GK500 Mini Series AC Motor Drives (0.4KW-3.7KW)

Information of Product Model

Product model and technical data

Voltage	Model	Power rating（kW）	Output current（A）	Triphase input current（A）	Single-phase input current（A）	Applicable motor（kW）	Brake unit
200V*	GK500-2T0.4B	0.4	2.6	3.2	5.5	0.4	inbuilt
	GK500-2T0.75B	0.75	4.5	6.3	9.2	0.75	
	GK500-2T1.5B	1.5	7.5	9	14.5	1.5	
	GK500-2T2.2B	2.2	9.6	15	23	2.2	
400V	GK500-4T0.75B	0.75	2.5	3.5	/	0.75	
	GK500-4T1.5B	1.5	3.8	6.2	/	1.5	
	GK500-4T2.2B	2.2	5.5	9.2	/	2.2	
	GK500-4T3.7B	3.7	9	14.9	/	3.7	

* 200V drives are applicable for triphase 200V and single-phase 200v

Technical Features of GK500 Mini Series AC Motor Drives

Technical Features of GK500

Power input	Rated input voltage	3-phase AC208V/AC220V/AC230V/AC240V/AC380V/AC400V/AC415V/AC440V/AC460V/AC480V 1-phase AC220V/AC230V/AC240V
	Rated input current	See Section 2.3
	Frequency	50Hz/60Hz, tolerance ±5%
	Allowable range of voltage	Continuous voltage fluctuation ±10%, short fluctuation -15%~+10% Voltage out-of-balance rate <3%, distortion rate as per the requirements IEC61800-2
Power output	Applicable motor (kW)	See Section 2.3
	Rated current (A)	See Section 2.3
	Output voltage (V)	3-phase: 0~ rated input voltage, error < ±3%
	Output frequency (Hz)	0.00~ 600.00Hz; unit: 0.01Hz
	Overload capacity	150% - 1min; 180% - 10s; 200% - 0.5s
Control characteristics	V/f patterns	V/f control Sensor-less vector control 1
	Speed regulation range	1:100 (V/f , sensor-less vector control 1)
	Speed accuracy	±0.5% (V/f control) ±0.2% (sensor-less vector control 1)
	Speed fluctuation	±0.3% (sensor-less vector control 1)
	Torque response	< 10ms (sensor-less vector control 1)
	Start torque	0.5Hz: 180% (V/f control, sensor-less vector control 1)
Basic functions	Start frequency	0.00~ 600.00Hz
	Accel/ Decel time	0.00~60000s
	Carrier frequency	0.7kHz~12kHz
	Frequency setting	Digital setting + keypad ∧/∨ Digital setting + terminal UP/DOWN Potentiometer

		Communication Analog setting (AI1)
	Motor started methods	Started from starting frequency DC braking and then started
	Motor stopped methods	Ramp to stop Coast to stop Ramp stop + DC brake
Basic functions	Dynamic braking capacity	Brake unit threshold voltage: 400V input: 650V~750V 200V input: 325V～375V service time: 0.0~100.0s
	DC braking capacity	DC braking start frequency: 0.00~600.00Hz DC braking current: 0.0~100.0% DC braking time: 0.0~30.00s
	Input terminals	4 digital inputs 1 analog, current/voltage type selectable
	Output terminals	1 digital output 1 relay output
		1 analog output, voltage/current output selectable; can output signals such as setting frequency, or output frequency, etc
Featured functions	various master & auxiliary commands and their switch, a variety of Accel/Decel curves optional, analog auto correction, 8-step speed programmable, three faults history, over excitation brake, over voltage stall protection, under voltage stall protection, restart upon power loss, skip frequency, frequency binding, four kinds of Accel/Decel time, process PID, autotuning, field-weakening control	
Protection functions	Refer to Chapter 6- Troubleshooting	
Environment	Place of operation	Indoors, no direct sunlight, free from 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℃~50℃
	Relative humidity	0~95%, no condensation
	Vibration	Less than 5.9m/s2 (0.6g)
	Storage temperature	-40℃~+70℃
Others	Efficiency at rated Amps	At rated Amps ≥93%
	Installation	Wall-mounted, Din-rail
	IP grade	IP20
	Cooling method	Forced air cooling

Environment requirement:

1. Conditions: Indoors, free from direct sunlight, corrosive gases, flammable gases, oil mist, water vapor, metal particles, etc.
2. Altitude: 0~2,000m. Derating is required above 1,000m, Rated output current should be derated 1% per 100m increase above 1000m.
3. Ambient temperature: -10°C~50°C. De-rating 1% per centigrade additional for temperature >50°C
4. Vibration: Less than 5.9 m/s²(0.6g)
5. Storage temperature: -40~70°C
6. Protection grade: IP20
7. Type of cooling: Air cooling

Applications:

Fan, Oil pump, Water pump, compressor, injection molding machine, engraving machine, textile, packaging, conveyor, treadmill, Printing machine, Lathe, Machine tool, hydraulic machine, wire drawing, winder/un-winder, etc.

GTAKE AC Motor Drives At a glance: