THINKVERT TECHNOLOGY LIMITED

Add: Guangming Industiral Park No.21, Dongcheng Street, Dongguan, P.R.China
Tel: +86-0769-33681702
Email: info@thinkvert.com
Web: www.thinkvert.com

Variable Frequency Drive Catalog

THINKVERT TECHNOLOGY LIMITED

What is Thinkvert?

Thinkvert Technology Limited was established in 2012 with a factory area of 15,000 square meters. The company is committed to independent research and development, production and sales of industrial motion control products such as variable frequency drive, servo drive, soft starter, ect.

Why does Thinkvert devoted to motion control industry?

The R&D team of Thinkvert has more than 15 years experience in motion control industry. Thinkvert mission is to continuously making high quality, multifunctional and easy to use motion control with honest price to let everyone in the world enjoy a better life through innovative technology. So as to promote Chinese motion control industry healthy development.

What do we stand for?

Rejecting shortcut and opportunism. Continuously create value for our customers. Let our staff proud and our customers satisfied with Thinkvert.
Generous people are often blessed with good luck. Always believe good products will be proved by time.

How Thinkvert provides the high-quality products?

More than 40% of the company's members are R&D center personnel. The company has passed the ISO9001 quality management system certification, has more than 100 invention and utility model patents, and its products have passed CCC, CE and other product certifications.
The company pursues rigorous management. Thinkvert introduces international advanced management concepts and uses four major systems: Enterprise Resource Planning System, Manufacturing Execution System, Customer Relationship Management System and Office Automation System to operate the company.

Think Drives The World

Catalog Contents

Product Series Overview

TI120 high performance series

Voltage Rating:360~460V
Power Rating:1.5~710kW

- Designed in accordance with EU CE standard: EN61800-5-1
- The new generation motor control algorithm is completely self-developed, and some high-end fields of application break the monopoly of European, American and Japanese brands
- With low frequency, high torque, stable operation at ultra-low frequency, it is especially suitable for the large inertia load, as well as the pursuit of high performance and high stability system, to boost the performance upgrade in the field of machinery and equipment
- Fast dynamic response and fast acceleration and deceleration can achieve optimal start-stop for multiple load types
- Motor operation is efficient with the precise flux following and optimization technology
- Fast current limiting technology allows the drive to run for a long time
- The modular design concept and high power density can save the installation space
- Can drive various types of AC motors, asynchronous motors, permanent magnet synchronous motors, special motors
- 160-450kW standard built-in DC reactor

Application Industries:
Lifting, CNC, Injection Molding Machines, Ceramics, Glass, Woodworking, Centrifuges, Food Processing, Textile Equipment, Printing and Packaging, Industrial Washing Machines, etc.

IP20

TI600 high-end series

Voltage Rating: 360~460V
Power Rating: 55~400kW

- Designed according to UL standard UL508C
- Combination of light and heavy load (110% 120% light load, 150% heavy load), more flexible selection
- The whole series of products have built-in passive filters and DC reactors, which can more effectively suppress the influence of harmonics,challenge the adaptability of harsh grids, resist EMC electromagnetic interference, and strengthen the design of anti-lightning (EMC circuit boards add varistors)
- The chemical environment design standard reaches 3C3, the circuit board strengthens the layer processing, challenges the limit of the harsh environment, no longer fears chemical corrosion (H_2S, Ozone, SO_2, hydrochloric acid), bid farewell to the pollution troubles such as dust and oil
- 55° working temperature rated operation, no need to derating
- Long life design for more than 10 years
  The selection of materials are all international first-line quality components and materials to ensure long-term stable operation of the driver
- Perfect motor control performance, leading peers in the industry in terms of low-frequency torque, rapid acceleration and deceleration, and rapid over-current processing.It can drive various types of AC motors, asynchronous motors, permanent magnet synchronous motors, and special motors.
- Application Industries: Iron And Steel Metallurgy, Rail Transit, Shipbuilding, Petrochemical, Natural Gas, Coal Mines, Wind Power, Hydropower, Nuclear power, Air Ports and Sea Ports

IP20

TI10 economic series

Voltage Rating:360~460V
Power Rating:0.75~3.7kW

- Motor operation is efficient with the precise flux following and optimization technology
- Fast current limiting technology allows the drive to run for a long time
- High power density can save the installation space
- Dual network port communication design
- Innovative drive design
- Application Industries: CNC, Woodworking, Fans, Pumps, Treadmills, etc.

IP20

Product series model description

TI120 high performance series description

TI120 - 4 T 5.5X B - X

- Inverter series code
- 2:220V 4:380V
- S: Single phase T: Three phase
- X: G, L optional 5.5G: 5.5kW heavy-duty type 5.5L: 5.5kW light-duty type
- Default: no built-in braking unit B: Built-in brake unit
- Default: general series Y: All-in-one Z: With speed tracking card

TI600 high end series description

TI600 - 4 T 90G/110L B - X

- Inverter series code
- 2:220V 4:380V
- S: Single phase T: Three phase
- 90G: 90kW heavy-duty type 110L: 110kW light-duty type
- Default: no built-in braking unit B: Built-in brake unit
- Default: general series Y: With speed tracking card

TI10 economic series description

TI10 - 4 T 1.5G/2.2L B - X

- Inverter series code
- 2:220V 4:380V
- S: Single phase T: Three phase
- 1.5G: 1.5kW heavy-duty type 2.2L: 2.2kW light-duty type
- B: Built-in brake unit
- Default: general series Y: With speed tracking card

Product quality overview

Thinkvert Technology Limited, which sees the product quality as the life of the company, cherishes and defends the product quality as much as they cherish and defend life. Our important mission is to provide our customers with high quality products and adhere to the following principles and directions:

Scheme design

Scheme design is the source of product quality, and since its inception, Thinkvert has insisted on the primary goal of impeccable quality, constantly designs better schemes and upgrades to ensure the stability of the source.

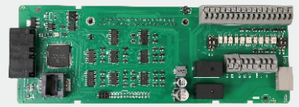
Material selection

All important materials and core materials of the VFD are purchased from international suppliers with top quality, so as to ensure the consistency and long lifecycle of batch products.

Process

Either for the supplier process or the in-house process, we are meticulous about every strict, keep strict control and continuously refine the process standards

German Infineon/Fuji Power IGBT



American Texas Instruments (TI) DSP and Analog Chips

American PELKO Fan

Taiwan CapXon Capacitor

Japanese KOHSHIN/TAMURA Hall Sensor

Note: The selection of the above components is only for TI120 and TI600 series

TI120 Series High Performance VFD

TI120 Series VFD Model and Specification

Item		Specification																
TI120-4TXXXG(B)		1.5	2.2	3.7	5.5	7.5	11	15	18.5	22	30	37	45	55	75	90	110
Motor power (kW)		1.5	2.2	3.7	5.5	7.5	11	15	18.5	22	30	37	45	55	75	90	110
INPUT	Rated input current(A)	4.6	6.3	11.4	16.7	21.9	32.2	41.3	49.5	59.0	57.0	69.0	89.0	106.0	139.0	164	196
OUTPUT	Rated output current (A)	3.8	5.1	9.0	13.0	17.0	24.0	32.0	37.0	45.0	60.0	75.0	90.0	112	150	180	210
	Output voltage	3-phase 0V~rated input voltage															
	Maximum output frequency	300.00Hz(changeable by parameters)															
	Carrier frequency	1.0kHz~16.0kHz(carrier frequency adjustable according to the load characteristics)															
	Overload capacity	150% rated current 60s;180% rated current 10s; 200% rated current 0.5s															
High frequency leakage current countermeasures	DCreactor	External option															
Brake function	Brake unit	Standard built-in											Built-in optional				
Power supply	Rated frequency	AC three-phase 360V~460V 50Hz/60Hz															
	Permissible range of voltage fluctuation	-15%~10%, actual permissible range: AC 323V~528V															
	Permissible range of frequency	±5%															
	Power capacity (kVA)	5.0	6.7	12	17.5	22.8	33.4	42.8	45	54	52	63	81	97	127	150	179

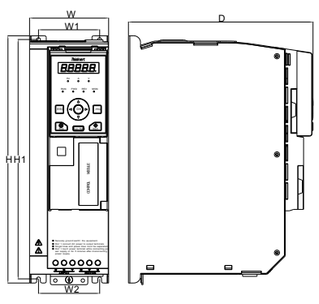
Item		Technical Specification															
TI120-4TXXXG/XXXL(B)		132	160	185	200	220	250	280	315	355	400	450	500	560	630	710	
Motor power (kW)		132	160	185	200	220	250	280	315	355	400	450	500	560	630	710	
Input	Rated input current (A)	240	287	326	365	410	441	495	565	617	687	782	835	920	1050	1180	
Output	Rated output current (A)	260	305	350	377	426	465	520	585	650	725	810	900	1090	1100	1300	
	Output voltage	3-phase 0V~ rated input voltage															
	Maximum output frequency	300.00Hz(changeable by parameters)															
	Carrier frequency	1.0kHz~16.0kHz (carrier frequency adjustable according to the load characteristics)															
	Overload capacity	150% rated current 60s; 180% rated current 10s; 200% rated current 0.5s															
High frequency leakage current countermeasures	DC reactor	External option	Built-in										External option				
Brake function	Brake unit	Built-in optional	External option														
Power supply	Rated voltage Rated frequency	AC three-phase 360V-460V 50Hz/0Hz															
	Permissible range of voltage fluctuation	5%~10%, actual permissible range: AC323V~528V															
	Permissible range of frequency	±5%															
	Power capacity (kVA)	220	263	304	334	375	404	453	517	565	629	716	769	861	969	1092	

Technical Specification of TI120 Series VFD

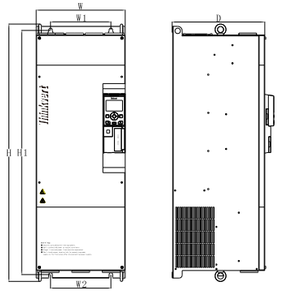
Item		Technical Specification	
Basic functions	Input frequency resolution	Digital setting:0.01Hz Analog setting: maximum speed×0.025%	
	Control mode	Advanced scalar control Without PG vector control (SVC) With PG vector control (VC)	
	Starting torque	SVC:0.25Hz 150% VC:0.00Hz 180%	
	Speed adjustable range	SVC:1:200	VC:1:1000
	Steady speed accuracy	SVC:±0.5%	VC±0.2%
	Torque control accuracy	SVC:Above 5Hz ±5%	VC:Above 5Hz ±3%
	Torque reentry accuracy	<0.5% rated torque of motor	
	Torque response time	SVC: W 10ms (rated torque of motor)	VC: W 5ms (rated torque of motor)
	Torque boost	automatic torque boost function; manual torque boost 0.1%~30.0%	
	V/F curves	Straight line, multi-power curve, multi-point curve, V/F separation	
	Acceleration and deceleration curves	Straight line, fold line, S-curve	
	DC brake	DC braking start frequency: 0.00~300.00Hz; DC braking current: constant torque 0.0~120.0%; variable torque 0.0~90.0% DC braking time: 0.0~30.0s; no waiting time for DC braking start, fast braking	
	Inching control	Inching frequency range:0.00Hz~50.00 Hz Inching acceleration/deceleration time range:0.0s~3600.0s	
	Process closed loop PID	Easy realization of the closed loop process control system	
	Simple PLC multi-stage instructions	Simple realization of at most 16-stage speed with built-in simple PLC or X terminal	
	Automatic voltage regulation	Automatic output voltage stabilization in case of grid voltage fluctuations	
	Overcurret and overvoltage stall control	Automatic limiting of current and voltage during running to prevent frequent tripping due to overcurrent and overvoltage	
	Automatic fast current limiting	Minimize overcurrent fault and protect the normal drive operation	
	Torque limit and contro	"Excavator" feature, automatic torque limit during running to prevent frequent tripping due to overcurrent; torque control can be achieved during vector control	

Item		Technical Specification
Individualized functions	Nonstop at instantaneous power failure	Compensate voltage reduction by load feedback energy upon instantaneous power failure to keep the drive running in a short period of time
	Fast current limiting	Avoid frequent overcurrent failures of the drive
	Timing function	To achieve the timing control of the drive
	Motor overheat protection	Convenient motor temperature detection through external sensors
	Parameter copying	Upload and download of parameters, and quick setting of parameters
	Dual-port Modbus	Dual ports support the Modbus protocol to achieve the simple networking function
	Power-on for short-to-ground detection	Power on to automatically complete the short-to-ground detection
	Magnetic flux brake	Faster deceleration and stop with magnetic flux braking
Run	Run commands	Keypad command, terminal command, communication command; switching in many ways
	Main speed commands	12 methods of giving main speed commands, switching in many ways
	Auxiliary speed commands	9 methods of giving auxiliary speed commands, flexible to realize auxiliary speed fine-regulating, speed synthesis
	Input terminals	7 X-terminals, One of them supports high-speed pulse input 2 AI terminals, with one supporting only 0~10V voltage signals, and one supporting 0~10V voltage signals or 0~20mA current signals One channel of 5V differential encoder interface
	Output terminals	2 relay outputs 2 transistor outputs, with one supporting the high-speed pulse output 2 AO outputs, with one supporting only 0~10V voltage signals, and one supporting 0~10V voltage signals or 0~20mA current signals
Human-machine	LED display	LED operation keypad
	LCD display	LCD operation keypad
	Push button lock function	Full or partial key locking to prevent wrong operation of the keypad
	Keypad emergency shutdown	Reduce operation risks with the keypad shutdown keys that enable shutdown from any command source
Protection function	Short-circuit protection	Output phase short circuit protection, output-to-ground short circuit protection
	Overcurrent protection	Shutdown protection if more than 2.2x rated current of the drive
	Overvoltage protection	Shutdown if the DC bus voltage of the main circuit is greater than 800V
	Undervoltage protection	Shutdown if the DC bus voltage of the main circuit is smaller than 360V
	Overload protection	Shutdown after 60s of running at 150 rated current
	Overheat protection	Overheat protection of the IGBT module of the drive
	Phase loss protection	Three-phase input phase loss protection, three-phase output phase loss protection
Environment	Places of use	Indoors, free from direct sunlight, dust, corrosive gases, flammable gases, oil mist, water vapor, water droplets and salts, etc.
	Altitude	No reduction for 1000m or below, 1% reduction for every 100m above 1000m, and the maximum altitude should not exceed 3000m.

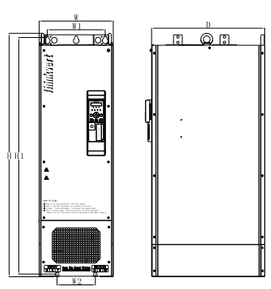
TI120 series appearance and installation dimensions



TI120-4T1.5G B~TI120-4T15GB



TI120-4T18.5GB~TI120-4T132G



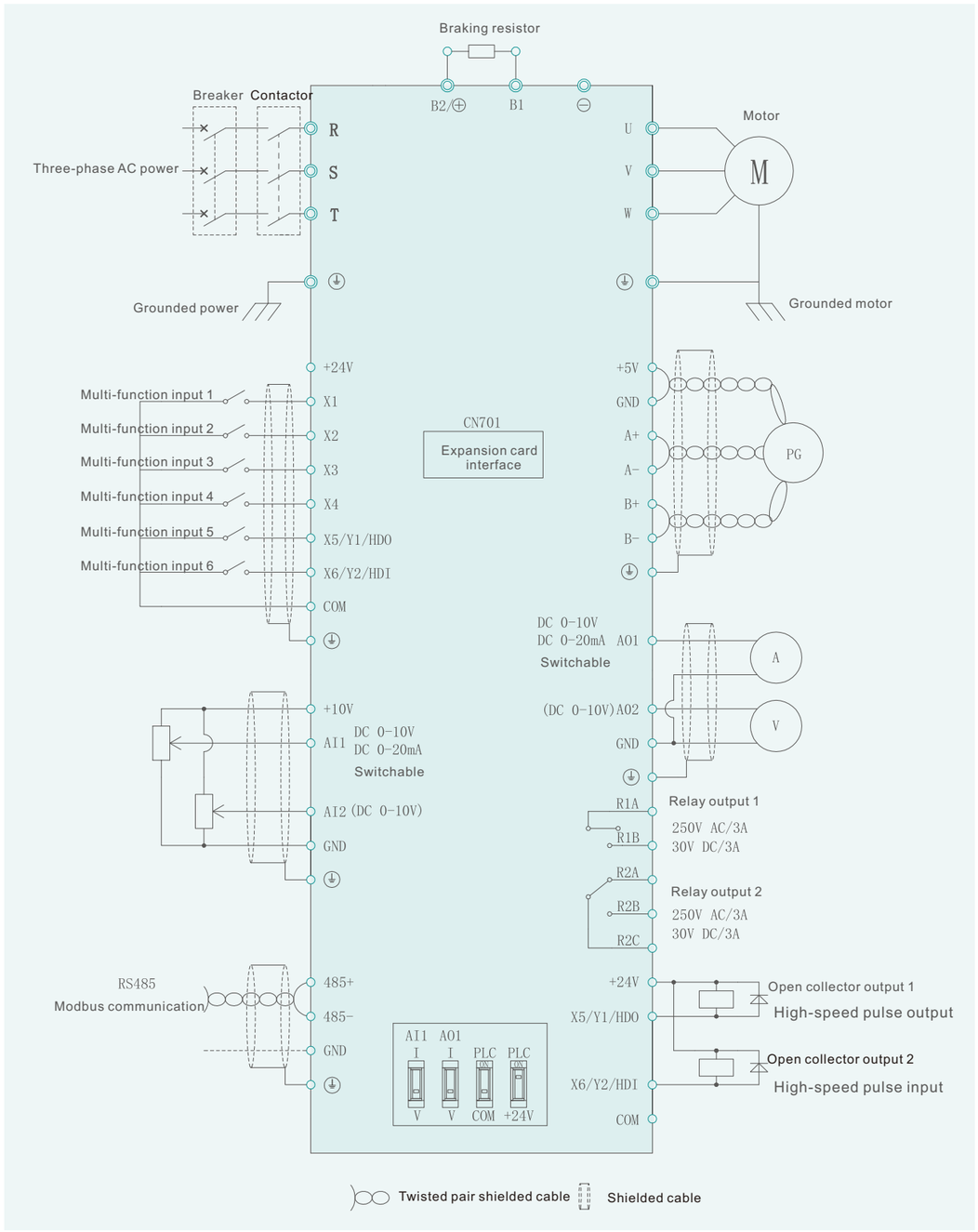
TI120-4T160G~TI120-4T450G

Drive model	appearance and Mounting dimensions(mm)						
	W	H	D	W1	W2	H1	Mounting hole diameter
TI120-4T1.5G/2.2LB	81	237	173	67.5	57	224.5	4.5
TI120-4T2.2G/3.7LB							
TI120-4T3.7G/5.5LB							
TI120-4T5.5G/7.5LB							
TI120-4T7.5G/11LB	95	297	222	73.5	73.5	287.5	6
TI120-4T11G/15LB							
TI120-4T15G/18.5LB							
TI120-4T18.5G/22LB	185	440	245	140	140	427.5	7
TI120-4T22G/30LB							
TI120-4T30G/37LB							
TI120-4T37G/45L	265	604.5	269.5	180	148.5	580	9.5
TI120-4T45G/55L							
TI120-4T55G	265	690	323	200	200	674	9.5
TI120-4T75G/90L							
TI120-4T90G/110L	295	833.5	338.5	200	200	810	12
TI120-4T110G/132L							
TI120-4T132G/160L							
TI120-4T160G/185L	335	1070	418	265	265	1046.5	14
TI120-4T185G/200L							
TI120-4T200G/220L							
TI120-4T220G/250L	339	1113	546.5	265	175	1081.5	14
TI120-4T250G/280L							
TI120-4T280G/315L							
TI120-4T315G/355L	339	1300	546.5	265	175	1267.5	16
TI120-4T355G/400L							
TI120-4T400G/450L							
TI120-4T450G/500L							
TI120-4T500G/560L	999	1300	500	750	750	1390	16
TI120-4T560G/630L							
TI120-4T630G/710L							
TI120-4T710G/800L							

TI120 series peripheral device selection, terminal screws and wiring specifications

Drive model	Circuit Breaker (A)	Contactor (A)	Power Terminal			Grounding Terminal		
			Screw	Tightening torque (N.m)	wiring specifications (mm2)	Screw	Tightening torque (N.m)	wiring specifications (mm2)
TI120-4T1.5G/2.2LB	10	9	M4	1.2～1.5	2.5	M3	0.5～0.6	2.5
TI120-4T2.2G/3.7LB	16	12	M4	1.2～1.5	2.5	M3	0.5～0.6	2.5
TI120-4T3.7G/5.5LB	20	18	M4	1.2～1.5	4	M3	0.5～0.6	4
TI120-4T5.5G/7.5LB	32	32	M5	2.5～3.0	4	M5	2.5～3.0	4
TI120-4T7.5G/11LB	32	32	M5	2.5～3.0	6	M5	2.5～3.0	6
TI120-4T11G/15LB	50	50	M5	2.5～3.0	6	M5	2.5～3.0	6
TI120-4T15G/18.5LB	63	50	M5	2.5～3.0	6	M5	2.5～3.0	6
TI120-4T18.5G/22LB	80	65	M6	4.0～5.0	10	M6	4.0～5.0	10
TI120-4T22G/30LB	100	80	M6	4.0～5.0	16	M6	4.0～5.0	16
TI120-4T30G/37LB	125	95	M6	4.0～5.0	25	M6	4.0～5.0	16
TI120-4T37G/45L	160	125	M8	9.0～ 10.0	25	M8	9.0～10.0	16
TI120-4T45G/55L	200	150	M8	9.0～ 10.0	35	M8	9.0～10.0	16
TI120-4T55G	225	185	M8	9.0～ 10.0	50	M8	9.0～10.0	25
TI120-4T75G/90L	250	225	M10	17.6～22.5	60	M8	9.0～10.0	35
TI120-4T90G/110L	315	265	M10	17.6～22.5	70	M8	9.0～10.0	35
TI120-4T110G/132L	350	330	M10	17.6～22.5	100	M8	9.0～10.0	50
TI120-4T132G/160L	400	400	M10	17.6～22.5	120	M8	9.0～10.0	70
TI120-4T160G/185L	500	400	M12	31.4～39.2	150	M12	31.4～39.2	95
TI120-4T185G/200L	500	500	M12	31.4～39.2	150	M12	31.4～39.2	95
TI120-4T200G/220L	630	500	M12	31.4～39.2	185	M12	31.4～39.2	95
TI120-4T220G/250L	630	630	M12	31.4～39.2	185	M12	31.4～39.2	120
TI120-4T250G/280L	800	630	M12	31.4～39.2	120×2	M12	31.4～39.2	120
TI120-4T280G/315L	800	800	M12	31.4～39.2	150×2	M12	31.4～39.2	150
TI120-4T315G/355L	800	800	M12	31.4～39.2	185×2	M12	31.4～39.2	95×2
TI120-4T355G/400L	1000	800	M12	31.4～39.2	240×2	M12	31.4～39.2	120×2
TI120-4T400G/450L	1250	1000	M12	31.4～39.2	240×2	M12	31.4～39.2	120×2
TI120-4T450G/500L	1250	1000	M12	31.4～39.2	300×2	M12	31.4～39.2	150×2
TI120-4T500G/560L	1600	1250	M12	31.4～39.2	300×2	M12	31.4～39.2	150×2
TI120-4T560G/630L	1600	1250	M12	31.4～39.2	400×2	M12	31.4～39.2	185×2
TI120-4T630G/710L	2000	1600	M12	31.4～39.2	400×2	M12	31.4～39.2	185×2
TI120-4T710G/800L	2000	1600	M12	31.4～39.2	400×2	M12	31.4～39.2	185×2

Standard wiring diagram



Appearance and installation dimensions

PE	485+	485−	GND

Direction: from left to right CN706

R1A	R1B	R2A	R2B	R2C	COM	Y1	Y2

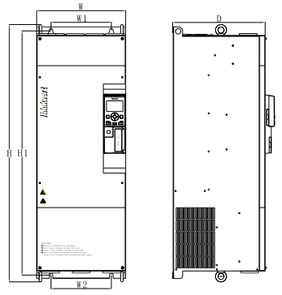
Direction: from top to bottom CN703/CN704/CN705

+10V	AI1	AI2	AO1	AO2	GND	+5V	A+	A−	B+	B−	COM	X1	X2	X3	X4	+24V

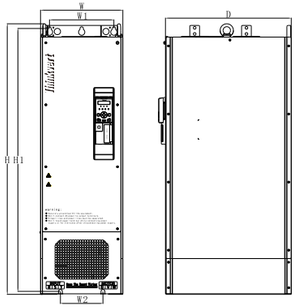
Direction: from top to bottom CN702

Analog input	+10V	Analog input reference voltage	10V ±1%, internally isolated from COM
			Maximum output current 20mA
	GND	Analog ground	Internally isolated from COM
	AI1	Analog input channel 1	0~10V: input impedance 22kΩ
			0~20mA: input impedance 500Ω
			To switch between 0~10V and 0~20mA analog input quantity through the DIP switch S300, and factory default voltage input
	AI2	Analog input channel 2	0~10V: input impedance 22kΩ
Analog output	AO1	Analog output 1	0~10V: impedance required >10kΩ
			0~20mA: impedance required 200Ω~500Ω.
			To switch between 0~10V and 0~20mA analog output quantity through the DIP switch S300, and factory default voltage input
	AO2	Analog output 2	0~10V: impedance required >10kΩ
	GND	Analog ground	Internally isolated from COM
Digital Input	+24V	+24V	24V±20%, internally isolated from GND
			Maximum load 200mA
	COM	+24V ground	Internally isolated from GND
	X1~X7	Multi-function input terminals 1~7	Input specification: 24VDC, 5mA
			Frequency range: 0~200Hz
			Voltage range: 24V±20%
	X7/HD1	Multifunctional input pulse input	Multifunctional input: the same as X1~X7
			Pulse input: 0.1Hz~50kHz; voltage range: 24V±20%
Digital Output	Y1/HDO	Open collector output pulse output	Open collector output: 1. voltage range: 0~24V; 2. current range: 0~50mA
			Pulse output: 0~50kHz
	Y2	Open collector output	Open collector output: 1. voltage range: 0~24V; 2. current range: 0~50mA
	COM	Open collector output common terminal	Internally isolated from GND
Relay 1 Output	R1A/R1B/R1C	Relay output 1	R1B-R1C: normally open
			R1A-R1C: normally closed
			Contact capacity: 250VAC/3A, 30VDC/3A
Relay 2 output	R2A/ R2B/ R2C	Relay output 2	R2B-R2C: normally open
			R2A-R2C: normally closed
			Contact capacity: 250VAC/3A, 30VDC/3A
Terminal 485	485+	485 differential signal positive	rate: 4800/ 9600/ 19200/ 38400/ 57600/ 115200bps Maximum distance of 500m (standard twisted pair shielded cable)
	485-	485 differential signal negative	
	GND	485 communication shield grounding	Internally isolated from COM
Expansion card interface	CN701	Expansion card interface	

TI600 series appearance and installation dimensions



TI600-4T55G/75L~TI600-4T132G/160L



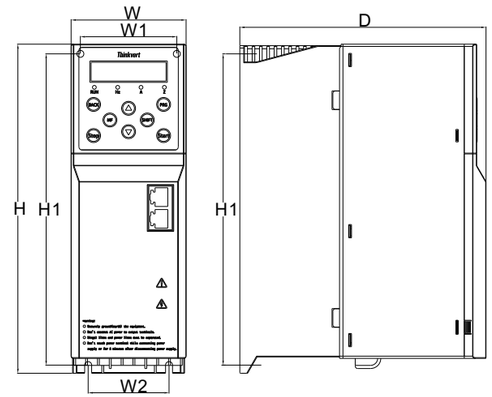
TI600-4T160G/185L~TI600-4T400G/450L

Drive model	appearance and Mounting dimensions(mm)						
	W	H	D	W1	W2	H1	Mounting hole diameter
TI600-4T55G	265	690	323	200	200	674	9.5
TI600-4T75G/90L							
TI600-4T90G/110L	295	833.5	338.5	200	200	810	12
TI600-4T110G/132L							
TI600-4T132G/160L							
TI600-4T160G/185L	335	1070	418	265	265	1046.5	14
TI600-4T185G/200L							
TI600-4T200G/220L							
TI600-4T220G/250L	339	1113	546.5	265	175	1081.5	14
TI600-4T250G/280L							
TI600-4T280G/315L							
TI600-4T315G/355L	339	1300	546.5	265	175	1267.5	16
TI600-4T355G/400L							
TI600-4T400G/450L							

TI600 series peripheral device selection, terminal screws and wiring specifications

Drive model	Circuit Breaker (A)	Contactor (A)	Power Terminal			Grounding Terminal		
			Screw	Tightening torque (N.m)	wiring specifications (mm2)	Screw	Tightening torque (N.m)	wiring specifications (mm2)
TI600-4T55G	225	185	M8	9.0～10.0	50	M8	9.0～10.0	25
TI600-4T75G/90L	250	225	M10	17.6～22.5	60	M8	9.0～10.0	35
TI600-4T90G/110L	315	265	M10	17.6～22.5	70	M8	9.0～10.0	35
TI600-4T110G/132L	350	330	M10	17.6～22.5	100	M8	9.0～10.0	50
TI600-4T132G/160L	400	400	M10	17.6～22.5	120	M8	9.0～10.0	70
TI600-4T160G/185L	500	400	M12	31.4～39.2	150	M12	31.4～39.2	95
TI600-4T185G/200L	500	500	M12	31.4～39.2	150	M12	31.4～39.2	95
TI600-4T200G/220L	630	500	M12	31.4～39.2	185	M12	31.4～39.2	95
TI600-4T220G/250L	630	630	M12	31.4～39.2	185	M12	31.4～39.2	120
TI600-4T250G/280L	800	630	M12	31.4～39.2	120×2	M12	31.4～39.2	120
TI600-4T280G/315L	800	800	M12	31.4～39.2	150×2	M12	31.4～39.2	150
TI600-4T315G/355L	800	800	M12	31.4～39.2	185×2	M12	31.4～39.2	95×2
TI600-4T355G/400L	1000	800	M12	31.4～39.2	240×2	M12	31.4～39.2	120×2
TI600-4T400G/450L	1250	1000	M12	31.4～39.2	240×2	M12	31.4～39.2	120×2

TI10 series appearance and installation dimensions



TI10-4T0.75G/1.5LB~TI10-4T3.7G/5.5LB

Drive model	appearance and Mounting dimensions(mm)						
	W	H	D	W1	W2	H1	Mounting hole diameter
TI10-4T0.75G/1.5LB	75	211	158	62	52	200	4.5
TI10-4T1.5G/2.2LB							
TI10-4T2.2G/3.7LB							
TI10-4T3.7G/5.5LB							

TI10 series peripheral device selection, terminal screws and wiring specifications

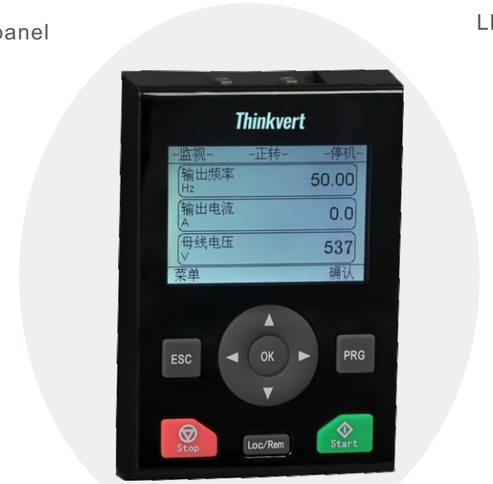
Drive model	Circuit Breaker (A)	Contactor (A)	Power Terminal			Grounding Terminal		
			Screw	Tightening torque (N.m)	wiring specifications (mm2)	Screw	Tightening torque (N.m)	wiring specifications (mm2)
TI10-4T0.75G/1.5LB	10	9	M4	1.2～1.5	2.5	M3	0.5～0.6	2.5
TI10-4T1.5G/2.2LB	10	9	M4	1.2～1.5	2.5	M3	0.5～0.6	2.5
TI10-4T2.2G/3.7LB	16	12	M4	1.2～1.5	2.5	M3	0.5～0.6	2.5
TI10-4T3.7G/5.5LB	20	18	M4	1.2～1.5	4	M3	0.5～0.6	4

Three optional operation panels

- The same machine can be equipped with multiple operation panels, supports LED and LCD display, supports multiple operations of knobs and buttons, so that users have more diverse and precise choices
- The use of ergonomic button design and RJ45 connection make the operation more efficient

LED display operation panel

LED operation panel with knob



LCD operation panel

Braking resistor selection

Drive Model	Braking unit	Braking resistor		
		Standard power	Standard resistance	Minimum limit resistance
TI120-4T0.75G/1.5LB	Standard built-in	110W	750Ω	125Ω
TI120-4T1.5G/2.2LB		260W	400Ω	100Ω
TI120-4T2.2G/3.7LB		320W	250Ω	100Ω
TI120-4T3.7G/5.5LB		800W	150Ω	66.7Ω
TI120-4T5.5G/7.5LB		1600W	100Ω	40Ω
TI120-4T7.5G/11LB		1600W	75Ω	40Ω
TI120-4T11G/15LB		2000W	50Ω	25Ω
TI120-4T15G/18.5LB		2000W	40Ω	25Ω
TI120-4T18.5G/22LB		4800W	32Ω	20Ω
TI120-4T22G/30LB		4800W	27.2Ω	20Ω
TI120-4T30G/37LB		6000W	20Ω	14Ω
TI120-4T37G/45L	Built-in optional	9600W (Total power)	15Ω (Total resistance)	12Ω
TI120-4T45G/55L		9600W (Total power)	15Ω (Total resistance)	12Ω
TI120-4T55G		15000W (Total power)	12 Ω (Total resistance)	10Ω
TI120-4T75G/90L		20000W (Total power)	8 Ω (Total resistance)	5Ω
TI120-4T90G/110L		28800W (Total power)	5 Ω (Total resistance)	4Ω
TI120-4T110G/132L		30000W (Total power)	5 Ω (Total resistance)	4Ω
TI120-4T132G/160L		35000W (Total power)	5Ω (Total resistance)	4Ω

Optional Accessories

Name	Model	Functional Description
Keypad	TI-LCD-H	LCD keypad
	TI-LED-H	LED keypad
Expansion card	TI-PG-ABZ	PG card standard edition
	TI-PG-UVW	PG card UVW edition
	TI-PG-FP	PG card split edition
	TI-TRA	Speed tracking card
	TI-REL	Expansion relay board
	TI-PROG	Serial port monitor board
	TI-ANA	Analog capture card
Brake unit	TBU-1SA	50A brake unit
	TBU-3SA	100A brake unit
Base	TI164314-JXDZ	Chassis base 160~315kW
Base	TI354634-JXDZ	Chassis base 160~315kW

Typical industry application


Textile


Municipal Engineering


Smelting

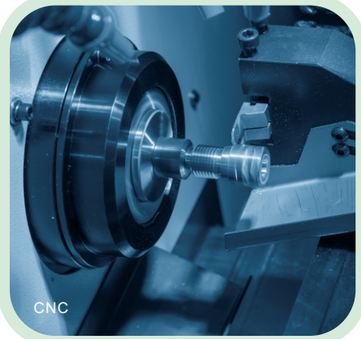

Lifting


Washing Machine


Die Casting

Compressor


Printing and Packaging


CNC