

CHARACTERISTICS

- **Full torque at 1.5Hz**
- **Torque can reach 150% of rated torque**
- Auto torque promotion and auto slip compensation allows larger output torque at low frequency.
- User-defined curve, V/F curve can be adjusted.
- Lower-noise, carrier-wave frequency can be adjusted from 2kHz to 10kHz
- Control protection is immediate and reliable, which improves system stability.
- Built-in filter is optional.
- Compatible with npn and pnp types.
- Advanced v/hz control technology ensures precise control and better performances.
- Output frequency is 0.50~650.0Hz (V/F), 0.50~200.0Hz (SVC). The highest resolution is 0.01Hz.

MAIN FUNCTION

- **Built-in EMI filter.**
- **Built-in braking unit** (standard only for 400V units)
- Speed control through digital frequency
- Jogging speed control, multistage speed-control, external analogue signal speed control and PC/PLC speed control.
- Standard RS485 communication interface, PC/PLC control by Modbus communication. Through this communication several inverters can be operated at the same time.
- Speed control through keypad, analogue voltage or current signal and **Modbus serial communication**
- **Selectable NPN and PNP type input logic.**
- 6 digital input terminals. They can be used as user-defined function terminals and one of them can be used as a pulse frequency input terminal. 2 analogue input terminals: one can be used to input voltage (0~5V, 0~10V) and the other can be used to input current (0~20 mA, 4~20 mA).
- 1 digital output terminal, 1 programmable relay output terminal and 2 analogue output terminals. One of digital terminals can be defined as a digital frequency output terminal.
- Using the display, it is simple to program. The running frequency can be set easily.
- Current can be adjusted.
- Built-in DC braking.



SINGLE PHASE 230 Vac

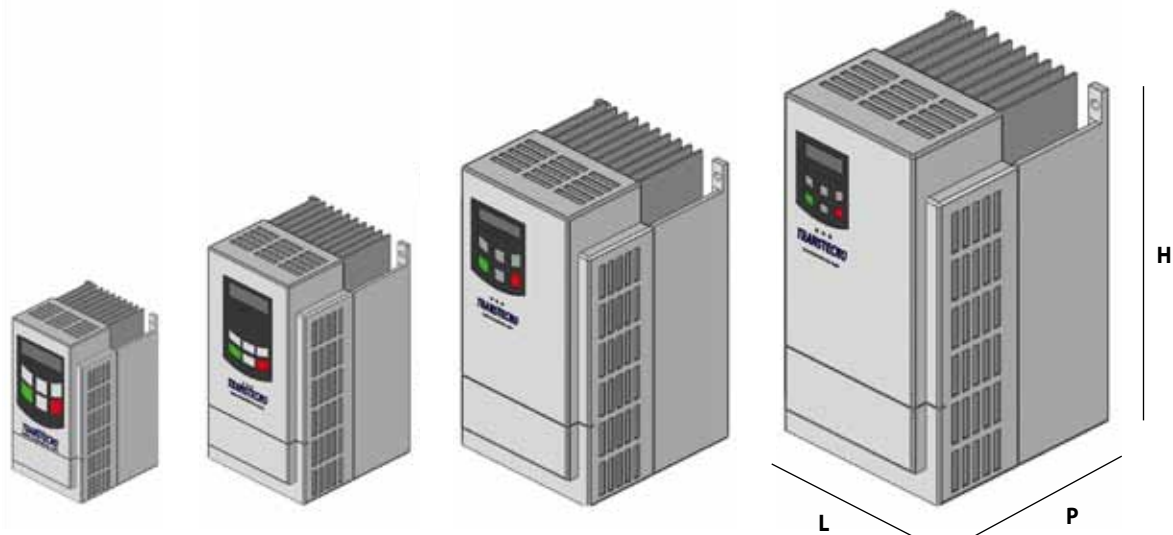
CODE	APPLICABLE MOTOR (kW)	RATED OUTPUT CURRENT (A)	HOUSING SIZE	COOLING MODE	WEIGHT (KG)
TT100-0002S2F1R	0.2	1.5	E1	self-cooling	1,36
TT100-0004S2F1R	0.4	2.5	E1	fan-cooling	1,4
TT100-0007S2F1R	0.75	4.5	E1	fan-cooling	1,43
TT100-0015S2F1R	1.5	7	E2	fan-cooling	2,0
TT100-0022S2F1R	2.2	10	E3	fan-cooling	2,28

THREE PHASE 400 Vac

CODE	APPLICABLE MOTOR (kW)	RATED OUTPUT CURRENT (A)	HOUSING SIZE	COOLING MODE	WEIGHT (KG)
TT100-0007T3F1R	0.75	2	E2	fan-cooling	2,0
TT100-0015T3F1R	1.5	4	E2	fan-cooling	2,0
TT100-0022T3F1R	2.2	6.5	E2	fan-cooling	2,0
TT100-0040T3F1R	4.0	9	E4	fan-cooling	3,02
TT100-0075T3F1R	7.5	17	E5	fan-cooling	4,4
TT100-0110T3F1R	11	23	E6	fan-cooling	8,0
TT100-0150T3F1R	15	32	E6	fan-cooling	8,2

DIMENSIONS

HOUSING SIZE	EXTERNAL DIMENSIONS (H x L x P)	MOUNTING SIZE (W x Y) mm	MOUNTING BOLT
E1	138 x 80 x 135	128 x 70	M4
E2	180 x 106 x 150	170 x 94	M4
E3	180 x 106 x 170	170 x 94	M4
E4	235 x 138 x 152	225 x 126	M5
E5	265 x 156 x 170	255 x 146	M5
E6	340 x 205 x 196	330 x 194	M5



TECHNICAL FEATURES

ITEMS		CONTENTS
Input	Rated Voltage Range	3-phase 400V±15%; single-phase 230V±15%
	Rated Frequency	50/60Hz
Output	Rated Voltage Range	3-phase 0~400V;3-phase 0~230V
	Frequency Range	0.50 ~ 650.0Hz
Control Mode	Carrier Frequency	2kHz~10kHz; Fixed carrier-wave and random carrier-wave can be selected by F159
	Input Frequency Resolution	Digital setting: 0.01Hz, analogue setting: 0.1% max frequency
	Control Mode	Enhanced V/Hz control
	Overload Capacity	150% rated current, 60 seconds
	Torque Elevating	Auto torque promotion, Manual Torque Promotion 0.1%~30.0% (V/Hz)
	V/F Curve	4 kinds of modes: linear type, square type, under-defined V/Hz curve and auto torque compensation
	DC Braking	DC braking frequency: 1.0~5.0 Hz, braking time: 0.0~10.0s
	Jogging Control	Jogging frequency range: min frequency~ max frequency, jogging acceleration/deceleration time: 0.1~3000.0s
	Auto Circulating Running and multi-stage speed running	Auto circulating running or terminals control allow 15-stage speed running.
Built-in PID regulation	Easy to create a system for closed-loop control	
Operation Function	Frequency Setting	Potentiometer or external analogue signal (0~5V, 0~10V, 0~20mA); keypad (terminal)▲/▼ keys, external control logic and automatic circulation setting.
	Start/Stop Control	Terminal control, keypad control or communication control.
	Running Command Channels	3 kinds of channels from keypad panel, control terminal and serial communication port.
	Frequency Source	Frequency sources: keypad, analogue voltage signal, analogue current signal and serial communication port.
	Accessorial frequency Source	Flexible implementation of 5 kinds of accessorial frequency fine adjustments and frequency compound.
	Braking module	Built-in braking module (only three phase 400 Vac)
	Serial Port	Modbus communication
Optional	Remote keypad	
EMC compliance	Built-in EMI filter, IEC/EN 61800-3: 2004 Adjustable speed electrical power drive systems-Part 3: EMC product standard including specific test methods.	
Protection system	Possible causes of malfunction: input/output phase, under voltage, over voltage, overload, overheat, user password error, external interference.	
Display	LED shows present output frequency, present rotate-speed (rpm), present output current, present output voltage, present linear-velocity, types of faults, and parameters for the system and operation; LED indicators show the current working status of the inverter.	
Environment Conditions	Equipment Location	In an indoor location, Prevent exposure from direct sunlight, free from dust, flammable gases, steam or salt contained substances, etc.
	Environment Temperature	-10°C ~ + 50°C
	Environment Humidity	Below 90% (without moisture)
	Vibration Strength	Below 0.5g (acceleration)
	Height above sea level	1000m or below
Protection level	IP20	
Applicable Motor	0.2 ~ 15kW	