

## Specification

Input Voltage Class	220V CLASS																440V CLASS																
	1/3-Phase				3-Phase												3-Phase																
Model	JNTMBGGBB□□□□JK																JNTMBGGBB□□□□AZ																
Max Applicable Motor Output	HP																																
Rated Output Capacity (KVA)	Through Parameter Setting (0Hz to 400Hz)																																
Rated Output Current(A)	3-Phase 200~230V																	3-Phase 380~460V															
Max. Output Voltage (V)	3-Phase 200~230V																	3-Phase 380~460V															
Max. Output Frequency (Hz)	Through Parameter Setting (0Hz to 400Hz)																																
Rated Voltage Frequency	1/3-Phase 200V~230V 50/60Hz				3-Phase 200V~230V 50/60Hz												3-Phase 380~460V · 50 / 60Hz																
Allowable Voltage Fluctuation	-15 %~ +10%																																
Allowable Frequency Fluctuation	±5%																																
Operation Mode	Graphic LCD Panel (English and Chinese) with parameters copying (LED Panel:option)																																
Control Mode	Sinusoidal PWM																																
Frequency Control Range	0.1Hz ~ 400Hz																																
Frequency Accuracy (varied with temperature)	Digital Command: ±0.01% (-10 ~ +40°C), Analog Command: ±0.1% (25°C±10°C),																																
Speed Control Accuracy	±0.1%(V/F with PG feedback), ±0.5% (Sensorless Vector Control)																																
Frequency Command Resolution	Digital Command: 0.01Hz Analog Command: 0.06Hz/60Hz																																
Frequency Output Resolution	0.01Hz																																
Overload Resistibility	150% Rated Current for 1 Min.																																
Frequency Setting Signal	DC 0~+10V / 4~20 mA DC-10V~+10V and Pulse Input Frequency Command (Above 220V/440V 3HP)																																
Acc./Dec. Time	0.0~6000.0 sec ( Accel/Decel Time Can Be Set Independently)																																
Voltage-Frequency Characteristics	V/F Curve Can Be Set Through Parameter Setting																																
Regeneration Torque	Approx. 20%																																
Basic Control Function	Restart After Momentary Power Loss, PID Control, Auto Torque Boost, Slip Compensation, RS_485 Communication, Feedback Control, PLC function, 2 Analog Output Port																																
Extra Function	Cumulative Power on & Operation Hour record , Energy Saving, Up/Down Operation, 4 Different sets of Fault Status Record (Including Latest one), Multiple-Pulse Output Select Local/Remote, Customer Application Software Environment (C.A.S.E.), SINK/SOURCE Interface																																
Stall Prevention	During Acceleration/Deceleration and constant Speed Running (Current Level Can Be Selected During Acceleration and Constant Speed Running. During Deceleration, Stall Prevention Can Be Enabled or Disabled)																																
Instantaneous Overcurrent	200% Rated Current																																
Motor Overload Protection	Electronic Overload Curve Protection																																
Inverter Overload Protection	150% Rated Current for 1 Min.																																
Overvoltage	Stop if VDC ≥ 410V (220 Class) or VDC ≥ 820V (440 Class)																																
Undervoltage	Stop if VDC ≤ 200V (220 Class) or VDC ≤ 400V (440 Class)																																
Momentary Power Loss Ride-Through time	≥ 15ms, stop otherwise																																
Overheat Protection	Protection by Thermistor																																
Grounding Protection	Protection by DC Current Sensor																																
Charge Indication (LED)	Lit when the DC Bus Voltage Above 50V																																
Output Phase Loss(OPL)	Motor coasts to stop at Output Phase Loss																																
Application Site	Indoor (No Corrosive Gas And Dust Present)																																
Ambient Temperature	-10°C ~ +40°C (Not Frozen)																																
Storage Temperature	-20°C ~ +60°C																																
Ambient Humidity	Below 90%RH (Non-Condensing)																																
Height, Vibration	Below 1000M, 5.9m/S <sup>2</sup> (0.6G), (JISC0911 Standard)																																
Communication Function	RS-485 Installed (MODBUS Protocol)																																
Encoder Feedback Interface	Built-in PG Feedback Interface Open-collector Interface or Complementary Interface																																
EMI	Meet EN61800-3 With Specified EMI Filter																																
EMS	Meet EN 61800-3																																
Option	PROFIBUS Card																																

\*Based on 4pole motor \*Specification of NEMA4 series : the same as above

## Braking Resistor

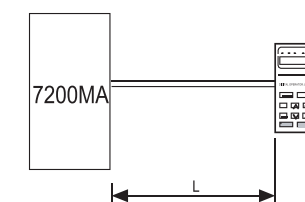
Resistor Model	Inverter Capacity		Specification of braking resistor		Braking resistor ED%	Braking torque %	
	V	HP	W	Ω			
JNBR	220V 1φ/3φ	150W200	1	150	200	3	125
		150W100	2	150	100	3	125
		150W70	3	150	70	3	120
		150W62	5	150	62	3	100
		600W35	7.5	600	35	10	100
		800W25	10	800	25	10	100
		2R4KW17	15	2400	17	10	100
		3KW13	20	3000	13	10	100
		4R8KW8	25	4800	8	10	125
		4R8KW6R8	30	4800	6.8	10	125
	3KW10	40	3000	10	10	100	
	440V 3φ	150W750	1	150	750	3	130
		150W400	2	150	400	3	125
		150W300	3	150	300	3	115
		150W200	5	150	200	3	110
		600W130	7.5	600	130	10	105
		800W100	10	800	100	10	100
		1KW68	15	1000	68	10	100
		1R6KW50	20	1600	50	10	100
		4R8KW32	25	4800	32	10	125
4R8KW27R2		30	4800	27.2	10	125	
6KW20	40	6000	20	10	125		
9R6KW16	50	9600	16	10	125		
9R6KW13R6	60	9600	13.6	10	125		
6KW20	75	6000	20	10	135		

## Filter

Filter Model	Current	Inverter Model		Filter Model	Current	Inverter Model	
		V	HP			V	HP
JUNF12015S-MA	15A	220V 1φ	1	JUNF34008S-MA	8A	440V 3φ	1
JUNF12015S-MA	15A		2	JUNF34008S-MA	8A		2
JUNF12020S-MA	20A		3	JUNF34012S-MA	12A		3
JUNF32012S-MA	12A	220V 3φ	1	JUNF34012S-MA	12A		5.4
JUNF32012S-MA	12A		2	JUNF34024S-MA	24A		7.5
JUNF32024S-MA	24A		3	JUNF34024S-MA	24A		10
JUNF32024S-MA	24A		5.4	JUNF34048S-MA	48A		15
JUNF32048S-MA	48A		7.5	JUNF34048S-MA	48A	20	
JUNF32048S-MA	48A		10	KMF370A	70A	25	
JUNF32070S-MA	70A		15	KMF370A	70A	30	
JUNF32070S-MA	70A	20	KMF3100A	100A	40		
			KMF3100A	100A	50		
			KMF3150A	150A	60		
			KMF3180A	180A	75		

### LCD operator with extension wire

When used for remote control purpose, the LCD operator can have different extension wires based upon the applications. Some extension wires are listed below.



Cable Length	Extension Cable Set *1	Extension Cable *2	Blank Cover *3
1m	4H332D0010000	4H314C0010003	4H300D1120000
2m	4H332D0030001	4H314C0030004	
3m	4H332D0020005	4H314C0020009	
5m	4H332D0040006	4H314C0040000	
10m	4H332D0130005	4H314C0060001	

\*1: Including special cable for LCD digital operator, Blank cover, fixed use screws and installation manual.

\*2: One special cable for LCD digital operator.

\*3: A blank cover to protect against external dusts, metallic powder, etc.

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## INVERTER

# 7200MA Series



# TECO 7200MA Series

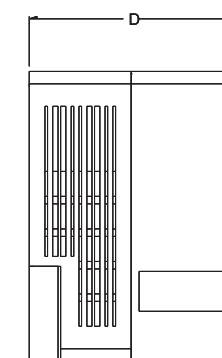
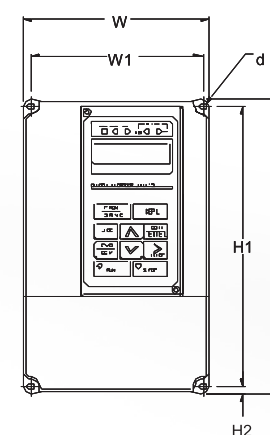


## Dimensions

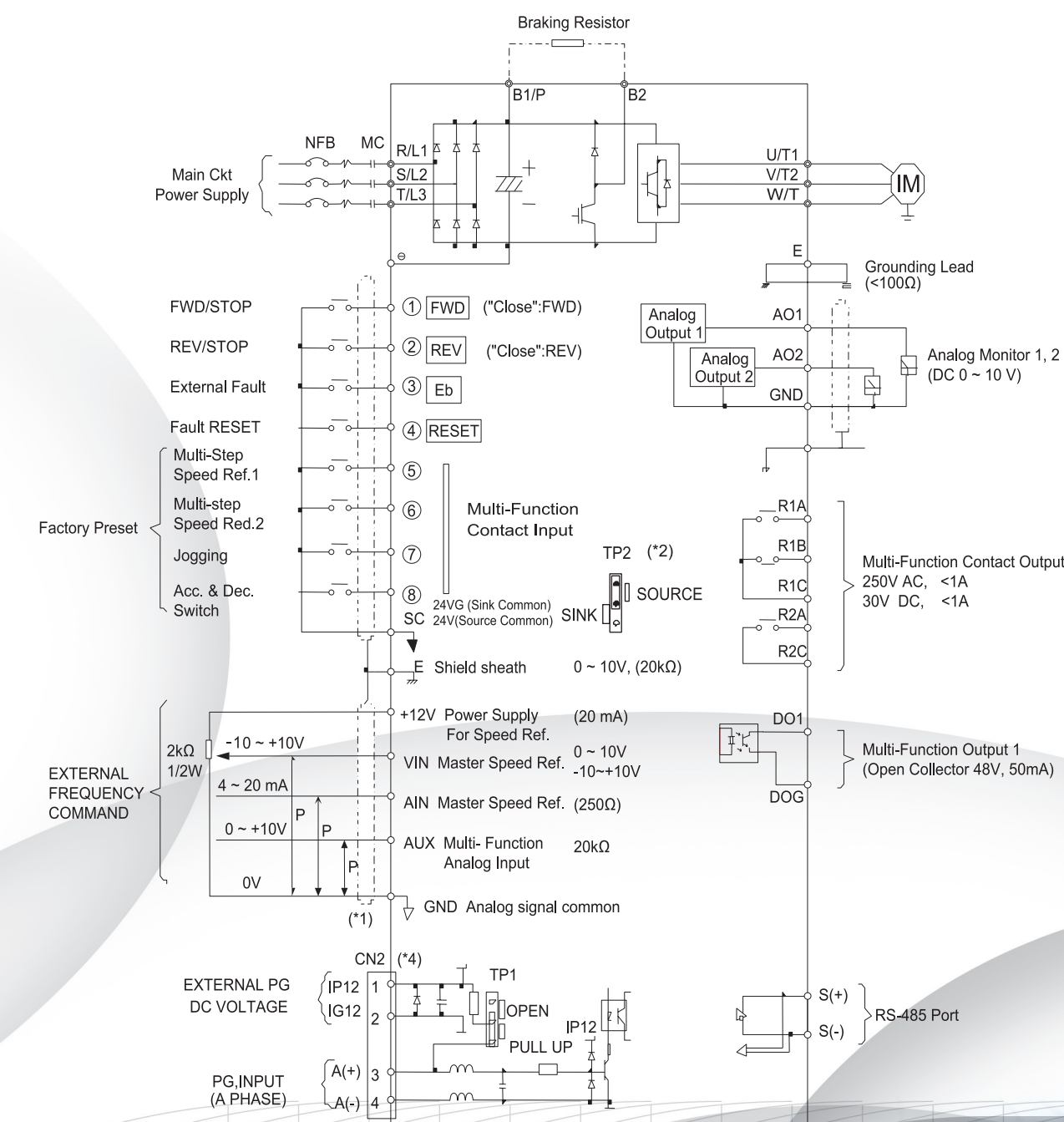
Voltage	Max. applicable motor output	Mounting Dimension (mm)			External Dimension (mm)			Weight (Kg)
		W1	H1	H2 (NEMA1)	W	H (NEMA1)	D	
220V 1ø/3ø	1	122	207	5	132	217	143.5	3.8
	2							
	3	126	266	6.8	140	279.5	176.5	3.9
	5							
	7.5	192	286	7	211.2	300	215	5.6
220V 3ø	10							
	15							
	20	245	340	10	265	360	225	12
	25							13
	30	Top 210	530	10	269.2	553.1 (646.5)	277.1	30
440V 3ø	40	Under 180		(67)				
	1	122	207	5	132	217	143.5	3.8
	2							
	3	126	266	6.8	140	279.5	176.5	3.9
	5.4							
	7.5	192	286	7	211.2	300	215	5.6
	10							
	15							12
	20							13
	25	245	340	10	265	360	225	
	30	Top 210	530	10	269.2	553.1 (646.5)	277	30
40	Under 180		(67)					
50	Top 250	630	10	308.2	652.6 (746.5)	282	46	
60	Under 220		(67)					
75								

### NEMA4 TYPE : 1HP~20HP

Voltage	Max. applicable motor output	Mounting Dimension (mm)			External Dimension (mm)			Weight (Kg)
		W1	H1	D	W	H	D	
220V 1ø/3ø	1	115	315	M6	198	335	217	6.3
	2							
	3							
	5							7.5
	7.5							
220V 3ø	10	140	440	M6	223	460	245	16
	15							
	20							
	25							
	30							
440V 3ø	1	115	315	M6	198	335	217	6.3
	2							
	3							
	5							7.5
	7.5							
440V 3ø	10	140	440	M6	223	460	245	16
	15							
	20							
	25							
	30							



## Connection Diagram



(\*) Shield Wire Twisted Wire

(\*) The terminal ①~⑧ can be set as SINK or SOURCE when setting ①~⑧ as sink, the jumper of TP2 must be set to SINK position, and set to SOURCE position for source type input.

(\*) VIN Ref. can be set in two input methods as 0~+10V or -10~+10V

(\*) The terminal A(+), A(-) can be the input terminal of Pulse input Frequency Command, and the jumper of TP1 must be set to OPEN position Pulse Input Frequency range: 50~32KHz, Voltage range: 3~12V, input impedance 2.7Ω

(\*) The terminal arrangement

24VG	1	3	5	7	24V	VIN	AIN	AUX	DO1	DOG	IP12	A(+)	A(-)
E	2	4	6	8	+12V	-12V	GND	AO1	AO2	E	IG12	S(+)	S(-)

(\*) The control board code No.: 4P101C01301

## Features

- Graphic LCD operator, used as Copy Unit
- PG built-in interface
- Energy saving
- Automatic torque boost
- Full Range DC injection braking.
- Multi-functions (PID, simple PLC, timer, Multiple Frequency pulse output).
- Dual rating operation (constant and variable torque) with overload protection.
- Built-in braking resistor has braking torque reaching 100% rated torque (2%ED for 5sec).
- MODBUS built-in (PROFIBUS optional)
- Sensorless vector + Auto-tuning
- Customer Application Software Environment (C.A.S.E.)
- Pulse train command, +10V ~ -10V analog command.

## Model Designation

Series	Keypad	Enclosures and mountings	Max. applicable motor capacity (HP)	Rated Voltage	Hardware Information	UL Information	Rese
7200MA	BG: LCD digital operator (CE mark) BC: LED digital operator	BB: Enclosed, wall-mounted type (NEMA-1) BA: Open chassis type (IP00) BC: NEMA4 Type	0001 : 1HP 0075 : 75HP	JK: 220V, 60Hz (200V, 50Hz) AZ: 440V, 60Hz (380V, 50Hz)	- : Standard type S: 220V/440V, 1~2HP compact size type A: 220V/440V, 7.5~10HP Ver.2 type	- : Standard type U: UL/CUL standard	-

