



Three Phase Hybrid Inverter
Trio Hybrid Pro Series
4.0/5.0/6.0/8.0/10.0/12.0/15.0



Simple. Reliable. Efficient.



High Performance




Reliable Backup Power



Remote Monitoring



Generator Compatibility



Dual HV Battery Ports



**Trio-Hybrid Pro 4.0K / Trio-Hybrid Pro 5.0K / Trio-Hybrid Pro 6.0K
Trio-Hybrid Pro 8.0K / Trio-Hybrid Pro 10.0K / Trio-Hybrid Pro 12.0K
Trio-Hybrid Pro 15.0K**

TommaTech®'s Trio Hybrid Pro Series three-phase inverters offer high-performance energy solutions with advanced security features, providing flexible usage for both residential and commercial applications. Equipped with 3 MPPT support and dual battery connection points, this series stands out with 200% PV oversizing and up to 110% AC output capacity. It ensures secure and flexible usage with Rapid Shutdown support and wide compatibility options, while also enabling seamless integration with future energy systems through various communication protocols.



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PV INPUT

Max. recommended PV array power	8 kWp	10 kWp	12 kWp	16 kWp	20 kWp	24 kWp	30 kWp
Max. PV input voltage ^①	1000 V						
Nominal PV input voltage	650 V						
Operating voltage range	110 ~ 950 V						
MPPT voltage range ^②	110 ~ 950 V						
Start-up voltage	120 V						
No. of MPP trackers / Strings per MPP tracker	2 (1 / 1)			3 (1 / 1 / 1)			
Max. input current per MPPT(MPPT1/2/3)	20 A / 20 A			20 A / 20 A / 20 A			
Max. input short circuit current per MPPT(MPPT1/2/3)	25 A / 25 A			25 A / 25 A / 25 A			

AC INPUT & OUTPUT (ON-GRID)

Rated output power	4000 W	5000 W (AS 4777 4999 W)	6000 W	8000 W	10000 W (AS 4777 9999 W)	12000 W	15000 W (AS 4777 14999 W)
Rated output current	5.8 A	7.2 A	8.7 A	11.6 A	14.5 A	17.5 A	21.8 A
Max. output apparent power	4400 VA	5500 VA (AS 4777 4999 VA)	6600 VA	8800 VA	11000 VA (AS 4777 9999 VA)	13200 VA	16500 VA (AS 4777 14999 VA)
Max. output continuous current	6.7 A	6.7 A	8.4 A	10.0 A	13.4 A	20.0 A	25.0 A
Nominal AC voltage	3 / N / PE, 220 / 380 V 3 / N / PE, 230 / 400 V						
Max. AC input apparent power	8.4 kVA	10.5 kVA	12.6 kVA	16.8 kVA	21.0 kVA		
Max. AC input current	12.2 A	15.2 A	18.2 A	24.3 A	30.4 A		
Nominal AC frequency	50 Hz / 60 Hz						
AC frequency range ^③	50 ± 5 Hz / 60 ± 5 Hz						
Adjustable Power Factor range	~ 1 (0.8 lagging to 0.8 leading)						
THDi (Rated power)	< 3%						

BATTERY

Battery type	Lithium						
Battery voltage range	130 ~ 800 V						
Max. charge / discharge current ^④	50 A (25 A x 2)						

EPS (OFF-GRID) OUTPUT (WITH BATTERY)

Rated EPS output voltage, frequency	400 V / 230 V, 50 Hz / 60 Hz						
Rated EPS output power	4 kVA	5 kVA	6 kVA	8 kVA	10 kVA	12 kVA	15 kVA
Peak EPS output power	2 times of rated power, 10 s						
Switchover time	< 10 ms						

EFFICIENCY

Max. efficiency	98.0%						
European efficiency	97.7%						

ENVIRONMENT LIMIT

Ingress protection	IP66						
Operating ambient temperature range ^⑤	-35 ~ 60°C						
Max. operating altitude	3000 m						
Relative humidity	0 ~ 100% RH (condensing)						
Overvoltage Category	Mains: III, Battery: II, PV: II						

GENERAL

Dimensions (W x H x D)	560 x 503 x 210 mm						
Net weight	38 kg						
Cooling concept	Nature cooling			Smart cooling			
Communication interfaces	COM1 (Parallel 1, Parallel 2, BMS 1, BMS 2, RS485, Meter / CT); COM2 (DI/DO, EVC, DATAHUB, DRM, V2X, Heatpump)						
Power consumption (night)	< 40 W for standby, < 5 W for idle						
Topology	Non-isolated						
AC auxiliary power supply (APS)	Built-in						

STANDARD

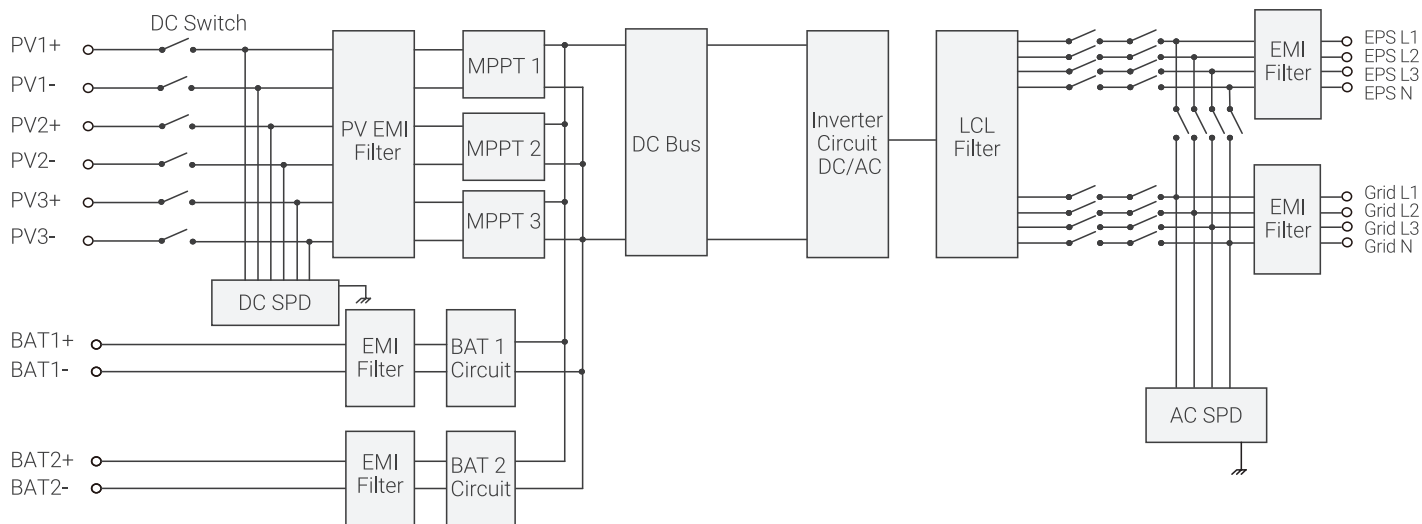
EMC	IEC / EN 61000-6-1 / -2 / -3 / -4; IEC / EN 61000-3-11 / -12; IEC / EN 62920; EN55011						
Certification	EN 50549-1 / -2 / -10; IEC 61727; IEC 62116						

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PROTECTION							
Over / Under Voltage Protection				Yes			
Dc Isolation Protection				Yes			
Dc Reverse-Polarity Protection				Yes			
Grid Monitoring				Yes			
Dc Injection Monitoring				Yes			
Back Feed Current Monitoring				Yes			
Residual Current Detection				Yes			
Over Temperature Protection				Yes			
Ac Overcurrent Protection				Yes			
Ac Short-Circuit Protection				Yes			
Active Anti-Islanding Method				Frequency shift			
Surge Protection (Dc / Ac)				DC: Type II, AC: Type II			
Arc-Fault Circuit Interrupter (AfcI)				Optional			

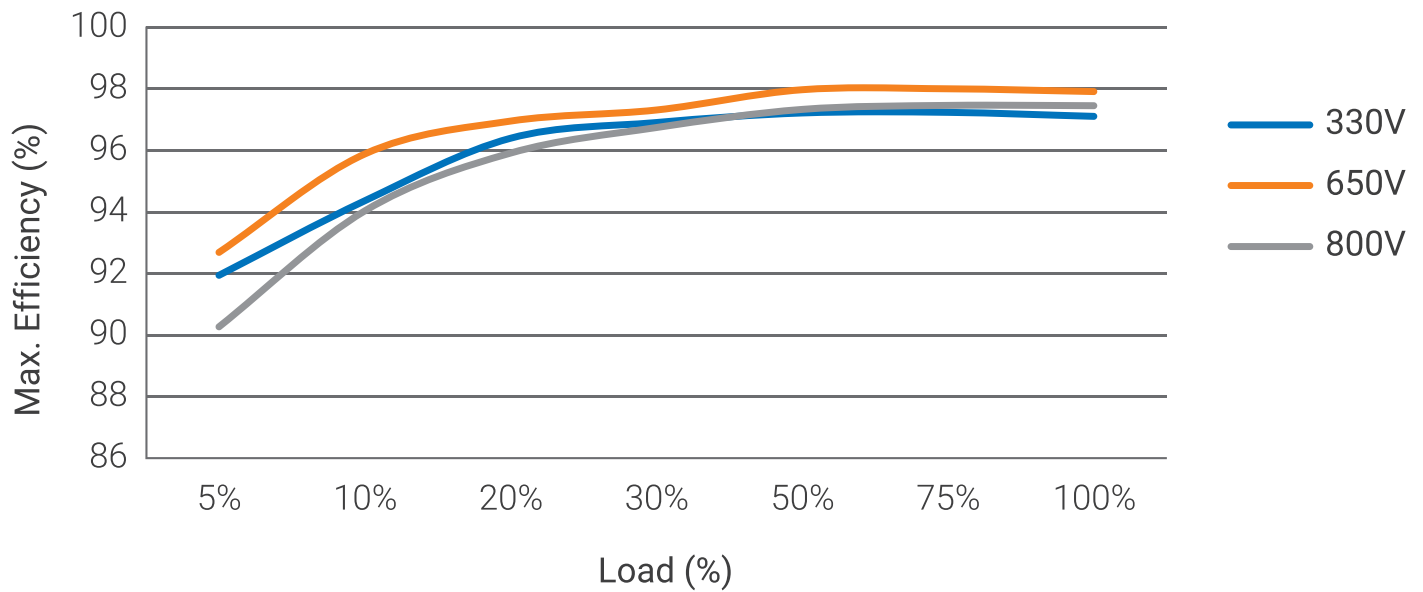
- ① The maximum input voltage is the upper limit of the DC voltage. Any higher input DC voltage would probably damage the inverter
- ② Input voltage exceeding the MPPT voltage range may trigger inverter protection
- ③ The AC frequency range may vary from different country codes
- ④ If only one port is connected to a single battery, it's 30A. If both ports are connected to a single battery using a 2-in-1 splitter cable (sold separately), it's 50A

CIRCUIT DIAGRAM



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EFFICIENCY CURVE



DERATING CURVE

