

Smart Inverter

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ABOUT US

FRECON Electric (Shenzhen) Co., Ltd. is a national key high-tech enterprise, a dual-soft enterprise in Shenzhen, and a professional company in the fields of industrial automation, high efficiency and energy saving, and green new energy which was founded in 2013. We have more than 16 years of experience in the development and application of frequency converters, servo drives, energy-saving control cabinets, solar inverter systems etc.





FR01 Series Summary

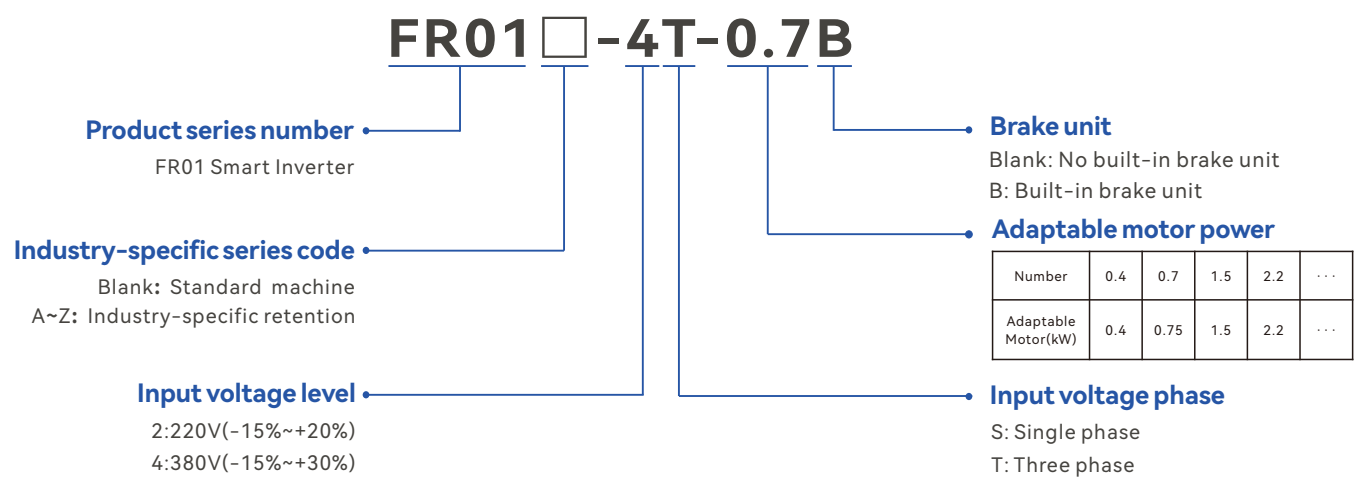
FR01 series is FRECON new design smart inverter. With flexible design, compact structure, easy to use, multiple functions, built-in SVC and VF control, can be widely used in fans, water pumps, food, wooden, transmission etc. applications.



Features

- Book-type narrow body design, small size
- Independent air duct design, high protection
- Parameter setting is time-saving and efficient
- Electronic jumper design, convenient and easy to use
- Detachable keypad design, multi-scenario application
- Compatible with standard rail installation, easy to install
- Installed side by side at zero distance, high space utilization
- Enhanced conformal coating to adapt to harsh environments

Model Description



Electric Specification

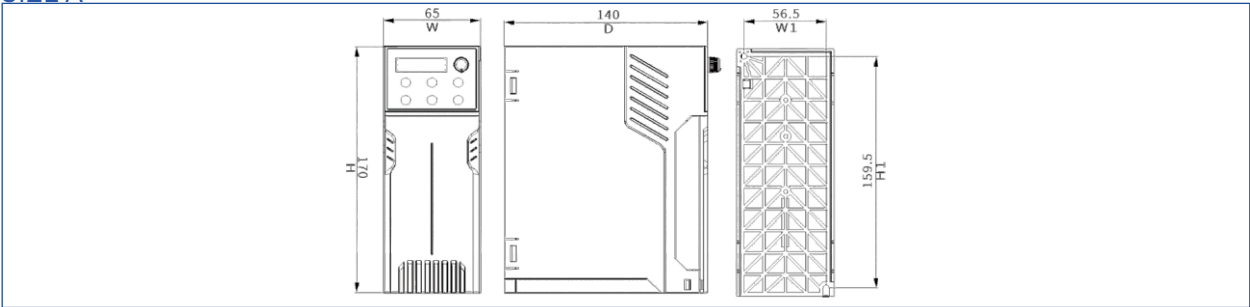
Model	Power Capacity KVA	Rated input current A	Rated output current A	Adapted Motor	
				kW	HP
Single phase: 220V, 50/60Hz Range: -15% ~ +20%					
FR01-2S-0.4B-H	1.0	6.5	2.5	0.4	0.5
FR01-2S-0.7B-H	1.5	9.3	4.2	0.75	1.0
FR01-2S-1.5B-H	3.0	15.7	7.5	1.5	2
FR01-2S-2.2B-H	4.0	24	9.5	2.2	3
FR01-2S-4.0B-H	6.0	30	17	4.0	5
Three phase: 380V, 50/60Hz Range: -15% ~ +30%					
FR01-4T-0.4B-H	1.0	2.5	1.6	0.37	0.5
FR01-4T-0.7B-H	1.5	3.4	2.5	0.75	1
FR01-4T-1.5B-H	3.0	5.0	4.2	1.5	2
FR01-4T-2.2B-H	4.0	5.8	5.5	2.2	3
FR01-4T-4.0B-H	6.0	11	9.5	4	5
FR01-4T-5.5B-H	8.9	14.6	13	5.5	7.5
FR01-4T-7.5B-H	11	20.5	17	7.5	10

Technical Parameters

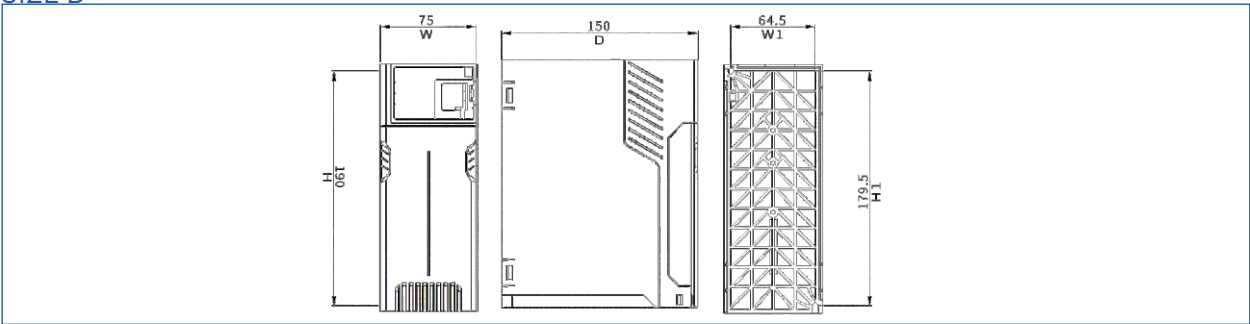
Item		Specifications
Input power	Rated input voltage (V)	1-Phase 220V (-15%~+20%) 3-phase 380V (-15%~+30%)
	Rated input frequency (Hz)	50Hz/60Hz, $\pm 5\%$
Output power	Rated output voltage (V)	0~rated input voltage, error $\leq \pm 3\%$
	Rated output frequency (Hz)	0.00~600.00 Hz, unit: 0.01Hz
Control characteristics	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 control precision	$\pm 0.5\%$ (V/F control) ; $\pm 0.2\%$ (sensor-less vector control 1 & 2)
	Speed fluctuation	$\pm 0.3\%$ (sensor-less vector control 1 & 2)
	Torque response	< 10ms (sensor-less vector control 1 & 2)
	Starting torque	0.5Hz: 150% (V/f control, sensor-less vector control 1) 0.25Hz: 150% (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 mode: 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~Max Hz DC brake time: 0.0s~10.0s DC brake current:0.0%~150.0%
Operate	Command source	Given the control panel, control terminal, serial communication port given
	Frequency given	9 kinds of frequency sources
	Input terminal	4 channel switch input terminals, one channel to make high-speed pulse input.1 channel analog inputs, 0~10V / 0~20mA voltage and current options
	Output terminal	1 channel switch output terminal 1 relay output terminals 1 analog output terminal
Protection	Provide fault protection dozen: Over-current, Over-voltage, Under-voltage, Over-temperature, Over-load Etc Protection	
Keypad	LED Display	Display Parameters
	Key lock and function selection	Realize some or all of the keys locked, scope definition section keys to prevent misuse
	Run and stop monitoring information	In the run or stop can be set to monitor U00 group 4 objects were
Environment	Operation Place	Indoors, no direct sunlight, no dust, no corrosive gases, no flammable gases, no oil mist, no water vapor, no 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~40°C(When environment temperature above 40°C, derating use)
Others	Installation	Wall-mounted or Flange mounting
	IP grade	IP20
	Cooling method	Forced air cooling

Installation Dimensions

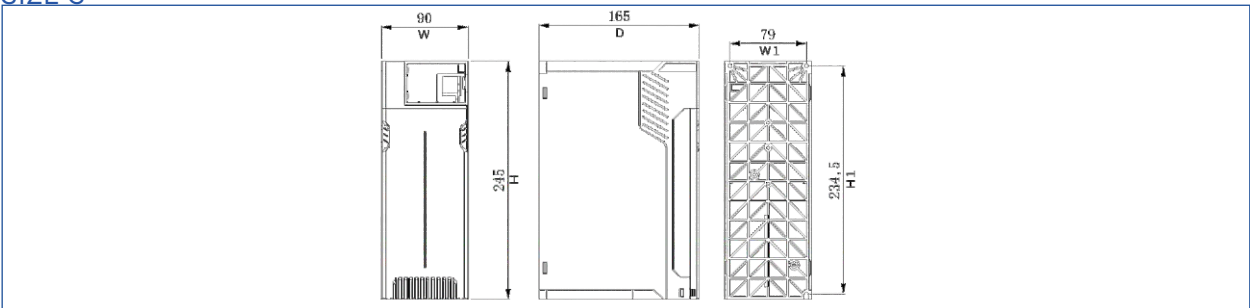
SIZE A



SIZE B

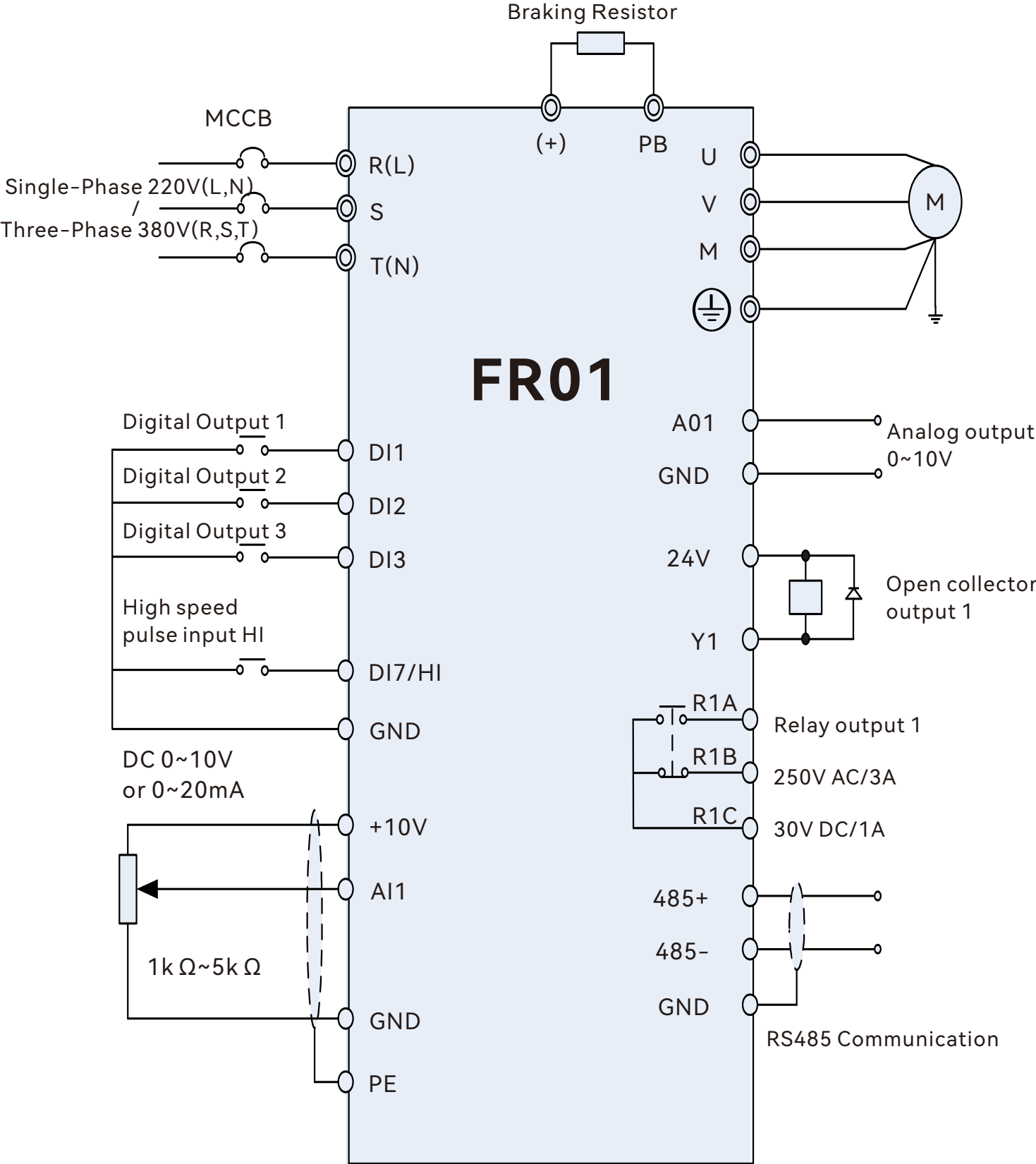


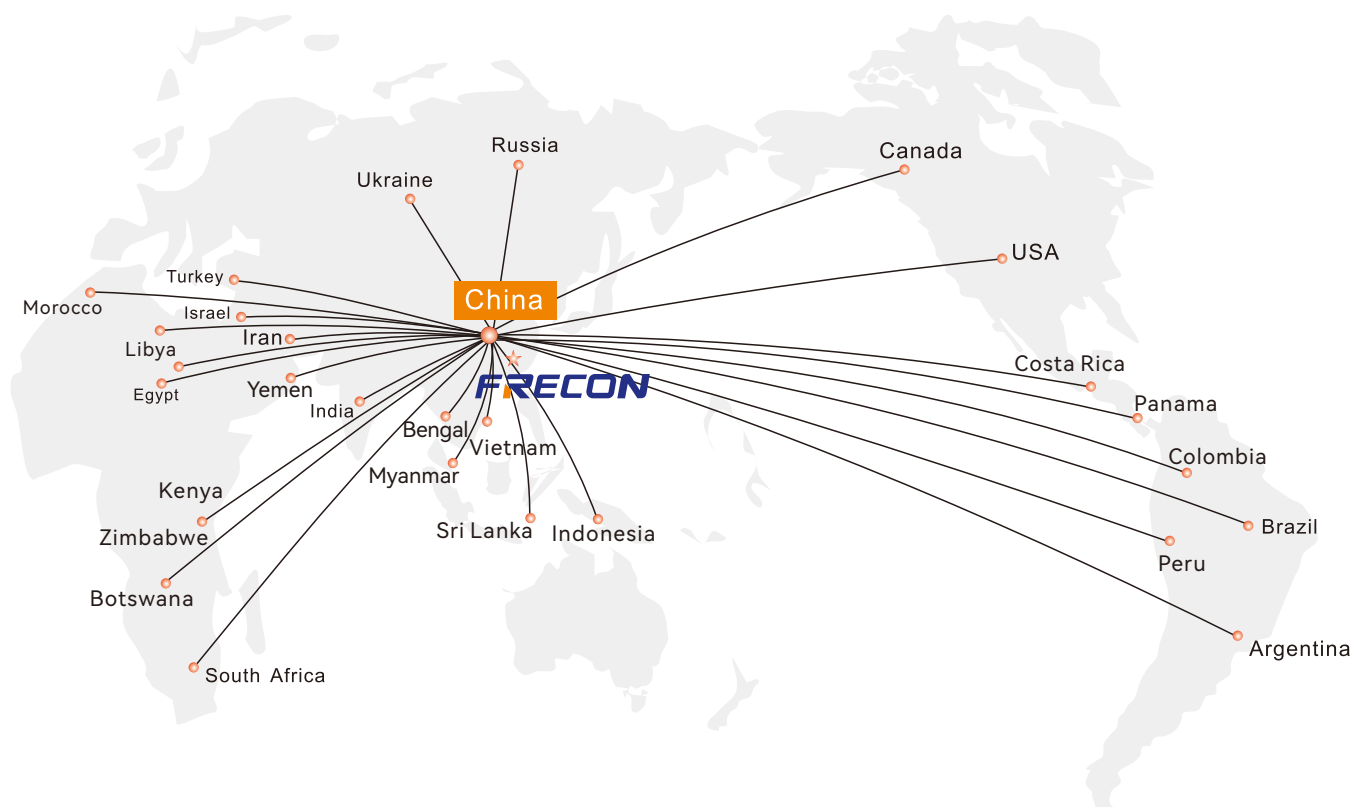
SIZE C



Structure	Inverter model	External and installation dimensions(mm)				
		W	W1	H	H1	D
SIZE A	FR01-2S-0.4B-H	65	56.5	170	159.5	140
	FR01-2S-0.7B-H					
	FR01-4T-0.4B-H					
	FR01-4T-0.7B-H					
	FR01-4T-1.5B-H					
SIZE B	FR01-2S-1.5B-H	75	64.5	190	179.5	150
	FR01-2S-2.2B-H					
	FR01-4T-2.2B-H					
	FR01-4T-4.0B-H					
SIZE C	FR01-2S-4.0B-H	90	79	245	234.5	165
	FR01-4T-5.5B-H					
	FR01-4T-7.5B-H					

Wiring Diagram





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