

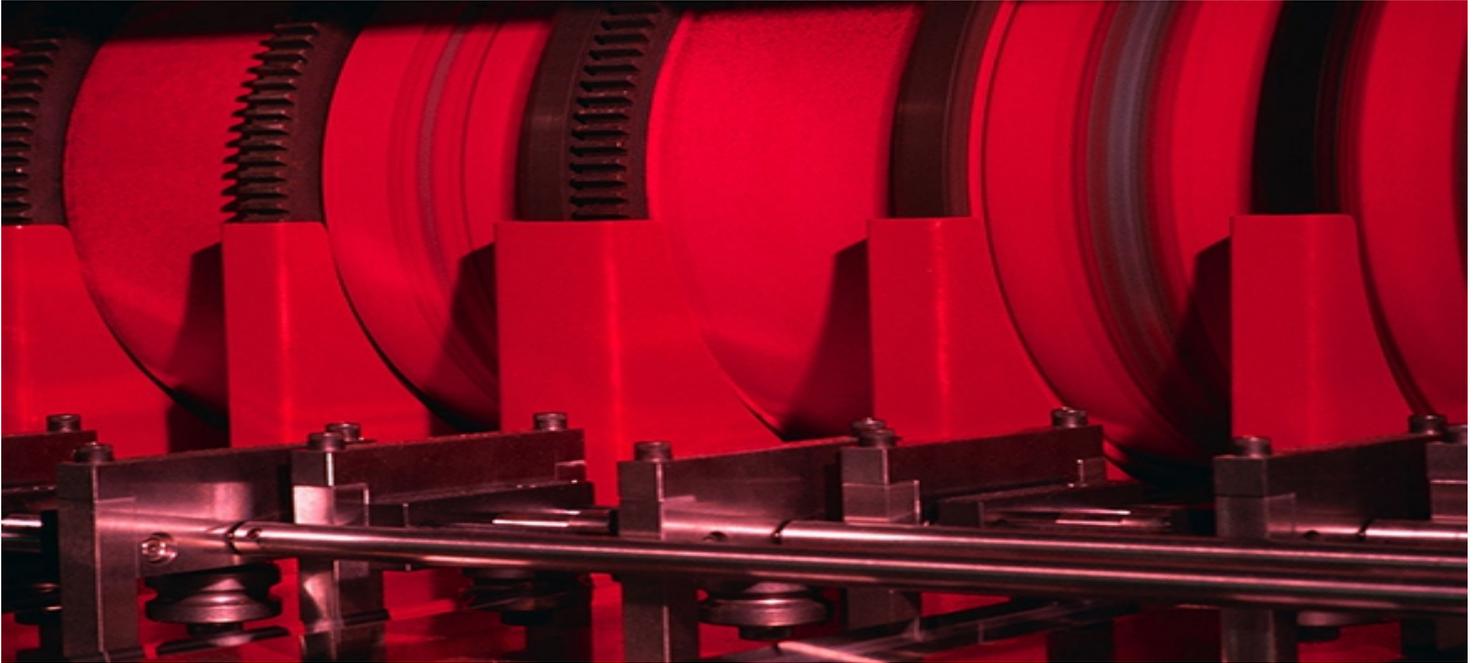


## HV390

### Mini Design Inverter

*For applications which need tiny installation space*

# Mini Design Inverter HV390



## About HNC Electric

HNC Electric is an automation & drive focused global company, providing global customers with control, display, drive and system solutions & other related products and services, under the support of its excellent electrical and electronic technology as well as strong control technical force.

HNC Electric listen and understand our clients requirement, by improving and upgrading our product functions and performance continuously , we provide and develop perfect products and solutions according to different requirement of the industry. Our products have been used and applied successfully in packing, printing, textiles, plastic injection, elevator, machine tool, robot, wood cutting, stone carving, ceramic, glass, paper making industry, crane, fan & pump, new energy resources etc.

**HNC Electric, your professional electrical partner !**

# Mini Design Inverter HV390



## Product description

- HV390 series inverter is a new generation of high performance vector control inverter developed by our company.
- The product has advanced control mode, and realizes high torque, high precision, high reliability and wide speed drive.
- The inverter built in simple PLC, PID controller, programmable input and output terminals, RS485 interface, analog input / output control function and other rich control functions.
- It provides a high degree of integration solution for equipment support, engineering transformation, automation control and special industry application.

## At a glance

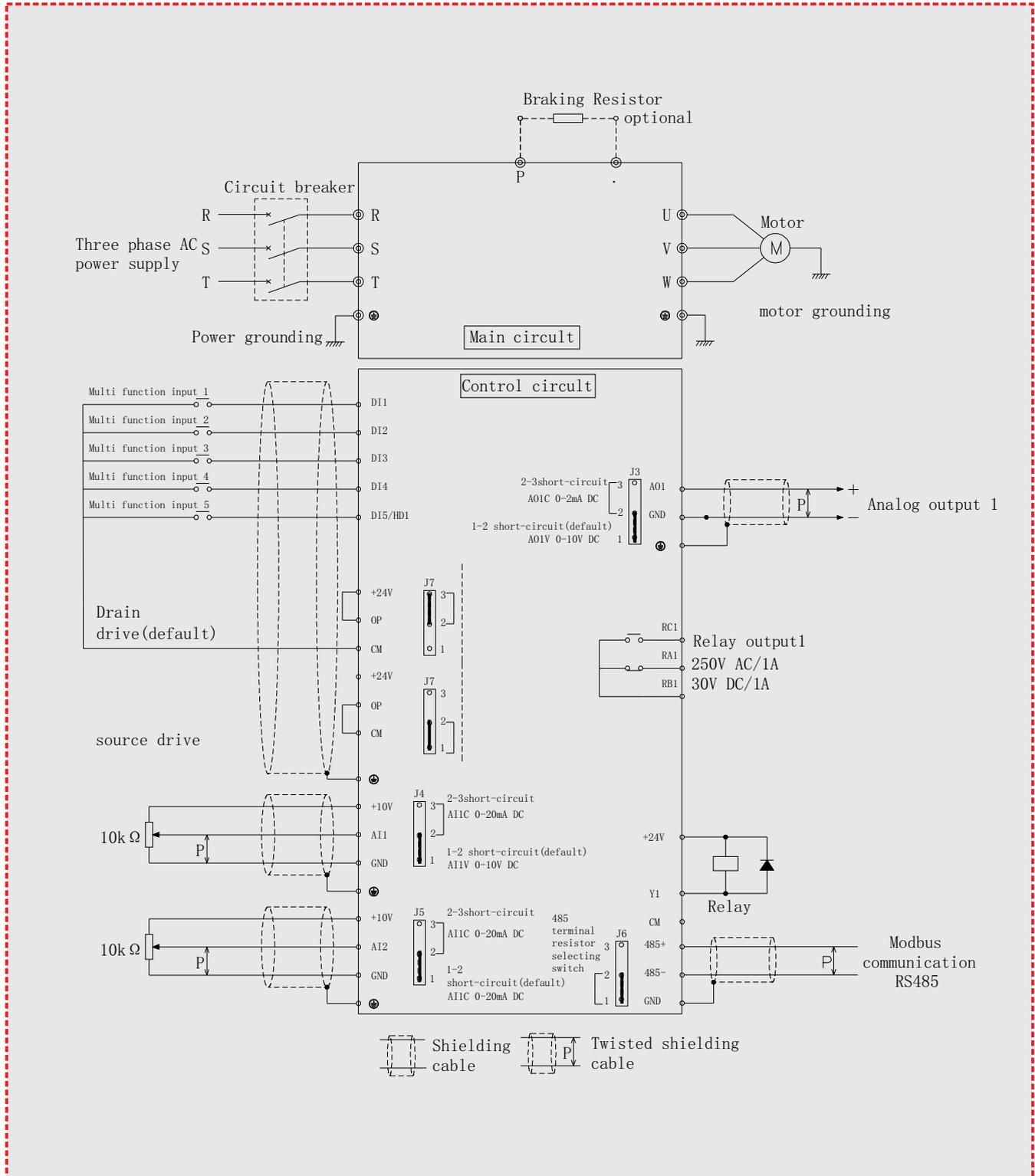
- Advanced motor control technology V/f control with different input voltage(220V single phase/220V 3 phase/380V 3 phase)
- High starting torque characteristics
- Rich and flexible I/O accesses and field bus options

## Customer benefits

- Mini design housing suitable for micro automation such as packaging machine, labeling machine, conveyor belt etc.
- Installation back mounting system can insert the inverter directly into the rack
- Programmable DI/DO/AI/AO as well as RS485 Modbus RTU make easy communication with other devices
- All product type integrate force-cooling fan and braking unit
- Integrated PID function support most of water supply applications
- Integrated multi-speed function support most of textile applications

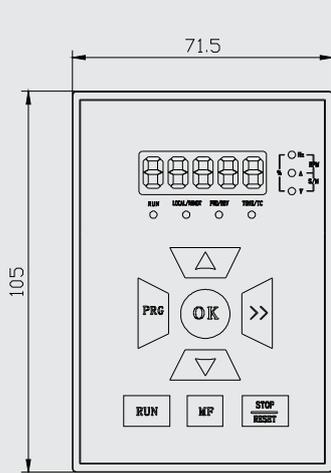
# Mini Design Inverter HV390

## Connection Diagram

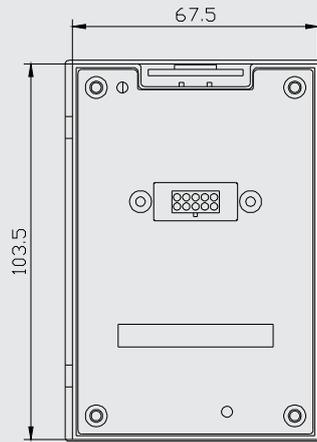
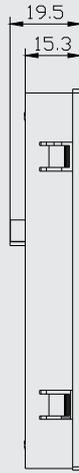


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## Dimensional Drawing



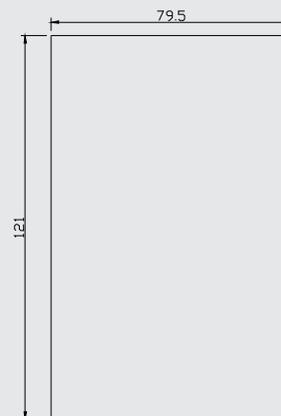
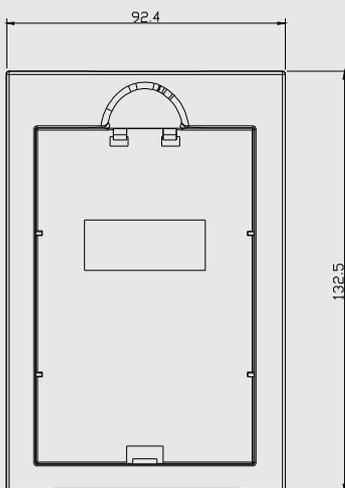
Keyboard (HV390-DP01)



Rear view of Keyboard

The shape and mounting dimensions of the operating panel (unit : mm)

HV390-DP03 is the operation panel to install plate cabinet use, its shape and size are as follows:



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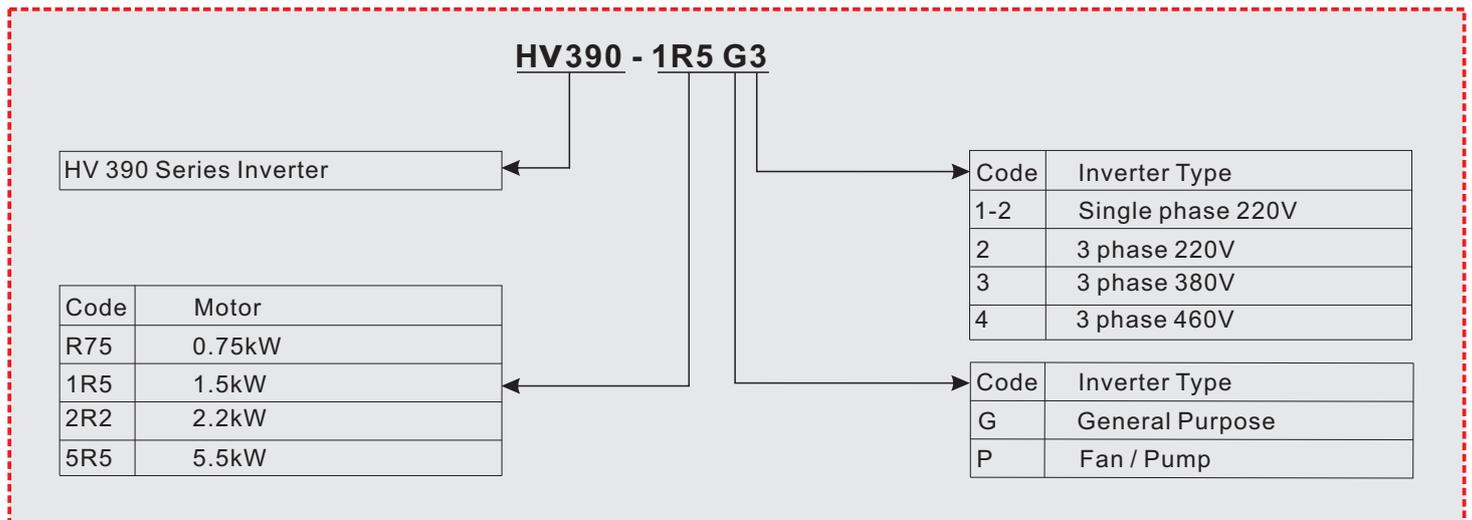
## Specification

Item		Specifications
Power	Voltage frequency	single-phase 220V、 50/60Hz, three-phase 380V 50/60Hz
	Allowable fluctuation	voltage : $\pm 15\%$ , frequency : $\pm 5\%$
	Frequency range	0-600Hz
Control performance	Output frequency precision	The maximum frequency value $\pm 0.1\%$
	Output frequency resolution	Operate keyboard top and bottom keys : 0.01Hz Potentiometer analog input: 0.2Hz
	Run command given mode	The keyboard is given; the external terminal is given; the serial port is given by the host computer
	carrier frequency	2.0-12.0KHz
	Torque boost	0~20.0% adjustable, optional v/f curve optional
	Overload capacity	150% rated output current 1 minute, 180% rated output current 2 second
	Acceleration and deceleration time	0.1~3600 second
	Rated output voltage	Using the power supply voltage compensation function, the motor rated voltage is 100%, which can be set in the range of 50-100% (the output can not exceed the input voltage)
	AVR adjustment function	When the network voltage fluctuates, the output voltage fluctuation is very small and almost constant V/F
	Standard feature	PID control, acceleration and deceleration time is adjustable, variable deceleration mode, carrier frequency, torque, current limiting, power off, restart, jump frequency control, lower frequency running, multi speed, swing frequency, RS485, analog output, fault slip compensation, automatic reset
	Braking	Energy consumption braking, DC braking
	Frequency setting input	Keyboard digital setting, external terminal AI1 (0-10V/0-20mA switchable), AI2 (0-10V/0-20mA switchable), RS485 and signal combination and terminal selection
	Signal feedback input	External terminal AI1 (0-10V/0-20mA switchable), AI2 (0-10V/0-20mA switchable), RS485
	Input instruction signal	Start, stop, reverse, inching, multi segment speed, free parking, reset, acceleration and deceleration time selection, frequency setting, channel selection, external fault alarm, etc.
External output signal	Relay output, collector output, 0-10V output, 4-20mA output	
Protective function	Overvoltage, undervoltage, overcurrent, current limit, overload, overheating, electronic thermal overload relay, overvoltage stall, data protection, etc.	

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Item		Specifications
Display	Four digit display (LED)	15 kinds of parameters, such as frequency setting, output frequency, output voltage, output current, motor speed, output torque, digital value terminals, program menu parameters and 33 kinds of Fault codes
	indicator lamp (LED)	Run/stop status, etc.
Operating environment	Environment	Inside, low than 1000m, free from dust, corrosive gas and direct sunlight
	Ambient temperature	-10°C~+40°C ( bare machine -10°C~+50°C) , 20%~90%RH (no condensing)
	Vibration	less than 0.5g
	Storage temperature	-25°C~+65°C
	Installation	Wall mounted or surface mounted inside a cabinet
Protection class		Ip20
Cooling		forced air cooling

## Model Definition



# Mini Design Inverter HV390

Voltage class	Inverter model	Outline and mounting dimension (mm)						Weight (kg)
		W	D	H	W1	H1	Mounting hole d	
single phase 220V	HV390-R40G1-2	78	188	126	55	178	4	1.5
	HV390-R75G1-2							
	HV390-1R5G1-2							
three phase 220V	HV390-R40G2	78	188	126	55	178	4	1.5
	HV390-R75G2							
	HV390-1R5G2							
three phase 380V	HV390-R40G3	78	188	126	55	178	4	1.5
	HV390-R75G3							
	HV390-1R5G3							
	HV390-2R2G3							
	HV390-004G3	96	225	137	65	215	4	1.5
	HV390-5R5G3							
three phase 460	HV390-R40G4	78	188	126	55	178	4	1.5
	HV390-R75G4							
	HV390-1R5G4							
	HV390-2R2G4							
	HV390-004G4	96	225	137	65	215	4	2
	HV390-5R5G4							



**Thanks for choosing HNC product.**

Any technique support, please feel free to contact our support team  
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