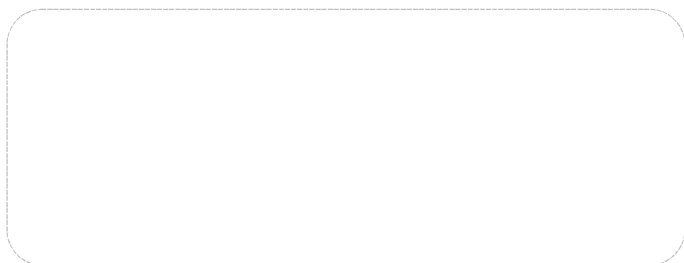




INNOVATION • DEDICATED • SERVICE • WIN-WIN



Product Selection Manual

Innovation Dedicated Service Win-win



FRECON ELECTRIC (SHENZHEN) CO.,LTD

Addr: Floor3,Block C,F&D technology Park Baoan

Road Baoan District,Shenzhen,China

Tel: (+86)-0755-33067999

Fax: (+86)-0755-33067186

E-mail: frecon@frecon.com.cn

[Http://www.frecon.com.cn](http://www.frecon.com.cn)



Frecon official site

WeChat ID
2016(V1.1)



FRECON ELECTRIC (SHENZHEN) CO.,LTD.



About Us

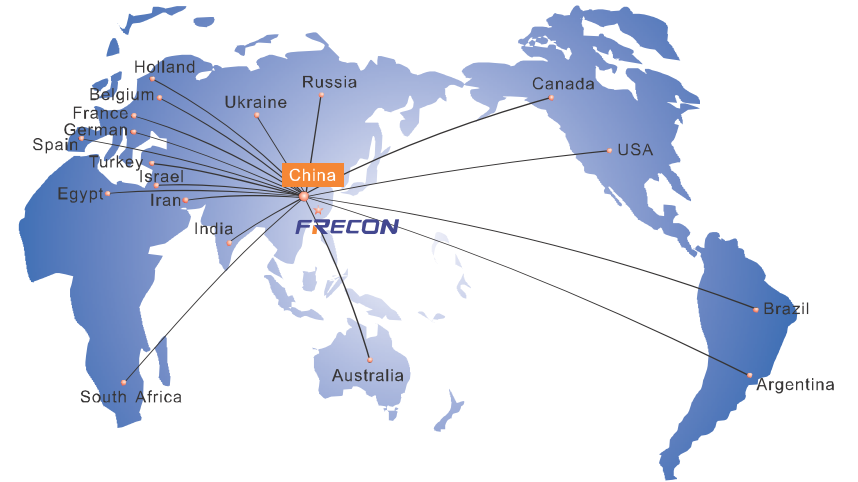
CANTON SINO INTERNATIONAL LIMITED, established in the year of 2001, business refer to design and production of telecommunications, electric, and clothing. Group has 3 R&D centers, 5 MFG centers, 30 agents, about 2,600 staffs, turnover of 2015 exceeds 300 million dollars.

FRECON Electric (Shenzhen) Co., Ltd. is subsidiary of CANTON SINO INTERNATIONAL LIMITED, locates in F&D technology Park Baoan Road Baoan District, Shenzhen, China, the "double soft enterprise" certified by Shenzhen Government (software enterprises qualified for a double-layered certification, which consists of software enterprise certification and national software product registration), the key high-tech enterprise supported by National, the professionalized enterprise in the field of industrial automation, energy-efficient, green energy. Our R&D team has more than 12 years experience in developing Frequency Inverters, Servo Drives, Saving Cabinet, New Energy and other drive control systems; products power range 0.2KW~1MW. Our products conformed to EU Safety Standard requirements in EMC and Safety Regulations and got CE certified. And also obtained dozens of patents like Inventions, Utility models, Product appearance, Software copyright, etc. in independent intellectual property. Quality system strictly compliance with ISO9001:2008 standards, fully confirming products coming with leading technology and reliable quality. Products are widely used for equipment manufacture and energy-saving projects, mainly covers elevator, petroleum, chemical, steel, ceramics, air compressors, textile, drawing machine, machine tools, solar energy and other fields.

FRECON established five regional logistic centers in East China (Wuxi), South China (Shenzhen), North China (Beijing), Southwest China (Chongqing), Northeast China (Shenyang) and a dozens of agents all over the country, and built national coverage logistic and service network. FRECON also has many local partners with many years of cooperation in Russian, India, Vietnam, Iran, etc..



Service Network



Company Honor



China's leading brand and solution provider



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General Purpose Inverter



- FR300 Series Close Loop Vector Control Inverter
- FR200 Series Vector Control Inverter
- FR100 Series Multi-functional Inverter
- FR600 Series 550VAC/690VAC Vector Control Inverter
- FR3000 Series General Purpose Medium Voltage Inverter



FR300 Series
Close Loop Vector Control Inverter



Three Phase 220V 0.75kW ~ 75kW
Three Phase 380V 0.75kW ~ 710kW

Applications

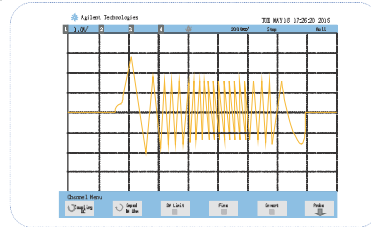
FR300 series inverters use advanced customized design concept, choose new generation of IGBT module, adopt advanced close-loop vector control arithmetic, strong overload output capacity, meet industry clients' requirements of high performance and high reliability.



General Purpose Inverter

High Precision of Speed Stabilizing, Wide Range of Speed Governing

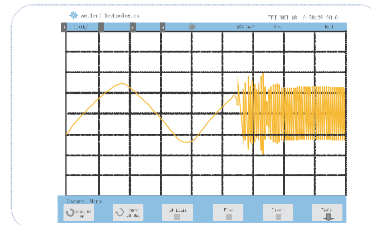
- Speed Control Accuracy : ± 0.05%
- Speed Control Range : 1:1000
- Torque Control Response : < 50ms
- Starting Torque : 180% Rated Torque/0Hz



Quick Start-Stop Oscillogram

Unique Control

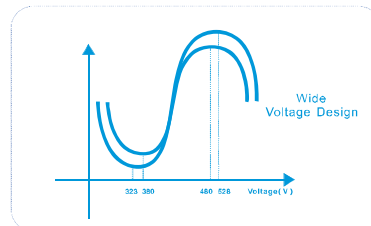
- Overexcitation function
- No downtime when instantaneous power failure
- Achievable for half-separation function of V/F control
- Drivable of many kinds of motors, general asynchronous motor and synchronous motor
- Perfect protection function: nearly 20 kinds of protections such as the input and output default phase protection, short circuit protection, etc.



Low-frequency Current Oscillogram

Torque Control

- Flexible adjustment between torque control/speed control
- Multi-torque given mode



Wide Voltage Design

Rich Encoder Card

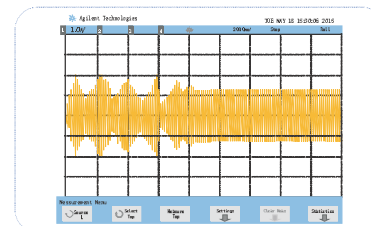
- Fitting OC, Push-pull, Difference and other types of encoders

Perfect Protection

- Protection design of over-voltage, over-current, under-voltage, IGBT short circuit, time-reserve overload, etc; can supply safety-guard under circumstances of load short circuit or grounding

Unique Dead-time Compensation

- Guarantee a steady torque output on low-frequency



Oscillation Suppression Oscillogram

Model No. and Electric Spec

FR300 - 4 T - 2.2 B

Brake Unit
B : Built-in Brake Unit

Motor Power

0.7: 0.75kW

1.5: 1.5kW

2.2: 2.2kW

.....

630: 630kW

Input Voltage Phase

S: Single Phase

T: Three Phase

Input Voltage Level

2: 220V(-15% ~ +30%)

4: 380V(-15% ~ +30%)

Close-loop Vector Control Inverter series

Main Power Voltage	Model No.	Motor Power (kW)	Power Capacity (kVA)	Input Current (A)	Output Current (A)	Size of the Case	Dimension (W*H*D) (mm)
Three Phase 220VAC	FR300-2T-0.7B	0.75	3.5	5.3	5	F2-1	117*187*160
	FR300-2T-1.5B	1.5	5.5	8.5	8	F2-2	146*249*177
	FR300-2T-2.2B	2.2	7.5	11.6	11		
	FR300-2T-4.0B	4	11.7	18	17		
	FR300-2T-5.5B	5.5	17.3	26.5	25	F2-3	198*300*185
	FR300-2T-7.5B	7.5	22	33.5	32		
	FR300-2T-011B	11	31	47.5	45	F2-4	255*459*220
	FR300-2T-015B	15	41.5	63	60		
	FR300-2T-018	18.5	52	79	75	F2-5	270*590*260
	FR300-2T-022	22	63	96	91		
	FR300-2T-030	30	77.5	118	112	F2-6	357*590*260
	FR300-2T-037	37	104	158	150		
	FR300-2T-045	45	122	185	176	F2-7	430*829.5*293
	FR300-2T-055	55	145	221	210		
FR300-2T-075	75	173	263	250			

Main Power Voltage	Model No.	Motor Power (kW)	Power Capacity (kVA)	Input Current (A)	Output Current (A)	Size of the Case	Dimension (W*H*D) (mm)
Three Phase 380VAC	FR300-4T-0.7 B	0.75	1.5	3.4	2.5	F2-1	117*187*160
	FR300-4T-1.5 B	1.5	3	5.0	4.2		
	FR300-4T-2.2 B	2.2	4	5.8	5.5		
	FR300-4T-4.0 B	4.0	6	11	9.5	F2-2	146*249*177
	FR300-4T-5.5 B	5.5	8.9	14.6	13		
	FR300-4T-7.5 B	7.5	11	20.5	17		
	FR300-4T-011 B	11	17	26	25	F2-3	198*300*185
	FR300-4T-015 B	15	21	35	32		
	FR300-4T-018 B	18.5	24	38.5	37	F2-4	255*459*220
	FR300-4T-022 B	22	30	46.5	45		
	FR300-4T-030 B	30	40	62	60		
	FR300-4T-037	37	57	76	75	F2-5	270*590*260
	FR300-4T-045	45	69	92	91		
	FR300-4T-055	55	85	113	112	F2-6	357*590*260
	FR300-4T-075	75	114	157	150		
	FR300-4T-090	90	134	160*	176	F2-7	430*829,5*293
	FR300-4T-110	110	160	190*	210		
	FR300-4T-132	132	192	232*	253		
	FR300-4T-160	160	231	282*	304	F2-8	500*1107*328
	FR300-4T-185	185	240	326*	350		
	FR300-4T-200	200	250	352*	377		
	FR300-4T-220	220	280	385*	426	F2-9	660*1160*340
	FR300-4T-250	250	355	437*	470		
	FR300-4T-280	280	396	491*	520		
FR300-4T-315	315	445	580*	600	F2-10	810*1540*400	
FR300-4T-355	355	500	624*	650			
FR300-4T-400	400	565	690*	725			
FR300-4T-450	450	623	765*	800	F2-11	1200*1900*480	
FR300-4T-500	500	670	835*	860			
FR300-4T-560	560	770	960*	990			
FR300-4T-630	630	855	1050*	1100			

General Purpose Inverter

General Purpose Inverter

✕ Electric Spec is the same with FR200



Three Phase 220V 0.75kW ~ 75kW
Three Phase 380V 0.75kW ~ 710kW

Applications

FR200 series inverters use advanced customized design concept, choose new generation of IGBT modules, adopt leading open-loop vector control arithmetic, strong overload output capacity, meet industry clients' requirements of high performance and high reliability

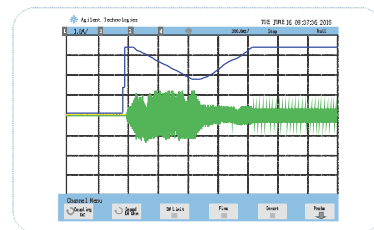


High Performance SVC Control Mode

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Various Control Modes Under Vector Control

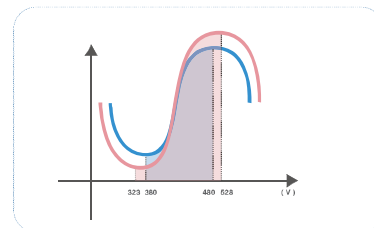
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Speed tracing output frequency and Current Oscillogram

Optimized Structure Design, Excellent Technical Performance

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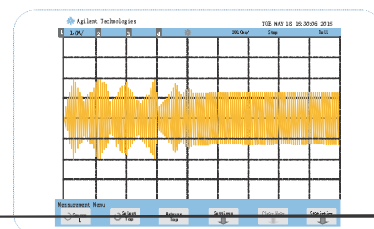


User Menu Self-defined

- Common Parameters can be mapped to user parameters F17 group, and then operating F17 group can help to achieve common operating parameters process PID

Particular Oscillator Suppression

- Mechanical resonance point,
No need frequency hopping



Higher Product Power Grade

- Product power grade reaches 710kW

FR200 - 4

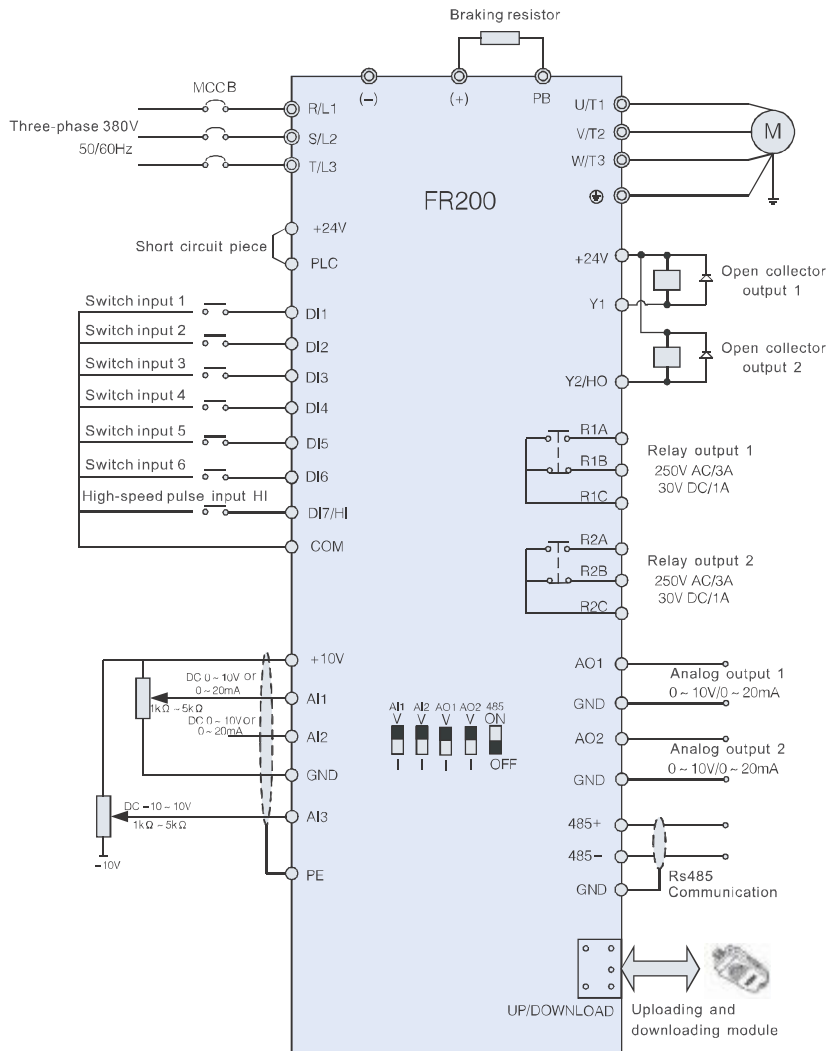
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Main Power Voltage	Model No.	Motor Power (kW)	Power Capacity (kVA)	Input Current (A)	Output Current (A)	Size of the Case	Dimension (W*H*D) (mm)
Three Phase 380VAC	FR200-4T-0.7G/1.5PB	0.75	1.5	3.4	2.5	F2-1	117*187*160
	FR200-4T-1.5G/2.2PB	1.5	3	5.0	4.2		
	FR200-4T-2.2G	2.2	4	5.8	5.5		
	FR200-4T-4.0G/5.5PB	4.0/5.5	6	11	9.5	F2-2	146*249*177
	FR200-4T-5.5G/7.5PB	5.5/7.5	8.9	14.6	13		
	FR200-4T-7.5G/011PB	7.5/11	11	20.5	17		
	FR200-4T-011G/015PB	11/15	17	26	25	F2-3	198*300*185
	FR200-4T-015G/018PB	15/18.5	21	35	32		
	FR200-4T-018G/022PB	18.5/22	24	38.5	37	F2-4	255*459*220
	FR200-4T-022G/030PB	22/30	30	46.5	45		
	FR200-4T-030G/037PB	30/37	40	62	60		
	FR200-4T-037G/045P	37/45	57	76	75	F2-5	270*590*260
	FR200-4T-045G/055P	45/55	69	92	91		
	FR200-4T-055G/075P	55/75	85	113	112	F2-6	357*590*260
	FR200-4T-075G/090P	75/90	114	157	150		
	FR200-4T-090G/110P	90/110	134	160*	176	F2-7	430*829.5*293
	FR200-4T-110G/132P	110/132	160	190*	210		
	FR200-4T-132G/160P	132/160	192	232*	253		
	FR200-4T-160G/185P	160/185	231	282*	304	F2-8	500*1107*328
	FR200-4T-185G/200P	185/200	240	326*	350		
	FR200-4T-200G/220P	200/220	250	352*	377	F2-9	660*1160*340
	FR200-4T-220G/250P	220/250	280	385*	426		
	FR200-4T-250G/280P	250/280	355	437*	470		
	FR200-4T-280G/315P	280/315	396	491*	520	F2-10	810*1140*400
	FR200-4T-315G/355P	315/355	445	580*	600		
	FR200-4T-355G/400P	355/400	500	624*	650		
	FR200-4T-400G/450P	400/450	565	690*	725	F2-11	1200*1900*480
	FR200-4T-450G/500P	450/500	623	765*	800		
FR200-4T-500G/560P	500/560	670	835*	860			
FR200-4T-560G/630P	560/630	770	960*	990			
FR200-4T-630G/710P	630/710	855	1050*	1100			

Technical Parameters

Main Power	Input Voltage	Three Phase 220VAC, ±15%~+30% , Three Phase 380VAC, ±15%~+30% ,
	Input Frequency	50Hz /60Hz, fluctuation range ± 5%
Power Output	Output Voltage	0VAC~U _{in}
	Output Frequency	0Hz~600Hz
	Frequency Resolution	0.01Hz
	Overload Capacity	150% 1min , 180% 10s , 200% 2s
Control Characteristic	Control Mode	V/F Control , No PG Vector Control 1 , No PG Vector Control 2
	Carrier Frequency	0.7kHz~16kHz
	Acce Time	0.1 s~6000.0s
	Dece Time	0.1 s~6000.0s
	Torque Boost	Auto torque boost, manually torque boost 0.1%~30.0%
Environment Conditions	DC Brake	DC Brake Frequency : 0 ~ Max.frequency; Brake Time: 0.0 ~ 10.0s; Brake Action Current Value: 0.0%~150.0%
	Environment Conditions	-10°C (Non-condensation) ~ +40°C : No Derating
	Storage Temperature	-40°C~+70°C
	Altitude	Altitude 1000m (include) lower; no derating Altitude 1000m above , 1% derating per 100m rise, Max 3000m
EMC Characteristic	Protection Grade	IP20
	Anti-interference	Conform to IEC 61800-3 No.1 and No.2 environment standard
Certificates	Radiation Level	C2 level EMC filter standard
		CE

Terminal Connection Diagram



General Purpose Inverter



FR100 Series
Multi-functional Inverter



Single Phase 220V 0.2kW ~2.2kW
Three Phase 220V 0.2kW ~2.2kW
Three Phase 380V 0.75kW ~4.0kW

General Purpose Inverter

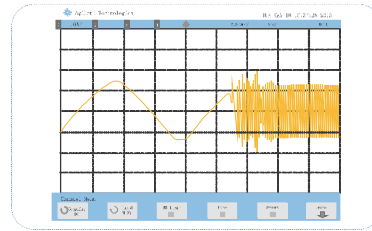
Applications

FR100 series multifunctional inverter is a compact, feature-rich, and highly cost effective model. It is suitable for electronic equipment, food packaging, wood working, treadmills and other small power transmission applications.



Optimized VF Control

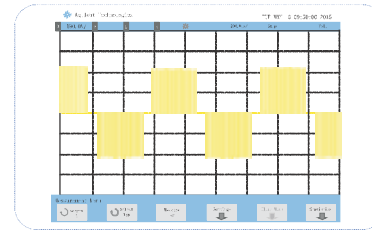
- Effectively suppress oscillations that occur during motor deceleration



Low-frequency Current Oscilloscope

Perfect Braking Scheme

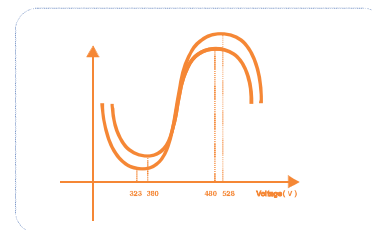
- Built-in braking unit
- Rating load downtime 0.1S



Output voltage oscilloscope

Novel Structural Design

- Compact structure, support DIN Rail mounting, can be installed in a line
- Unique colling air duct design, low temp rise relative to industry



Wide Voltage Design

Rich Function Applications

- Procedure PID
- Simple PLC
- Multi-segment Speed
- Counting, Fixed Length
- Wobulation Operating
- Dormancy, Awaken
- Processing Choice of Alarming

Model No. and Electric Spec

FR100 - 4 T - 2.2 B

Brake Unit

B : Built-in Brake Unit

Motor Power

- 0.2: 0.2kW
- 0.4: 0.4kW
- 0.7: 0.75kW
- 1.5: 1.5kW
- 2.2: 2.2kW
- 4.0: 4.0kW

Input Voltage Phase

- S: Single Phase
- T: Three Phase

Input Voltage Level

- 2: 220V(-15% ~ +30%)
- 4: 380V(-15% ~ +30%)

Multi-functional Inverter

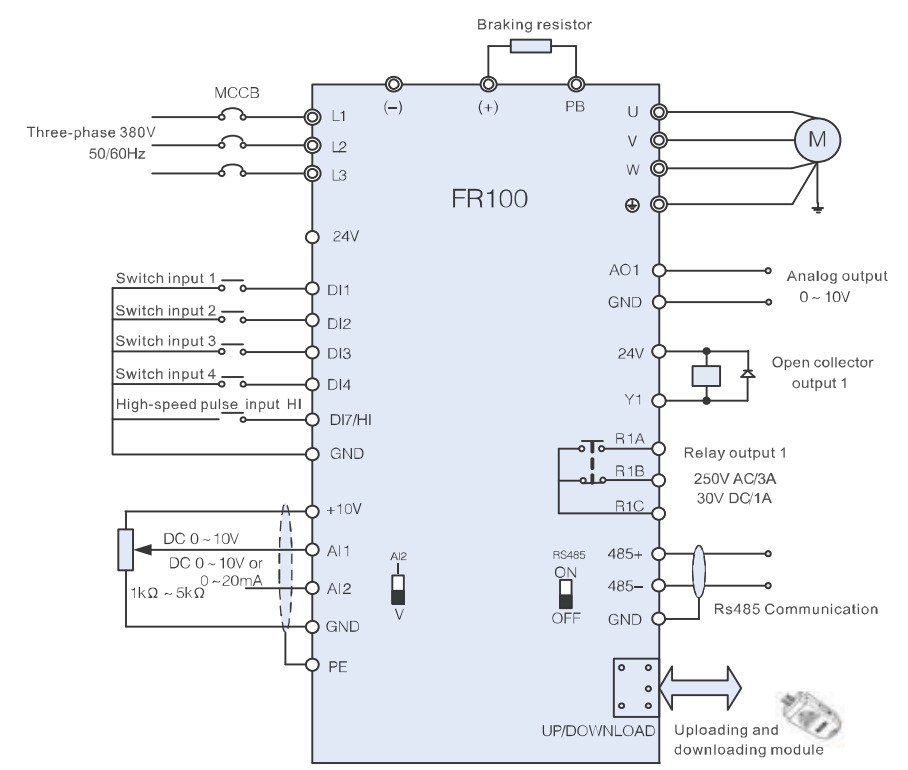
Main Power Voltage	Model No.	Motor Power (kW)	Power Capacity (kVA)	Input Current (A)	Output Current (A)	Size of the Case	Dimension (W*H*D) (mm)
Single Phase 220 VAC	FR100-2S-0.2B	0.2	0.5	4.9	1.6	F1-1	95*162*120
	FR100-2S-0.4B	0.4	1.0	6.5	2.5		
	FR100-2S-0.7B	0.75	1.5	9.3	4.2	F1-2	110*173*135
	FR100-2S-1.5B	1.5	3.0	15.7	7.5		
	FR100-2S-2.2B	2.2	4.0	24	9.5		
Three Phase 220 VAC	FR100-2T-0.2B	0.2	0.5	1.9	1.6	F1-1	95*162*120
	FR100-2T-0.4B	0.4	1.0	2.7	2.5		
	FR100-2T-0.7B	0.75	3.0	4.9	4.2	F1-2	110*173*135
	FR100-2T-1.5B	1.5	4.0	9.0	7.5		
	FR100-2T-2.2B	2.2	6.0	11	9.5		
Three Phase 380 VAC	FR100-4T-0.7B	0.75	1.5	3.4	2.5	F1-2	110*173*135
	FR100-4T-1.5B	1.5	3.0	5.0	4.2		
	FR100-4T-2.2B	2.2	4.0	5.8	5.5		
	FR100-4T-4.0B	4	6.0	11	9.5		

Technical Parameters

Main Power	Input Voltage	Single Phase 220VAC,-15%~+10%
		Three Phase 220VAC,-15%~+10% ,
		Three Phase 380VAC, -15%~+10% ,
	Input Frequency	50Hz /60Hz , fluctuation range±5%
Power Output	Output Voltage	0VA~U _{in}
	Output Frequency	0Hz~600Hz
	Frequency Resolution	0.01Hz
	Overload Capacity	150% 1 min , 180% 10 s , 200% 2 s
Control Characteristics	Control Mode	V/F Control , No PG Vector Control 1
	Carrier Wave Frequency	0.7kHz~16kHz
	Acce Time	0.1 s~6000.0s
	Dece Time	0.1 s~6000.0s
	Torque Boost	Auto Torque Boost , Manual Torque Boost 0.1% ~ 30.0%
	DC Brake	DC Brake Frequency : 0 ~ Max. Frequency ; Brake Time : 0.0s ~ 10.0s; Braking Action Current Value : 0.0%~150.0%
Environment Conditions	Operating Environment	-10°C (Non-condensation) ~ +40°C : No Derating
	Storage Temperature	-40°C ~ +70°C
	Altitude	Altitude 1000m (include) below : No Derating
		Altitude 1000m above , 1% derating per 100m rise, Max 3000m
	Protection Grade	IP20
EMC Characteristics	Anti-interference	Conform to IEC 61800-3, First and second environment standard
	Radiation Level	Standard C2 EMC Filters
Certificates		CE

General Purpose Inverter

Terminal Connection Diagram



General Purpose Inverter



General Purpose Inverter

Applications

FR600 Series Vector Control Inverter is with good performance and high reliability. Its customized and industry-oriented design could better meet the demand of high-end and midrange applications. It has been widely used in metallurgy, Crane, Petro, Chemical and Mining industries etc.



High Performance SVC Control Mode

- Speed Control Accuracy : $\pm 0.5\%$
- Speed Control Range : 1:100
- Torque Control Response time : <200ms
- Starting Torque : 180% Rated Torque/0.5Hz

Excellent Master-Slave Control

- Power balance for multi-motors to extend life of motor

Rich Autotuning Function

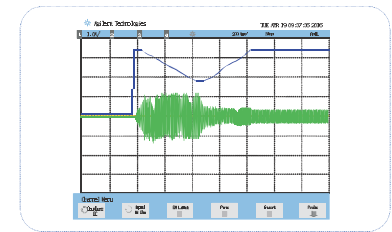
- Rotary Autotuning
- Static Autotuning

Multi I/O Interface

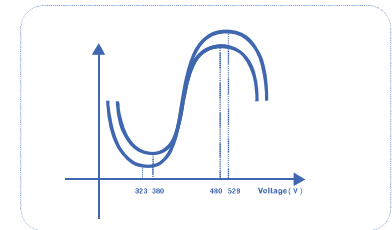
- 7 channels programmable digital input, one of them support high speed pulse input
- 3 channels analog input, two of them support 0~10V or 0~20mA choice, one of them support -10V~+10V
- 2 channels programmable relay output
- 2 channels programmable collector output
- 2 channels programmable analog output
- 1 channel support MODBUS-RTU standard RS-485 interface
- 1 channel 24V power, max output current 200mA
- 1 channel 10V power, max output 10mA

Multi-protection

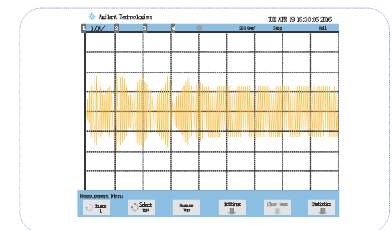
- Built-in Motor protection, Over Current Protection, Over Voltage Protection, Over Temperature Protection, Ground Protection and so on



Speed tracing output frequency and Current Oscillogram



Wide Voltage Design



Oscillation Suppression Oscillogram

General Purpose Inverter

Model No. and Electric Spec

FR600 - 6 T - 075



Main Power Voltage	Model No.	Motor Power (kW)	Power Capacity (kVA)	Input Current (A)	Output Current (A)	Size of the Case	Dimension (W*H*D) (mm)
Three Phase 550VAC	FR600-5T-0.7	0.75	1.8	2	1.8	F6-1	270*500*250
	FR600-5T-1.5	1.5	3.7	4	3.4		
	FR600-5T-2.2	2.2	4.7	5	4.8		
	FR600-5T-4.0	4	7.5	8	7.6		
	FR600-5T-5.5	5.5	12	12	11		
	FR600-5T-7.5	7.5	15	16	14.5		
	FR600-5T-011	11	20	21	20		
	FR600-5T-015	15	28	30	28	F6-2	270*560*270
	FR600-5T-018	18.5	35	37	35		
	FR600-5T-022	22	40	42	40		
	FR600-5T-030	30	52	55	52		
	FR600-5T-037	37	64	68	65	F6-3	355*620*290
	FR600-5T-045	45	77	82	77		
	FR600-5T-055	55	97	103	98		
	FR600-5T-075	75	125	130	124	F6-4	430*825*305
	FR600-5T-090	90	148	157	150		
	FR600-5T-110	110	178	189	180		
	FR600-5T-132	132	217	231	220		
	FR600-5T-160	160	257	273	260		
	FR600-5T-185	185	297	315	300		
	FR600-5T-200	200	326	346	330	F6-5	660*1030*359
	FR600-5T-220	220	356	378	360		
	FR600-5T-250	250	410	435	414		
	FR600-5T-280	280	452	480	458		
	FR600-5T-315	315	505	535	510	F6-6	810*1167*460
	FR600-5T-355	355	565	600	573		
	FR600-5T-400	400	632	670	646		

690VAC	FR600-6T-5.5	5.5	10	9	7.6	F6-1	270*500*250
	FR600-6T-7.5	7.5	15	13	11		
	FR600-6T-011	11	20	17	14.5		
	FR600-6T-015	15	27	23	20	F6-2	270*560*270
	FR600-6T-018	18.5	35	30.0	25		
	FR600-6T-022	22	37	35.0	28		
	FR600-6T-030	30	43	40.0	35		
	FR600-6T-037	37	51	47.0	45	F6-3	355*620*290
	FR600-6T-045	45	65	52.0	52		
	FR600-6T-055	55	80	67.0	65		
	FR600-6T-075	75	93	82.0	86	F6-4	430*825*305
	FR600-6T-090	90	123	96.0	98		
	FR600-6T-110	110	147	120.0	124		
	FR600-6T-132	132	166	145.0	150		
	FR600-6T-160	160	229	175.0	180		
	FR600-6T-185	185	236	190.0	200		
	FR600-6T-200	200	258	210.0	220	F6-5	660*1030*359
	FR600-6T-220	220	286	235.0	245		
	FR600-6T-250	250	316	255.0	270		
	FR600-6T-280	280	346	290.0	300		
	FR600-6T-315	315	367	335.0	350		
	FR600-6T-355	355	454	370.0	390		
	FR600-6T-400	400	488	415.0	430		
	FR600-6T-450	450	559	460	480	F6-6	810*1167*460
	FR600-6T-500	500	645	520	540		
	FR600-6T-560	560	660	580	600		
	FR600-6T-630	630	812	655	680		

Technical Parameters

Main Power	Input Voltage	Three Phase 690VAC (-30% ,+10%) Three Phase 550VAC (-30% ,+10%)
	Input Frequency	50/60Hz
Motor Connections	Output Voltage	0VAC ~ Uin
	Output Frequency	0Hz ~ 600Hz
	Frequency Resolution	0.01Hz
	Overload Capacity	150% 1 min, 180% 10s, 200% 1s
Control Characteristic	Control Mode	V/F Control, No PG Vector Control 1, No PG Vector Control 2, With PG Vector Control
	Carrier Frequency	0.7kHz ~ 16kHz
	Acce Time	0.1s ~ 6000.0s
	Dece Time	0.1s ~ 6000.0s
	Torque Boost	Auto torque boost, manually torque boost 0.1 ~ 30.0%
DC Brake	DC Brake Frequency: 0 ~ Max Frequency; Brake Time: 0.0 ~ 10.0s; Brake Action Current Value: 0.0 ~ 150.0%	



General Purpose Inverter

General Purpose Inverter

Applications

FR3000 Series intelligent medium voltage inverter is a voltage source inverter. The output is perfect Sine Wave achieved by adopting multi-level H bridge power unit cascade, which can directly drag the general asynchronous motor, system meets to IEC EMC standard without any filter. Widely use for metallurgy, iron and steel, petroleum, chemical, water treatment and other industries with big and medium type factories, use for drag fans, pumps, compressors and other large machineries.



Voltage Source High-High Voltage Inverter

- High power factor: >97%
- Perfect wave: do not need any EMC filter

Master-Slave Control

- Power balance for multi-motors to extend life of motor

Wide Range Input Voltage

- System no stop running in 65% ~ 115% rated input voltage

Triple Power Supplies

- Inverter has three independent power supplies, control system can continues work once power down or power off with UPS

Auto Bypass

- Auto Bypass/ manual Bypass

"SCP"Protection

- System will protect in case any two phase of the output is shorting

Long Power Down Time

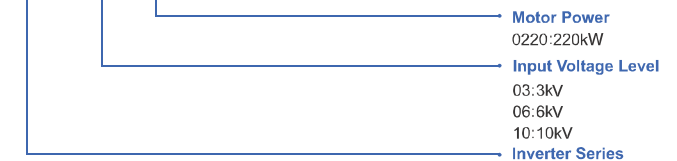
- Inverter can keep running within 30-60 seconds

STT Technology

- STT Technology, can start up the inverter at any speed without surge current

Model No. and Electric Spec

FR3000 - 03 - 0220



Main Power Voltage	Model No.	Motor Power (kW)	Power Capacity (kVA)	Output Current (A)	Dimension (W*H*D) (mm)		
Three Phase 3kVAC	FR3000-03-0220	220	280	54	2700 ~ 3500*1200*2550		
	FR3000-03-0280	280	355	68			
	FR3000-03-0315	315	400	77			
	3kVAC	FR3000-03-0400	400	500	96	4000 ~ 5100*1200*2550	
		FR3000-03-0500	500	630	121		
		FR3000-03-0630	630	800	154		
		FR3000-03-0800	800	1000	195		
FR3000-03-1000		1000	1250	240			
Three Phase 6kVAC	FR3000-06-0250	250	315	30	2700 ~ 3900*1200*2550		
	FR3000-06-0315	315	400	39			
	FR3000-06-0400	400	500	48			
	6kVAC	FR3000-06-0500	500	630	61	4500 ~ 6000*1200*2550	
		FR3000-06-0630	630	800	77		
		FR3000-06-0800	800	1000	96		
		FR3000-06-1000	1000	1250	120		
		FR3000-06-1250	1250	1600	154		
		FR3000-06-1600	1600	2000	192		
Three Phase 10kVAC	FR3000-06-2000	2000	2500	240	3500 ~ 4500*1200*2550		
	FR3000-10-0250	250	315	18			
	FR3000-10-0315	315	400	23			
	FR3000-10-0400	400	500	29			
	10kVAC	FR3000-10-0500	500	630		36	
		FR3000-10-0630	630	800		46	
	10kVAC	FR3000-10-0800	800	1000		58	5400 ~ 7600*1500*2850
		FR3000-10-1000	1000	1250		72	
		FR3000-10-1250	1250	1600		92	
		FR3000-10-1600	1600	2000		115	
FR3000-10-2000		2000	2500	145			
FR3000-10-2500		2500	3150	182			
10kVAC	FR3000-10-3150	3150	4000	231			

Special Purpose Inverter



- SY380 Series Voltage Boosting Inverter Single-phase 220V to Three-phase 380V
- FR200L Series Special Purpose Inverter for Wire Drawing Machine
- FR200H Series Special Purpose Inverter for Multi-pumps Water Supply
- FR300D Series Special Purpose Inverter for Elevator
- FR200X Series Special Purpose Inverter for Industry Washer
- FR100Z Series Special Purpose Inverter for Incense Machine
- FR200S Series Special Purpose Inverter for High Frequency
- FR200F Series Special Purpose Inverter for Textile Machine
- FR200KFJ Series Special Purpose Inverter for Open-frame
- FR100M Series Special Purpose Inverter for Pulse Feedback
- FR200Q Series Auxiliary Motor Controller for EV
- SC2000 Series Construction Lifter All-in-one Machine



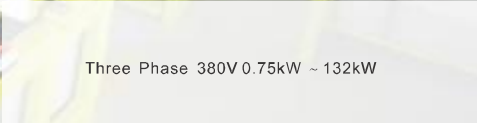
SY380 Series Voltage Boosting Inverter Single-phase 220V to Three-phase 380V



Single Phase 220V 4kW ~ 22kW



FR200L Series Special Purpose Inverter for Wire Drawing Machine



Three Phase 380V 0.75kW ~ 132kW



Special Purpose Inverter

- ⦿ More compact and with lower cost compared with the transformer scheme
- ⦿ Rich functions as general converter
- ⦿ Multiple protections
- ⦿ Derating design of components thus assure long life and high reliability of the product

Applications

SY380 series dedicated inverter is specialized in the occasions that with only civil power grid (220 VAC) and motor voltage is 380 VAC; no need to add the transformer, customer can easily drive 380 VAC motor with this model.



Special Purpose Inverter

- ⦿ **Macro applications**
Provides different kinds of macro applications according to the solution
- ⦿ **Compact structure**
Can be installed side by side
- ⦿ **Multi purpose device**
Can drive different kinds of Wire drawing machine: water tank type wire drawing host, water tank type wire winding machine, Straight Drawing Machine
- ⦿ **Not broken wire starting at any position**
System can start up at any position of balance bar
- ⦿ **Constant tension**
Tension Balance bar keeps in center of the balance bar in any case

Applications

FR200L series special purpose inverter is designed specially for wire drawing machine, based on the core control arithmetic of FR200 vector control inverters and combined with the control requirements of wire drawing machine application. Starting is available on any position of lower-limit, point zero or upper-limit on tension rod.



FR200H Series Special Purpose Inverter for Multi-pumps Water Supply

Three Phase 380V 0.75kW ~400kW

FR200H series special purpose inverters are developed for multi-pump constant voltage watersupply, based on the core control arithmetic of FR200 vector control inverters, combined with the control requirements of multi-pump constant voltage watersupply application. Featured with the multi-pump watersupply and watertreatment function of living district and municipal engineering, the inverters can achieve the flexible setting of industry-frequency pump, variable frequency pump, dormancy pump and blow-down pump, and auto-control switch according to the system status, also achieve timing constant voltage watersupply, dormancy control, blow down control, timing turn-switch control, featured with perfect tank liquid level, tube pressure detection and protection.



Special Purpose Inverter

FR300D Series Special Purpose Inverter for Elevator

Three Phase 380V 4.0kW ~75kW

- Can drive AC three-phase asynchronous motor and AC permanent magnet synchronous motor
- Support open loop and close loop control
- Specific S curve and no sense weighing functions
- Starts/stops with no shaking, comfortable and accurate leveling
- Unique short floor function
- Emergency operation mode supported by UPS power.
- Built-in elevator dedicated brake logic control



Special Purpose Inverter

Applications



Applications

FR300D series special purpose inverter, are developed for elevator, based on the core control arithmetic of FR200 vector control inverters, combined with the control requirements of elevator application.





FR200X Series Special Purpose Inverter for Industry Washer

Three Phase 380V 0.75kW ~400kW



- 16 segments speed can be set freely
- 16 segments acceleration and deceleration time can be set freely
- 16 segments running time can be set freely
- Powerful starting torque, 180% rated torque/0.25Hz
- Stable rotating speed in whole process
- No speed loss during acceleration and deceleration
- Wide speed regulation range
- Secondary water starts, the load reaches max. value, low frequency torque output is enough

Special Purpose Inverter

Applications

FR200X series special purpose inverter, are developed for Industry washer, perfectly meet the control requires of Industry washer field; fast dynamic response speed and full protections with no overcurrent and overvoltage.



FR100Z Series Special Purpose Inverter for Incense Machine

Single Phase 220V 0.2kW ~2.2kW
 Three Phase 220V 0.2kW ~2.2kW
 Three Phase 380V 0.75kW ~4.0kW



- Automatically determine the stuck, send, cut, material add of the skewer, one take.
- Count finished quantity and support quantitative stop function
- Capacity: 250-300pcs/min
- Energy saving: only work when skewer pass, less tailing avoiding power, time and human resource consumption by repeated usage of tailing.
- Improve comfort level, environmental and hygiene index of working condition; simple operation, which greatly reduced the labor intensity.
- Compact size, easy for installation; imported materials, durable for usage.
- Fault self-recovery, Brown-out Reset function to guarantee the production efficiency and continuity.
- Perfect protection functions: over voltage/ under voltage, short circuit, overload, earth fault, overheating protection etc.

Special Purpose Inverter

Applications

FR100Z series special purpose inverters, are developed for Incense machine, aimed at OEM applications with low power, low cost, general control accuracy requirements.





FR200S Series Special Purpose Inverter for High Frequency

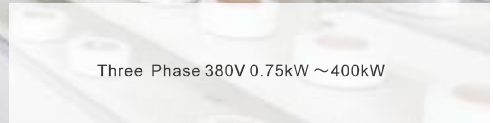


Three Phase 380V 0.75kW ~400kW

- Adjustable within 0Hz~2000Hz;
- Stable current, no speed fluctuation, high frequency and high torque;
- Quick start and stop, good current waveform, high precision;
- Perfect protection functions: input/output default phase protection, short circuit protection, over current protection, overload protection etc;
- Quick torque speed, small volume, lightweight, low material consumption, low noise, low vibration etc.



FR200F Series Special Purpose Inverter for Textile Machine



Three Phase 380V 0.75kW ~400kW

- Compact structure design, small size, reliable performance;
- 16 segments speed and running time can be set freely;
- Function of brown-out recording and wobulation;
- Arbitrary combination setting of Multi frequency input channels;
- Support step by step operation mode and linear operation mode;
- Wide voltage input function, adaptable to factory environment.
- Automatic/manual torque boost mode, provide low frequency and high torque



Special Purpose Inverter



Special Purpose Inverter

Applications

Freon independent R&D inverter FR200S series high frequency motor drive Inverter with max. 2000Hz output, could satisfy the electric spindle field very well, such as the customers' demands in the field of engraving machine, computer engraving machine, CNC engraving machine, precision grinding machine etc.



Applications

Response to market demands, FRECON published a new product FR200F Series Textile machine Inverter, applying advanced current vector control technology and adopting high performance power module and DSP chips, it meets the high stability and accuracy requirements of voltage and frequency output. The brand-new production technology and complete testing equipment ensured the stability and reliability of product application.





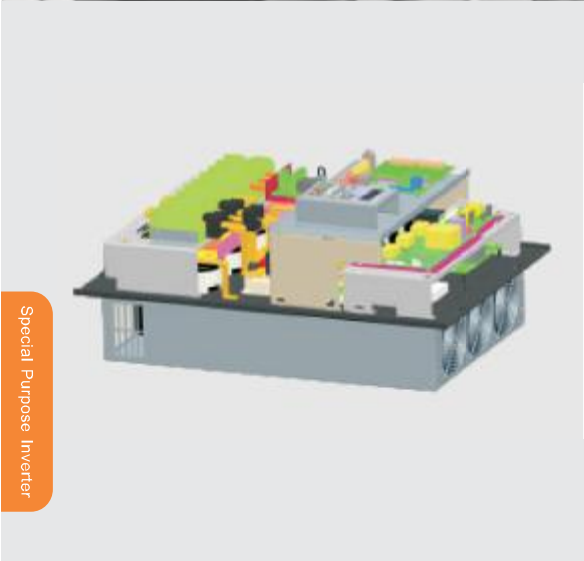
FR200KFJ Series Special Purpose Inverter for Open-frame

Three Phase 380V 18.5kW ~ 400kW



FR100M Series Special Purpose Inverter for Impulse Feedback

Single Phase 220V 0.2kW ~ 2.2kW
 Three Phase 220V 0.2kW ~ 2.2kW
 Three Phase 380V 0.75kW ~ 4.0kW



Special Purpose Inverter

- **Customized construction**
 Supply customized service: users can design the product appearance according to actual situation, consistent with the overall style of equipment.
- **Supply OEM service, reduce the cost for customers**
- **Ultra-thin design, save thickness space up to 20%~50%**
- **Intermediate compartment installation, suit for safty isolation between heat source and electric system**
- **Function and performance are the same with FR200 series**
- **Protection grade: IP00, users must install with electrical control cabinet**



Special Purpose Inverter

Applications

Response to marketing requirements, FRECON published FR200KFJ series open frame inverter, composed by chips and radiators, the function and performance are similar with FR200.



Applications



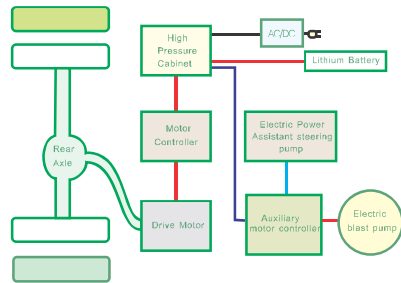


FR200Q Series Auxiliary Motor Controller for EV

DC 350V~750V 5.5kW



Special Purpose Inverter



Applications

Midi-bus, Bus, Logistic vehicle, Train.



SC2000 Series Construction Lifter All-in-one Machine

Three Phase 380V 30kW/70A



● **Integrated**
Integrated electrical logic control, variable fre

Safe and reliable

Dedicated

Applications

The integrated electrical logic control, variable frequency control, power frequency control, braking unit, overload protection, braking power supply, can realize the control and protection functions of elevator and electrical cabinet.



Special Purpose Inverter

Servo Drive System



SD1000 Series High Performance Servo Drives
SD2000 Series Asynchronous Servo Drives



SD1000 Series High Performance Servo Drives

SD1000 Series Servo drive, is a multi-functional AC servo drive that Frecon designed, adopts advanced control arithmetic, using IPM intelligent modules, can achieve digital control of torque, rotation rate and position accuracy; meanwhile, based on reliable design of domestic industrial environment, it is reliable and with steady performance.



Single Phase 220V 0.1kW ~ 0.4kW
Three Phase 220V 1.0kW ~ 5.0kW
Three Phase 380V 1.0kW ~ 5.0kW

Applications

Widely used for CNC, textile machine, package machine, printing machine, cutting machine, marking machine and many other fields.



Accurate Position Control Mode

- Adopt the circuit with high-speed optocoupler isolation, and difference drive pulse acceptance mode, can effectively eliminate the interference, can choose command pulse to filter smoothly, to make the system run steadily on acce/dece procedure

Multiple Analog Command Control

- Speed and torque use one analog input, meanwhile analog input has a normal zero offset, which can be compensated by parameters

Resonance Suppression

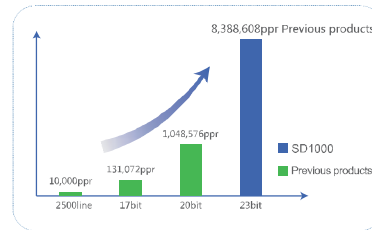
- Adjusting of internal parameters and filters, can help to suppress the resonance

Rich IO Interface

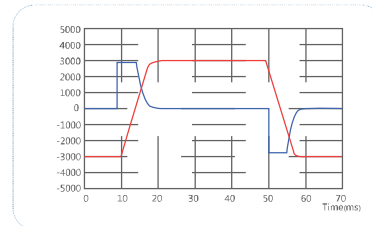
- 5 channels programmable optocoupler isolation input terminals
- 3 channels programmable digital output terminals
- Position mode supply difference and sigle terminal input method
- 1 channel -10V ~ +10V analog input
- 1 channel support MODBUS-RTU standard RS-485 interface
- 1 channel USB upper machine interface

Multiple Protection

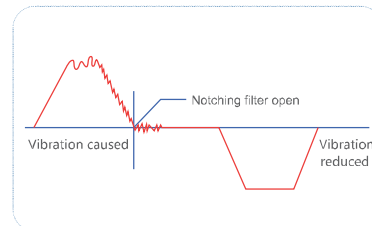
- Built-in over-voltage, over-current, over-load, over-speed, encoder abnormal and other more error inspection system



Encoder accuracy comparison chart



Speed response range and positioning time



Notching filter suppress high-frequency vibration

Model No. and Electric Spec

SD1000 - 2S - 0.1 B

- Brake Unit**
B: Built-in Brake Unit
- Motor Power**
0.1:0.1kw
- Input Voltage Level**
2S:single Phase 220V
2T:three Phase 220V
4T:three Phase 380V
- Inverter Series**

Main Power Voltage	Model No.	Motor Power (kW)	Input Current (A)	Size of the Case	Dimension (W*H*D) (mm)
Single Phase 220VAC	SD1000-2S-0.1B	0.1	1.0	S1-1	55*168*150
	SD1000-2S-0.2B	0.2	1.8	S1-2	65*168*150
	SD1000-2S-0.4B	0.4	3.0		
Three Phase 220VAC	SD1000-2T-1.0B	1.0	7.5	S1-3	85*168*180
	SD1000-2T-1.5B	1.5	12.0	S1-4	95*168*180
	SD1000-2T-2.0B	2.0	16.0	S1-5	95*200*180
	SD1000-2T-3.0B	3.0	19.0	S1-6	105*220*180
	SD1000-2T-5.0B	5.0	24.0	S1-7	115*250*210
Three Phase 380VAC	SD1000-4T-1.0B	1.0	3.5	S1-8	95*168*180
	SD1000-4T-1.5B	1.5	5.4		
	SD1000-4T-2.0B	2.0	8.5	S1-9	95*200*180
	SD1000-4T-3.0B	3.0	13.0	S1-10	105*220*180
	SD1000-4T-5.0B	5.0	17.0	S1-11	115*250*210



Servo Drive System

Applications

SD2000 series asynchronous servo drive uses vector control technique to control rotate-speed and torque of AC asynchronous motor effectively. Cleverly combined the advantages of inverter and synchronous servo energy-saving technologies, it is good in energy saving and with absolute price advantage. Can achieve 25% -70 % energy savings.



Perfect Current&Voltage Control Technology

- Acc&Decc as 0.1S, drivers operating steadily no failure

Wide Range Torque Output

- Achieve multi-motors power balance, pro-long motor life operating with low speed, mid speed, high speed output torque steadily, fluctuation small, can make injection machine pressure steady, make sure plastic products arts and quality.

Built-in EMC Filter Circuit

- Built-in EMC filter, all series conform to CE certificates standard, won't for injection machine controller and sensor

Built-in Sensor Signal Conversion Board

- Built-in current and pressure signal conversion board, customers can input signal into asynchronous servo drives by directly wirings, achieve close-loop control

Electric Spec

Main Power Voltage	Model No.	Motor Power (kW)	Power Capacity (kVA)	Input Current (A)	Output Current (A)	Size of the Case	Dimension (W*H*D) (mm)
Three Phase 380VAC,	SD2000-4T-011	11	17	26	25	S2-1	250*670*250
	SD2000-4T-015	15	21	35	32		
	SD2000-4T-018	18.5	24	38.5	37		
	SD2000-4T-022	22	30	46.5	45	S2-2	340*720*295
	SD2000-4T-030	30	40	62	60		
	SD2000-4T-037	37	57	76	75	S2-3	350*860*330
	SD2000-4T-045	45	69	92	91		
	SD2000-4T-055	55	85	113	112	S2-4	410*1000*350
	SD2000-4T-075	75	114	157	150		
	SD2000-4T-090	90	134	160*	176	S2-5	538*1300*447
	SD2000-4T-110	110	160	190*	210		
	SD2000-4T-132	132	192	232*	253		
	SD2000-4T-160	160	231	282*	304	S2-6	660*1660*500
	SD2000-4T-185	185	240	326*	350		
	SD2000-4T-200	200	250	352*	377		
	SD2000-4T-220	220	280	385*	426		
SD2000-4T-250	250	355	437*	470			

Servo Drive System

New Energy

PV100 series Small Power PV Pumping Inverter

PV200 series PV Pumping Inverter



PV100&
PV200 Series
PV Pumping Inverter



DC 120V~400V 0.2kW~75kW
DC 250V~800V 0.75kW~200kW

Applications

PV Series special inverters are developed for outdoor PV power supply of water pumps, based on the core control arithmetic of FR200 vector control inverters and combined with the control requirements of PV water pump application. The MPPT, dormant at weak light, wake up at strong light, high water level dormant, under-load pre-warning and other control protection functions can ensure normal operation of water pumps according to the customers' requirements to switch to the grid power supply.



DC/AC Input Compatible

- DC: Solar PV Power Supply
- AC: Dissel Generator or Grid Supply

No Battery

- Environment-protection, Economic

Optimized MPPT Arithmetic, Accuracy Reached 99%and above

- Water Pumping on the Same Circumstance

Pumping Water Much

- Water Pumping on the Same Circumstance

Rich Protection Functions

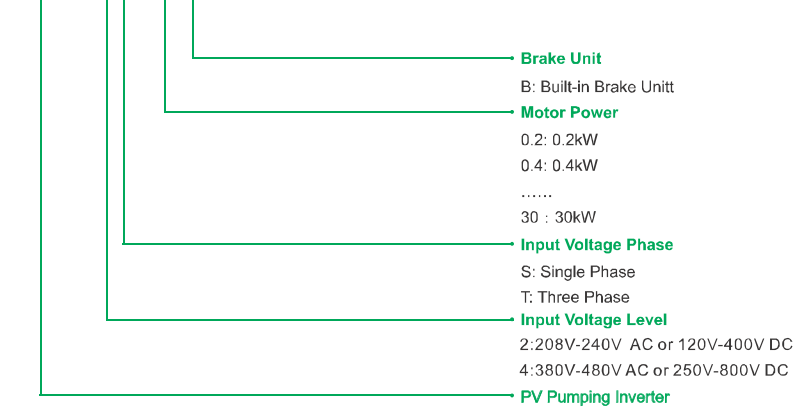
- Featured with Protection Functions of Lightning-proof, Over-voltage, Over-current, Over-load,etc.

Dormancy on weak light, awaken on strong light

- Auto-dormancy on weak light, auto-recover working on strong light, no need man-made operation

Model No. and Electric Spec

PV200 – 4 T - 2.2 B



Main Power Voltage	Model No.	Recommended Battery (kWP)	Max. DC Input current (A)	Output Current (A)	Size of the Case	Dimension (W*H*D) (mm)		
120V~400V (DC)	PV100-2S-0.2B	0.35	2.5	1.6	F1-1	95*162*120		
	PV100-2S-0.4B	0.6	4.5	2.5				
	PV100-2S-0.7B	1.1	7.5	4.2				
	120V~400V (DC)	PV100-2S-1.5B	2.25	10	7.5	F1-2	110*173*135	
		PV100-2S-2.2B	3.3	18	9.5			
		PV100-2T-0.2B	0.35	2.5	1.6			
		120V~400V (DC)	PV100-2T-0.4B	0.6	4.5	2.5	F1-1	95*162*120
			PV100-2T-0.7B	1.1	7.5	4.2		
			PV100-2T-1.5B	2.25	10	7.5		
250V~800V (DC)			PV100-2T-2.2B	3.3	18	9.5	F1-2	110*173*135
			PV100-4T-0.7B	1.1	4.5	2.5		
			PV100-4T-1.5B	2.25	7.5	4.2		
	250V~800V (DC)		PV100-4T-2.2B	3.3	10	5.5	F1-2	110*173*135
			PV100-4T-4.0B	5.6	18	9.5		

Main Power Voltage	Model No.	Recommended Battery (kWP)	Max. DC Input current (A)	Output Current (A)	Size of the Case	Dimension (W*H*D) (mm)		
120V~400V (DC)	PV200-2T-0.7B	3.5	5.3	5	F2-1	117*187*160		
	PV200-2T-1.5B	5.5	8.5	8				
	120V~400V (DC)	PV200-2T-2.2B	7.5	11.6	11	F2-2	146*249*177	
		PV200-2T-4.0B	11.7	18	17			
		PV200-2T-5.5B	17.3	26.5	25	F2-3	198*300*185	
		PV200-2T-7.5B	22	33.5	32			
	250V~800V (DC)	PV200-2T-011B	31	47.5	45	F2-4	255*459*220	
		PV200-2T-015B	41.5	63	60			
250V~800V (DC)		PV200-4T-0.7B	3.5	4.5	2.5	F2-1	116.6*186.6*168	
		PV200-4T-1.5B	5.5	5.3	4.2			
		250V~800V (DC)	PV200-4T-2.2B	7.5	8.5	5.5	F2-2	146*249*177
			PV200-4T-4.0B	11.7	11.6	9.5		
250V~800V (DC)			PV200-4T-5.5B	17.3	18	13	F2-3	198*300*185
			PV200-4T-7.5B	22	26.5	17		
		250V~800V (DC)	PV200-4T-011B	31	33.5	25	F2-4	255*459*220
			PV200-4T-015B	41.5	47.5	32		
250V~800V (DC)			PV200-4T-018B	52	63	37	F2-4	255*459*220
			PV200-4T-022B	63	79	45		
250V~800V (DC)	PV200-4T-030B	77.5	96	60				

Note: For PV200 series above 30KW, pls consult Frecon technicist.

Human-Machine Interface/HMI Features

HT/HK series touch screen, configuration software is human-machine interface running program based on Microsoft's windows operating system, you can use the PC's rich resources, such as computing speed, storage space, multimedia, peripheral equipment, and large display to achieve the high responsible HMI. In order to integrate HT/TK series HMI application program to open platform and maintains strong communication and monitoring capabilities of software, based on the elasticity of the cross platform, for function application and cost consideration, provide fast and efficient HMI complete solutions to all required customers.

T series					
					
Model No.	HT150-4/5	HT104-2/4/5	HT100-2/4/5	HT070-2/4/5	HT043-1/4
Resolution	1024 × 768	800 × 600	1024 × 600	800 × 480	480 × 272
LCD Screen	16-bit				
Backlight Life	50000Hrs	20000Hrs			
LCD screen brightness cd/m2	350	400	150	300	400
Touch control panel/button	5 wire resistance type	4wire resistance type			
CPU	RISC ARM9 32Bit				
Graphics Accelerator	2D Engine Graphics Accelerator				
Working Memory	64MB				32MB
Program Memory	8MB				
Extension Memory	1:Null 2/4/5:128MB				
Battery Memory	128KB (1M selectable)				
Calendar (clock)	Exist				
USB	Rear USB1.1*1 master, rear USB2.0*1 slave				
SD card expansion slot	1:Null 2/4/5: Exist				
Serial Port	COM1	RS232/422/485			
	COM2	A-RS422/485,B-RS232/485,C-RS232withRTS&CTS			
	COM3	RS232/485			
	Ethernet Port	1/2:Null 4/5:Exist			
Audio Output	1/2/4:Null 5:Exist				
Input Voltage	24VDC± 10% isolated type				
Consumption Power	20W				
Working Temperature	-10 to 60 °C				
UL Certification	Exist				
Waterproof and Dustproof Level	IP66				
Panel Dimensions (mm)	399.1 × 297.6	270.1 × 212.1	270.1 × 212.1	188.0 × 143.3	130.0 × 106.2
Hole Dimension (mm)	384.5 × 283.0	259.5 × 201.5	259.5 × 201.5	175.0 × 132.5	119.0 × 93.0

Human-Machine Interface/HMI Features

High performance of the open platform and rich variety of screen design objects, to meet the needs of full range of human-machine interface operation and monitoring, single application program can be connected to 16 kinds of communication objects,internal planning points can meet customer need with different applications without limits, support more than 50 kinds of PLC communication protocol, to meet the multiple factory automation integration, support data collection, alarm monitoring, recipe processing and operation records.

K series			
			
Model No.	HK100-WFT20/40	HK070-WFT20/40	HK043-WST10/30
Resolution	1024 × 600	800 × 480	480 × 272
LCD Screen	16-bit		
Backlight Life	20000Hrs		
brightness	150	250	250
panel/button	4 wires resistance type /7 buttons	4 wires resistance type /6 buttons	4 wires resistance type
CPU RISC	ARM9 32Bit		
Graphics Accelerator	2D Engine Graphics Accelerator		
Working Memory	32MB		
Program Memory	8MB		
Extension Memory	128MB	N/A	
Battery Memory	128KB		
Calendar (clock)	Exist		
USB	Rear USB1.1*1 master, rear USB2.0*1 slave		
SD card expansion slot	Null		
Serial Port	COM1	RS232/RS422/RS485	
	COM2	Null	
	COM3	RS232 or RS485	
Ethernet Port	10/20:Null,30/40:Exist		
Video Input (Bnc Interface)	Null		
Input Voltage	24VDC± 10% isolated type		
Consumption Power	20W	10W	
Working Temperature	0 to 50 °C		
UL Certification	Null		
Waterproof and Dustproof Level	IP65		
Panel Dimensions (mm)	270.1x212.1	203.5 × 149.0	130.0 × 106.2
Hole Dimension(mm)	259.5 × 201.5	192.0 × 138.5	119.0 × 93.0

PLC&HMI

PLC&HMI



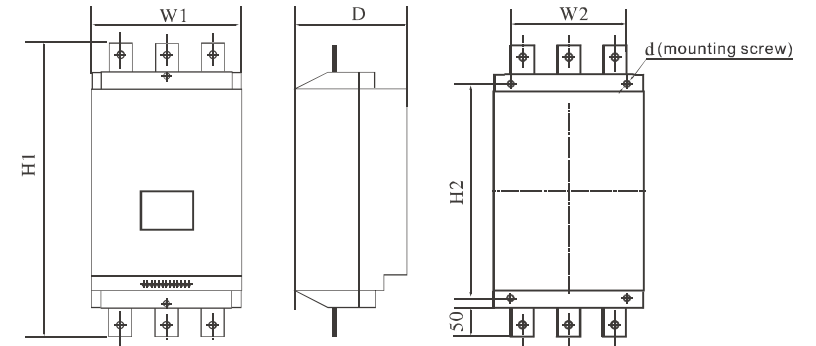

- Multi mode starting
 - Voltage Ramp current limit starting
 - Current limit starting
 - Inching
- Two types of braking
 - Free stop
 - Soft stop
- Perfect protection functions
 - Default phase, starting over current, starting overload, starting timeout protection and many other comprehensive protection functions.
- Fault memory function
 - Easy for user analyzing and debugging

Applications

Products are widely used on motor transmission device in metallurgy, oil, firefighting, mine, petrochemical, and other industrial fields. An ideal replacement of traditional star/triangle transformation, self-coupled step-down, magnetic control step-down starting equipment etc.



Overall dimensions and install dimensions



Model No.	Rated Power (kW)	Rated Current (A)	Overall dimensions(mm)			Install dimensions(mm)			Net Weight (kg)
			W1	H1	D	W2	H2	d	
RQ100-5R5L-3	5.5	11	170	302	219	144	263	M6	<6.5
RQ100-7R5L-3	7.5	15	170	302	219	144	263	M6	<6.5
RQ100-011L-3	11	23	170	302	219	144	263	M6	<6.5
RQ100-015L-3	15	30	170	302	219	144	263	M6	<6.5
RQ100-018L-3	18.5	37	170	302	219	144	263	M6	<6.5
RQ100-022L-3	22	43	170	302	219	144	263	M6	<6.5
RQ100-030L-3	30	60	170	302	219	144	263	M6	<6.5
RQ100-037L-3	37	75	170	302	219	144	263	M6	<6.5
RQ100-045L-3	45	90	170	302	219	144	263	M6	<6.5
RQ100-055L-3	55	110	170	302	219	144	263	M6	<6.5
RQ100-075L-3	75	150	170	302	219	144	263	M6	<11
RQ100-090L-3	90	180	170	302	219	144	263	M6	<11
RQ100-115L-3	115	230	278	427	203	190	350	M8	<22
RQ100-132L-3	132	265	278	427	203	190	350	M8	<22
RQ100-160L-3	160	320	278	427	203	190	350	M8	<22
RQ100-185L-3	185	370	278	427	203	190	350	M8	<22
RQ100-200L-3	200	400	278	427	203	190	350	M8	<22
RQ100-220L-3	220	440	278	427	203	190	350	M8	<22
RQ100-250L-3	250	500	302	460	203	212	392	M8	<30
RQ100-280L-3	280	560	302	460	203	212	392	M8	<30
RQ100-320L-3	320	640	302	460	203	212	392	M8	<30
RQ100-355L-3	355	700	302	460	203	212	392	M8	<40
RQ100-400L-3	400	800	302	460	203	212	392	M8	<40
RQ100-450L-3	450	900	302	460	203	212	392	M8	<40
RQ100-500L-3	500	1000	302	460	203	212	392	M8	<40

Optional Accessories



Brake Unit, Brake Resistance

Voltage Level	Motor Power	Brake Unit	Brake Resistance (ED=10%、100% Brake Torque)	
			Resistance Value	Qty.
Three Phase 380V	0.75kW	Built-in	360Ω/200W	1
	1.5kW	Built-in	360Ω/200W	1
	2.2kW	Built-in	180Ω/400W	1
	4.0kW	Built-in	180Ω/400W	2
	5.5kW	Built-in	60Ω/1000W	1
	7.5kW	Built-in	60Ω/1000W	1
	11kW	Built-in	30Ω/2000W	1
	15kW	Built-in	30Ω/2000W	1
	18.5kW	Built-in	30Ω/2000W	1
	22kW	Built-in	30Ω/2000W	2
	30kW	Built-in	30Ω/2000W	2
	37kW	Built-in Optional or FRBU-4T-045	30Ω/2000W	2
	45kW	Built-in Optional or FRBU-4T-045	30Ω/2000W	3
	55kW	Built-in Optional or FRBU-4T-132	30Ω/2000W	4
	75kW	Built-in Optional or FRBU-4T-132	30Ω/2000W	4
	90kW	FRBU-4T-132	13.6Ω/9600W	2
	110kW	FRBU-4T-132	20Ω/6000W	3
	132kW	FRBU-4T-132	20Ω/6000W	4
	160kW	FRBU-4T-315	13.6Ω/9600W	4
	185kW	FRBU-4T-315	13.6Ω/9600W	4
200kW	FRBU-4T-315	16Ω/9600W	5	
220kW	FRBU-4T-315	16Ω/9600W	5	
250kW	FRBU-4T-315	16Ω/9600W	5	
280kW	FRBU-4T-315	16Ω/9600W	6	
315kW	FRBU-4T-315	16Ω/9600W	6	

Filter

The Inverter	Input Filter	Output Filter
0.75kW	FLT-4T-P005	FLT-4T-L005
1.5kW		
2.2kW	FLT-4T-P010	FLT-4T-L010
4.0kW		
5.5kW	FLT-4T-P020	FLT-4T-L020
7.5kW		
11kW	FLT-4T-P036	FLT-4T-L036
15kW		
18.5kW	FLT-4T-P065	FLT-4T-L065
22kW		
30kW		
37kW	FLT-4T-P100	FLT-4T-L100
45kW		
55kW	FLT-4T-P150	FLT-4T-L150
75kW		
90kW	FLT-4T-P250	FLT-4T-L250
110kW		
132kW		
160kW	FLT-4T-P400	FLT-4T-L400
185kW		
200kW		
220kW		
250kW	FLT-4T-P600	FLT-4T-L600
280kW		
315kW	FLT-4T-P900	FLT-4T-L900
355kW		
400kW		
450kW		
500kW	FLT-4T-P1200	FLT-4T-L1200
560kW		
630kW		

Note: The input EMI meet the requirement of C2 after adding input filters.

Reactor

The Inverter	Input Reactor	DC Reactor	Output Reactor
2.2kW	ACL-4T-2.2	/	OCL-4T-2.2
4.0kW	ACL-4T-4.0	/	OCL-4T-4.0
5.5kW	ACL-4T-5.5	/	OCL-4T-5.5
7.5kW	ACL-4T-7.5	/	OCL-4T-7.5
11kW	ACL-4T-011	/	OCL-4T-011
15kW	ACL-4T-015	/	OCL-4T-015
18.5kW	ACL-4T-018	/	OCL-4T-018
22kW	ACL-4T-022	/	OCL-4T-022
30kW	ACL-4T-030	/	OCL-4T-030
37kW	ACL-4T-037	/	OCL-4T-037
45kW	ACL-4T-045	/	OCL-4T-045
55kW	ACL-4T-055	/	OCL-4T-055
75kW	ACL-4T-075	/	OCL-4T-075
90kW	ACL-4T-090	Standard	OCL-4T-090
110kW	ACL-4T-110	Standard	OCL-4T-110
132kW	ACL-4T-132	Standard	OCL-4T-132
160kW	ACL-4T-160	Standard	OCL-4T-160
185kW	ACL-4T-185	Standard	OCL-4T-185
200kW	ACL-4T-200	Standard	OCL-4T-200
220kW	ACL-4T-220	Standard	OCL-4T-220
250kW	ACL-4T-250	Standard	OCL-4T-250
280kW	ACL-4T-280	Standard	OCL-4T-280
315kW	ACL-4T-315	Standard	OCL-4T-315
355kW	ACL-4T-355	Standard	OCL-4T-355
400kW	ACL-4T-400	Standard	OCL-4T-400
450kW	ACL-4T-450	Standard	OCL-4T-450
500kW	ACL-4T-500	Standard	OCL-4T-500
560kW	ACL-4T-560	Standard	OCL-4T-560
630kW	ACL-4T-630	Standard	OCL-4T-630

Built-in Optional Cards

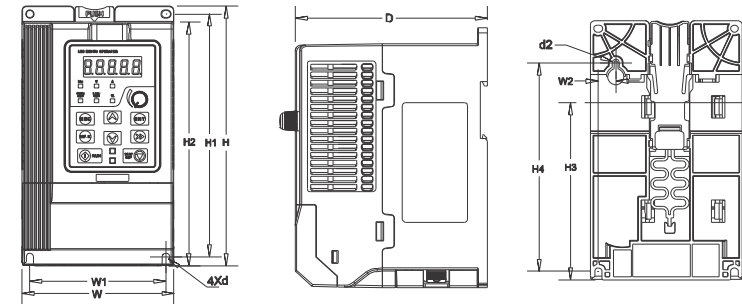
Type	Name	Order No.	Functions
PG Speed Control Card	The differential input incremental encoder interface	EXC-PG01	1.A+/A-, B+/B-, Z+/Z- Pulse Input 2.Max Input Frequency : 300KHz 3.PG Power Output:+5V, Max Current 200mA
	OC, Push input incremental encoder interface	EXC-PG02	1.A、 B、 Z Pulse Input 2.Max Input Frequency : 100KHz 3.PG Power Output:+12V, Max Current 200mA
	Rotate Transformer Encoder Interface	EXC-PG03	Supply Rotate Transformer Encoder Interface, Include pumping signal EXC+/- and feedback signal SIN+/-, COS+/-, 10KHz
	ENDAT2.2 type encoder interface	EXC-PG04	Provide ENDAT2.2 type encoder interface Support HEIDENHAIN ECN1313 Rotate Transformer Encoder
	Sine and cosine encoder interface	EXC-PG05	HEIDENHAIN ERN 1387 suitable machine 1.Max Input Frequency : 20KHz 2.PG Power Output : +5V, Max Current 200mA
Communication Optional Card	PROFIBUS-DP Communication Interface	EXC-COM01	Communication with upper controller PROFIBUS-DP, to use for inverters' run/stop, parameter setting/view or monitor
	CANopen Communication Interface (developping)	EXC-COM02	Communication with upper controller CAN-OPEN, to use for inverters' run/stop, parameter setting/view or monitor
	DeviceNet Communication Interface (developping)	EXC-COM03	Communication with upper controller DeviceNet, to use for inverters' run/stop, parameter setting/view or monitor
	Ethernet/IP Communication Interface (developping)	EXC-COM04	Communication with upper controller Ethernet, to use for inverters' run/stop, parameter setting/view or monitor
Others	Injection Moulding Machine Expansion Card	EXC-PM1	Support 2 channels analog input, current input range: 0-1A and 0-2A optional
	Upload/Download Card	EXC-COP1	1. Support upload/download parameters 2. Max transmission frequency : 100KHz 3. Parameters can be viewed and modified by USD power supply
	LED Keypad	*	Five digital tube display interface and function operation button
	LCD Keypad	*	Chinese, English and Russian version display interface and function operation button
	keypad extension cord	*	To remote control by extending the operating keypad

Optional Accessories

Appendix

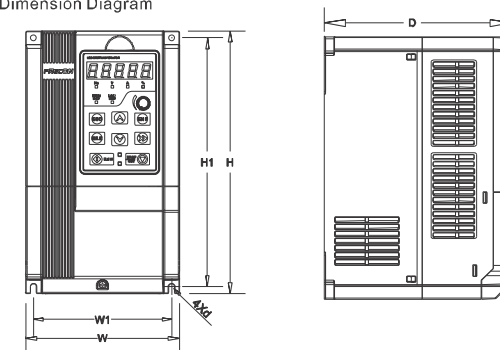
Product Installation Dimension

F1-1~F1-2 Structure Dimension Diagram



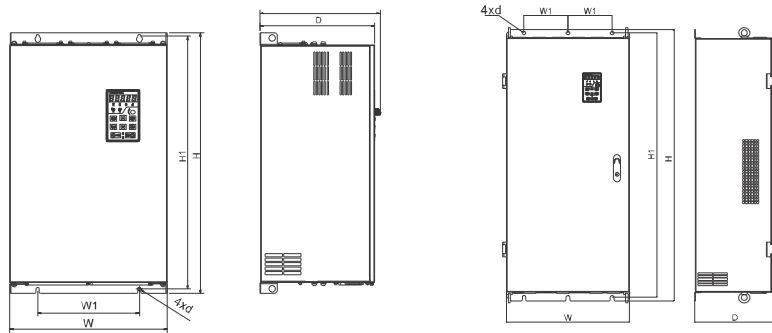
Size of the case	External and installation dimensions (mm)											Weight (kg)
	W	H	D	W1	W2	H1	H2	H3	H4	Mounting Hole Diam d1	Mounting Hole Diam d2	
F1-1	95	162	120	85	11	151.5	152	110.8	130	4.5	4.5	1.1
F1-2	110	173	135	100	11	163	163	121.8	140.5	4.5	5	1.5

F2-1~F2-3 Structure Dimension Diagram



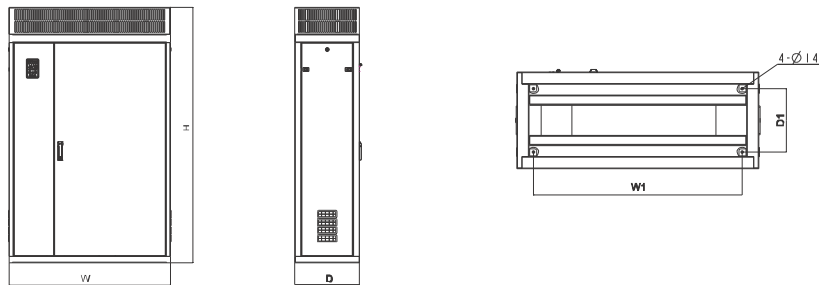
Size of the case	External and installation dimensions (mm)						Weight (kg)
	W	W1	H	H1	D	Mounting Hole Diameter	
F2-1	117	107	187	177	160	4.5	2.2
F2-2	146	131	249	236	177	5.5	3.2
F2-3	198	183	300	287	185	5.5	5.4

Appendix



Size of the case	External and installation dimensions (mm)						Weight (kg)
	W	W1	H	H1	D	Mounting Hole Diameter	
F2-4	255	176	459	443	220	7	15.5
F2-5	270	130	590	572	260	7	27.5
F2-6	357	230	590	572	260	7	37
F2-7	430	320	830*	802	293	12	77.7
F2-8	500	180	1107*	1078	328	14	138.5
F2-9	660	230	1160*	1130	340	14	190
F2-10	810	300	1140*	1110	400	14	196

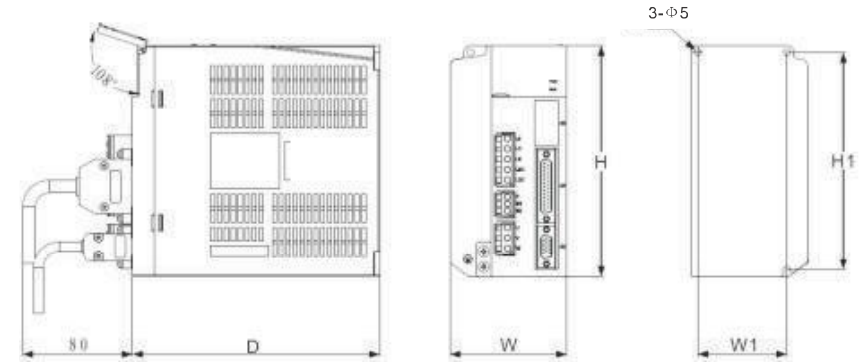
F2-11 Structure Dimension Diagram



Size of the case	External and installation dimensions (mm)					
	W	W1	H	D	D1	Mounting Hole Diameter
F2-11	1200	1036	1900	480	316	14

Product Installation Dimension

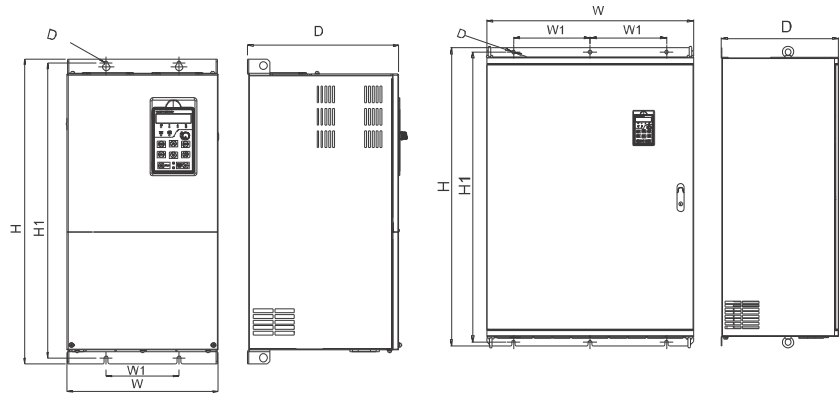
S1-1~S1-11 Structure Dimension Diagram



Size of the case	External and installation dimensions (mm)					
	W	W1	H	H1	D	Mounting Hole Diameter
S1-1	55	/	168	158	150	5
S1-2	65	55	168	158	150	5
S1-3	85	65	168	158	180	5
S1-4	95	65	168	158	180	5
S1-5	95	65	200	189	180	5
S1-6	105	94	220	209	180	5
S1-7	115	104	250	239	210	5
S1-8	95	65	168	158	180	5
S1-9	95	65	200	189	180	5
S1-10	105	94	220	209	180	5
S1-11	115	104	250	239	210	5

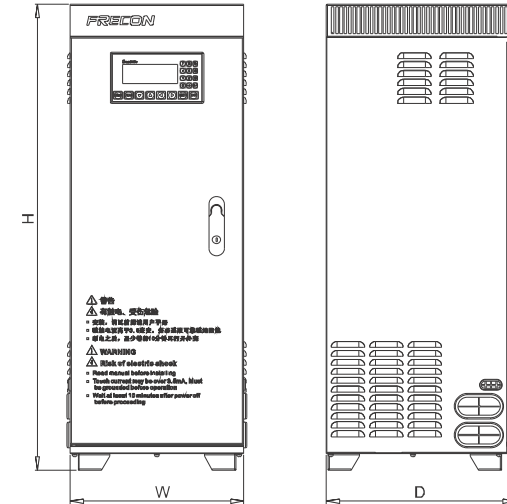
Product Installation Dimension

F6-1~F6-6 Structure Dimension Diagram



Size of the case	External and installation dimensions (mm)					
	W	W1	H	H1	D	Mounting Hole Diameter
F6-1	206	130	414	398	229	7
F6-2	270	130	545	527	270	7
F6-3	357	230	620	602	290	7
F6-4	430	320	825	798	305	12
F6-5	660	230	1030	1000	359	14
F6-6	810	300	1167	1137	460	14

S2-1~S2-4 Structure Dimension Diagram



Size of the case	External and installation dimensions (mm)		
	W	H	D
S2-1	250	660	280
S2-2	300	720	350
S2-3	320	860	350
S2-4	360	980	410
S2-5	538	1300	447
S2-6	660	1660	500