The leader of domestic motion control solution provider

ADTECH (SHENZHEN) TECHNOLOGY CO., LTD.

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ADTECH众为兴

T8/H8 Series AC drives

ADTECH (SHENZHEN) TECHNOLOGY CO., LTD.

ADTECH's mission is to create a platform of shared interests; it provides solutions to achieve goals; continuing to improve production efficiency and customer objectives; meet our customers' needs and desires!

ADTECH focus on industrial automation product development, production and sales, the main products: high and low voltage inverter, soft starter, servo drives, active filtering.

The company is a national high-tech enterprises, high-performance vector control inverter technology, servo technology and permanent magnet synchronous motor control technology and other core technologies。

Sense of team

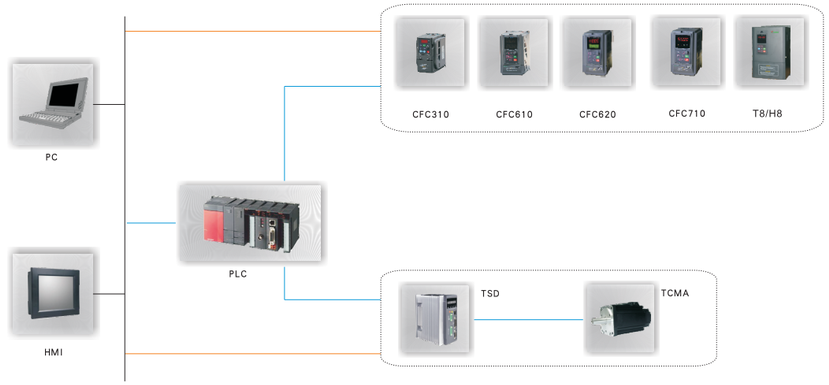
Market philosophy

Corporate mission

Product value

R & D policy

Product Solutions

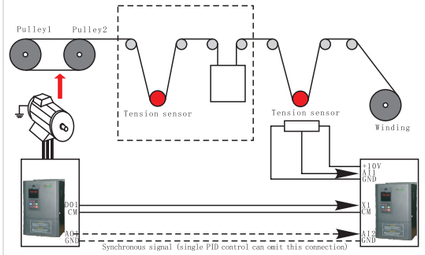
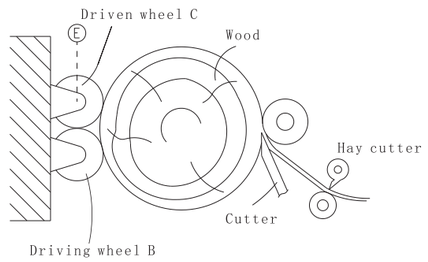
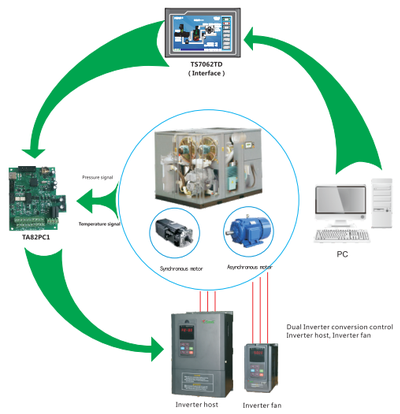


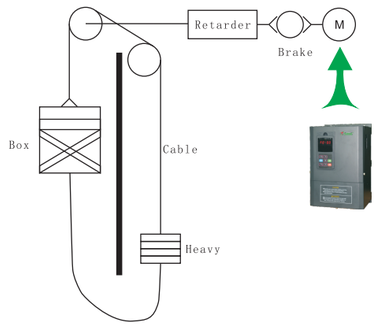
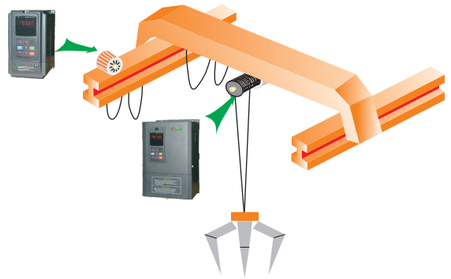
CE RoHS COMPLANT ISO9001 质量体系认证

Product Family Introduction

Series	T812	H811	T810	H810
Appearance				
Features	◆Open loop vector and V/F control; ◆High starting torque; ◆Swing frequency, Timing, Fixed length control; ◆Multiple motor protection; ◆Installation, maintenance convenience; ◆Easy debugging, high output frequency; ◆Simple PLC, multi speed;	◆Closed loop vector control; ◆Ultra high excitation; ◆Support multi class field bus; ◆Swing frequency, Fixed length control; ◆Timing control; ◆High starting torque .	◆Variable torque control; ◆Speed tracking start; ◆Complete separation control of V/F; ◆Quick torque response.	◆Steady speed, high precision; ◆Perfect protection control circuit; ◆Fast current limit; ◆High torque at low speed, small torque fluctuation; ◆Torque limit protection; ◆Support for multiple PG, field bus control.
I/O	Analog output AO 1 Analog input AI1, AI2 2 Open collector output DO1 1 Relay output A、B、C 1	Analog output AO 1 Analog input AI1, AI2 2 Open collector output DO1 1 Relay output A、B、C 1 Pulse output FM 1 Power 24V—100mA 1	Analog output AO1, AO2 2 Analog input AI1, AI2 2 Open collector output DO1 1 Relay output A1、B1、C1、A2、B2、C2 2 Pulse output FM 1 Power 24V—100mA, 10V 1 each	Analog output AO1 1 Analog input AI1, AI2 2 Open collector output DO1 1 Relay output A1、B1、C1 1 Pulse output FM 1 Power 24V—100mA, 10V 1 each
Type	Universal compact	Extension compact	High performance universal	Enhanced closed-loop vector
Power (50—60Hz) Single—phase220V	0.4~1.5KW	0.4~2.2KW	0.75~2.2KW	0.75~2.2KW
Power (50—60Hz) Three—phase380V	0.75~2.2KW	0.75~4.0KW	0.75~450KW	0.75~450KW
Power (50—60Hz) Three—phase220V	0.4~1.5KW	0.4~2.2KW	0.75~75KW	0.75~75KW
Power (50—60Hz) Three—phase480V	——	——	0.75~450KW	0.75~450KW
F output V/F	0~3200Hz	0~500Hz	0~3200Hz	0~500Hz
F output Vector control	0~320Hz	0~500Hz	0~320Hz	0~500Hz
Control Asynchronous motor	V/F, no sensor flux vector control	V/F、With or without sensor magnetic flux vector control	V/F、No sensor flux vector control	V/F、With or without sensor magnetic flux vector control
Control Synchronous motor	No sensor flux vector control	No sensor flux vector control	No sensor flux vector control	With or without sensor magnetic flux vector control
Communication /card Standard	485/Modbus	485/Modbus	485/Modbus	485/Modbus
Communication /card Selecting	Ethernet module	H8PG1 H8Can2 Ethernet module	Ethernet module	H8PG1 H8CPS1 H8Can2 H8CPS2 H8I01 Ethernet module

Special product Family Introduction

Model	Type	Features	Application
H820	Tension control	◆According to the changes of velocity, no winding control; ◆Open loop speed sensorless vector control: ±0.5% Closed loop speed sensorless vector control: ±0.02%; ◆Low frequency torque, 0.5HZ full torque output; ◆Specific frequency source selection mode and a given pattern, X, Y, model; ◆Shutdown: shutdown internal contracting brake output function; ◆The disconnection detection input function: to provide detection of digital signal and analog signal detection; ◆The user can according to the condition of single PID or +PID mode of the main tension control; ◆Manual, automatic tension control; ◆Feedback control and compensation control technology to achieve closed-loop and open-loop control; ◆The motor output torque and motor speed control mode of two kinds of tension control; ◆Can be used for strip or wire uncoiling, coiling tension control in order to improve the quality of production and processing。	
H821	Wood slicing machine	◆Cutting machine control system model; ◆The starting torque can reach 180%, fast response, high precision; ◆Cutting thickness uniformly continuous, small error; ◆The mantissa of the whole piece of high degree of controllability; ◆Counting module, monitoring module, driver module, the three level control can achieve precise control of feed and cutting。	
H822	Air compressor	◆Scope of application:Asynchronous motor, Synchronous motor; ◆The friendly man-machine interface: 7 inch color touch screen, monitoring ability of simple operation interface, powerful; ◆Accurate PID operation: special PID control pneumatic regulating speed faster, more stable, ensure the pressure steady state control accuracy; ◆The temperature detecting real-time: reasonable conditions of temperature real time detection head and the oil, to ensure the reliable operation of equipment; ◆The control characteristics of superior: sense (FVC) / no sense (SVC) vector control, small starting current, low frequency torque, and can realize the torque control; ◆he control logic of perfect: power system self check, ensure that the parameters of the system and equipment are under normal condition can be up and running; ◆A variety of monitoring parameters: real-time monitoring of air compressor and inverter state variables, the operating parameters, including current, voltage, temperature, pressure, temperature and other conventional parameters; ◆Maintenance Tips: oil filter, air filter, oil, lubricating oil, lubricating grease, system six running time and maintenance cycle information prompt; ◆Standard communication protocol: adopt international standard Modbus communication protocol, provides a standard RS485 interface; ◆Multi level password protection: multi users and manufacturers password settings, protect the user security operation; ◆The history fault recording: recording running data of faults and eight sets of system, analysis and fault convenient fault information in advance of prevention。	

H823	Construction elevator	◆Parameter of hierarchical menu mould; ◆Positioning stop; ◆Hover function; ◆Brake timing control; ◆Stop band brake output function; ◆Multi class fault protection alarm; ◆Weighing function; ◆Inspection function; ◆Static identification of motor parameters。	
H828	Lifting	◆A plurality of motor switch; ◆A variety of bus support; ◆A variety of encoder support; ◆Stop band brake output function; ◆Hover function; ◆Lifting process control; ◆Static identification of motor parameters; ◆Various protection functions; ◆Overload, overspeed protection; ◆Precision positioning; ◆A variety of input, output interface。	

Note: the solution more products and industry system please contact the dealer or manufacturer.

Inverter type description

T810E—4T0007G/0015PC

Model	
T810	High performance universal
T812	Universal compact
H810	Enhanced closed-loop vector
H811	Extension compact

Type of drive	
E	Synchronous motor
NO	Asynchronous motor

Voltage	
2	220V
4	380V
5	480V

Brake	
A	No braking unit, No braking resistor
B	Braking unit, Braking resistor
C	Braking unit, No braking resistor

Load	
G	General
P	Fan, pump

Power	
0007	0.75KW
0015	1.5KW
1100	110KW
...	...

Phase number	
T	Three-phase
S	Single-phase

ADTECH T8/H8 series inverter

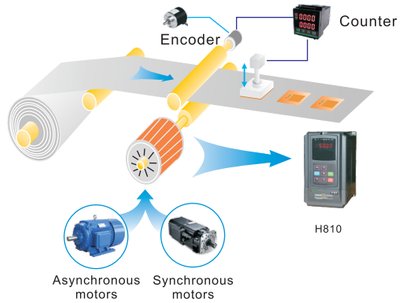
T8/H8 series is a high performance current vector inverter. Based AD-TECH , an accurate understanding of high-end applications, adhering AD-TECH on high-quality, high-reliability requirements of one accustomed to, T8/H8 series inverter will be excellent performance and powerful features, bringing in the industrial fields of application shock, make your mid and high demand solved.

1 Performance

Support a variety of motor vector control

- Support for three-phase AC induction motor, synchronous motor vector control
- Supports absolute position feedback without permanent magnet synchronous motor vector control
- Support a variety of encoders (Note：H support)

UVW encoder	Differential Encoder
Resolver encoder	Open collector encoder



High performance vector control

- T8/H8 series inverter in 0.5Hz can provide 150% starting torque (sensorless vector control). In 0Hz provides 180% torque at zero speed (with vector control).
- Sensorless vector control reduces the sensitivity of the motor parameters to improve the site adaptability.
- Can be applied to winding control, multi-motor drive load distribution under the same load and other occasions.

Parameter recovery capabilities

- When debugging or misuse led to confusion parameter, you can choose to restore the factory parameters, but also restore the saved parameters themselves before the user is not likely to cause confusion in reference comfortable.

Parameter reset to factory

Restore User Parameters

Fast response

- Sensorless vector control, the torque response <20ms. There sensorless vector control, the torque response <5ms

Improve the impact resistance of the corresponding load

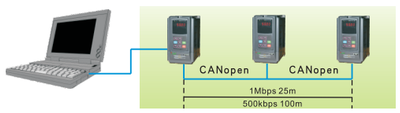
- T8/H8 maximum torque converter can be set to play the maximum efficiency and motor speed mechanical fluctuations to a minimum, better protection of safety equipment, such as mechanical woodworking machines, machine tool equipment.

Build a variety of network

- Supports a variety of communication modes, easy to connect various peripheral settings.

Support Type: RS485

CANopen (Note：H support)



2 Function

Constant tension control function (Note：H support)

- 2 control functions: speed control, torque control. Torque torque control to achieve consistent, constant tension, more suitable for open loop tension control.

Motor overheating protection

- Optional input and output expansion card, analog input AI3 acceptable motor temperature sensor inputs (Pt100). When the motor temperature exceeds the warning value, the inverter output pulse signal prompts overheating, when the motor temperature exceeds the thermal protection value, the inverter fault output to the motor properly protected.

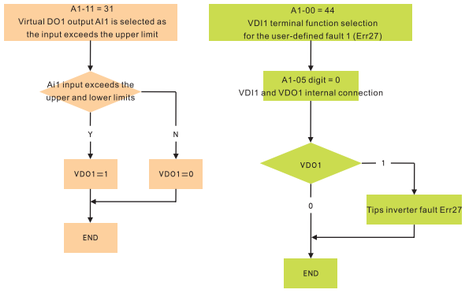
Flexible and practical analog I/O port

- Each analog input (AI1-AI3), can be set four points of the curve, flexible;
- AI1-AI3 can be factory-school certificate or user site license linear calibration curve after calibration accuracy up to 20mV;
- AO1 can factory school certificate or user site license linear calibration curve zero drift and gain accuracy after calibration certificate 20mV;
- AI1-AI3 can be used for DI;
- Ai3 is isolated input port can be used as PT100 or ± 10V input.

Virtual input and output functions

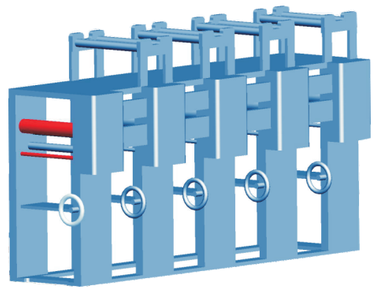
- You can set 5 groups of input / output, virtual input terminal status can be given directly by the function code or bind the corresponding virtual output function.

▼ Ai1 beyond the upper and lower limits to achieve inverter fault Err27 tips



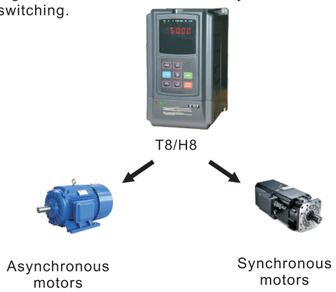
Speed Control

- Achieve positioning, speed control of high precision applications, such as printing machinery, paper machinery, textile machinery control system.
- Low speed torque and speed accuracy.



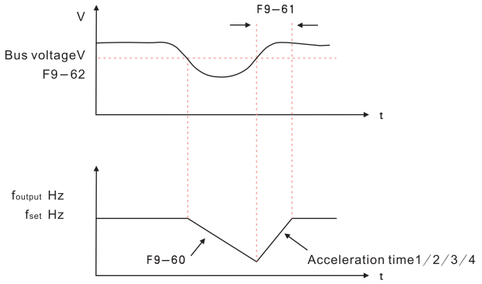
Multi-motor switch

- With four groups of motor parameters, can achieve four motor switching control can be achieved with synchronous motor induction motor switching.



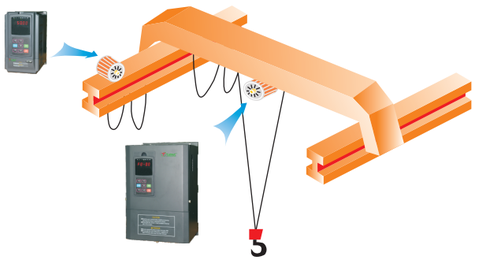
Momentary power failure, don't stop running function

- This feature refers to the momentary power failure, the inverter will shut down. Momentary power failure or a sudden voltage in the case of lower, lower output speed drive through the load feedback energy to compensate for voltage drops in order to maintain the inverter continues to run short.

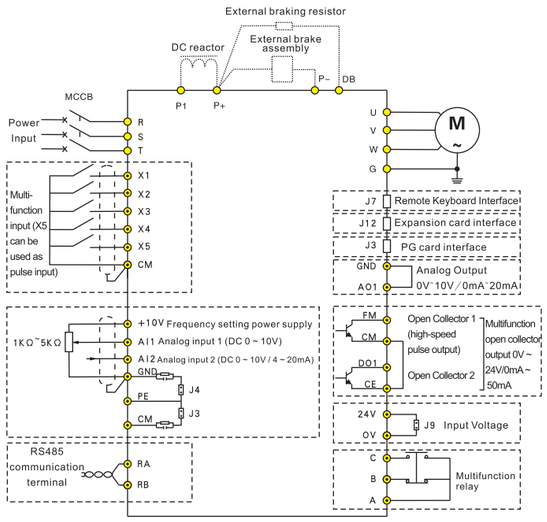


Torque Control

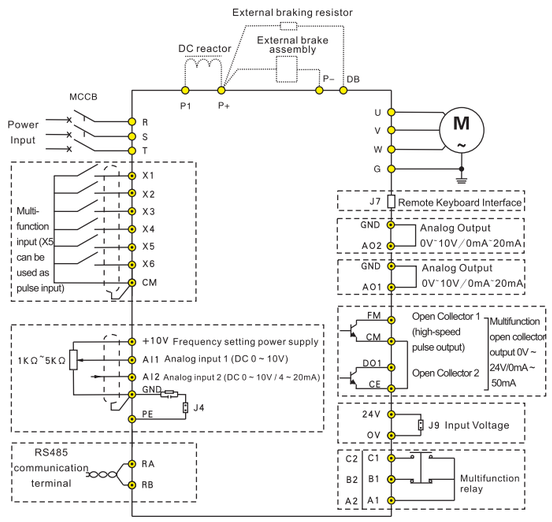
- For translation, enhance and fast braking control directional movement, such as lifting, material transfer and so on.
- Available continuous torque motor and transient torque, dimensional one difference is that the speed of the motor is less than half the rated speed to provide even following high torque capability.



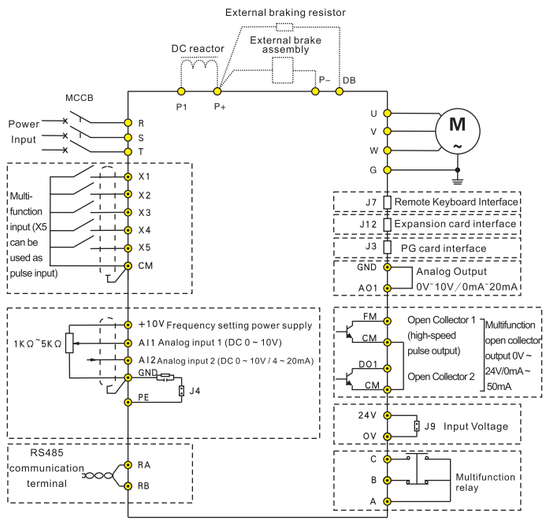
3 Basic wiring diagram



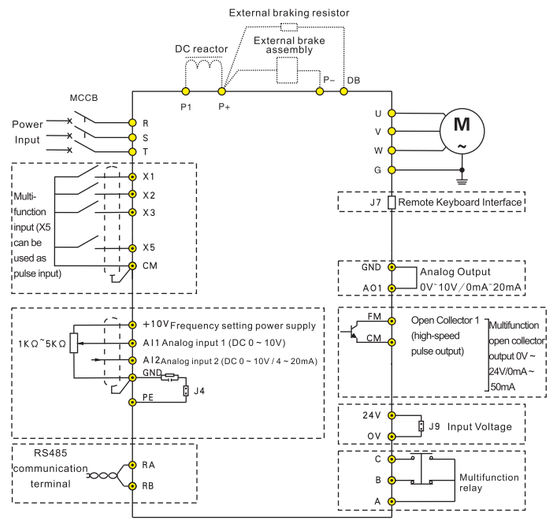
H810



T810



H811



T812

4 Models and technical data

Three phase 380V

Model T8/H8	Rated capacity (KVA)	Rated output current (A)	Adapter power (KW)
4T0007G	1.4	2.1	0.75
4T0015G	2.5	3.8	1.5
4T0022G	3.4	5.1	2.2
4T0040G	6.0	9.0	3.7
4T0055G	8.6	13.0	5.5
4T0075G	11.0	17.0	7.5
4T0110G	16.5	25.0	11
4T0150G	21.0	32.0	15
4T0185G	24.0	37.0	18.5
4T0220G	30.0	45.0	22
4T0300G	39.5	60.0	30
4T0370G	49.4	75.0	37
4T0450G	60.0	91.0	45
4T0550G	74.0	112.0	55
4T0750G	99.0	150.0	75
4T0900G	116.0	176.0	90
4T1100G	138.0	210.0	110
4T1320G	167.0	253.0	132
4T1600G	200.0	304.0	160
4T1850G	224.0	340.0	185
4T2000G	248.0	377.0	200
4T2200G	280.0	426.0	220
4T2500G	306.0	465.0	250
4T2800G	342.0	520.0	280
4T3150G	385.0	585.0	315
4T3550G	428.0	650.0	355
4T4000G	477.0	725.0	400
4T4500G	540.0	820.0	450

Three phase 480V

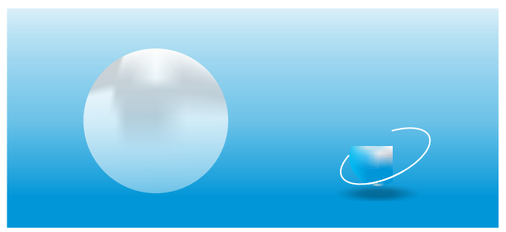
Model T8/H8	Rated capacity (KVA)	Rated output current (A)	Adapter power (KW)
5T0007G	1.7	2.1	0.75
5T0015G	3.2	3.8	1.5
5T0022G	4.2	5.1	2.2
5T0040G	7.5	9.0	3.7
5T0055G	11.0	13.0	5.5
5T0075G	14.0	17.0	7.5
5T0110G	21.0	25.0	11
5T0150G	27.0	32.0	15
5T0185G	31.0	37.0	18.5
5T0220G	37.0	45.0	22
5T0300G	50.0	60.0	30
5T0370G	62.0	75.0	37
5T0450G	76.0	91.0	45
5T0550G	93.0	112.0	55
5T0750G	125.0	150.0	75
5T0900G	146.0	176.0	90
5T1100G	175.0	210.0	110
5T1320G	210.0	253.0	132
5T1600G	253.0	304.0	160
5T1850G	283.0	340.0	185
5T2000G	313.0	377.0	200
5T2200G	354.0	426.0	220
5T2500G	387.0	465.0	250
5T2800G	432.0	520.0	280
5T3150G	486.0	585.0	315
5T3550G	540.0	650.0	355
5T4000G	603.0	725.0	400
5T4500G	682.0	820.0	450

Single phase 220V

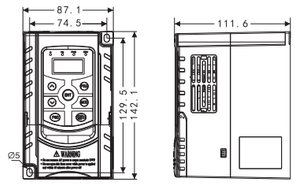
Model T8/H8	Rated capacity (KVA)	Rated output current (A)	Adapter power (KW)
2S0004G	0.9	2.3	0.4
2S0007G	1.5	4.0	0.75
2S0015G	2.7	7.0	1.5
2S0022G	3.7	9.6	2.2

Three phase 220V

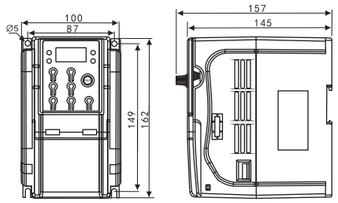
Model T8/H8	Rated capacity (KVA)	Rated output current (A)	Adapter power (KW)
2T0004G	0.8	2.1	0.4
2T0007G	1.4	3.8	0.75
2T0015G	2.7	7.0	1.5
2T0022G	3.4	9.0	2.2
2T0040G	5.0	13.0	4.0
2T0055G	9.5	25.0	5.5
2T0075G	12.2	32.0	7.5
2T0110G	17.0	45.0	11
2T0150G	23.0	60.0	15
2T0185G	28.6	75.0	18.5
2T0220G	35.0	91.0	22
2T0300G	43.0	112.0	30
2T0370G	57.0	150.0	37
2T0450G	67.0	176.0	45
2T0550G	80.0	210.0	55
2T0750G	116.0	304.0	75



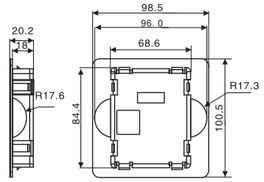
5 Physical Appearance



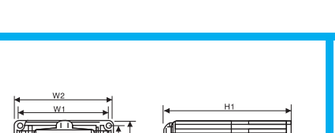
T812



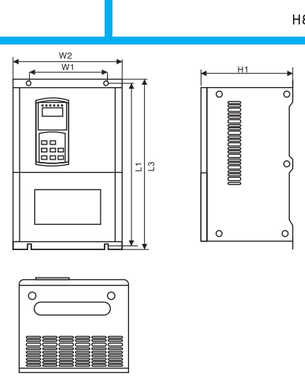
H811



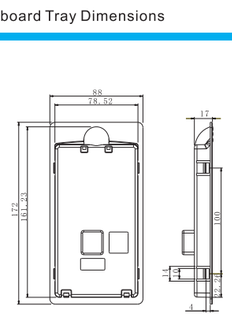
H811Keyboard Tray Dimensions



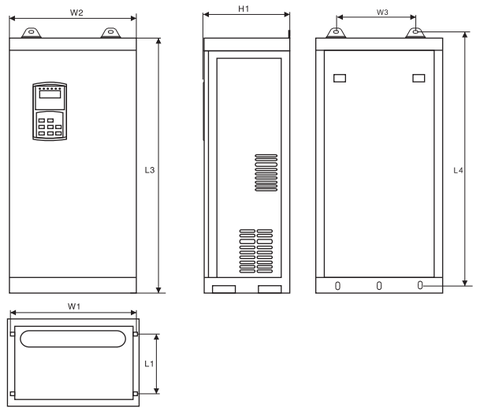
T/H8 following 4.0KW



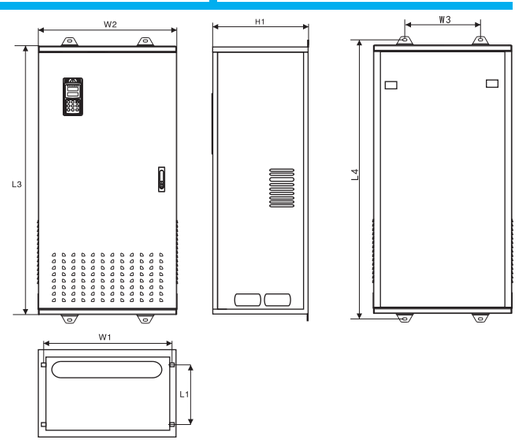
T/H8 5. 5KW—90KW



Keyboard Tray Dimensions
T/H8—KR01



T/H8 110KW—132KW



T/H8 160KW—450KW（280KW-450KWNo hanging）

6 Mounting dimensions

Three phase 380V	Three phase 480V	Single phase 220V	Three phase 220V	Appearance size L3 mm	Appearance size W2 mm	Appearance size H1 mm	Mounting dimensions L1 mm	Mounting dimensions W1 mm	Hanging installation L4 mm	Hanging installation W3 mm	Installation mm	Weight Kg
4T0007G	5T0007G	2S0004G	2T0004G	225	132	172	212	120	\	\	4	2.3
4T0015G/P	5T0015G/P	2S0007G	2T0007G									
4T0022G/P	5T0022G/P	2S0015G	2T0015G									
4T0040G/P	5T0040G/P	2S0022G	2T0022G									
4T0055P	5T0055P	--	--									
4T0055G	5T0055G	--	--	332	195	170	317	175	\	\	7	6.8
4T0075G/P	5T0075G/P	--	2T0040G									
4T0110P	5T0110P	--	--									
4T0110G	5T0110G	--	2T0055G	393	243	206	378	175	\	\	7	11.3
4T0150G/P	5T0150G/P	--	2T0075G									
4T0185P	5T0185P	--	--									
4T0185G	5T0185G	--	--	480	253	233	463	216	\	\	9	17
4T0220G/P	5T0220G/P	--	2T0110G									
4T0300P	5T0300P	--	--									
4T0300G	5T0300G	--	2T0150G	499	283	230	482	250	\	\	9	20.5
4T0370G/P	5T0370G/P	--	2T0185G									
4T0450P	5T0450P	--	--									
4T0450G	5T0450G	--	2T0220G	580	360	270	563	250	\	\	9	32.9
4T0550G/P	5T0550G/P	--	2T0300G									
4T0750P	5T0750P	--	--									
4T0750G	5T0750G	--	2T0370G	743	440	300	720	280	\	\	10	53
4T0900G/P	5T0900G/P	--	2T0450G									
4T1100P	5T1100P	--	--									
4T1100G	5T1100G	--	2T0550G	1066	574	382	258	544	1061	320	12	106
4T01320G/P	5T01320G/P	--	--									
4T1600P	5T1600P	--	--									
4T1600G	5T1600G	--	2T0750G	1240	640	395	240	600	1530	350	12	123
4T1850G/P	5T1850G/P	--	--									
4T2000G/P	5T2000G/P	--	--									
4T2200P	5T2200P	--	--									
4T2200G	5T2200G	--	--	1480	640	395	240	600	1530	350	12	158
4T2500G/P	5T2500G/P	--	--									
4T2800P	5T2800P	--	--									
4T2800G	5T2800G	--	--	1700	713	440	250	553	\	\	20	285
4T3150G/P	5T3150G/P	--	--									
4T3550P	5T3550P	--	--									
4T3550G	5T3550G	--	--	1800	900	440	352	574	\	\	20	340
4T4000G/P	5T4000G/P	--	--									
4T4500G	5T4500G	--	--									

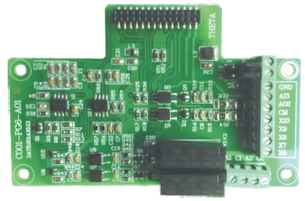
7 Technical Specifications

	Project	Item Description
Basic functions	f_{Max}	Type T: VF: 0~3200Hz , vector control: 0~320Hz Type H: VF: 0~500Hz , vector control: 0~300Hz
	Carrier Frequency	0.5KHz-16KHz; characteristics according to the load automatically adjust the carrier frequency
	Input frequency resolution	Digital setting: 0.01Hz Analog setting: maximum step rate X 0.025%
	Control mode	Type H: Open loop vector control (SVC) Closed-loop vector control (FVC) VF control Type T: Open loop vector control (SVC) VF control
	Starting torque	0.5Hz/150% (SVC) ; 0Hz/180% (FVC)
	Speed range	1: 200 (SVC) 1: 1000 (FVC) 1: 50 (VF)
	Steady speed precision	±0.5% (SVC) ±0.02% (FVC)
	Torque control accuracy	±5% (FVC)
	Overload	150% of rated current 60s; 180% rated current 3s
	Torque boost	Automatic torque boost; manual torque boost of 0.1% -30.0%
	V / F curve	3 ways: straight; multi-point type; N th power of V / F curve (1.2 th power,1.4 th power , 1.6 th power, 1.8 th power, 2 th power)
	V / F separation	2 ways: Full separation; half separation
	Acceleration / deceleration curve	Linear or S-curve acceleration and deceleration mode; 4 kinds of acceleration and deceleration time; deceleration time range 0.0-6500.0s
	DC braking	DC braking frequency: 0.00Hz-maximum frequency; braking time :0.0-36 .0 s; braking action current value :0.0-100.0%
	Jog control	Jog Frequency range: 0.00Hz-50Hz; Jog deceleration time :0.0-6500 .0 s
	Simple PLC, Multi-speed operation	Through internal PLC or control terminal speed operation to achieve up to 16
	Built-in PID	Process control can be easily closed loop control system
	Automatic voltage regulation (AVR)	When the grid voltage changes, can automatically maintain a constant output voltage
	Overvoltage loss of speed control	For current and voltage during operation automatically limited to prevent frequent overcurrent and overvoltage trip
	Fast current limit function	Minimize overcurrent fault protection inverter running
	Torque limit and control	Automatically limit for torque during operation to prevent frequent overcurrent trip; vector control mode torque control can be achieved
Personalization features	Power-on self-test per-ipheral equipment safety	Can realize the power of peripheral devices for safety testing (such as grounding, short circuit, etc.)
	Common DC bus function	Enabling more than one common DC bus drive function
	FK key	Programmable keys: Command channel switching / reversing Run / Jog function selection
	Textile traverse control	Multiple triangular wave frequency control function
	Timing control	Timing control function: Set time range 0.0h-65535.0h
Run	Run the command channel	3 kinds of channels: Given the operator panel, control terminal is given, given the serial communication port. There are several ways to switch
	Frequency source	10 kinds of frequency source: figures given, given analog voltage, analog current setting, the pulse is given, the serial port given. There are several ways to switch
	Auxiliary frequency source	10 kinds of secondary frequency source. Flexibility to achieve auxiliary frequency tuning, the frequency synthesizer
	Input terminal	5 digital input terminals, one of which can be used for high-speed pulse input, the input frequency up to 100KHz. (Expandable to 10) Earn Yung active PNP or NPN input Two analog input terminals, one of which can only be used as a voltage input, the other can be used for voltage or current input. (Can be extended a voltage input terminal)
	Output terminal	1 speed pulse output terminals (optional for the open collector type), 0KHz-100KHz square wave signal output, enabling setting frequency, output frequency and other physical quantities of output; 1 digital output terminal; 1 relay outputs (expandable to three); 1 analog output terminals (expandable to two), respectively, optional 0mA-20mA or 0V-10V, can realize setting frequency, output frequency and other physical quantities of output.
	Virtual IO	5 virtual DI, 5 virtual DO
Display and keyboard	LED display	Display Parameters
	Key lock and function selection	To achieve some or all of the keys locked, fixed key role in meeting part of the range, in order to prevent misuse
	Protection	Energized motor short circuit detection, input and output phase loss protection, overcurrent protection, overvoltage protection, undervoltage protection, thermal protection, overload protection, etc.
	Options	Multifunction input and output expansion card, brake assembly, PG card
Environment	Use of the environment	Indoors, free from direct sunlight, no dust, corrosive gas, flammable gas, oil mist, water vapor, drip or salt, etc.
	Altitude	<1000m
	Ambient temperature	−10 ℃ ~ +40 ℃ (ambient temperature at 40 ℃ ~ 50 ℃ derating)
	Humidity	<95% RH, non-condensing water droplets
	Vibration	<5.9m/s2 (0.6g)
	Storage Temperature	−20℃ ~ +60℃

8 Opational parts

H8IO1

H8IO1：IOExpansion cards
Digital input: 5 groups
Analog input voltage AI3:1 group
Relay output: 2 groups
Analog output: 1 groups

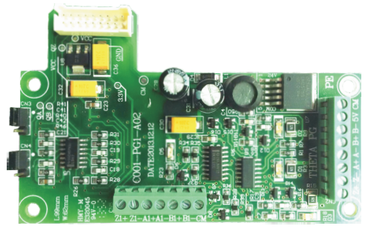


H8CAN2

H8CAN2（CANopen）；
Fieldbus international standard.

H8PG1

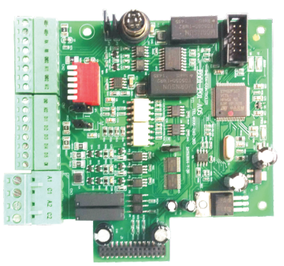
The encoder interface card can be used for magnetic flux vector control operation with sensor (FVC mode):
Precise speed regulation；
Torque precision；
The torque shock, can shorten the response time；
To improve the performance of transient dynamics；
H8PG1 encoder interface card is used to connect ABZ differential encoder；
Power adapter: 5V (minimum 5V, maximum 5.5V);
The maximum operating frequency: 320Hz;
Input signal: A+, A\, B+, B\, Z+, Z\.



H8CPS2

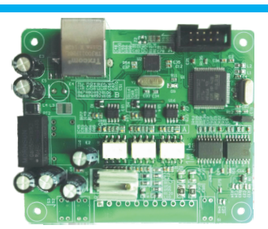
Air compressor controller expansion interface card, according to the special interface integrated air compressor machine industry in the development of the card.

Analog input: 1 (PT100)
RS485 : 2
Switch input : 5
Relay output : 2
24V power output: 1



Ethernet module

Through the RS485 standard Modbus to Ethernet



ADTECH

9 Brake components

Brake Components Selection Guide

The following table as a guide data, the user can choose according to the actual situation of different resistor and power (resistance must not be less than the recommended value in the table, but the power to enlarge.) Braking resistor selection according to the actual application of motor power generation systems the power to determine, with the system inertia, deceleration time, potential energy load energy have a relationship, you need to choose according to the actual customers. The greater the inertia of the system, the shorter the time required for deceleration and braking more often, you need to select the greater the power braking resistor, you need to select the resistance is smaller.

Resistance selection
Braking, the motor regenerative energy consumption has almost all of the braking resistor.
According to the equation: $U * U / R = P_b$

- Formula U ---- braking system is stable braking voltage
  (Different systems are not the same, for general admission 380VAC 700V)
- P_b ---- braking power

Braking resistor power selection

Theoretically braking resistor power and consistent braking power, but considering the drop was 70%.
According to the formula: $0.7 * P_r = P_b * D$

- P_r ---- resistor power
- D ---- braking frequency (regeneration process the proportion of the entire work process)

Elevator ---- 20% -30%
Unwinding and taking roll ---- 20% -30%
Centrifuge ---- 50% -60%
Occasionally braking load ---- 5%
General load ---- 10%

Model	Motor (KW)	Brake unit	Braking resistor			
			ED=10%resistance power	ED=20%resistance power	ED=40%resistance power	Resistance (Ω)
2S0007G	0.75	Built	100W	2100W	300W	300
2S0015G	1.5	Built	200W	400W	600W	150
2S0022G	2.2	Built	300W	500W	1000W	100
4T0007G	0.75	Built	100W	200W	300W	600
4T0015G	1.5	Built	200W	400W	600W	300
4T0022G	2.2	Built	300W	500W	1000W	200
4T0040G	4.0	Built	400W	800W	1600W	100
4T0055G	5.5	Built	600W	1100W	2200W	85
4T0075G	7.5	Built	800W	1500W	3000W	60
4T0110G	11	Built	1000W	2000W	4000W	47
4T0150G	15	Built	1500W	3000W	6000W	38
4T0185G	18.5	External	2000W	4000W	8000W	32~25
4T0220G	22	External	2500W	5000W	10KW	26~21
4T0300G	30	External	3000W	6000W	12KW	20
4T0370G	37	External	4000W	8000W	16KW	18
4T0450G	45	External	5000W	10KW	18KW	17~10
4T0550G	55	External	6000W	12KW	24KW	16~8
4T0750G	75	External	8000W	15KW	30KW	8~6
4T0900G	90	External	12KW	18KW	36KW	6
4T1100G	110	External	12KW	24KW	48KW	6
4T1320G	132	External	18KW	30KW	54KW	6~4
4T1600G	160	External	18KW	36KW	66KW	4
4T1850G	185	External	18KW	36KW	72KW	4
4T2000G	200	External	24KW	48KW	78KW	4~3
4T2200G	220	External	24KW	48KW	84KW	4~3
4T2500G	250	External	24KW	48KW	102KW	3
4T2800G	280	External	30KW	60KW	120KW	3
4T3150G	315	External	30KW	66KW	126KW	3
4T3550G	355	External	36KW	72KW	144KW	2.5
4T4000G	400	External	42KW	84KW	168KW	2.5
4T4500G	450	External	48KW	90KW	180KW	2

Notes

General purpose motor drive

Drive motor 380V General Purpose
Long cable to the drive and motor drive 380V general purpose, you may damage the motor insulation. Recommended to use the output AC reactor.

Torque characteristics and temperature and Health
If you use General motor driver drives the motor temperature than using higher mains supply operation. Low speed cooling performance will weaken, so reducing the motor torque output. If you need to use at a fixed low speed torque, use with an external power supply driven cooling fan motors.

Shock
motor mounted on the machine, the natural frequency will cause the resonance phenomenon, including the frequency of the machine. Two-pole motor at 60Hz or higher frequency operation, may produce abnormal vibration.

Noise
With a general-purpose motor drives used, the motor noise level than using mains supply Shihai high. To reduce noise, increase the drive carrier frequency. At 60Hz or higher speed operation, will produce a higher level of noise.

Special motor drive

High-speed motor
With frequencies above 120Hz setting speed motor drive, please use other motor testing various frequency settings to ensure the safety of high-speed motor.

Explosion-proof motor
Use explosion-proof motor driver drive, please make use of already approved motor and drive combinations.

Submersible motor and pump
Such motors rated weep than general-purpose motor is high. Please use the rated output current higher than the motor drive. Such motor temperature characteristics and general purpose motor are different, set electric equipment, connect the motor thermal time constant is set to a lower value.

Brake motor
In parallel with the motor brakes, the brake power should be the main circuit (mains supply) provided. If the brake power misconnection drive power output circuit (secondary circuit), may cause problems. Do not use a driver to drive a motor equipped with brakes in series.

Gear Motor
Transmission mechanism uses lubricated gearbox or transmission / gearbox, the motor speed way terms of continuous operation, may cause deterioration of the lubricating effect, so please avoid this way operation.

Synchronous motors
Such motors must be used with appropriate software. Please contact the Company to obtain more detailed information.

Single-phase motors
Single-phase motors are not suitable for variable speed drives, use three-phase motors.
* Since the drive is a three-phase output, so even single-phase power supply can also use the three-phase motor. Do not use a driver to drive with tandem brake motors.

Environmental conditions

Installation site
Drive for an ambient temperature between -10 ~ 50 ℃ location. Under certain operating conditions, the drive and braking resistor surface temperature will rise, so please drive mounted on metal and other non-combustible material above.
Ensure that the installation site meets the manual drive environmental temperature conditions.

With peripheral devices

Install no fuse breaker (MCCB)
Please individual drives installed main circuit breaker or fuse recommended no leakage circuit breaker (ELCB) protection circuit. Ensure that the circuit breaker capacity is equal to or lower than the recommended capacity.

At the output (secondary) circuit is mounted magnetic contactor (MC)
If the secondary drive mounted magnetic contactor (MC) switch motor uses electricity or used for other purposes, be sure to activate or deactivate the MC before, drives and motors have switched completely stopped. Remove the integration within the MC surge absorber.

At the input (primary) circuit is mounted magnetic contactor (MC)
Per hour can only enable or disable the main circuit of the magnetic contactor (MC) once, otherwise the drive may malfunction For many times during the electrical switch on or off, use the STOP / RUN signals.

Protect the motor
The electric drive device can protect the motor; should set the operation level and the motor (general purpose motor inverter motor) type.
Using high-speed motors or water-cooled motor, a smaller value should be set to protect the motor thermal time constant. If you use a longer cable to connect the motor thermal relay to the motor area of the high frequency current may flow into the line stray capacitance. The current ratio plot of thermal relay setting is low, it will cause the relay tripped. When this happens to Dan reduce the carrier frequency or use the output AC reactor.

Stop using power factor correction capacitors
Please hasty in the drive (primary) circuit installed power factor correction capacitors. (Use the DC reactor to improve drive power coefficient) Please hasty at the driver output circuit (secondary) to install power factor correction capacitors, otherwise it will cause an overcurrent tripping caused inoperable motor.

Stop using surge absorber
Not available at the driver output (secondary) road to install a surge absorber most.

Noise reduction
To ensure compliance with the EMC Directive can usually be used to reduce noise filter and shielded lines.

Measures to reduce the inrush current
If the drive is stopped or at low load conditions occur when operating over-voltage tripping situation, it may be because the power system phase capacitors on / off generates inrush current. Recommended DC reactor is connected to the drive.

Wiring

Control circuit wiring distance
Remote operation, use shielded twisted-pair cable and drive to the distance between the control box is limited to within 20m.

Driver and motor cable length between the
If the drive and the motor between the line is longer, will lead the line connecting electrical phase overcurrent, overheating, or causing the drive tripping (high-frequency current flows stray capacitance). Make sure that the line length is less than 30m; if you can not drop length, the lower the carrier frequency or use the output AC reactor.

Line size
Please refer to the current elections with sufficient capacity cable, or use the recommended line specifications.

Select the drive capacity

Ground
Use the drive ground terminal is fully grounded.

General purpose motor drive
Based on standard drive motor rating table below for selected drive. If you need high initial torque or rapid acceleration and deceleration Please choose a higher capacity than standard drives.

Special motor
Selected meet the following drives:
Drive rated current> motor rated current.

Transportation and storage

When transporting or storing the drive, follow the program and select the required environment to meet specifications of the place.