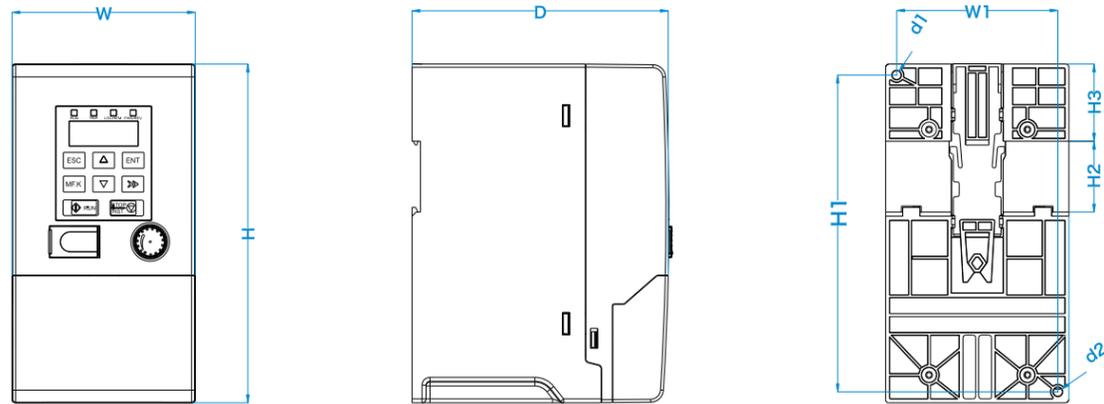


Product Installation Dimension

Frame Structure Dimension Diagram



Frame	External and installation dimensions (mm)									Weight (Kg)
	W	H	D	W1	H1	H2	H3	d1	d2	
F1-1	75	150	117	65	140	35	38.5	4.5	4.5	1.1
F1-2	93	171	130	82	160	35	39	4.5	4.5	1.5

Electric Specification

Input Power	Model No.	Motor Power (kW)	Power Capacity (kVA)	Input Current (A)	Output Current (A)	Frame	Dimension (W*H*D) (mm)
220VAC 1~	FR150-2S-0.2B	0.2	0.5	4.9	1.6	F1-1	75*150*117
	FR150-2S-0.4B	0.4	1.0	6.5	2.5		
	FR150-2S-0.7B	0.75	1.5	9.3	4.2		
	FR150-2S-1.5B	1.5	3.0	15.7	7.5	F1-2	93*171*130
	FR150-2S-2.2B	2.2	4.0	24	9.5		
380VAC 3~	FR150-4T-0.7B	0.75	1.5	3.4	2.5	F1-1	75*150*117
	FR150-4T-1.5B	1.5	3.0	5.0	4.2		
	FR150-4T-2.2B	2.2	4.0	5.8	5.5	F1-2	93*171*130
	FR150-4T-4.0B	4	6.0	11	9.5		

FRECON

FRECON ELECTRIC (SHENZHEN) CO.,LTD

Add : 2nd, No.3 Zhenbao Industrial Zone, No.137 Shiyan Road, Shiyan Street, Bao'an, Shenzhen, China

Tel : 0755-33067999

Fax : 0755-33067186

E-Mail : overseas@frecon.com.cn

Web : www.frecon.com.cn



Frecon Website



WeChat ID

20190823 (V1. 1)

FRECON



FR150 Series

Multifunctional Drive



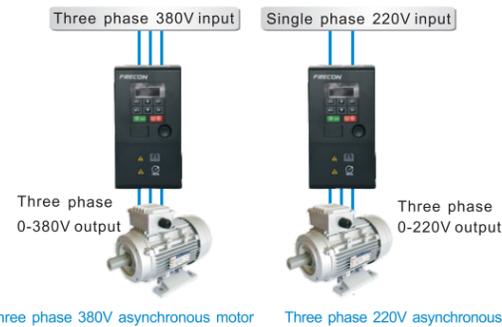
FRECON ELECTRIC (SHENZHEN) CO.,LTD.

FR150 Series Summary

Fr150 series multifunctional drive 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 FR150 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



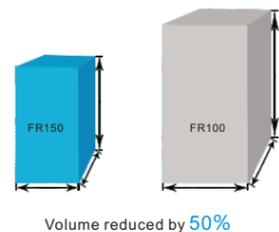
➤ Special application wiring

(✗ Please contact factory if using below application wiring)



Optimized Structural Design, Leading Technology Platform

➤ Compare with previous generation products of the same power, the size of FR150 series is smaller, greatly saves the installation space, it's convenient to layout the electronic control device.



Common DC Bus

➤ Multiple FR150 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

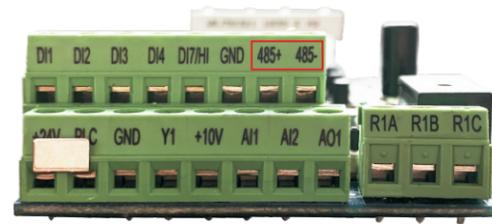
➤ Only connect braking resistor to save cost

Rich Protection Functions

➤ Comprehensive protection to ensure reliable operation

Built-in RS485 Communication(Modbus)

➤ 485+ 485- terminals, supports standard Modbus RTU communication, implement system integration



Convenient Debugging

➤ Powerful background software



➤ Short-cut menu
Common parameters setting rapidly to save customer's time to read manual

➤ Design special application macro according to industry demand

Technical Parameters

	Item	Specification
Input Power	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; NTh-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%
	Command source	Given the control panel, control terminal, serial communication port given.
Run	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-way voltage input, one way voltage and current options
	Output terminal	1-way switch output terminal, 1 relay output terminals, 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、Over excitation brake、overvoltage stall protection programmable、under voltage stall protection、programmable、restart upon power loss、Motor thermal protection、Wobble frequency control、High-precision torque control	
Protection Functions	Provide fault protection dozen: Over current、Overvoltage、Under voltage、Over temperature、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°C ~ 50°C
Others	Efficiency	Rated power; ≥93%
	Installation	Wall-mounted or Flange mounting
	IP grade	IP20
	Cooling method	Fan cooled