



Three Phase String Inverter  
**Trio Castor Series**  
18 / 20 / 22 / 23 / 25

*Simple. Reliable. Efficient.*



High Efficiency



Wide Voltage Range



High PV Voltage



Remote Monitoring



IP65 Rated

18kW

20kW

## Trio Castor 18K / Trio Castor 20K / Trio Castor 22K / Trio Castor 23K / Trio Castor 25K

TommaTech® Trio Castor Series delivers high-performance three-phase string inverter solutions designed for commercial and light industrial solar applications. Equipped with a robust dual MPPT architecture, the series enables efficient energy harvesting across diverse PV layouts while maintaining excellent performance under demanding conditions. With high conversion efficiency and a wide output voltage range, Trio Castor Series ensures reliable grid interaction and system stability. Its durable design and comprehensive protection features make it a dependable choice for scalable and long-term solar energy installations.





	Trio Castor 18K	Trio Castor 20K	Trio Castor 22K	Trio Castor 23K	Trio Castor 25K
<b>PV STRING INPUT DATA</b>					
Max. PV Input Power (kW)	23.4	26	28.6	29.9	32.5
Max. PV Input Voltage (V)			1100		
Start-up Voltage (V)			250		
MPPT Voltage Range (V)			200-1000		
Rated PV Input Voltage (V)			600		
Max. Operating PV Input Current (A)			26+26		
Max. Input Short-Circuit Current (A)			39+39		
No. of MPPT Trackers/ No. of Strings MPP Tracker			2/2+2		
<b>AC INPUT/OUTPUT DATA</b>					
Rated AC Output Active Power (kW)	18	20	22	23	25
Max. AC Output Apparent Power (kVA)	19.8	22	24.2	25.3	27.5
Rated AC Output Current (A)	27.3/26.1	30.3/29	33.4/31.9	34.9/33.4	37.9/36.2
Max. AC Output Current (A)	30/28.7	33.3/31.9	36.7/35.1	38.4/36.7	41.7/39.8
Rated Output Voltage/Range (V)	220/380V, 230/400V 0.85Un-1.1Un				
Grid Connection Form	3L/N/PE				
Rated Output Grid Frequency/Range(Hz)	50/45-55, 60/55-65				
Power Factor Adjustment Range	0.8 leading to 0.8 lagging				
Total Current Harmonic Distortion THDi	<3%				
DC Injection Current	<0.5%In				
<b>EFFICIENCY</b>					
Max. Efficiency	98.5%				
Euro Efficiency	98%				
MPPT Efficiency	>99%				
<b>EQUIPMENT PROTECTION</b>					
DC Reverse Polarity Protection	Yes				
AC Output Overcurrent Protection	Yes				
AC Output Overvoltage Protection	Yes				
AC Output Short Circuit Protection	Yes				
Thermal Protection	Yes				
Insulation Impedance Detection	Yes				
DC Component Monitoring	Yes				
Arc Fault Circuit Interrupter (AFCI)	Optional				
Anti-islanding Protection	Yes				
Residual Current Detection	Yes				
Surge Protection Level	TYPE II(DC), TYPE II(AC)				
DC Switch	Yes				
<b>INTERFACE</b>					
Communication Interface	RS485/RS232				
Monitor Mode	GPRS/WIFI/Bluetooth/4G/LAN(optional)				
<b>GENERAL DATA</b>					
Operating Temperature Range (°C)	-25 to +60C >45C Derating				
Permissible Ambient Humidity	0-100%				
Permissible Altitude (m)	4000m				
Noise (dB)	≤50				
Ingress Protection (IP) Rating	IP65				
Inverter Topology	Non-Isolated				
Over Voltage Category	OVC II(DC), OVC III(AC)				
Cabinet Size (WxHxD mm) (Excluding Connectors and Brackets)	362x527x220				
Weight (kg)	20				
Type of Cooling	5 Years				
Warranty	Intelligent Air Cooling				
Grid Regulation	IEC 61727, IEC 62116, EN 50549				
Safety / EMC Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2				