TOMMATECH TRIO-HYBRID F SERIES G2
THREE-PHASE LV HYBRID INVERTER

TOMMATECH
GERMAN-based company

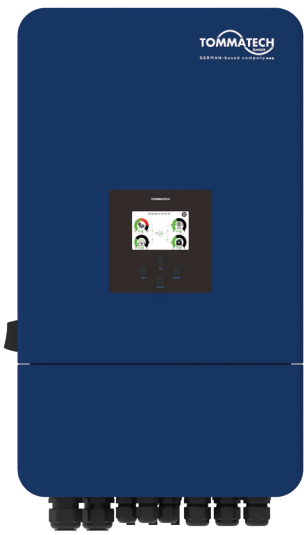


Three-Phase LV Hybrid Inverter

Trio-Hybrid F G2 Series

Easy. Safe. Efficient.

- Expandable System
- 48V Battery Voltage
- 240A Maximum Charge/ Discharge Current- Charge /Discharge
- Generator Support
- Three-Phase AC Output
- Phase Balancing
- High MPPT Efficiency
- Wind Turbine Support
- Remote Monitoring
- BMS Communication



TRIO HYBRID LV 3.0F G2 / TRIO HYBRID LV 4.0F G2 / TRIO HYBRID LV 5.0F G2 / TRIO HYBRID LV 6.0F G2 / TRIO HYBRID LV 8.0F G2 / TRIO HYBRID LV 10.0F G2 / TRIO HYBRID LV 12.0F G2

The TommaTech 48V LV Hybrid Inverter G2 Series offers safe and flexible energy management with its low-voltage battery architecture and transformer-isolated design. Six different time slots can be defined for battery charging and discharging, and the inverter can be easily integrated into existing solar systems via AC coupling. Supporting parallel operation of up to 10 units in both on-grid and off-grid applications, the series also allows multiple batteries to be connected in parallel. With charge/discharge currents of up to 240A, energy storage support from diesel generators and 100% unbalanced output, it delivers a powerful and reliable solution for residential and commercial energy systems.

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THREE-PHASE LV HYBRID INVERTER

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MODEL	TRIO HYBRID LV 3.0F G2	TRIO HYBRID LV 4.0F G2	TRIO HYBRID LV 5.0F G2	TRIO HYBRID LV 6.0F G2	TRIO HYBRID LV 8.0F G2	TRIO HYBRID LV 10.0F G2	TRIO HYBRID LV 12.0F G2
BATTERY DATA							
Battery Type	Lead-Acid or Lithium-Ion						
Battery Voltage Range [V]	40-60						
Maximum Charging/Discharging Current [A]	70	95	120	135	190	210	240
Charging Method for Li-ion Batteries	Automatic Adaptation to BMS						
Charging Method for Li-ion Batteries	1						
PV INPUT DATA							
Max. PV Array Power	6000	8000	10000	12000	16000	20000	24000
Max. Usable PV Input Power [W]	4800	6400	8000	9600	12800	16000	19200
Max. PV Open-Circuit Voltage [V]	800						
Start-up Voltage [V]	160						
MPPT Voltage Range [V]	200-650						
Rated PV Input Voltage [V]	550						
Max. Operating PV Input Current [A]	20+20					26+26	
Max. PV Input Short-Circuit Current [A]	30+30					39+39	
Number of MPPT Trackers / Strings per MPPT	2 / 1+1					2 / 2+2	
AC OUTPUT/INPUT DATA							
Rated AC Output/Input Active Power [W]	3000	4000	5000	6000	8000	10000	12000
Max. AC Output/Input Apparent Power [VA]	3300	4400	5500	6600	8800	11000	13200
Rated AC Output/Input Current [A]	4.6 / 4.4	6.1 / 5.8	7.6 / 7.3	9.1 / 8.7	12.2 / 11.6	15.2 / 14.5	18.2 / 17.4
Max. AC Output/Input Current [A]	5 / 4.8	6.7 / 6.4	8.4 / 8	10 / 9.6	13.4 / 12.8	16.7 / 16	20 / 19.2
Max. Continuous AC Passthrough Current [A]	45						
Peak Power (Off-Grid) [W]	2 Times Rated Power for 10 Seconds						
Displacement Power Factor Adjustment Range	0.8 Leading – 0.8 Lagging						
Rated Input/Output Voltage / Range [V]	220/380 V, 230/400 V; 0.85Un–1.1Un; 3L+N+PE						
Rated Input/Output Grid Frequency / Range [Hz]	50/45-55, 60/55-65						
Total Harmonic Current Distortion (THDi)	<3% (of Rated Power)						
DC Injection Current	0.5% In						
EFFICIENCY							
Max. Efficiency [%]	%97.6						
European Efficiency [%]	%97.0						
MPPT Efficiency [%]	>%99						
PROTECTION							
Integrated	DC Reverse Polarity Protection, AC Output Overcurrent Protection, Thermal Protection, AC Output Overvoltage Protection, AC Output Short-Circuit Protection DC Component Monitoring, Arc Fault Circuit Interrupter (AFCI), Anti-Islanding Protection, DC Switch, Insulation Impedance Detection, Leakage Current Detection						
Overvoltage Protection Level	Type II (DC), Type II (AC)						
INTERFACE							
LCD/LED Display	LCD						
Communication Interface	Wi-Fi, RS485, CAN						
GENERAL DATA							
Operating Temperature Range [°C]	-40°C to +60°C, Derating Above 45°C						
Permissible Ambient Humidity	0–100%						
Permissible Altitude	3000 m						
Noise Emission [dB]	≤55						
Protection Rating	IP65						
Inverter Topology	Non-Isolated (Solar), Isolated (Battery)						
Overvoltage Category	OVC II (DC), OVC III (AC)						
Cabinet Dimensions [W×H×D mm]	386×660×250 (Excluding Connectors and Brackets)						
Weight [kg]	35.2						
Cooling	Intelligent Air Cooling						
Warranty	5 Years						
STANDARDS							
Grid Regulations	IEC 61727, IEC 62116, CEI 0-21, EN 50549, VDE-AR-N 4105						
Safety / EMC Standards	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2						

* TommaTech GmbH reserves the right to change product specifications without prior notice.

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