

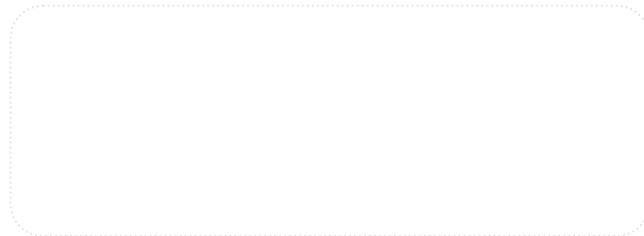


INNOVATION • DEDICATED • SERVICE • WIN-WIN



FR600 Series

550Vac/690Vac Vector Control Inverter



FRECON ELECTRIC (SHENZHEN) CO.,LTD.

Add: 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



For FRECON Website
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WARNING
Risk of electric shock
Read manual before installation
Touch current may be over 3 amp, Must be grounded before operation
Wait at least 10 minutes after power off before proceeding

FRECON ELECTRIC (SHENZHEN) CO.,LTD.



FR600 Series summary

FR600 Series can be customized designed for industry solutions in Metallurgy, Crane, Petro, Chemical and Mining industries. Specifically France, Germany, Finland, South Africa and other countries developed industrial grid voltage for medium voltage drives.



Large margin derating design

- 32 bit Cortex-M3 ARM core host CPU, clocked at 144MHz.
- Infineon IGBT module 1700V voltage level.



- 1000V voltage electrolytic capacitors (500V grade), 1200V voltage electrolytic capacitors (660V grade)
- 1800V voltage rectifier module (500V grade), 2400V voltage rectifier module (660V grade)



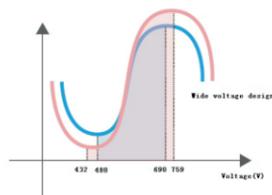
superior environmental adaptability

- Standard products using three anti-paint treatment, Duct isolation technology, resistant to moisture, dust, sealed design, easy to deal with harsh industrial environments.



Superior Immunity design

- Wide operating voltage range, low voltage by over-modulation technology to ensure load capacity.
- On the grid surge (lightning strike), power grid noise, electrostatic immunity, to harsh industrial standards.
- Control power and bus separation; control power transformer isolated isolation separate power supply, control power standard design of the filter circuit.



Excellent performance

- High starting torque
- 180% Rated torque / 0.5Hz (SVC 1)
- 180% Rated torque / 0.25Hz (SVC 2)
- Reduce the sensitivity from SVC control to motor parameter, to improve the site adaptability

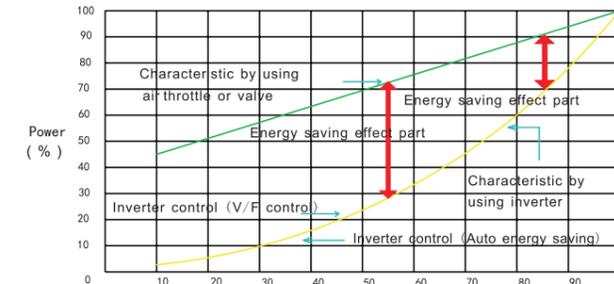


Abundant function

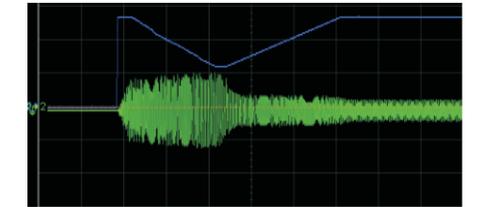
Integrated model with G&P in one

Load torque characteristic	Variable torque characteristic (P model)	Constant torque characteristic (G model)
Load characteristic	Torque vs Speed graph showing a curve that rises with speed.	Torque vs Speed graph showing a constant torque level.
	Fan, pump load type Load torque change is proportional to speed (Non need overload capacity)	Conveyor belt, trolley and other constant torque load type Fixed Load torque (Overload capacity required)
Inverter characteristic	Overload capacity: 120% rated current: 60S Maximum output power: 600Hz	Overload capacity: 150% rated current: 60S 600Hz

- Equipped functions most suitable for fan and pump, equipped PID control function
- To implement temperature, pressure, flow control without extra controllers



- Air flow or water flow Q(%) energy saving effect characteristic
- Different motor characteristic, different effect
- Dormant & wakeup function: Supports frequency dormant & wakeup and pressure dormant & wakeup, better adaptability for various sites
- Speed tracing function: Inverter starts motor smoothly according to motor's current running direction and speed



Speed tracing output frequency and current waveform



Green color is input voltage
Yellow color is output frequency
Red color is bus voltage

- Oscillation suppression function



Convenient debugging

- Powerful background software



- Short-cut menu: Common parameters setting rapidly to save customer's time to read manual
- Unique upload and download module which is convenient for parameter commissioning: Restore factory parameters, backup user parameters
- Design special application macro according to industry demand

Electric Specification

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	206*414*229
	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		
	FR600-5T-018	18.5	35	37	35	F6-2	270*560*270
	FR600-5T-022	22	40	42	40		
	FR600-5T-030	30	52	55	52		
	FR600-5T-037	37	64	68	65		
	FR600-5T-045	45	77	82	77	F6-3	355*620*290
	FR600-5T-055	55	97	103	98		
	FR600-5T-075	75	125	130	124		
	FR600-5T-090	90	148	157	150		
	FR600-5T-110	110	178	189	180	F6-4	430*825*305
	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*369
	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		

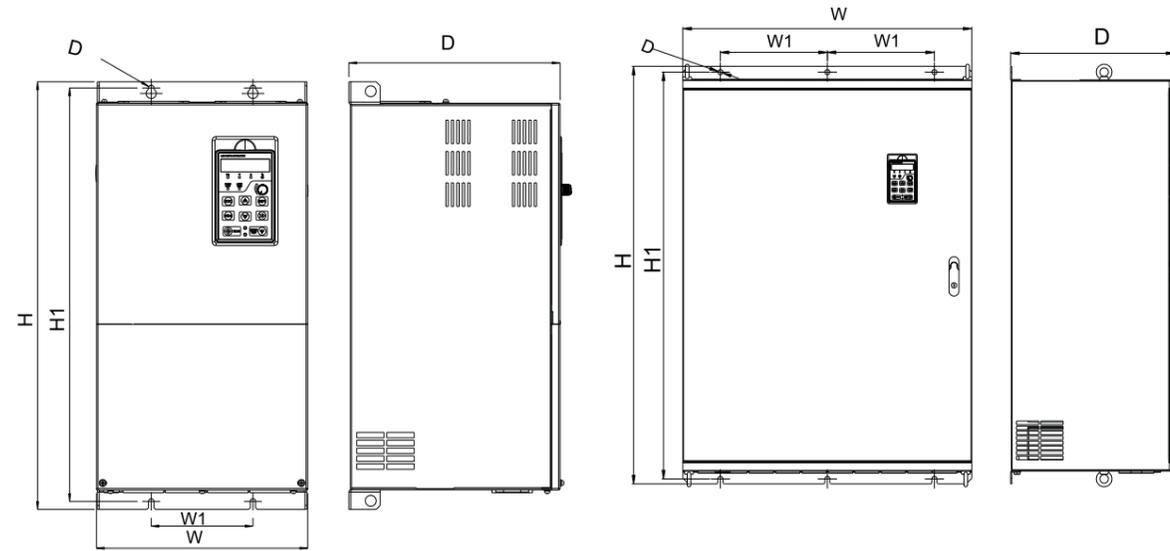
690VAC	FR600-6T-5.5	5.5	10	9	7.6	F6-1	206*414*229
	FR600-6T-7.5	7.5	15	13	11		
	FR600-6T-011	11	20	17	14.5		
	FR600-6T-015	15	27	23	20		
	FR600-6T-018	18.5	35	30.0	25	F6-2	270*560*270
	FR600-6T-022	22	37	35.0	28		
	FR600-6T-030	30	43	40.0	35		
	FR600-6T-037	37	51	47.0	45		
	FR600-6T-045	45	65	52.0	52	F6-3	355*620*290
	FR600-6T-055	55	80	67.0	65		
	FR600-6T-075	75	93	82.0	86		
	FR600-6T-090	90	123	96.0	98		
	FR600-6T-110	110	147	120.0	124	F6-4	430*825*305
	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*369
	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	F6-6	810*1167*460
	FR600-6T-355	355	454	370.0	390		
	FR600-6T-400	400	488	415.0	430		
	FR600-6T-450	450	559	460	480		
	FR600-6T-500	500	645	520	540	F6-6	810*1167*460
	FR600-6T-560	560	660	580	600		
	FR600-6T-630	630	812	655	680		

Technical Parameters

Main Power	Input Voltage Uin	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%		

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	355	230	620	602	290	7
F6-4	430	320	825	798	305	12
F6-5	660	230	1030	1000	369	14
F6-6	810	300	1167	1137	460	14

Service Network

