HY 4.0kW

Huanyang Inverter

HY Series

Application:

Metallurgy, petroleum, chemical, textile, electricity, building material, coal, medicine, food, paper making, plastic, printing, lifting, cable, washing, water supply, HVAC, sewage disposal and other industries.

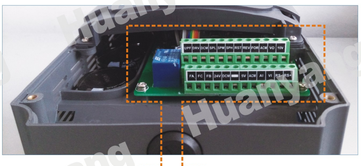
Machinery: winding machine, mixer, extruder, slitter, winder, compressor, ventilator, pump, grinder, conveyor, elevator, centrifuger and other speed control machines.

- PID control; advanced calculous PID closed-loop arithmetic, quick responding speed and high suitability;
- Easy PLC function can realize 16 legs of speed and inverter control function;
- RS485 communication port, adopting standard international MODBUS main circuit control
- With extremely strong anti-jamming capability;
- Low output ratting torque 0.5HZ-150%, low speed running ability;
- Carrier adjustable by 16KHZ, completely soundless working environment;
- Broad voltage working area, normal running in 304V-456V;
- Auto voltage regulation (AVR) technique, for ensuring the inverter load capability;
- Various control technique by both synchronization and non-synchronization, dynamically realize fast starting without changing brakes;
- With perfect error protection and short circuit starting protection capability;
- Dead-time compensation and auto torque slip compensation function, can realize 180% high orque output at low frequency 0.25Hz
- Unique EMC design, can minimize inverter's pollution to power
- Overall reinforcement layer to suit all kinds of harsh environment

Type	Input Voltage	Power (KW)	Inverter Capacity (KVA)	Output Current (A)	Suitable Motor (KW)
HY04D043B	3Φ 380V 50/60Hz	4.0	6.8	8.5	4.0

Default Voltage is 220V/380V.
Voltage can be custom-made. Please contact customer service for spucial requirement on voltage.

Control Terminal

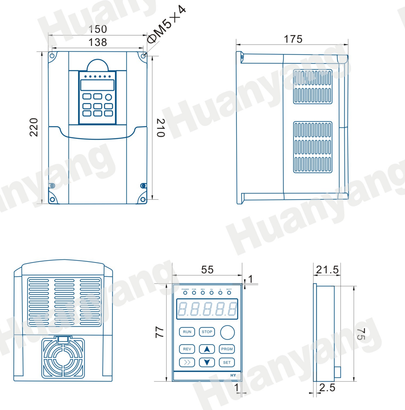


Arrangement of Control Circuit Terminals

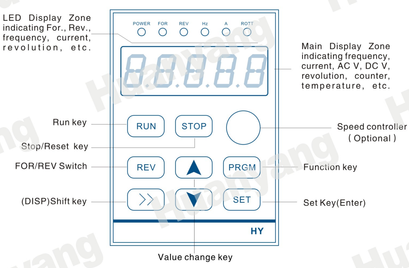
UPF	DRV	DCM	SPL	SPM	SPH	RST	REV	FOR	ACM	V0	+10V
FA	FC	FB	+24V	DCM		+5V	ACM	AI	VI	RS+	RS-

Function Description of Control Circuit Terminals

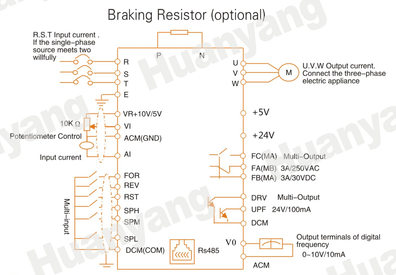
Symbol	Function Description	Factory setting
FOR	Multi-Input 1	Forward run
REV	Multi-Input 2	Reverse run
RST	Multi-Input 3	Reset
SPH	Multi-Input 4	High speed
SPM	Multi-Input 5	Middle Speed
SPL	Multi-Input 6	Low Speed
DCM (COM)	Common Terminal of Digital and Control Signals	
+10	Power Supply for Speed Setting	+10V
VI	Analog Voltage Frequency Reference Input	0-+10V corresponding to the highest operating frequency
AI	Analog Current Frequency Reference Input	4-20mA corresponding to the highest operating frequency
ACM (GND)	Common Terminal of Analog and Control Signals	
DRV	Multi-Output 1 (Optical couple output)	DC24V/100mA
UPF	Multi-Output 2 (Optical couple output)	
FA(MB) FB(MA) FC(MA)	Multi-Output 3 (N/O or N/C)	3A/250V
VO	Output terminals of digital frequency	0-10V
RS+ RS-	RS485 Communication port	



Instruction of the Digital Operator

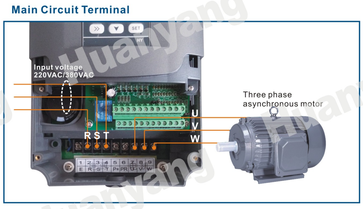


Basic Connection Diagram



Note: The above wiring diagram explanation is for reference only, take the actual product as the standard. The diagram is subject to change without notice.

Main Circuit Terminal



Optional keypad and box

Discharge resistor

200W250R

Note: If discharge resistor is required, inverter's braking function will only be available when braking unit added. Braking unit is optional. Please contact customer service when ordering.

General Specifications

Inverter Series		HY-□□
Control Mode		SPWM
Input Power		330~440Vfor 380V power; 170~250for 220V power; 50Hz/60Hz
5-Digits Display & Status Indicator Lamp		Displaying frequency, current, revolution, voltage, counter, temperature, forward or reserve running, and fault, etc.
Communication Control		RS-485
Operation Temperature		-10~40℃
Humidity		0~95% Relative Humidity (without dew)
Vibration		Below 0.5G
Frequency Control	Range	0.10~400.00Hz
	Accuracy	Digital: 0.01% (-10~40℃) , Analog: 0.1% (25 ± 10℃)
	Setting Resolution	Digital: 0.01Hz, Analog: 1‰ of Max. Operating Frequency
	Output Resolution	0.01Hz
	Operator Setting Method	Press directly →∧∨ to set
	Analog Setting Method	External Voltage 0~5V, 0~10V, 4~20mA, 0~20mA.
	Other Functions	Frequency lower limit, starting frequency, stopping frequency, three skip frequencies can be respectively set.
General Control	Ramp Control	Selectable 4-speed steps ramp-up and -down time (0.1~6500s).
	V/F Curve	Set V/F curve at will
	Torque Control	Torque increase is settable by max. 10.0%. The starting torque can reach 150% at 1.0Hz.
	Multi-Inputs	6 multi-function input terminals for 8-speed steps control, program operation, switching of 4-speed Ramp, UP、DOWN function, counter, external emergency stop and other functions.
	Multi-Outputs	5 multi-function output terminals for displaying of running, zero speed, counter, external abnormity, program operation and other information and warnings.
	Other Functions	AVR (auto voltage regulation), Deceleration stop or free-stop, DC brake, auto reset and restart, frequency track, PLC control, traverse function, drawing control, auto energy-savings, carrier adjustable by max. 20KHz, etc.
Protective Functions	Overload Protection	Electronic relay protection motor Drive (for constant torque 150%/1 min. For the kinds of fan 120%/1min.)
	FUSE Protection	FUSE broken, Motor stops.
	Over-voltage	DC Voltage > 400V for 220V class DC Voltage > 800V for 380V class
	Low Voltage	DC Voltage < 200V for 220V class DC Voltage < 400V for 380V class
	Instant Stop and Restart	Restarted by frequency track after instantaneous stop.
	Stall Prevention	Anti-stall during Acc/Dec run
	Output End Shorts	Electronic circuit protecting
	Other Functions	Fin over-heat protection, restriction of reverse running, direct start after power on, fault reset, parameter lock PID, one-drive-more, etc.

Size:27.5×20.5×23cm
Gross Weight:2.8kg