



# Hybrid Solar Inverter TCI X5.0 III

- Pure sine wave output
- With integration into the grid and off-grid functions
- Programmable supply priority for PV, Battery or Grid
- User-adjustable battery charging current suits different types of batteries
- Programmable multiple operation modes: grid-connected, off-grid and grid-connected with backup
- Built-in timer for on/off operation in various modes
- Built-in 2 strings of MPPT trackers
- Optional DC switch



## Data sheet

MODEL	TCI X5.0 III
Product Name	Hybrid Solar Inverter
Maximum pv input power	8000W
Rated output power	5000W
Maximum charging power	5000W
GRID-TIE OPERATION	
PV input(DC)	
Nominal DC voltage/Maximum DC voltage	380 VDC / 600VDC
start-up voltage	150 VDC
MPP voltage range	120 VDC~550VDC
Number of MPP trackers/Maximum input current	2/2×13A
AC input	
AC start-up voltage	176-264 VAC
Acceptable input voltage range	176-264 VAC
Maximum AC input current	40A
Grid output (AC)	
Nominal output voltage	230 VAC
Output voltage range	176-264 VAC
Max. output current	25A
Power factor	0.8 lead ~0.8 lag (adjustable)
Rated apparent output power	5000W
Rated frequency	50/60
Rated current	21.7A
EFFICIENCY	
Maximum conversion efficiency (DC/AC)	98%
European efficiency@ vnominal	97.1%
OFF-GRID OPERATION	
PV input (DC)	
Maximum DC voltage	600 VDC
MPP voltage range	120 VDC~550 VDC
Number of MPP trackers / Maximum input current	2/2×13A
Short-circuit current of PV input	20/20A
Battery mode output (AC)	
Nominal output voltage	200/208/220/230/240 VAC
Output waveform	pure sine wave
Efficiency (DC to AC)	94%
Rated apparent output power	5000W
Rated frequency	50/60
Rated current	21.7A
Power factor	0.8 leading to 0.8 lagging
HYBRID OPERATION	
PV input (DC)	
Maximum DC voltage	600 VDC
Start-up voltage	150VDC
MPPT voltage range	120VDC~550 VDC
Number of MPP trackers / Maximum input current	2/2×13A
Grid output (AC)	
Nominal output Voltage	230 VAC
Output voltage range	176-264 VAC
Nominal output current	21.7A
AC input	
AC start-up voltage	176-264 VAC
Acceptable input voltage range	176-264 VAC
Maximum AC input current	40 A
Battery mode output (AC)	
Nominal output voltage	200/208/220/230/240 VAC
Battery & charger	
Battery voltage range	40-60 VDC
Maximum charging current	100A
Rated apparent output power	5000W
Rated frequency	50/60
Power factor	0.8 leading to 0.8 lagging
Battery discharging current	100A



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MODEL	TCI X5.0 III
Isc of PV （A）	20/20
types (Chemistry) of batteries the inverter is compatible with	LFP
GRID INTERACTIVE PORT	
Voltage	176-264Vac
rated current	21.7A
rated apparent power	5KVA
rated voltage	230V
power factor range	0.8 lead ~0.8 lag
Backup port	
Voltage	200/208/220/230/240Vac
rated current	25A/24A/18.3A/21.7A/20.8A
rated apparent power	5KVA
power factor range	0.8 leading to 0.8 lagging
Backup port	
Current (inrush) in a.c. A (peak and duration)	70A , 1s
Maximum output fault current	57A · 1s
AC GRID PORT	
Current (inrush) in a.c. A (peak and duration)	80A , 187μs
Maximum output fault current	48A, 2s
ACTIVE ANTI-ISLANDING METHOD	
The under and over frequency detection method	Identify frequency deviation. If the machine follows the deviation, the network will be disconnected.
Environmental category	
Environmental	Outdoor
GENERAL	
Physical	
Dimension,D*W*H (mm)	535*485*198.5mm
Net weight (kgs)	29
CERTIFICATE	
Safety	CE, IEC61000, IEC62109, EN62477, AS4777
INTERFACE	
Communication port	USB, RS-485
Smart slot	WIFI stick (Collector)
ENVIRONMENT	
Humidity	0% ~ 95% RH
Operating temperature	-20℃ ~ +60℃
Storage temperature	-40℃ ~ +85℃
Maximum working altitude	3000m derating
IP Grade	IP65
Power-off switching time	10ms
Country of Origin	China