







Three Phase Hybrid Inverter
Trio Hybrid Maxi Series
30 / 35 / 40 / 50

Reliable. Scalable. Efficient.

- 
Phase Balancing
- 
AC Coupling
- 
Up to 10 Units Parallel
- 
100A Charge / Discharge
- 
High-Voltage Battery
- 
Dual HV Battery Input
- 
Generator Compatibility



30kW

35kW

INV-TT-TF-M30K / INV-TT-TF-M35K / INV-TT-TF-M40K / INV-TT-TF-M50K

The three-phase TommaTech® Maxi Series M30/35/40/50K hybrid inverters are ideal solutions for commercial and industrial applications. With four MPPTs, they offer high efficiency and, thanks to their IP65 protection rating, are also suitable for outdoor use. The inverters can also be remotely monitored and controlled, and by connecting up to 10 units in parallel, their capacity can be expanded to up to 500 kW. Furthermore, the Maxi Series offers a flexible and powerful energy management solution with highly efficient battery integration and support for off-grid operation.



	INV-TT-TF-M30K	INV-TT-TF-M35K	INV-TT-TF-M40K	INV-TT-TF-M50K
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PV SERIES INPUT DATA

Max. PV Access Power	60000	70000	80000	100000
Max. PV Input Power (W)	48000	56000	64000	80000
Max. PV Input Voltage (V)			1000	
Start-up Voltage (V)			180	
MPPT Voltage Range (V)			150-850	
Nominal PV Input Voltage (V)			600	
Max. Operating PV Input Current (A)	36+36+36		36+36+36+36	
Max. Input Short-Circuit Current (A)	55+55+55		55+55+55+55	
Number of MPPT Trackers /				
Number of Strings MPP Tracker	3/2+2+2		4/2+2+2+2	

AC INPUT/OUTPUT DATA

Nominal AC Input/Output Active Power (W)	30000	35000	40000	50000
Max. AC Input/Output Apparent Power (VA)	33000	38500	44000	55000
Nominal AC Input/Output Current (A)	45.5 / 43.5	53.1 / 50.8	60.7 / 58	75.8 / 72.5
Max. AC Input/Output Current (A)	50 / 47.9	58.4 / 55.8	66.7 / 63.8	83.4 / 79.8
Max. Continuous AC Current (from mains to load) (A)			200	
Peak Power (Off-Grid) (W)		1.5 times the rated power, for 10 seconds		
Power Factor Adjustment Range		0.8 leading to 0.8 lagging		
Nominal Input/Output Voltage / Range (V)		220/380V, 230/400V 0.85Un-1.1Un		
Nominal Input/Output Grid Frequency/Range (Hz)		50/45-55, 60/55-65		
Network Connection Form		3L+N+PE		
Total Current Harmonic Distortion (THDi)		<3% (Rated Power)		
DC Injection Current		<0.5% In		

BATTERY INPUT DATA

Battery Type		Lithium-ion		
Battery Voltage Range (V)		160-800		
Max. Charging Current (A)		50+50		
Max. Discharge Current (A)		50+50		
Charging Strategy for Lithium-ion Batteries		Self-Adaption to BMS		
Number of Battery Inputs		2		

EFFICIENCY

Maximum Efficiency		97.60%		
Euro Efficiency		97.0%		
MPPT Efficiency		>99%		

EQUIPMENT 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 (optional), Island Mode Protection Monitoring, DC Input Switch, DC Terminal Insulation Impedance Monitoring, Residual Current (RCD) Detection			
Overvoltage Protection Level	TYPE II (DC), TYPE II (AC)			

INTERFACE

Communication Interface	RS485/RS232/CAN			
Monitoring Mode	GPRS/WIFI/Bluetooth/4G/LAN (Optional)			

GENERAL INFORMATION

Operating Temperature Range (°C)	-40 to +60°C, >45°C Derating			
Permissible Ambient Humidity	0-100%			
Permissible Altitude	2000m			
Noise Level (dB)	≤65			
Ingress Protection (IP) Rating	IP 65			
Inverter Topology	Non-isolated			
Overvoltage Category	OVC III(DC), OVC III(AC)			
Cabinet Dimensions (WxHxD mm)	527x894x294 (Excluding connectors and brackets)			
Weight (kg)	80			
Cooling Type	Intelligent Air Cooling			
Warranty	5 Years			
Grid Regulation	IEC 61727, IEC 62116, EN 50549, VDE-AR-N 4105			
Safety / EMC Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2			