



Three Phase LV Hybrid Inverter
Trio Hybrid F-Series

Simple. Reliable. Efficient.



3- Phase
Unbalanced
Output



Phase
Balancing



Expandable
System



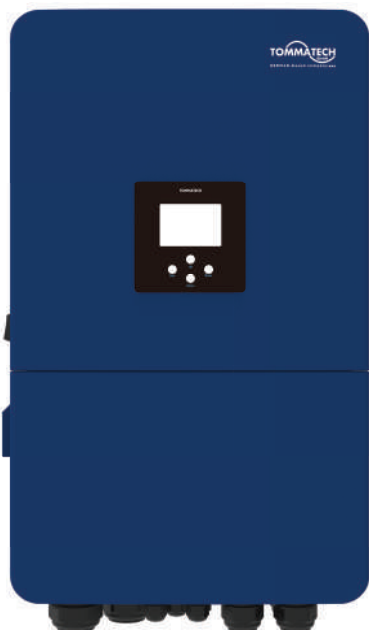
Maximum
Charge/Discharge
Current



48V Battery
Output Voltage



Generator
Supported



15.0kW

20.0kW

TRIO HYBRID LV 15.0F / TRIO HYBRID LV 20.0F

TommaTech Trio Hybrid LV F-Series Three Phase LV Hybrid Inverter, in addition to its phase imbalance output support feature, is an ideal solution for low voltage battery applications with a 48V battery system voltage. The inverter series, which works perfectly with TommaTech LV Lithium Batteries and has remote control capability, can be easily preferred for both residential and commercial projects. The hybrid three-phase inverter can reach high capacities with up to 6 and 10 units in parallel, and at the same time, this power can be sustainably supported by lithium batteries.

TOMMATECH TRIO HYBRID F SERIES THREE PHASE LV HYBRID INVERTER



TRIO HYBRID LV 15.0F

TRIO HYBRID LV 20.0F

BATTERY INPUT DATA

Battery Type	Lead-acid or Lithium-ion	
Battery Voltage Range (V)	40-60	
Max. Charging Current (A)	280	350
Max. Discharging Current (A)	280	350
Charging Strategy for Li-ion Battery	Self-adaption to BMS	
Number of Battery Input	2	

PV STRING INPUT DATA

Maximum Connectable PV Input Power (W)	30000	40000
Max. Generatable PV Input Power (W)	24000	32000
Max. PV Input Voltage (V)	800	
Start-up Voltage (V)	160	
MPPT Voltage Range (V)	160-650	
Rated PV Input Voltage (V)	550	
Max. Operating PV Input Current (A)	36+36	
Max. Input Short-Circuit Current (A)	54+54	
No. of MPP Trackers/No. of Strings MPP Tracker	2/2+2	

AC INPUT/OUTPUT DATA

Rated AC Input/Output Active Power (W)	15000	20000
Max. AC Input/Output Apparent Power (VA)	16500	22000
Rated AC Input/Output Current (A)	22.8/21.8	30.4/29
Max. AC Input/Output Current (A)	22.8/21.8	30.4/29
Max. Continuous AC Passthrough (grid to load) (A)	70	
Peak Power (off-grid) (W)	2 times of rated power, 10s	
Power Factor Adjustment Range	0.8 leading to 0.8 lagging	
Rated Input/Output Voltage/Range (V)	220/380V, 230/400V 0.85Un-1.1Un	
Rated Input/Output Grid Frequency/Range(Hz)	50/45-55, 60/55-65	
Grid Connection Form	3L+N+PE	
Total Current Harmonic Distortion THDi	<3% (of nominal power)	
DC Injection Current	<0.5% In	
Parallel Connection (Number)	10	

EFFICIENCY

Maximum Efficiency [%]	97.6%
Euro Efficiency [%]	97.0%
MPPT Efficiency [%]	>99%

EQUIPMENT PROTECTION

Integrated	DC Polarity Reverse Connection Protection, AC Output Overcurrent Protection AC Output Overvoltage Protection, AC Output Short Circuit Protection, Thermal Protection DC Terminal Insulation Impedance Monitoring, DC Component Monitoring, Ground Fault Current Monitoring Power Network Monitoring, Island Protection Monitoring, Earth Fault Detection, DC Input Switch Overvoltage Load Drop Protection, Residual Current (RCD) Detection, Surge protection level
Surge Protection Level	TYPE II(DC), TYPE II(AC)

INTERFACE

Communication Interface	RS485/RS232/CAN
Monitor Mode	GPRS/WIFI/Bluetooth/4G/LAN(optional)

GENERAL DATA

Operating Temperature Range (°C)	-40 to +60 °C, >45 °C Derating
Permissible Ambient Humidity	0-100%
Permissible Altitude	3000m
Noise (dB)	<60
Ingress Protection(IP) Rating	IP 65
Inverter Topology	Non-Isolated
Over Voltage Category	OVC II(DC), OVC III(AC)
Cabinet Size (WxHxD mm)	456x750x268.5 (Excluding Connectors and Brackets)
Weight (kg)	50.6
Type of Cooling	Intelligent Air Cooling
Warranty	5 Years

CERTIFICATIONS

EN 50549, Low Voltage Directive EU 2014/35, EN/IEC 62109-1/2, VDE-AR-N 4105, IEC 61727, IEC 62116, IEC 61683, IEC 60068-2-1/2/14/30, EN IEC 61000-6-1/2/3/4, EN IEC 61000-3-2/11, EN 61000-3-3/12, EN 55011