C 15-712-1, EN 50438, EN 50549, IEC 62116, IEC 61727, G98/G99

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*1 For VDE-AR-N4105 Max. output power is 4600W *2 For AS4777, Iac max.:21.7A