INVERTER
SPEECON
SENSORLESS VECTOR
7200GAS

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TECO

3-PHASE 220V 7.5HP～100HP

3-PHASE 440V 7.5HP～400HP

User friendly
Graphical LCD Operator or LED Operator

Various control mode
V/F control（with slip compensation）
Sensorless Vector control（with Auto tuning）
PID control（with Auto Energy Saving）
V/F＋PG control

Various power supply design
three-phase 220V series（200V to 240V）
three-phase 440V series（380V to 480V）

Various functions
Including the PID CONTROL, the speed search,
the over / under torque detection, the torque limit etc.

Counter measures to minimize harmonic current
Models of 18.5KW or more come equipped with
built-in DC reactor（18 pulses converter unit：option）

SPECIFICATIONS

Basic Specifications

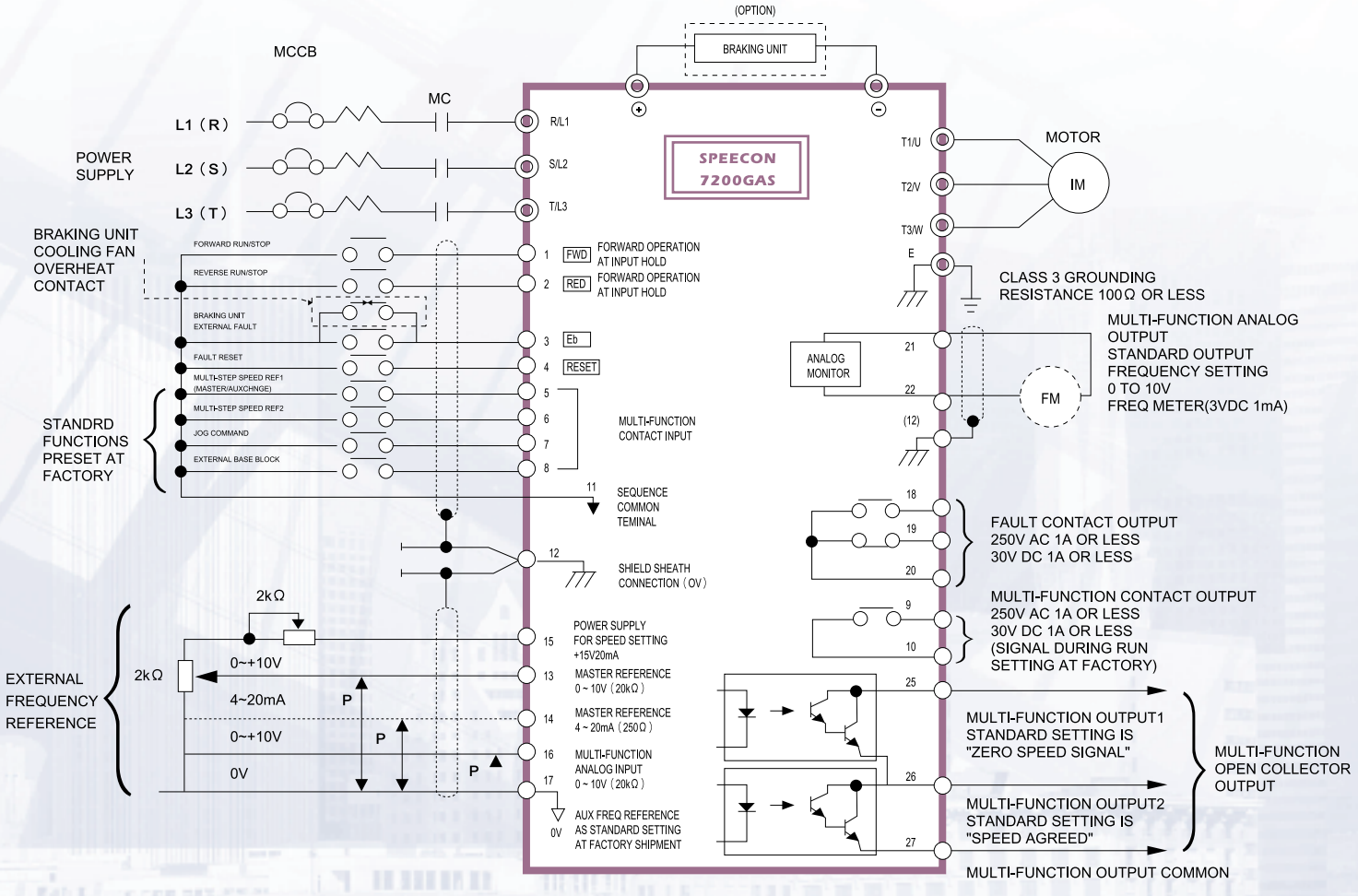
220V CLASS

INVERTER（HP）		7.5	10	15	20	25	30	40	50	60	75	100
MAX. APPLIVABLE MOTOR OUTPUT HP（KW）*1		7.5（5.5）	10（7.5）	15（11）	20（15）	25（18.5）	30（22）	40（30）	50（37）	60（45）	75（55）	100（75）
Output Characteristics	Inverter Capacity（KVA）	10.3	13.7	20.6	27.4	34	41	54	57	67	85	128
	Rated Output Current（A）	24	32	48	64	80	96	130	160	183	224	300
	Max Output Frequency	3-Phase，200/208/220/230V（Proportional to input voltage）										
	Rated Output Frequency	Up to 400 Hz available										

440V CLASS

INVERTER（HP）		7.5	10	15	20	25	30	40	50	60	75	100	125	150	175	215	250	300	400
MAX. APPLIVABLE MOTOR OUTPUT HP（KW）*1		7.5（5.5）	10（7.5）	15（11）	20（15）	25（18.5）	30（22）	40（30）	50（37）	60（45）	75（55）	100（75）	125（90）	150（110）	175（132）	215（160）	250（185）	300（220）	400（300）
Output Characteristics	Inverter Capacity（KVA）	10.3	13.7	20.6	27.4	34	41	54	57	67	85	138	180	195	230	260	290	385	514
	Rated Output Current（A）	12	16	24	32	40	48	64	80	96	128	165	192	224	270	300	340	450	600
	Max Output Frequency	3-Phase，380/400/415/440/460V（Proportional to input voltage）																	
	Rated Output Frequency	Up to 400 Hz available																	

GENERAL WIRING DIAGRAM FOR MODELS 30~400HP



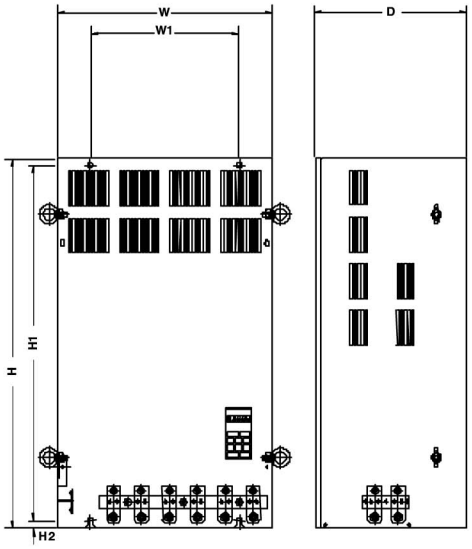
SPECIFICATIONS

CHARACTERISTICS

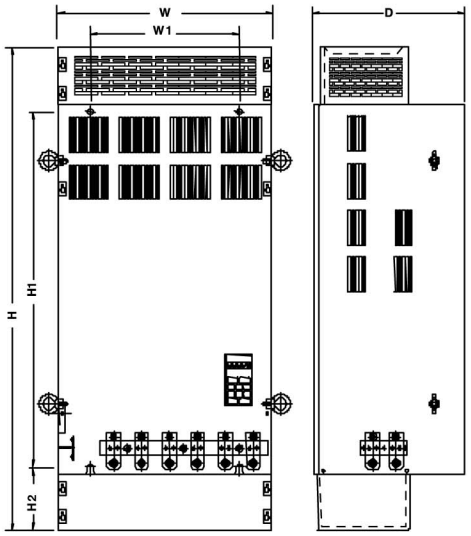
Control Characteristics	Control Method	▲ Sine wave PWM ▲ Four control mode（switched by parameter） — V/F control — Sensor less vector control（with auto-tuning） — PED & Auto Energy Saving Control — V/F+PG control
	Starting Torque	▲ V/F control：150% at 3HZ ▲ Sensorless vector control：150% at 1HZ
	Speed Control Range	▲ V/F control：1：10 ▲ Sensorless vector control：1：60
	Speed Response	▲ 5HZ（sensorless vector）
	Speed Control Accuracy	▲ V/F control：±1%（with slip compensation） ▲ V/F+PG control：±0.03% ▲ Sensorless Vector control：±0.2%
	Frequency Control Range	▲ 0.1~400.0HZ
	Frequency Setting Resolution	▲ Digital reference：0.01HZ（100HZ below）；Analog reference：0.06HZ/60HZ
	Frequency Accuracy	▲ Digital reference：±0.01%（-10~+40℃）；Analog reference：±0.1%（25℃±10℃）
	Output Frequency Resolution	▲ 0.01HZ（1/30000）
	Frequency Setting Signal	▲ 0~10VDC（20KΩ；4~20mA（250Ω））
	Overload Capacity	▲ 150% rated output current for 1 min
	Accel/Decel time	▲ 0.1~600 sec（Accel / Decel time setting independently）
	Efficiency at Rated Freq	▲ 0.96 above
	Braking Torque	▲ Approx. 20%（Approx. 125%when using braking resistor）inverter of 220V 20HP（15KW）or less and 440V 25HP（18.5KW）or less have a built-in braking transistor
Protective Functions	Motor Overload Protection（OL1）	▲ Electronic thermal overload relay
	Instantaneous Over current（OC）and Short circuit Protection	▲ Motor coasts to stop at approx. 200%rated output current
	Inverter Overload Protection（OL2）	▲ 150%inverter rated output current for 1min
	Over voltage（OV）	▲ Motor coasts to stop if the main circuit voltage exceeds 410VDC（820VDC for 460V class）
	Under voltage（UV）	▲ Motor coasts to stop if the main circuit voltage drops to 190VDC（380VDC for 460V class）
	Momentary Power Loss	▲ Immediately stop after 15 ms or longer power less（at factory setting） Continuous operation during power less than 2 sec（standard）
	Fin Overheat（OH）	▲ Thermostat
	Stall Prevention	▲ Stall prevention during acceleration/deceleration and constant speed operation
	Ground Fault（GF）	▲ Provided by electronic circuit
	Power Charge Indication	▲ Indicates until main voltage reaches 50V
Environmental Conditions	Location	▲ Indoor（protected from-corrosive gases and dust）
	Humidity	▲ 95%RH（non-condensing）
	Storage Temperature	▲ -20~+60℃（for short period during shipping）
	Ambient Temperature	▲ -10~+40℃（for NEMA 1 type）；-10~+45℃（for open chassis type）
	Altitude	▲ 1000m or below
	Vibration	▲ 9.8m/s2 at 20HZ or below，up to 2m/s2 at 20 to 50HZ
Communication Function		▲ MODBUS，PROFIBUS（option）
EMI		▲ Meet EN50081-2（1994）with specified EMI filter
EMC Compatibility		▲ Meet Pr EN50082-2

DIMENSIONS

CHASSIS TYPE（IP00）



ENCLOSED WALL-MOUNTED TYPE（NEMA 1）



Voltage (V)	Inverter Capacity (HP)	Open Chassis Type（IP00）mm						Weight (Kg)	Enclosed Type（NEMA1）mm						Weight (Kg)	ACL/DCL
		W	H	D	W1	H1	d		W	H	D	W1	H1	d		
220V	7.5	211.2	300	215	192	286	M6	6	211.2	300	215	192	286	M6	6	ACL (Option)
	10															
	15	265	360	225	245	340	M6	11	265	360	225	245	340	M6	11	
	20															
	25	283.5	525	307	220	505	M8	36	291.5	745	307	220	505	M8	38	DCL Built-in (Standard)
	30															
	40															
	50	344	630	324.5	250	610	M8	47	352	945	324.5	250	610	M8	50	DCL Built-in (Standard)
	60							49							52	
	75	459	790	324.6	320	760	M10	82	462	1105	324.5	320	760	M10	87	
	100															
440V	7.5	211.2	300	215	192	286	M6	6	211.2	300	215	192	286	M6	6	External ACL (Option)
	10															
	15	265	360	225	245	340	M6	11	265	360	225	245	340	M6	11	
	20															
	25															
	30	283.5	525	307	220	505	M8	36	283.5	525	307	220	505	M8	38	DCL Built-in (Standard)
	40															
	50	344	630	324.5	250	610	M8	47	344	630	324.5	250	610	M8	50	DCL Built-in (Standard)
	60															
	75															
	100	459	790	324.6	320	750	M10	80	459	790	324.6	320	750	M10	85	DCL Built-in (Standard)
	125							80								
	150							81								
	175	599	1000	381.6	460	960	M12	128	599	1000	381.6	460	960	M12	135	DCL Built-in (Standard)
	215															
	250	730	1230	382	690	930	M12	160	730	1330	382	690	930	M12	166	External ACL (Option)
	300							170							176	
	400							190							196	

Remark：The chassis type and enclosed type are identical for rating 220v 20HP and smaller and 440v 25HP and smaller. Please remove the top cover for ventilation in cubicle.

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