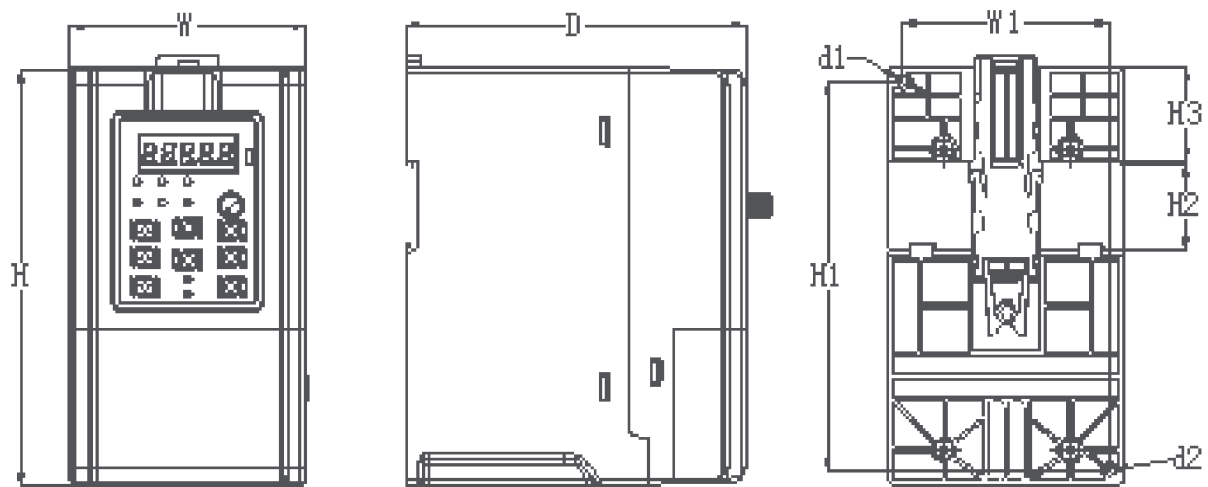


Product Installation Dimension

F1-1~F2-2 Structure Dimension Diagram



Frame	External and installation dimensions (mm)									Weight (Kg)
	W	H	D	W1	H1	H2	H3	d1	d2	
F1-1	75	150	120	65	140	35	38.5	4.5	4.5	0.95
F1-2	93	171	132	82	160	35	39	4.5	4.5	1.46

Electric Specification

Input Power	Model No.	Motor Power (kW)	Power Capacity (kVA)	Input Current (A)	Output Current (A)	Frame	Dimension (W*H*D) (mm)
220V AC 1 Phase	FR150A-2S-0.2B	0.2	0.5	4.9	1.6	F1-1	75*150*120
	FR150A-2S-0.4B	0.4	1.0	6.5	2.5		
	FR150A-2S-0.7B	0.75	1.5	9.3	4.2		
	FR150A-2S-1.5B	1.5	3.0	15.7	7.5	F1-2	93*171*132
	FR150A-2S-2.2B	2.2	4.0	24	9.5		
380V AC 3 Phase	FR150A-4T-0.7B	0.75	1.5	3.4	2.5	F1-1	75*150*120
	FR150A-4T-1.5B	1.5	3.0	5.0	4.2		
	FR150A-4T-2.2B	2.2	4.0	5.8	5.5	F1-2	93*171*132
	FR150A-4T-4.0B	4	6.0	11	9.5		

FRECON



FR150A Series
Multifunctional Inverter



FRECON

FRECON ELECTRIC (SHENZHEN) CO.,LTD

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Frecon Website



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202004(V1.0)



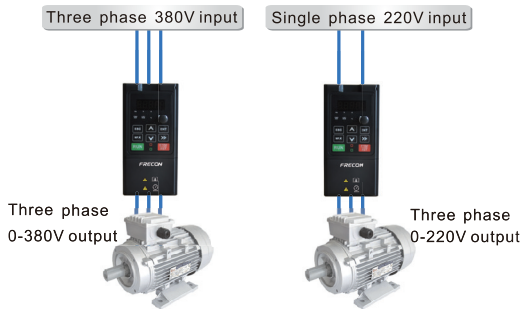
FRECON ELECTRIC (SHENZHEN) CO.,LTD.

FR150A Series Summary

FR150A series multifunctional inverter is a product developed on the latest technology platform of FRECON, with advanced control modes for high torque, high precision, high reliability, and wide-speed drive. The FR150A features multifunctional control such as built-in PID, simple PLC, programmable input and output terminals, RS485, analog input and output etc, ideal for equipment matching, engineering reconstruction, automation control and other special industry applications.

Suitable for Several Types of Motor

Standard application wiring



Three phase 380V asynchronous motor Three phase 220V asynchronous motor

Special application wiring

(✕ Please contact factory if using below application wiring)

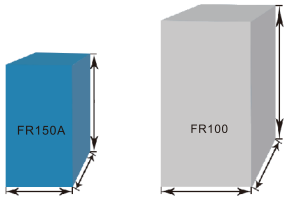


Single phase 220V asynchronous motor

Leading Technology Platform and Optimized Structural Design

Latest technology platform

More compact design for saving installation space, maximum volume reduced by 50%



Volume reduced by 50%



Common DC Bus

Multiple FR150A units can be connected in parallel to share regenerative braking energy, thus the power of braking resistor can be reduced or cancelled.

Built-in Braking Unit in All Ratings

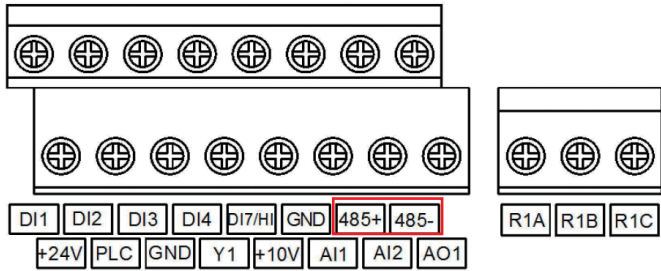
Only connect braking resistor to save cost

Rich Protection Functions

Comprehensive protection to ensure reliable operation

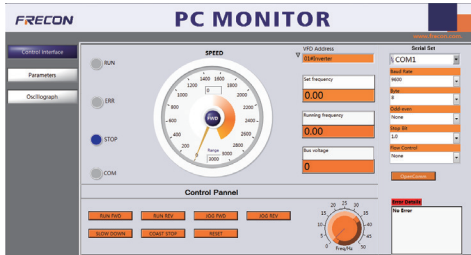
Built-in RS485 Communication (Modbus)

RS 485 terminals, support standard Modbus RTU communication for system integration



Convenient Debugging

Powerful background software



Short-cut menu

Common parameters setting rapidly to save customer's time

Customized application macro according to industry demand

Technical Parameters

Input Power	Item	Specification
	Rated input voltage (V)	Single phase 220 V (-15% ~ +20%) Three phase 380 V (-15% ~ +30%)
	Rated input frequency (Hz)	50Hz/60Hz, ±5%
Output Power	Rated output voltage (V)	0 ~ Rated input voltage, Error<±3
	Rated output frequency (Hz)	0.00~600.00 Hz, Units: 0.01Hz
Control Characteristic	Control mode	V/F control Sensor-less vector control 1 Sensor-less vector control 2
	Speed range	1:50 (V/F control) 1:100 (sensor-less vector control 1) 1:200 (sensor-less vector control 2)
	Speed accuracy	±0.5% (V/F control) ±0.2% (sensor-less vector control 1 & 2)
	Speed fluctuation	±0.3% (sensor-less vector control 1 & 2)
	Torque response	< 10ms (sensor-less vector control 1 & 2)
	Starting torque	0.5Hz: 180% (V/F control, sensor-less vector control 1) 0.25Hz: 180% (sensor-less vector control 2)
Basic functions	Carrier frequency	0.7kHz ~ 16kHz
	Overload capability	150% Rated current 60s 180% Rated current 10s 200% Rated current 1s
	Torque boost	Automatic torque boost Manual torque boost 0.1% ~ 30.0%
	V/F curve	Three ways: Straight Multi-point type N Th-type V/F curve
	Acceleration and deceleration curve	Line or curve acceleration and deceleration mode Four kinds of acceleration and deceleration time, Ramp time range: 0.0~6000.0s
	DC brake	DC brake start frequency: 0.00~600.00Hz DC brake time:0.0s~10.0s DC brake current:0.0%~150.0%
Run	Command source	The control panel, control terminal, serial communication port given
	Frequency given	8 kinds of frequency sources
	Input terminal	5 switch input terminals, one way to make high-speed pulse input 2-channel analog inputs, including 1-channel voltage input, 1-channel voltage and current options
	Output terminal	1 switch output terminal, 1 relay output terminal, 1 analog output terminal
Featured functions	Parameter copy, parameter backup, flexible parameter displayed & hidden. Reliable speed search started. Timing control, fixed length control, count function, three faults recorded, overvoltage stall protection, undervoltage stall protection, restart upon power loss, Motor thermal protection, Wobble frequency control, High-precision torque control	
Protection function	Provide fault protection function: overcurrent, overvoltage, undervoltage, overtemperature, overload etc. protection	
Environment	Place of operation	Indoors, no direct sunlight, free from dust, corrosive gases, flammable gases, oil mist, water vapor, water drop and salt, etc.
	Altitude	0 ~ 2000m De-rate 1% for every 100m when the altitude is above 1000 meters
	Ambient temperature	-10℃ ~ 50℃
Others	Efficiency	Rated power; ≥93%
	Installation	Wall-mounted or Flange mounting
	IP grade	IP20
	Cooling method	Fan cooled