

TECO INVERTER

7300 CV

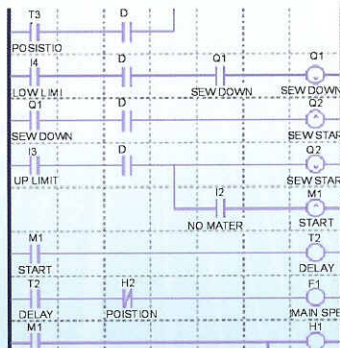


TECO INVERTER 7300 CV

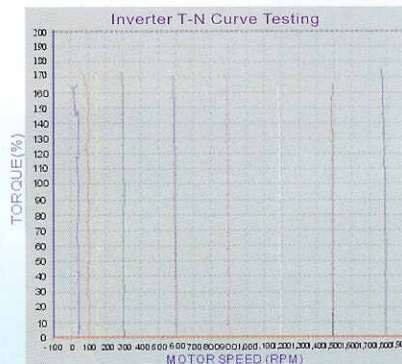


Feature

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

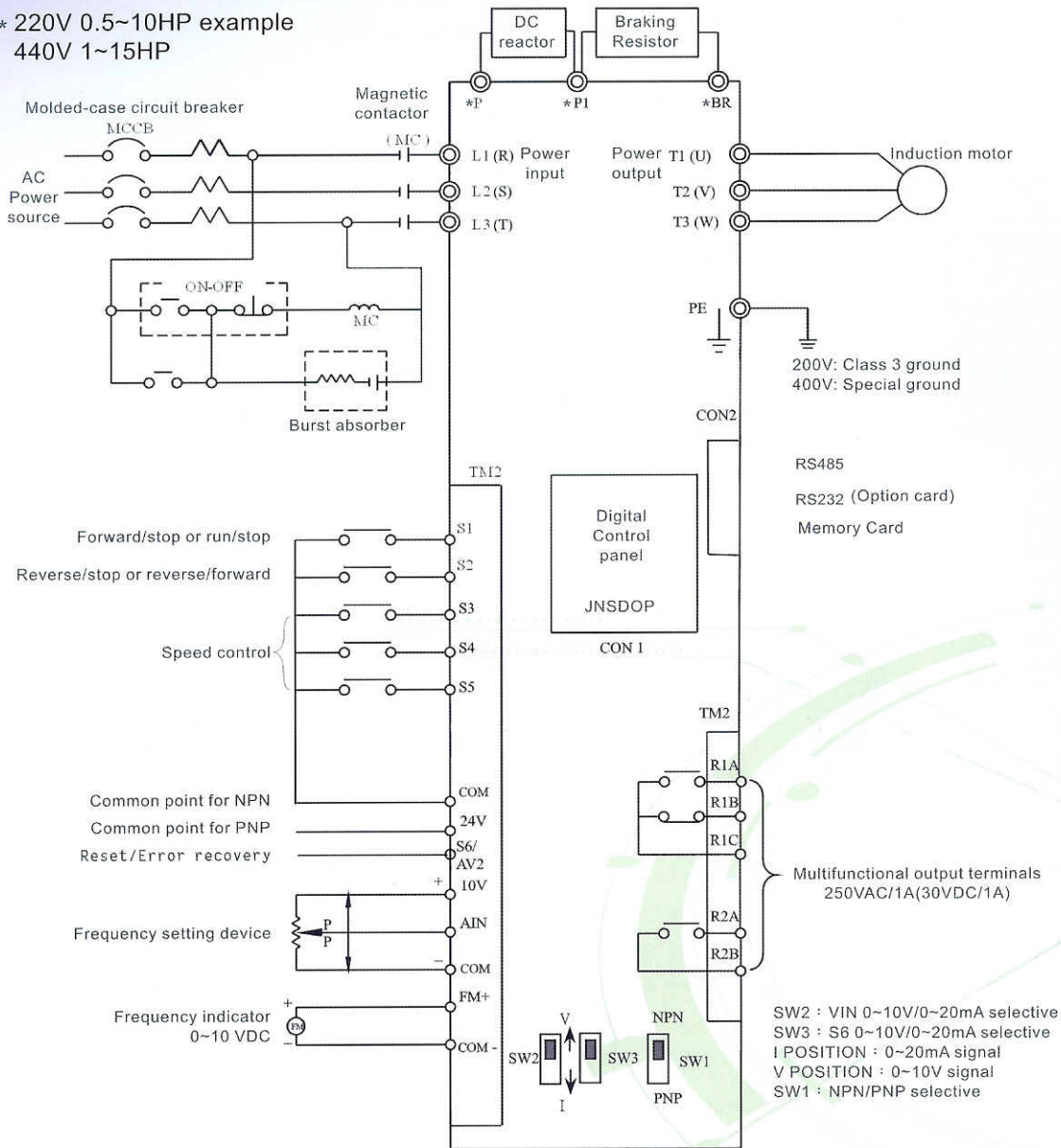


PLC Ladder Program



W 7300CV Wiring Diagram

* 220V 0.5~10HP example
440V 1~15HP



M Model Number

JNTH	BC	BA	0001	AC	—	U	F
Series	Keypad Panel	Enclosure	Horsepower	Phase of Input Power	UL Approval	Noise Filter	
BC : LED*	BA:	R500 : 0.5 HP	AC: Single phase 220V	U: Yes	Blank: None		
BG : LCD*	Open	0001 : 1.0 HP	BC: Three phase 220V		F: Built-in		
BL : Blind*	chassis (IP20)	0002 : 2.0 HP	BE: Three phase 440V				
	BB:	0003 : 3.0 HP					
	Enclosed	0005 : 5.0 HP					
	Wall-	7R50 : 7.5 HP					
	mounted type (NEMA1)	0010 : 10.0 HP					
		0015 : 15.0 HP					

*BC:LED (Standard)

BG:LCD/BL:Blind (Production by order base)

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



7300CV Specifications

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
Range	0.1~650.0Hz
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)
Keypad setting	Set directly with ▲▼ key or the VR on the keypad
Display function	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
Carrier frequency	2~16kHz
V/F pattern	18 fixable 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.
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
Enclosure	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
Short-circuit output terminal	Electronic Circuit Protection
Grounding fault	Electronic Circuit Protection
Other function	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). **TEC**
 Note 2: -10~50°C in distributor (without dustproof cover / paster), -10°C~40°C outside distributor (with dustproof cover / paster).

Inverter Dimension

Model	IP 20 Enclosure (mm)				
	W	H	D	W1	H1
R500AC/BC	90	163	147	78	150
0001AC/BC					
0002BC					
0002AC	128	187	148	114.6	170.5
0003AC/BC					
0005BC					
7R50BC	186	260	195	173	244
0010BC					
0015BC					
∩	265	360	248	245	340
0025BC	269	652	277	210	530
0030BC					
∩					
0040BC	90	163	147	78	150
0001BE					
0002BE					
0003BE	128	187	148	114.6	170.5
0005BE					
7R50BE					
0010BE	186	260	195	173	244
0015BE					
0020BE					
∩	265	360	248	245	340
0030BE	269	653	304	210	530
0040BE					
∩					
0050BE	308	653	309	250	630
0060BE					
∩					
0075BE					

Braking Resistor

Resistor Model	Inverter Capacity	Specification of brake resistor		Brake resistor ED%	Brake torque %	
		W	Ω			
JNBRN2-	201S	R500AC/BC	60	200	8	214
	201S	0001AC/BC	60	200	8	117
	202S	0002AC/BC	150	100	10	117
	203S	0003AC/BC	200	70	9	112
	205S	0005BC	300	40	8	117
	208S	7R50BC	500	25	8	123
	210S	0010BC	600	20	8	117
	401S	0001BE	60	750	8	123
	402S	0002BE	150	400	10	117
	403S	0003BE	200	250	8	123
	405S	0005BE	300	150	8	123
	408S	7R50BE	500	100	8	123
	410S	0010BE	600	80	8	117
	JNTLKEB-1500W	0015BE	1500	40	8	149
2R4KW17	0015BC	2400	17	10	100	
3KW13	0020BC	3000	13	10	100	
4R8KW8	0025BC	4800	8	10	125	
4R8KW6R8	0030BC	4800	6.8	10	125	
3KW10	0040BC	3000	10	10	100	
1R6KW50	0020BE	1600	50	10	100	
JNBR-	4R8KW32	0025BE	4800	32	10	125
	4R8KW27R2	0030BE	4800	27.2	10	125
	6KW20	0040BE	6000	20	10	125
	9R6KW16	0050BE	9600	16	10	125
	9R6KW13R6	0060BE	9600	13.6	10	125
	6KW20	0075BE	6000	20	10	125

NOTE: *1 The 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)

JNSIF-485

JNSIF-MP

Extension Cable

JNSIF-232





Model	Rated	Inverter Model/EN 61800-3	
		Second Environment	First Environment
FS6146 - 11 - 07	1Ø170 - 264V	R500 / 0001 - AC - U	R500 / 0001 - AC - UF
FS6146 - 27 - 07	1Ø170 - 264V	0002 / 0003 - AC - U	0002 / 0003 - AC - UF
FS6147 - 8.9 - 07	3Ø170 - 264V	R500 / 0001 / 0002- BC - U	NA
FS6147 - 19 - 07	3Ø170 - 264V	0003 / 0005 - BC - U	NA
FS6147 - 39 - 07	3Ø170 - 264V	7R50 / 0010 - BC - U	NA
FS6149 - 4.6 - 07	3Ø323 - 528V	0001 / 0002 - BE - U	0001 / 0002 - BE - UF
FS6149 - 10 - 07	3Ø323 - 528V	0003 / 0005 - BE - U	0003 / 0005 - BE - UF
FS6149 - 28 - 07	3Ø323 - 528V	7R50 / 0010 / 0015- BE - U	7R50 / 0010 / 0015- BE - UF
JUNF34048S-MA	3Ø323 - 528V	0020-BE-U	NA
KMF370A	3Ø323 - 528V	0025 / 0030 - BE - U	NA
KMF3100A	3Ø323 - 528V	0040 / 0050 - BE - U	NA
KMF3150A	3Ø323 - 528V	0060-BE-U	NA
KMF3180A	3Ø323 - 528V	0075-BE-U	NA