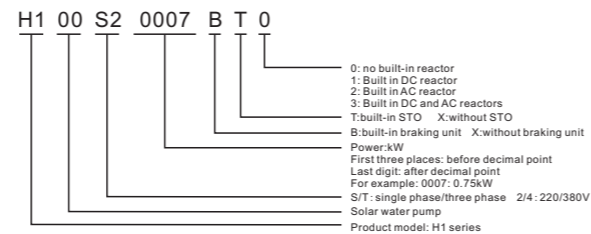




H1 Series Inverter USER MANUAL

1.2 H1 nameplate



1.3 H1 series specifications and models

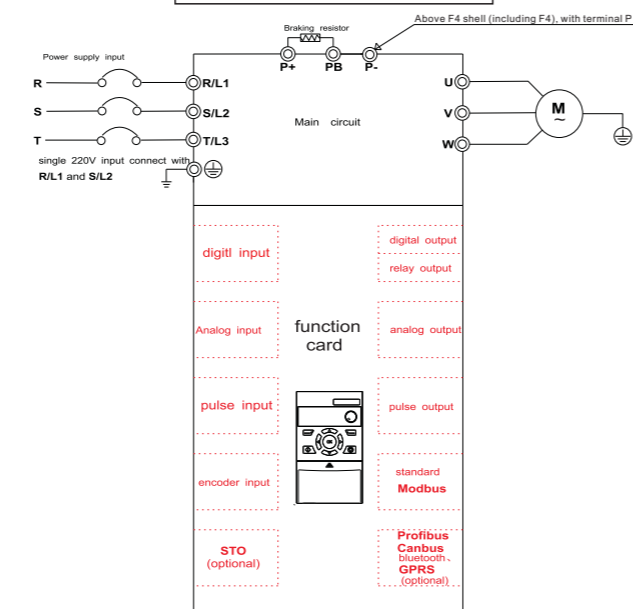
Base No	Models	Input voltage	input current (A)	Power (kW)	output current (A)	Adaptive motor(kW)
F1	H100S20007BX0	1 phase 220V	8.2	0.75	5.0	0.75
	H100S20015BX0	1 phase 220V	14.0	1.5	7.0	1.5
F2	H100T20022BX0	1 phase 220V	23.0	2.2	12.5	2.2
	H100T20037BX0	3 phase 220V	13.5			
F3	H100T20055BX0	1 phase 220V	38.6	3.7	15.2	3.7
	H100T20075BX0	3 phase 220V	16.5			
F4	H100T20075BX0	3 phase 220V	37	7.5	31	7.5
	H100T20110BX0	3 phase 220V	52	11	45	11
F1	H100T40007BX0	3 phase 380V	4.0	0.75	3.0	0.75
	H100T40015BX0	3 phase 380V	5.8	1.5	4.5	1.5
F2	H100T40022BX0	3 phase 380V	6.5	2.2	5.6	2.2
	H100T40040BX0	3 phase 380V	12.6	4.0	10.5	4.0
F3	H100T40055BX0	3 phase 380V	16	5.5	14	5.5
	H100T40075BX0	3 phase 380V	21	7.5	19	7.5
F4	H100T40110BX0	3 phase 380V	28	11	26	11
	H100T40150BX0	3 phase 380V	36	15	33	15
F5	H100T40185BX0	3 phase 380V	42	18.5	40	18.5
	H100T40220BX0	3 phase 380V	48	22	46	22
F6	H100T40300BX0	3 phase 380V	62	30	58	30
	H100T40370BX0	3 phase 380V	76	37	75	37
F7	H100T40450XX0	3 phase 380V	92	45	90	45
	H100T40550XX0	3 phase 380V	113	55	110	55
F8	H100T40750XX0	3 phase 380V	157	75	150	75
	H100T40900XX0	3 phase 380V	180	90	170	90
F9	H100T41100XX0	3 phase 380V	214	110	210	110
	H100T41320XX0	3 phase 380V	256	132	250	132
	H100T41600XX0	3 phase 380V	307	160	300	160

NO.1 Product introduction

1.1 Technical Features

Items	Description
input	Rated voltage/frequency: 3ph: 380V~440V, 50Hz/60Hz; 1ph: 200V~240V, 50Hz/60Hz
Allowed voltage	3ph: 320V~460V; 1ph: 180V~260V; voltage imbalance rate: <3%; frequency: ±5%
output	Voltage: 0~rated input voltage; Frequency: 0Hz~1000Hz
Overload capacity	150% rated current 60s, 180% rated current 2s
control performance	Control mode: V/F, SVC; Modulation Mode: SVPWM; Motor type: asynchronous motor, synchronous motor, single phase motor (consult factory before using); Start torque: 1Hz/150%; Speed range: 1:100(SVC); Frequency accuracy: digital setting: maximum frequency±0.01%; analog setting: maximum frequency±1%; Frequency resolution: digital setting: 0.1Hz; analog setting: maximum frequency±1%; Acceleration/deceleration curve: line/ S-curve; Rapid current limit: limit current rapidly within the current protection value, to ensure the safety of the equipment; None-slip when instantaneous power off: none-stop when instantaneous power off, automatic frequency drop
Operation function	Command source: keypad, terminal, communication; Set value source: digital, analog, multi-speed, communication; PID: support main setting+PID
Operation panel	LED display: Can display: output frequency, output voltage, output current, Bus voltage, display value 1, display value 2, error, alarm; External keypad: YES
Protection function	over-current protection, over-voltage protection, under-voltage protection, overheating protection, over-load protection, phase lose protection, earth leakage, etc
Environment	Store environment: indoor, away from direct sunlight, no dust, no corrosive gas, no inflammable gas, no oil mist, no vapour, no drip and no salinity, etc; Altitude: derating use above 1000M, derating 10% per 1000M; Environment temperature: -10℃~+40℃(environment temperature around 40℃~50℃please derating use); Humidity: 5%~95%RH, no condensation; Store temperature: -40℃~+70℃; Vibration: <5.9M/S (0.6g)

NO.2 Main circuit and function card



Notice: different function card corresponding to different terminals. Except standard function card, can customize any type of card. Reset parameters when using different function cards. An AC drive only can use one function card.
Warning: Do not use function card when power is on!

2.1 Main circuit terminal description

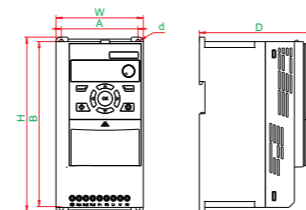
Terminal identification	Name	Function description
⊕	Grounding terminal	Safety grounding
R/L1, S/L2, T/L3	Main circuit power input terminal	Connect three phase power supply, single phase power supply connect to R/L1, S/L2
P+, PB	Braking terminal	Connect to external braking resistor
P+, P-	DC bus terminal	Two sets or more inverters use a common DC bus (Above F4 shell (including F4), with terminal P)
U, V, W	output terminl	Connect to three phase motor

2.2 Founction card configuration table

Function card	H0100	H0101	H0102	H0103	H0104	H0110	H0120	H0130	H0131	H0200	H0201	H0300	H0310	H0320	H0350
Digital input	2	4	1	4	2	5	10	5	1	10	10		4	5	3
Digital output						1									
Relay output	1	1		3	1	2	2	2	1	3	3		1	1	1
Analog input	1	1		1	1	1	1	1		2	2		2	1	
Analog output						2	1	2		2	2		2	2	
Pulse input															
Pulse output															
Encoder input															
Modbus	1	1	1	1	1	1	optional	1	1	1	1		1	1	1
STO															
Display	Digital tube	Digital tube	Digital tube	Digital tube	Digital tube	Digital tube	Digital tube	Digital tube	Digital tube	Digital tube	Digital tube		Digital tube	Digital tube	Digital tube
Potentiometer	Analog	Analog		Analog	Analog	Analog	Analog	Analog					Analog	Analog	
Toggle switch													1	2	2
12V power supply	1			1	1	1	1	1		1	1		1		
10V power supply				1	1	1	1	1		1	1		1		

Note:
 1. the built-in function card with STO function must be equipped with AC drive of STO circuit, for example: H0200 built-in function card is equipped with AC drive with model H100T40040BTO (the second T represents built-in STO circuit).
 2. If need other types and numbers of terminals, contact the company for bulk customization

NO.3 Product Dimension



Framework	H1 series Dimensions (mm)					
	W(Width)	H(Height)	D(Depth)	A	B	d
F1	85	170	124	67.3	158	5
F2	97	194	133	85	184	5
F3	126	237	147	112	223	6
F4	168	298	160	154	283	6
F5	198	355	177	183	338	6
F6	250	400	208	230	380	7
F7	280	545	292	200	526	9
F8	380	648	299	300	626	11
F9	450	798	318	340	773	11

NO.4 Keypad description

Item	Structure	Function description
1	Display	Display
2	Program/exit	Program/exit
3	Status display interface work as status switch key, other interface work as left shift key	
4	Reserved key	
5	RUN	RUN
6	Potentiometer: refer to parameter P01.63	
7	In the mode of program, work as value change key, otherwise, UP/DOWN key, refer to parameter P01.63, P02.03, P02.04	
9	Enter	Enter
10	STOP/RESET	STOP/RESET
11	Customization key	

4.2 Indicator light description

Indicator light	Status	Function description
RUN	light on/flickering	operating /decelerating
REV	light on	reverse operation
REM	light on	remote start stop
ALM	light on	fault indication
M	light on	customization indication, default alarm indication

4.3 Display item description

Display code	Item description
F	output frequency
C	output current
U	output voltage
d	DC bus voltage
H	display value 1(P10 98)
t	display value 2(P10 99)
R	current alarm
E	current fault

NO.5 Function · Parameter Table

Function	Function	Description (setting range)	Factory default
P00.09	Parameter operation	1.parameter initialization, initialize parameters except P0.XX, in normal condition, use mode 1in itialization; 2. initialize all parameters	0
P00.10	Setting(frequency) reference F1	0:keypad P01.63 1:multi-speed 2:A1 3:A2 5:communication	0
P00.11	Setting(frequency) reference F2	5:communication	0
P00.12	setting relation selection	0:F1 1:F2 2:F1+F2 3:F1-F2 4:F1*F2/100 5:maximum value(F1,F2) 6:minimum vlue(F1,F2) 7:average value(F1,F2) 8:PID(F1,F2) * principle interpretation: set 0 choose F1 channel setting value; set 1 choose F2 channel setting value; set 2 choose the sum of F1 and F2 channel setting value; set 3 choose the difference of F1 and F2 channel setting value; set 4 choose the product of F1 and F2 channel setting value divide 100; set 5 choose larger value of F1 and F2; set 6 choose smaller value of F1 and F2; set 7 choose average value of F1 and F2; set 8 choose PID control(F1 is setting, F2 is feedback).	0
P00.13	maximum setting value	0.000~99999.000 * principle interpretation: limit setting value range. The unit of setting source is %, the maximum setting value(P00.13) stands for 100%, take maximum setting value as standard.	50.000
P00.14	motor output frequency upper limit	~1020.000Hz~1020.000Hz interpretation: motor operation frequency upper limit	55.000Hz
P00.15	multi-speed source	0~11111111 units: S1 tens: S2 hundreds: digit: S3 thousands: digit: S4 ... * P00.15: multi-speed source, select to corresponding external terminal, multi-speed refer to P00.16-P00.23. * eg: select S2, S3, S4 as valid external terminal to control multi-speed set P00.15=1110, detailed 8 segment corresponding relationship as above table	0
P00.16	multi-speed 0		0.000%
P00.17	multi-speed 1		0.000%
P00.18	multi-speed 2	~1000.000%~1000.000%	0.000%
P00.19	multi-speed 3	function: multi-speed setting, corresponding to P00.13 maximum setting percentage	0.000%
P00.20	multi-speed 4		0.000%
P00.21	multi-speed 5		0.000%
P00.22	multi-speed 6		0.000%
P00.23	multi-speed 7		0.000%
P00.24	acceleration time	0.050s~3600.000s * principle interpretation: as figure, acceleration time refer to the time from 0Hz accelerate to P00.74 motor frequency	**
P00.25	deceleration time	as figure, deceleration time refer to the time from P00.74 motor frequency decelerate to 0Hz	**
P00.26	Jog frequency	~1000.000%~1000.000% function: set jog frequency, jog command refer to P00.33	10.000%
P00.30	start command source	0:invalid 1:keypad 2:communication 3:S1 4:S2 5:S3 6:S4	1
P00.31	reverse start command source	...	0
P00.32	reverse command source	function: select command source(select keypad as command source, then reverse start command, reverse command, jog command, free stop command, safe stop command, pause command all from multi-function key of keypad)	0
P00.33	Jog command source		1
P00.34	stop command source	* reverse start command: setting value reversed, and give a start command * reverse command: setting value reversed. * jog command: jog command. Priority is higher than start command, lower than stop command.	0
P00.35	free stop command source		0
P00.36	reset command source	16 S14 S13 S12 S11 S10 S9 S8 S7 S6 7 6 5 4 3 2 1 0 S5 S4 S3 S2 S1 communication keypad invalid	1

