

TOPGIN

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Money Follows You!
It Is Not Illusional. Realities Tell You All.



TOP GIN specializing in designing and manufacturing of Frequency Inverter since 1983.
More than 12 kinds of TOP GIN Frequency Inverter with energy saving module 1 ~ 1000HP.
Innovation, Precision, Energy Saving, Customization

TG100

Powerful functions, Extreme miniaturization

Performance – Features – Full frequency – Automatic torque boost

■ Three-phase L10 220V(0.75KW)~L30 220V (2.2KW)

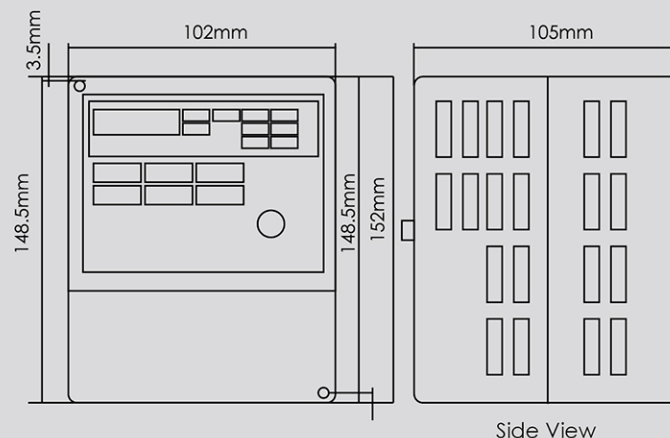
■ Single-phase S10 220V(0.75KW)~S30 220V (2.2KW)

Specification

Voltage level	220V (single-phase & three-phase)		
Three-phase	L10	L20	L30
Single-phase	S10	S20	S30
Motor (KW)	0.75	1.5	2.2
Output			
Rated Capacity (KVA)	2	3	4.2
Rated Current (A)	5.5	8	11
The maximum output voltage	■ Three-phase power supply: 200 ~ 240V three-phase input corresponding Single-phase power supply; ■ single-phase 200 ~ 240V input corresponding		
The maximum output frequency	Up to 400Hz by parameter setting		
Power supply			
Rated voltage, frequency	■ Three-phase power supply: three-phase 200 ~ 240V, 50 / 60Hz Single-phase power supply; ■ single-phase 200 ~ 240V, 50 / 60Hz		
Allowable voltage fluctuation	+10% , -15%		
Allowable frequency fluctuation	±5%		

Control Characteristics	
Control mode	Sine wave PWM mode (V / f control)
Frequency control range	0.1 ~ 400Hz
Frequency accuracy	■ Digital command: ± 0.01% (-10~+50℃) ■ Analog command: ±0.5%(25 to ±10℃)
Frequency setting resolution	■ Digital command: ± 0.01% .100Hz under1Hz (100Hz or more) ■ Analog command: 1/1000 of maximum output frequency
Output frequency resolution	0.01Hz
overload	150% of rated current in one minute
Frequency setting	0 ~ 10VDC (20KΩ), 4 to 20mA (250Ω), 0 to 20mA (250Ω) Frequency setting by a selectable switch
Acceleration and deceleration time	0.0 to 999 seconds (2 groups of acceleration, deceleration time can be switched)
Brake torque	Braking resistance up to 150%

Dimension



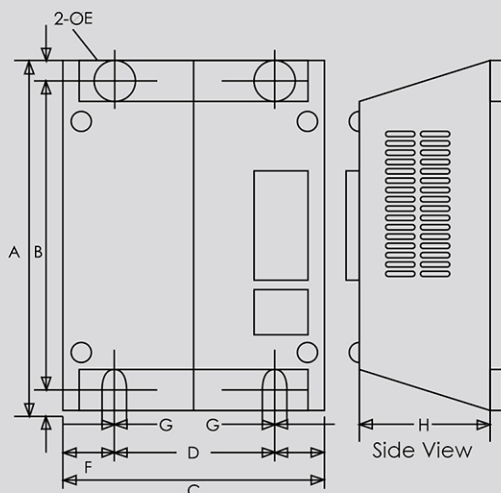
Side View

STANDARD 220V class	TG600.TG900																			
	TG300.TG700.TG1000																			
	L15	L20	L30	L50	L75	L100	L150	L200	L300	L400	L500	L600	L750	L1000	L1250	L1500	L1750	L2000	L2500	L3000
Output																				
Motor (KW)	0.75	1.5	2.2	3.7	5.5	7.5	11	15	22	30	37	45	55	75	94	110	132	160	185	225
Inverter capacity (KVA)	2.3	2.5	4.3	6.8	9.9	13.5	19.5	24.5	37.5	51	62	70	85	110	138	165	193	230	260	312
Rated output current (A)	6	8	11	18	26	34	50	65	96	132	163	183	224	330	413	485	525	600	700	840
Motor rated current (A)	3.3	6.2	8.5	14	19.6	26.6	39.7	53	77.2	105	131	160	190	260	326	391	456	480	600	720
The maximum output voltage	Three-phase, 200 ~ 240V (corresponding to input voltage)																			
Rated output frequency	TG300.TG600.TG700.TG900 - 400Hz TG1000 - 1300Hz																			
Power supply																				
Rated output voltage and frequency	Three-phase, 200 ~ 240V 50 / 60Hz																			
Allowable voltage fluctuation	+10% , -15%																			
Allowable frequency fluctuation	±5%																			

STANDARD 380/440Vclass	TG600.TG900																												
	TG300.TG700.TG1000																												
	H15	H20	H30	H50	H75	H100	H150	H200	H300	H400	H500	H600	H750	H1000	H1250	H1500	H1750	H2000	H2500	H3000	H4000	H5000	H6000	H7000	H8000	H10000	H12000		
Output																													
Motor (KW)	0.75	1.5	2.2	3.7	5.5	7.5	11	15	22	30	37	45	55	75	94	110	132	160	185	220	300	375	450	525	600	750	900		
Inverter capacity (KVA)	2.6	3.7	4.7	6.7	12	16	21.5	26	41.5	52	62	75	98	130	160	170	200	230	260	340	460	600	660	800	900	1143	1371		
Rated output current (A)	3.4	4.8	6.2	8	14.5	21	28	34	54	67	80	98	128	165	206	224	260	300	340	450	600	750	800	910	1030	1300	1500		
Motor rated current (A)	1.6	3.1	4.2	7	9.8	13.3	19.9	26.5	38.6	52.3	65.6	79.7	95	130	156	190	223	270	310	370	500	600	700	830	950	1180	1400		
The maximum output voltage	Three-phase, 345 ~ 480V (corresponding to input voltage)																												
Rated output frequency	TG300.TG600.TG700.TG900 - 400Hz TG1000 - 1300Hz																												
Power supply																													
Rated output voltage and frequency	Three-phase, 380~ 440V 50 / 60Hz																												
Allowable voltage fluctuation	+10% , -15%																												
Allowable frequency fluctuation	±5%																												

INVERTER & ENERGY

Size



Specifications are subject to change without notice

		Size (MM)								Weight (KG)	
220V	380V 440V	A	B	C	D	E	F	G	H	220V	380V 440V
L15	H15									3.5	3.6
L20	H20									3.7	3.7
L30	H30	302	292	150	140	5	5	5	180	3.8	3.7
L50	H50									4.2	4
L75	H75									4.4	4.5
L100	H100	300	288	200	185	5.5	8	5.5	208	9	-
L150	H150	320	308	202	185	5.5	8	5.5	220	-	10
L200	H200	390	373	256	236	7	10	7	240	15	16
L300	H300									16	17
-	H400	485	467	301	273	8	11.5	8	270	22	22
-	H500									-	23
L400	H600									-	24
L500	H750	570	554	320	220	10	50	10	287	34	33
-	H1000									36	34
L600	H1250	565	552	380	270	7	55	7	295	-	43
-	H1500									38	45
L750	H1750	685	664	420	320	13	50	8	335	-	56
L1000	H2000									51	65
L1500										61	85
L2000										110	-
L2500	H2500	900	875	580	460	12	60	12	340	130	-
L3000	H3000									142	110
-	H4000									160	140
-	H5000	1100	1070	760	540	12	110	12	355	-	210
-	H6000									-	215
-	H7000									-	220
-	H8000									-	230
-	H10000	1100	1070	1120	540	12	110	12	355	-	240
-	H12000									-	280
										-	300

TG300

Applicable to energy saving PID. PLC

Control Characteristics	
Control mode	Sine wave PWM mode
Frequency control range	0.1 ~ 400Hz
Frequency accuracy (temperature change)	- Digital signal: $\pm 0.01\%$ ($-10 \sim +40^{\circ}\text{C}$) - Analog signal: $\pm 0.1\%$ ($25^{\circ}\text{C} \pm 10^{\circ}\text{C}$)
Frequency setting resolution	- Digital signal: 0.1Hz - Analog signals: 0.06Hz / 60Hz
Frequency output resolution	0.01Hz
Overload	150% of rated current 1 minute
Analog frequency setting signal	DC $-10 \sim +10\text{V}$ (20K Ω) , 4-20mA(250 Ω)
Deceleration time	0.01 to 3600 seconds (acceleration, deceleration time set individually)
Brake torque	About 20% (125% loaded brake controller)
V / F curve	15 kinds of fixed type, internal parameter setting adjustable V / F curve a
Protective function	
Motor protection	Electronic thermal relay protection
Instantaneous overcurrent	200% of rated current, the motor stops running
Fuse protection	The motor stops running after the fuse blows
Overload	150% of rated output, the motor stops running after one minute
Overvoltage	220V – The motor stops running if the DC voltage of the main circuit is over 410V 440V – The motor stops running if the DC voltage of the main circuit is over 820V
Low Voltage	220V – The motor stops running if the DC voltage of the main circuit is over 190V 440V – The motor stops running if the DC voltage of the main circuit is over 380V
Instantaneous power-off offset	Instantaneous power-off over 15ms, the motor stops running (Up to 2 seconds if adding an external capacitor)
Overheat	Thermistor protection
Stall prevention	Stall prevention during acceleration and deceleration
Ground protection	Electronic circuit protection
Charging indicator	The charging indicator turns on when the DC voltage of the main circuit is over 50V
Environmental conditions	
Workshop	There is no corrosion or dust in the workshop
Ambient temperature	$-10 \sim +40^{\circ}\text{C}$ (Wall-mounting type) $-10 \sim +45^{\circ}\text{C}$ (Disk-taking type, non-freezing condition)
Storage temperature (* 2)	$-20 \sim +60^{\circ}\text{C}$
Humidity	Below 90% RH (non-condensing conditions)
Vibration	Below 20Hz: 1G; 20 ~ 50Hz: 0.2G
Protection Status	Wall-mounting type and Disk-taking type

TG700

Applicable to permanent magnet servo controller IP

Control Characteristics	
Control mode	High carrier wave, sine wave PWM, vector control
Speed control accuracy	$\pm 0.01\%$
Speed control range	1 : 1000
Maximum torque	455% of the rated motor torque
Speed setting signal	$-10 \sim 10\text{V}$, $0 \sim 10\text{V}$, 4~20mA
Acceleration and Deceleration time	Individual settings by 0.01 seconds
S word setting	Individual setting for Start, Acceleration, Deceleration and Stop
Main control functions	- Starting torque offset (load detection value input method) - Power outage control (battery operation) - Multi-speed operation (up to 9 speed) - Automatic S word by acceleration and deceleration
Protective function	
Motor protection	Electronic thermal protection devices
Instantaneous overcurrent	More than 300% of rated output current
Fuse protection	Stop after fuse blows
Overload capacity	150% in one minute; 200% in ten seconds
Overvoltage	Stop when the DC voltage of the main circuit is more than 400V / 820V
Insufficient voltage	Stop when the DC voltage of the main circuit is more than 220V / 380V
Instantaneous power-off offset	Stop when more than 15ms (at 50% of load)
Overheat	Thermistor protection
Stall Prevention	Stall prevention during acceleration and deceleration
Ground protection	Electronic circuit protection
Charging indicator	The charging indicator turns on when the DC voltage of the main circuit is over 50V
Environmental conditions	
Workshop	There is no corrosion or dust in the workshop
Humidity	Below 90% RH (non-condensing)
Storage temperature	$-20 \sim 70^{\circ}\text{C}$
Ambient temperature	$-10 \sim 50^{\circ}\text{C}$
Sea-level elevation	1000M below
Vibration resistance acceleration	Vibration frequency less than 20Hz: 9.81M/S (1G) Vibration frequency 20 ~ 50Hz: 1.96M/S (0.2G)

ENERGY SAVING MODULE
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Control Characteristics

	TG600	TG900	TG1000
Control mode	Sine wave PWM mode selectable by parameter setting (1) V / F control (2) V / F control attached PG feedback (3) Current speed sensorless flux vector control (4) flux vector current control PG feedback		V / F control
Starting torque	150% / zero rpm (150% / 1Hz, When PG is not attached)	120% / zero rpm (150% / 1Hz, When PG is not attached)	120% / zero rpm
Speed control range	1:1000 (1:100, when PG is not attached)		1:100
Speed control accuracy	± 0.02% (±0.2%, when PG is not attached)		±0.2%
Speed response	30Hz (33ms) (5Hz (200ms), when PG is not attached)		5Hz (200ms)
Torque limit	Four quadrants can be set independently by parameter settings		
Torque Control	Four-quadrant operation (Motorize forward / reverse, Motorize backward / reverse)		
Torque response	40Hz (25ms) (20Hz (50ms), when PG is not attached)		20Hz (50ms)
Frequency control range	0.01～400Hz		0.01～1300Hz
Frequency control accuracy	Digital signal: ± 0.01% (-10 °C ～ + 40 °C) analog signal: ± 0.1% (25 °C ± 10 °C)		
Frequency setting resolution	Digital signal: 0.01Hz analog signal: 0.03Hz/60Hz*(12bit)		
Frequency output resolution	0.01Hz		
Overload	150% of rated current 1 minute PER10MIN @ 40 °C above		
Analog frequency setting signal	DC-10～+10V・0～10V(20KΩ)4 ～ 20mA(250Ω)		
Acceleration and Deceleration time	0.01 to 6000.0 seconds (four groups of acceleration, deceleration time set individually)		
Brake torque	Approximately 20% additional Brake up to 150%		
Run / stop setting	Operator, RS232, RS485 / 422, the control circuit terminals, 12/16 BIT binary signal		
Protective function			
Motor protection	Electronic thermal relay protection, phase failure protection		
Instantaneous overcurrent	200% of rated current, the motor stops running		
Fuse protection	The motor stops running after the fuse blows		
Overload	The motor stops running if 150% of rated output current at 1 minute PER 10MIN @ 40°C		
Overvoltage	220V – The motor stops running if the DC voltage of the main circuit is over 400V 440V – The motor stops running if the DC voltage of the main circuit is over 800V		
Low Voltage	220V – The motor stops running if the DC voltage of the main circuit is over 200V 440V – The motor stops running if the DC voltage of the main circuit is over 400V		
Instantaneous power-off offset	The motor continues running after blackouts in 2 seconds (external capacitor)		
Overheat	Thermocouple Protection		
Stall prevention	Stall prevention during acceleration and deceleration		
Ground protection	Electronic circuit protection		
Charging indicator	The charging indicator turns on when the DC voltage of the main circuit is over 50V		
Vibration	Below 20Hz: 1G; 20 ～ 50Hz: 0.2G		
Efficiency	Pf≥0.95& η ≥0.95@40°C above		



TOP GIN



EXPERIENCE



CUSTOMIZED SERVICE



SPECIALTY TEAM



ADVANCED EQUIPMENT

SHANGCHIN ELECTRONICS CORP.(TOPGIN)

- Address : 265, Sec. 3, Chang Mei Ro., Ho Mei Zhen, Chang-Hua Hsien, Taiwan R.O.C.
- Tel : +886-4-7564838
- Fax : +886-4-7565521
- E-mail : topgin@topgin.com.tw
- Web : www.topgin.com.tw
- Facebook : www.facebook.com/Money1106

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Agents

