

TECO INVERTER

7300 CV

TECO

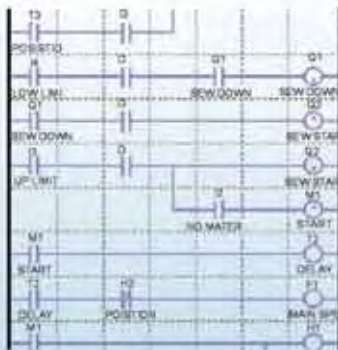


TECO INVERTER 7300 CV

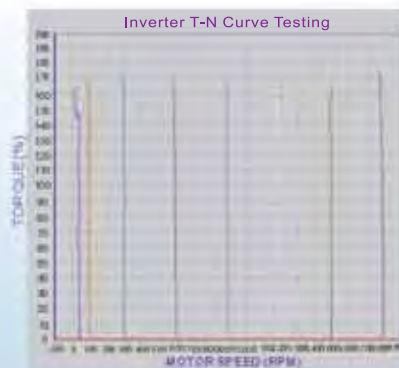


Feature

- Sensorless Vector Control
- 150% Starting Torque
- Built-in PLC Function
- LED/LCD Keypad Display
- NPN/PNP Digital Input
- PID Function
- Braking Transistor built-in (Up to 15kw only)
- PC (Windows)/ PDA (WinCE) Link Function
- RS-485 Modbus RTU/ASCII mode
- Field Bus Communication Modules (Option)
 - Profibus-DP
 - DeviceNet
- EMC Filter Built-in (Up to 11kw only)
- Global Standards: UL , cUL , CE
- Copy Unit (Memory pack) Function



PLC Ladder Program

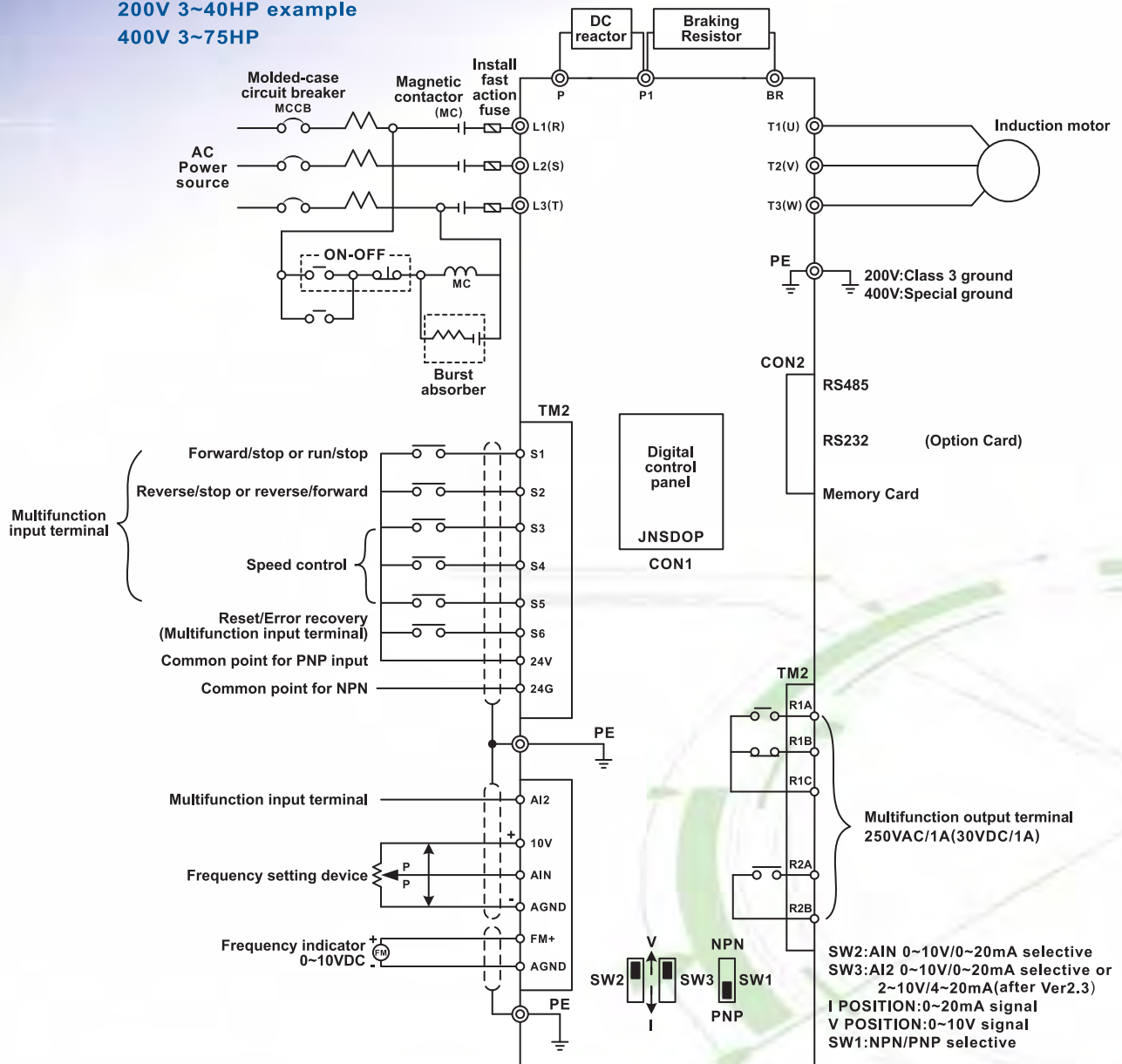


MOTOR SPEED (RPM)



Wiring Diagram

200V 3~40HP example
400V 3~75HP



Model Number

JNTH	BC	BA	0001	AC	—	U	F
7300CV Series	Keypad Panel	Enclosure	Horsepower	Phase of Input Power		UL Approval	Noise Filter
	BC : LED* BG : LCD* BL : Blind*	BA: Open chassis IP20 or IP00 BB: Enclosed Wall mounted type (NEMA1)	R500 : 0.5 HP : 0075 : 75 HP	AC: Single phase 220V BC: Three phase 220V BE: Three phase 440V		U: Yes	Blank: None F: Built-in

*BC:LED (Standard) BG:LCD/BL:Blind (Production by order base)

*BB: only for 200V 15~25HP/400V 20~30HP

*BA: NEMA1 kit is available

Model	Single phase 200~240V model				Three phases, 200~240V model											
	JNTHBCBA□□□□AC-U(F)				JNTHBCBA□□□□BC-U											
	R500	0001	0002	0003	R500	0001	0002	0003	0005	7R50	0010	0015	0020	0025	0030	0040
Horsepower (HP)	0.5	1	2	3	0.5	1	2	3	5	7.5	10	15	20	25	30	40
Suitable Motor Capacity (KW)	0.4	0.75	1.5	2.2	0.4	0.75	1.5	2.2	3.7	5.5	7.5	11	15	18.5	22	30
Rated Output Current (A)	3.1	4.5	7.5	10.5	3.1	4.5	7.5	10.5	17.5	26	35	48	64	80	96	130
Rated Capacity (KVA)	1.2	1.7	2.9	4.0	1.2	1.7	2.9	4.0	6.7	9.9	13.3	20.6	27.4	34	41	54
Max. Input Voltage	Single Phase: 200~240V +10% -15% , 50/60HZ ± 5%				Three Phases: 200~240V +10% -15% , 50/60HZ ± 5%											
Max. Output Voltage	Three phases: 0~240V				Three phases: 0~240V											
Input Current (A)	8.5	12	16	23.9	4.5	6.5	11	12.5	20.5	33	42	57	70	85	108	138
Net Weight / with Filter (KG)	1.2/1.3	1.2/1.3	1.5/1.8	1.9/2.3	1.2	1.2	1.2	1.75	1.9	5.6	5.6	15	15	15	33	34
Allowable momentary power loss time (second)	1.0	1.0	2.0	2.0	1.0	1.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Enclosure	IP20(BA)				IP20(BA)						NEMA1(BB)				IP00(BA)	

Model	Three phases 380~480V model													
	JNTHBCBA□□□□BE-U(F)													
	0001	0002	0003	0005	7R50	0010	0015	0020	0025	0030	0040	0050	0060	0075
Horsepower (HP)	1	2	3	5	7.5	10	15	20	25	30	40	50	60	75
Suitable Motor Capacity (KW)	0.75	1.5	2.2	3.7	5.5	7.5	11	15	18.5	22	30	37	45	55
Rated Output Current (A)	2.3	3.8	5.2	8.8	13.0	17.5	25	32	40	48	64	80	96	128
Rated Capacity (KVA)	1.7	2.9	4.0	6.7	9.9	13.3	19.1	27.4	34	41	54	68	82	110
Max. Input Voltage	Three phases: 380~480V +10% -15% , 50/60HZ ± 5%													
Max. Output Voltage	Three phases: 0~480V													
Input Current (A)	4.2	5.6	7.3	11.6	17	23	31	38	48	56	75	92	112	142
Net Weight / with Filter (KG)	1.2/1.3	1.2/1.3	1.8/2.2	1.8/2.2	5.6/6.6	5.6/6.6	5.6/6.6	15	15	15	33	33	50	50
Allowable momentary power loss time (second)	1.0	1.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Enclosure	IP20(BA)						NEMA1(BB)				IP00(BA)			

ITEM	7300CV TYPE	
Control mode	V/F or Sensorless Vector Control	
Frequency Control	Range	0.1~400.0Hz
	Start control torque	150% / 1Hz (Vector mode)
	Speed control range	1:50 (Vector mode)
	Speed control precision	±0.5% (Vector mode)
	Setting resolution	Digital: 0.01Hz (Note *1); Analog: 0.06Hz/60Hz (10bits)
	Display function	Set directly with ▲▼ key or the VR on the keypad Four digital LED (or 2x16 LCD) and status indicator; display frequency/ speed/ line speed/ DC voltage/ Output voltage/ Current/ Rotation direction/ Inverter parameter/ Trouble Log/ Program Version
	External signal setting	1. External variable resistor / 0-5V / 0-10V / 4-20mA / 5-0V / 10-0V / 20-4mA 2. Performs up/down controls, speed control or automatic procedure control with multifunctional contacts on the terminal block (TM2)
	Frequency limit function	Respectively setting upper/lower frequency limits and three-stage prohibited frequencies
General Control	Carrier frequency	2~16kHz
	V/F pattern	18 fixed patterns, 1 programable pattern
	Acc/Dec control	Two-stage Acc/Dec time (0.1~3,600 seconds) and two-stage S curve
	Multifunctional analog output	6 functions (refer to description on 8-00/8-01)
	Multifunctional input	30 functions (refer to description on 5-00/5-06)
	Multifunctional output	16 functions (refer to description on 8-02/8-03)
	Digital input signal	NPN/PNP toggle
	Other function	Momentary Power Loss Restart, Speed Search, Overload Detection, 8 Preset Speeds, Acc/Dec Switch (2 Stages), S Curve, 3-wire Control, PID Control, Torque Boost, Slip Compensation, Frequency Upper/ Lower Limit, Auto Energy Saving, Modbus Slave and PC/PDA Link, Auto Restart, Built-in PLC Function.
Environment	Communication control	1. Control by RS232 or RS485 2. One-to-one or One-to-many (RS485 ONLY) control. 3. BAUD RATE/STOP BIT/PARITY/bit can be set
	Braking torque	About 20%, the model built-in braking transistor and connected braking resistor is 100%
	Operation temperature	-10~50°C (note *2)
	Storage temperature	-20~60°C
	Humidity	0~95% Relative Humidity (Non-condense)
	Vibration	1G (9.8m/s ²)
	EMC	Comply with requirement EN 61800-3
	LVD	Comply with requirement EN 50178
Protective Functions	Enclosure	IP00 or IP 20 (Nema 1 by external box attached)
	Safety level	UL 508C
	Overload protection	The relays to protect the motor (the curve can be set) and the inverter(150% / 1min)
	FUSE protection	The motor stops after FUSE melt
	Over voltage	200V class: DC Voltage > 410V 400V class: DC Voltage > 820V
	Under voltage	200V class: DC Voltage < 190V 400V class: DC Voltage < 380V
	Momentary power loss terminal	Stop for more than 15ms-power-loss can be restarted with Speed Search after momentary power loss in Max. 2 sec
	Stall prevention	Stall prevention for Acceleration / Deceleration / Operation
Other function	Short-circuit output terminal	Electronic Circuit Protection
	Grounding fault	Electronic Circuit Protection
	Other funtion	Protection for overheating of heat sink, over torque detection, error contact control, reverse restriction, restrictions for direct start after power up and error recovery, parameter lock up.

Note 1: The setting resolution of above 100Hz is 0.1Hz when controlled with operation keypad, and 0.01 Hz when controlled using computer (PC) or programmable controller (PLC).

Note 2: -10~50°C in distributor (without dustproof cover / paster), -10°C~40°C outside distributor (with dustproof cover / paster).

Dimension

(Unit:mm)

Model	W	H	D	W1	H1	
JNTHBCBA	R500AC/BC	90	163	147	78	150
	0001AC/BC					
	0002BC					
	0001BE					
	0002BE					
	0002AC					
	0003AC/BC	128	187	148	114.6	170.5
	0005BC					
	0003BE					
	0005BE					
	7R50BC					
	0010BC					
	7R50BE	186	260	195	173	244
	0010BE					
	0015BE					
	0015BC					
	0020BC					
	0025BC					
	0020BE	265	360	248	245	340
	0025BE					
	0030BE					
	0030BC					
	0040BC					
	0040BE					
	0050BE	269	553	304	210	530
	0060BE					
	0075BE					
	0075BE					

*1. IP20 Enclosure:220V 0.5~25HP/440V 1~30HP

*2. IP00 Enclosure:220V 30~40HP/440V 40~75HP

Braking Resistor

Resistor Model	Inverter Model	Specification of braking resistor		braking resistor ED%	braking torque %
		W	Ω		
150W200	R500AC/BC	150	200	10	238
150W200	0001AC/BC	150	200	10	119
150W100	0002AC/BC	150	100	10	119
260W70	0003AC/BC	260	70	10	115
390W40	0005BC	390	40	10	119
520W30	7R50BC	520	30	10	108
780W20	0010BC	780	20	10	119
150W750	0001BE	150	750	10	126
150W400	0002BE	150	400	10	119
260W250	0003BE	260	250	10	126
400W150	0005BE	400	150	10	126
600W130	7R50BE	600	130	10	102
800W100	0010BE	800	100	10	99
1R6KW50	0015BE	1600	50	10	126
2R4KW13R6	0015BC	2400	13.6	10	117
3KW10	0020BC	3000	10	10	119
4R8KW8	0025BC	4800	8	10	119
4R8KW6R8	0030BC	4800	6.8	10	117
3KW10	0040BC	3000	10	10	119
1R5KW40	0020BE	1500	40	10	119
4R8KW32	0025BE	4800	32	10	119
4R8KW27R2	0030BE	4800	27.2	10	117
6KW20	0040BE	6000	20	10	119
9R6KW16	0050BE	9600	16	10	119
9R6KW13R6	0060BE	9600	13.6	10	117
6KW20	0075BE	6000	20	10	126

NOTE:*1The quantity of braking resistors should be 2

*2 above 25HP,please add Braking Unit : 200V JNTBU-230
400V JNTBU-430
400V JUVPHV-0060

About the detail information, please contact with your supplier

Extension Cable

Extension Cable Model	Digital Operator Model	Inverter Model
JNSW30P5 (0.5M)	JNSDOP - LED JNSDOP - LCD	JNTHBCBA R500 - 0040AC / BC 0001 - 0075BE
JNSW3001 (1M)		
JNSW3002 (2M)		
JNSW3003 (3M)		
JNSW3005 (5M)		

Option Card

- JNSIF - 232 (RS-232)
- JNSIF - 485 (RS-485)
- JNSIF - MP(Memory pack)
- JNSWPDA (PDA Cable)

JNSWPDA



JNSIF-485



JNSIF-MP



JNSIF-232

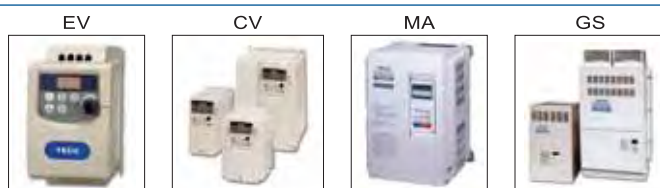
Extension Cable



Inverter Model	Rated	Second Environment	First Environment Restricted Distribution	First Environment Unrestricted Distribution
		Class A (Group2)	Class A (Group1)	Class B
R500AC-UF	1 phase 170~264V	--	Built-in	FS 6146-11-07
0001AC-UF	1 phase 170~264V	--	Built-in	FS 6146-11-07
0002AC-UF	1 phase 170~264V	--	Built-in	FS 6146-27-07
0003AC-UF	1 phase 170~264V	--	Built-in	FS 6146-27-07
R500AC-U-	1 phase 170~264V	--	FS 6146-11-07	--
0001AC-U-	1 phase 170~264V	--	FS 6146-11-07	--
0002AC-U-	1 phase 170~264V	--	FS 6146-27-07	--
0003AC-U-	1 phase 170~264V	--	FS 6146-27-07	--
R500BC-U-	3 phase 170~264V	--	FS 6147-8.9-07	--
0001BC-U-	3 phase 170~264V	--	FS 6147-8.9-07	--
0002BC-U-	3 phase 170~264V	--	FS 6147-8.9-07	--
0003BC-U-	3 phase 170~264V	--	FS 6147-19-07	--
0005BC-U-	3 phase 170~264V	--	FS 6147-19-07	--
7R50BC-U-	3 phase 170~264V	--	FS 6147-39-07	--
0010BC-U-	3 phase 170~264V	--	FS 6147-39-07	--
0001BE-UF	3 phase 323~528V	--	Built-in	FS 6149-4.6-07
0002BE-UF	3 phase 323~528V	--	Built-in	FS 6149-4.6-07
0003BE-UF	3 phase 323~528V	--	Built-in	FS 6149-10-07
0005BE-UF	3 phase 323~528V	--	Built-in	FS 6149-10-07
7R50BE-UF	3 phase 323~528V	--	Built-in	FS 6149-28-07
0010BE-UF	3 phase 323~528V	--	Built-in	FS 6149-28-07
0015BE-UF	3 phase 323~528V	--	Built-in	FS 6149-28-07
0001BE-U-	3 phase 323~528V	--	FS 6149-4.6-07	--
0002BE-U-	3 phase 323~528V	--	FS 6149-4.6-07	--
0003BE-U-	3 phase 323~528V	--	FS 6149-10-07	--
0005BE-U-	3 phase 323~528V	--	FS 6149-10-07	--
7R50BE-U-	3 phase 323~528V	--	FS 6149-28-07	--
0010BE-U-	3 phase 323~528V	--	FS 6149-28-07	--
0015BE-U-	3 phase 323~528V	--	FS 6149-28-07	--
0020BE-U-	3 phase 323~528V	JUNF34048S-MA	--	--
0025BE-U-	3 phase 323~528V	KMF370A	--	--
0030BE-U-	3 phase 323~528V	KMF370A	--	--
0040BE-U-	3 phase 323~528V	KMF3100A	--	--
0050BE-U-	3 phase 323~528V	KMF3100A	--	--
0060BE-U-	3 phase 323~528V	KMF3150A	--	--
0075BE-U-	3 phase 323~528V	KMF3180A	--	--

TECO INVERTER

- EV series : 0.25~1HP(110V),0.25~3HP(220V),1~3HP(440V)
- CV series : 0.5~40HP(220V),1~75HP(440V)
- MA series : 1~40HP(220V),1~75HP(440V)
- GS series : 25~100HP(220V),25~400HP(440V)



TECO PLC

- TP03 series : 14/20/26/30/36/40/60 I/O MAX256points
- SG2 series : 10/12/20points



TECO SERVO

- JSDA series : 100W~15KW(220V)
- JSDE series : 50W~2KW(220V)



Distributor