

TECO INVERTER

7300 CV



ACP&D Limited

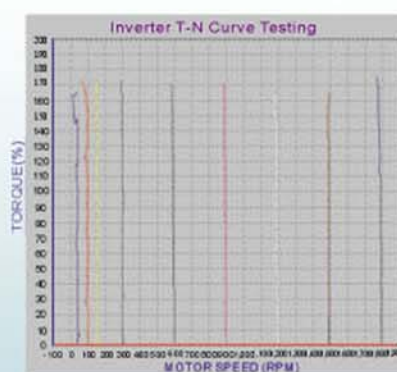
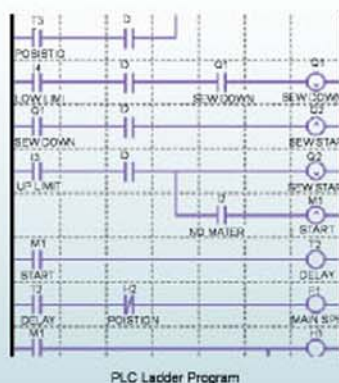


TECO INVERTER 7300 CV



Feature

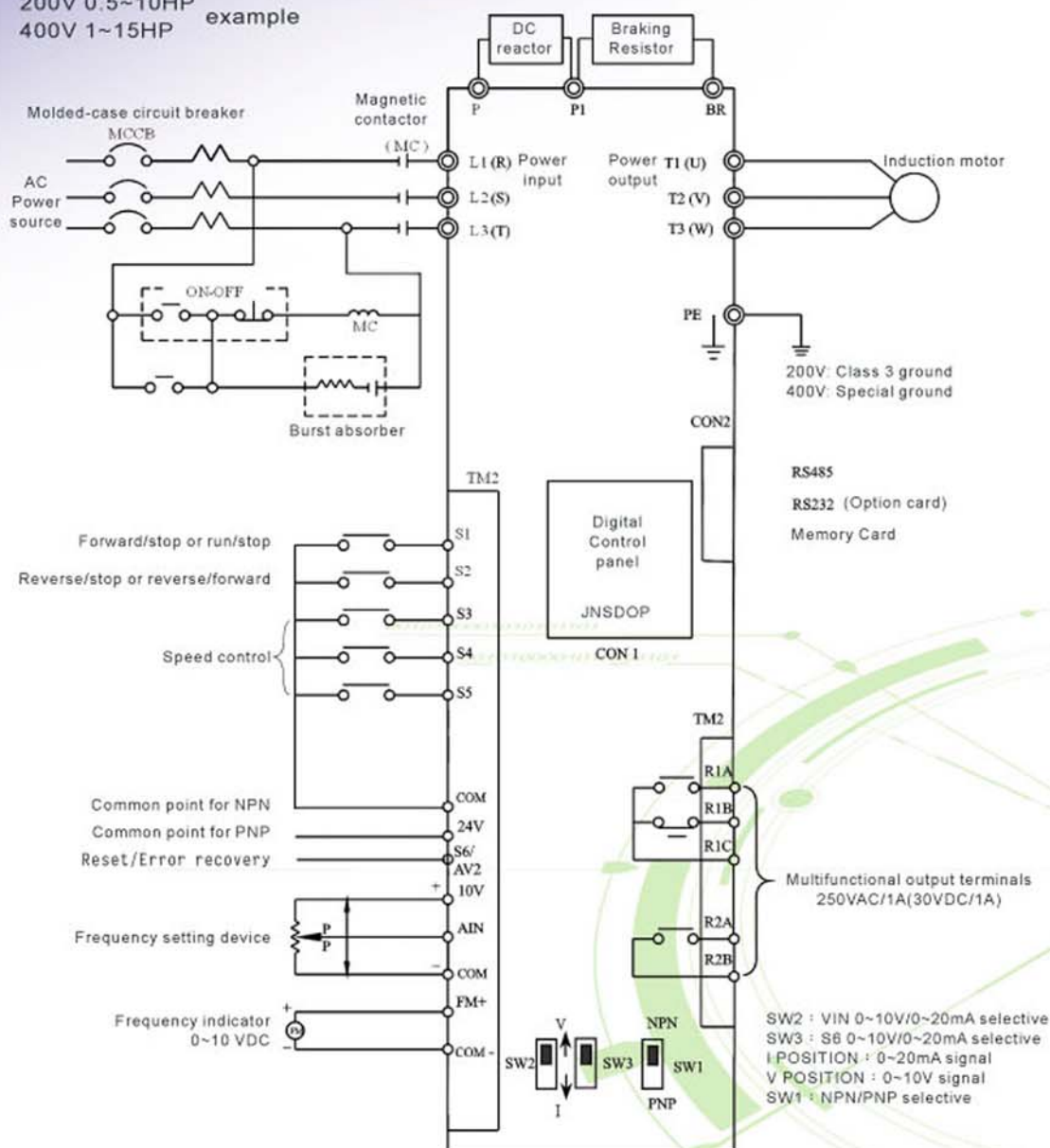
- Sensorless Vector Control
- 150% Starting Torque
- Built-in PLC Function
- LED/LCD Keypad Display
- NPN/PNP Digital Input
- PID Function
- Braking Transistor built-in or optional Braking Unit.
- Copy Unit (Memory pack) Function
- PC (Windows)/ PDA (WinCE) Link Function
- RS-485 Modbus RTU/ASCII mode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





7300CV Wiring Diagram

200V 0.5~10HP
400V 1~15HP example



Model Number

JNTH	BC	BA	0001	AC	—	U	F
Series	Keypad Panel	Enclosure	Max.applicable motor output(HP)	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	1 : 1 HP	BC: Three phase 220V			F: Built-in
	BL : Blind*	chassis	0 0 7 5 : 7.5 HP	BE: Three phase 440V			

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



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: 200~240V				Three phases: 200~240V													
Input Current (A)	8.5	12	19	27	4.5	6.5	11	15.4	20	29	40							
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	12	12	13	31	32		
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							

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: 380~480V															
Input Current (A)	4.2	5.6	6.0	10.2	15	20.5	30.2									
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	12	13	13	31	31	47	47		
Allowable momentary power loss time (second)	1.0	1.0	2.0	2.0	2.0	2.0	2.0									

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



Inverter Dimension

Models		IP 20 Enclosure (mm)				
		W	H	D	W1	H1
JNTHBCBA-	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	225	245	340
	0025BC					
	0030BC					
	}	269	652	277	210	530
	0040BC					
	0001BE					
	0002BE	90	163	147	78	150
	0003BE					
	0005BE					
	7R50BE	128	187	148	114.6	170.5
	0010BE					
	0015BE					
	0020BE	186	260	195	173	244
	}					
	0030BE					
	0040BE	265	360	225	245	340
	}					
	0030BE					
	0040BE	269	652	277	210	530
	}					
	0050BE					
	0060BE	269	652	277	210	530
	}					
	0075BE					

*IP00 Enclosure for 200V 30~40HP, 400V 40~75HP



Braking Resistor

Resistor Model		Inverter Capacity	Specification of brake resistor		Brake resistor ED%	Brake torque %
			W	Ω		
JNBRN2-	201	R500AC/BC	60	200	8	214
	201	0001AC/BC	60	200	8	117
	202	0002AC/BC	150	100	10	117
	203	0003AC/BC	200	70	9	112
	205	0005BC	300	40	8	117
	208	7R50BC	500	25	8	123
	210	0010BC	600	20	8	117
	401	0001BE	60	750	8	123
	402	0002BE	150	400	10	117
	403	0003BE	200	250	8	123
	405	0005BE	300	150	8	123
	408	7R50BE	500	100	8	123
410	0010BE	600	80	8	117	
JNTLKEB-1500W		0015BE	1500	40	8	149
JNBR-	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
	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



Extension Cable

Extension Cable Models	Digital Operator Models	Inverter Models
JNSW30P5 (0.5M)	JNSDOP - LED JNSDOP - LCD	JNTHBCBA- R500 - 0010AC / BC 0001 - 0015BE
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 / EN61800-3	
		Second Environment	First Environment
FS6146 - 11 - 07	1Ø170 - 264V / 11A	R500 / 0001 - AC - U	JNTHBCBA - R500 / 0001 - AC - UF
FS6146 - 27 - 07	1Ø170 - 264V / 27A	0002 / 0003 - AC - U	JNTHBCBA - 0002 / 0003 - AC - UF
FS6147 - 8.9 - 07	3Ø170 - 264V / 8.9A	R500 / 0001 / 0002- BC - U	NA
FS6147 - 19 - 07	3Ø170 - 264V / 19A	0003 / 0005 - BC - U	NA
FS6147 - 39 - 07	3Ø170 - 264V / 39A	7R50 / 0010 - BC - U	NA
FS6149 - 4.6 - 07	3Ø323 - 528V / 4.6A	0001 / 0002 - BE - U	0001 / 0002 - BE - UF
FS6149 - 10 - 07	3Ø323 - 528V / 10A	0003 / 0005 - BE - U	0003 / 0005 - BE - UF
FS6149 - 28 - 07	3Ø323 - 528V / 28A	7R50 / 0010 / 0015- BE - U	7R50 / 0010 / 0015- BE - UF
JUNF34048S-MA	3Ø323 - 528V / 48A	0020-BE-U	NA
KMF370A	3Ø323 - 528V / 70A	00250030-BE-U	NA
KMF3100A	3Ø323 - 528V / 100A	0040/0050-BE-U	NA
KMF3150A	3Ø323 - 528V / 150A	0060-BE-U	NA
KMF3180A	3Ø323 - 528V / 180A	0075-BE-U	NA

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