

TDS-V8 series (Sensorless Vector Control)

FEATURES

- **Sensorless Vector control with auto tuning system.** The autotune feature can be used to identify and store the important motor parameters for the sensorless Vector Control Mode.
- **LED operator** or Dialogic LCD operator (English/Chinese) with the function of parameters coping is optional.
- **Communication function : RS-485 installed** (MODBUS RTU protocol)
- **Frequency control ranges from 0.1Hz to 400Hz with resolution of 0.01Hz**
Frequency setting signal DC0~10V / 4~20mA
- **Two sets of analogical output interface each provides 11 individual analogical signals setting.**
- **PID Control, simple PLC function, Energy saving, Multiple Frequency Pulse output.**
- **Auto torque boost, slip compensation.**



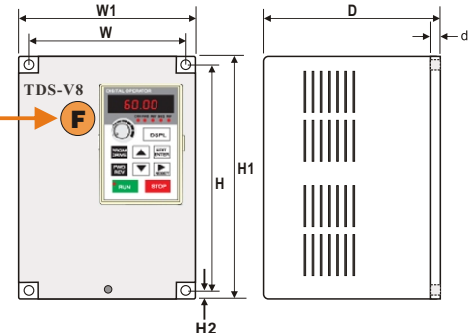
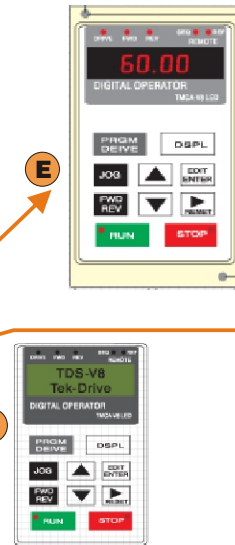
ORDERING CODE

TDS-V8 - L OP7 E

Series No. (Operator Type)

(Rated Voltage) E: LED operator
F: LED with VR
C: LCD operator

OP7 : 0.75KW
1P5 : 1.5KW
2P2 : 2.2KW
3P7 : 3.7KW
5P5 : 5.5KW

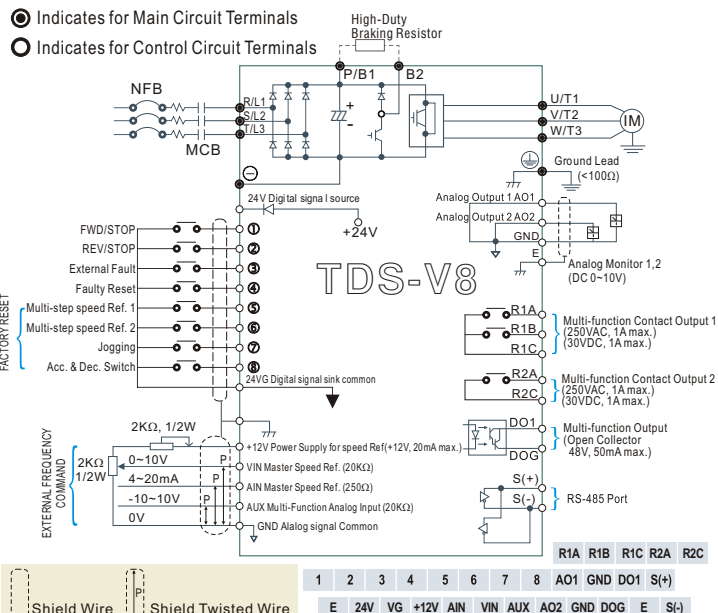


Specification

(Max. Applicable Motor Output) KW

Input Voltage Class	220VAC Class (3-Phase)														440VAC Class (3-Phase)														
Model	OP7	1P5	2P2	3P7	5P5	7P5	011	015	018	022	030	037	045	060	OP7	1P5	2P2	3P7	5P5	7P5	011	015	018	022	030	037	045	055	075
Max. Applicable Motor (HP)	1	2	3	5	7.5	10	15	20	25	30	40	50	60	60	1	2	3	5	7.5	10	15	20	25	30	40	50	60	75	100
Max. Applicable Motor (KW)	0.75	1.5	2.2	3.7	5.5	7.5	11	15	18.5	22	30	37	45	60	0.75	1.5	2.2	3.7	5.5	7.5	11	15	18.5	22	30	37	45	55	75
Output Power	Rated Output Capacity (KVA)	2	2.7	4	7.5	10.1	13.7	20.6	27.4	34	41	54	68	78	2.1	2.7	4	7.5	10.1	13.7	20.6	27.4	34	41	54	68	82	110	138
	Rated Output Current (A)	4.8	6.4	9.6	17.5	24	32	48	64	80	96	130	160	183	2.6	4.0	4.8	8	12	16	24	32	40	48	64	80	96	128	165
	Rated Output Voltage (V)	3-Phase 200V~230VAC (Proportional to input voltage)														3-Phase 380V~460VAC (Proportional to input voltage)													
	Max. Output Frequency (Hz)	Through parameter setting (Max. 400Hz)																											
Power Source	3-Phase 200V~230VAC (-15~+10%), 50/60Hz ±5%														3-Phase 380V~460VAC (-15~+10%), 50/60Hz ±5%														
Control Characteristics	Operation Mode	LED operator or LCD operator																											
	Control Mode	Sine PWM																											
	Frequency Control Ranges	0.1Hz ~ 400Hz																											
	Frequency Accuracy	Digital Command: ±0.01% (-10~+40°C), Analog Command: ±1% (at 25±10°C)																											
	Frequency Command Resolution	Digital Command: 0.01Hz, Analog Command: 0.06Hz / 60Hz																											
	Frequency Output Resolution	0.01Hz																											
	Overload Resistibility	150% Rated Current for 1 Minute (CT), 120% Rated Current for 1 Minute (VT)																											
	Frequency Setting Signal	DC 0~10V / 4~20mA																											
	Acc./Dec. Time	0.0 ~ 6000.0sec. (Accel/Decel Time can be set independent)																											
	Voltage-Frequency Characteristics	V/F Curve can be set through parameter setting (16 Types)																											
Regeneration Torque	100%, 2%ED, 5 seconds																												
Basic Control Function	Auto torque Boost, Slip Compensation, Restart after momentary power loss, Energy saving, PID Control, Simple PLC function, Sensorless Vector Control																												
Extra Function	Up/Down operation, Cumulative Power ON & Operation hour memory, 4 different sets of fault status record (Including latest one), Rs485 (MODBUS Protocol), Multiple-Pulse Output Port, 2 Analog Output Ports ... Etc.																												

Standard Connection Diagram (For Model 2.2KW or above)



Dimensions & Weight

Voltage	Output		Mounting Dimension				External Dimension			Weight (kg)
	HP	KW	W	H	H2	d	W1	H1	D	
220V 3φ	1HP	0.75	108	173	5.5	5	118	184	160	2.2
	2HP	1.5	108	173	5.5	5	118	184	160	2.2
	3HP	2.2	124	214	5.5	6	145	273	170	2.8
	5HP	3.7	124	214	5.5	6	145	273	170	2.8
	7.5HP	5.5	174	281	8.0	8	191	297	197	5.5
	10HP	7.5	174	281	8.0	8	191	297	197	5.5
	15HP	11	140	394	8.0	8	244	410	202	13.1
	20HP	15	140	394	8.0	8	244	410	202	13.1
	25HP	18.5	170	479	12.5	10	287	504	273	24.5
	30HP	22	170	479	12.5	10	287	504	273	24.5
440V 3φ	1-2HP	0.75-1.5	108	173	5.5	5	118	184	160	2.0
	3-5HP	2.2-3.7	133	260	5.5	5	145	273	170	3.2
	7.5-10HP	5.5-7.5	174	281	8.0	8	191	297	197	5.5
	15HP	11	140	394	8.0	10	244	410	202	13.1
	20HP	15	140	394	8.0	10	244	410	202	13.1
	25HP	18.5	170	479	12.5	12.5	287	504	273	24.5
	30HP	22	170	479	12.5	12.5	287	504	273	24.5
	40HP	30	170	479	12.5	12.5	287	504	273	24.5
	50HP	37	250	709	12.5	12.5	376	734	280	46.0
	60HP	45	250	709	12.5	12.5	376	734	280	46.0

TDS-F8 series

ORDERING CODE

TDS-F8 – L OP7 – E 3

Series No
(Input voltage: 220V, single phase)

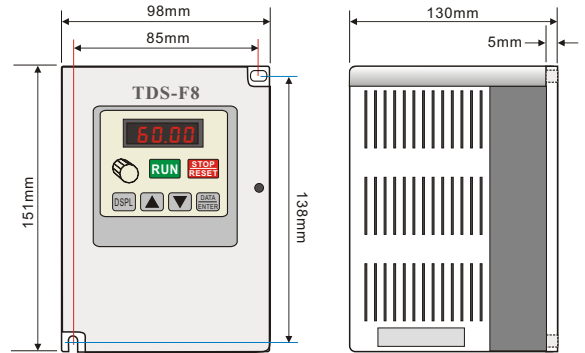
Inverter Output
Capa city (KW)
OP4 : 0.4KW
OP7 : 0.75KW
1P5 : 1.5KW

Blank: for single phase
3 : for 3 phase

Specification

Input Voltage Class	220VAC Class (Single-Phase) / 3 phase		
Model	OP4	OP7	1P5
Max. Applicable Motor (HP)	0.5	1	2
Max. Applicable Motor (KW)	0.4	0.75	1.5
Output Power	Rated Output Capacity (KVA)	1.4	2.7
	Rated Output Current (A)	3.2	6.4
	Max. Output Voltage (V)	3-Phase 200V~230VAC (Proportional to input voltage)	
Max. Output Frequency (Hz)	Through parameter setting (Max. 400Hz)		
Power Source	Single Phase 200V~230VAC(-15%~+10%), 50/60Hz±5%		
Control Characteristics	Operation Mode	LED operator	
	Control Mode	Sine PWM	
	Frequency Control Ranges	0.1Hz ~ 400Hz	
	Frequency Accuracy	Digital Command: ±0.01% (-10~+40°C), Analog Command: ±1% (at 25±10°C)	
	Frequency Command Resolution	Digital Command: 0.01Hz, Analog Command: 0.06Hz / 60Hz	
	Frequency Output Resolution	0.1Hz	
	Frequency Setting Signal	DC 0~10V / 4~20mA	
	Acc./Dec. Time	0.0 ~ 999.9sec. (Accel/Decel Time can be set individually)	
	Voltage-Frequency Characteristics	V/F Curve can be set through parameter setting	
	Basic Control Function	Auto torque Boost, Slip Compensation, Restart after momentary power loss, Energy saving, PID Control, Simple PLC function	
	Extra Function	Up/Down operation, Cumulative Power ON & Operation hour memory, 4 different sets of fault status record (Including latest one), Rs485 (MODBUS Protocol), Multiple-Pulse Output Port, 1 Analog Output Port	

- PWM control, Built-in RS485 & PID function
- 3 skip-Frequency setting, 2 ACC/DEC time S curve setting
- Simple PLC function remote control,
- Pump control automatic energy saving
- Pressure setting & constant pressure control



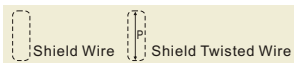
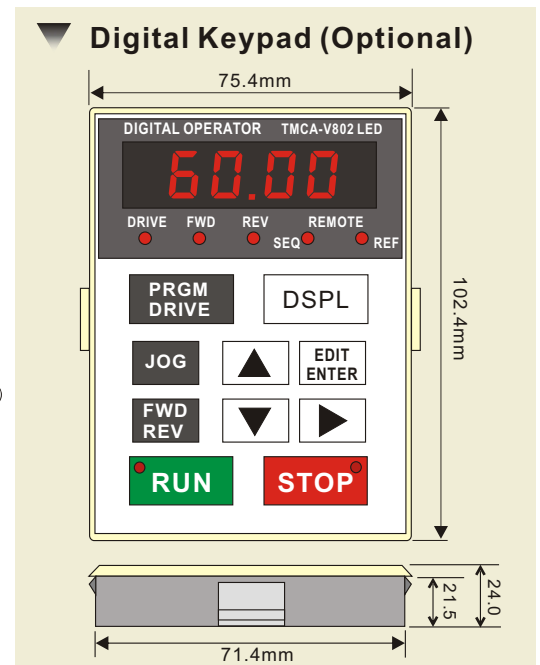
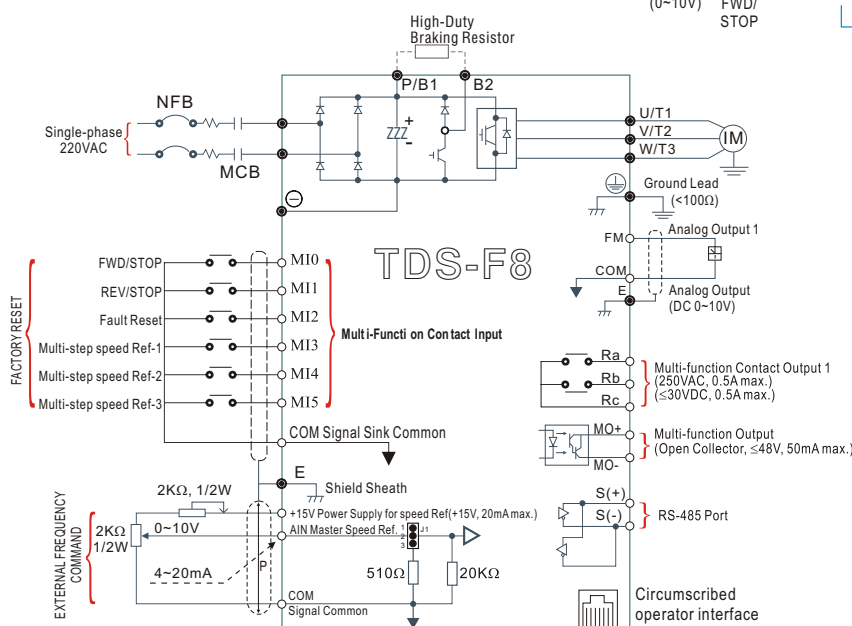
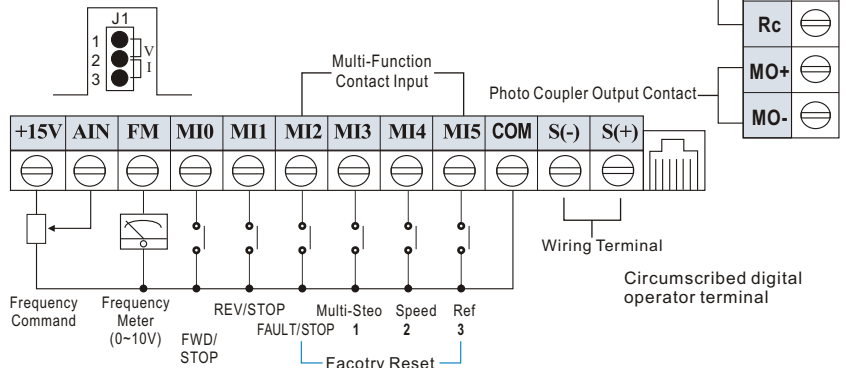
Main Circuit Terminals

R/L1 S/L2 X U/T1 V/T2 W/T3

X E P/B1 ⊖ B2 X (X): Not used

Terminal Sign	Description
R/L1 S/L2	Main Circuit single-phase Input Voltage
⊖ P/B1 B2	P/B1, B2: Circumscribed braking Resistor P/B1, ⊖: DC Input
U/T1 V/T2 W/T3	Inverter Output Circumscribed Motor Terminal
E	Ground Terminal (Ground lead)

Control Circuit Terminals



The symbol indicates for Main Circuit Terminals
The symbol indicates for Control Circuit Terminals