

Inverter (Vector) Duty Motors

Model No: 254THEN8059

Catalog No: Y983

Inverter (Vector) Duty Motor, 10 HP, 3 Ph, 60 Hz, 230/460 V, 1800 RPM, 254TC Frame, EPNV

Product Information Packet: Model No: 254THEN8059, Catalog No: Y983 Inverter (Vector) Duty Motor, 10 HP, 3 Ph, 60 Hz, 230/460 V, 1800 RPM, 254TC Frame, EPNV

Nameplate Specifications

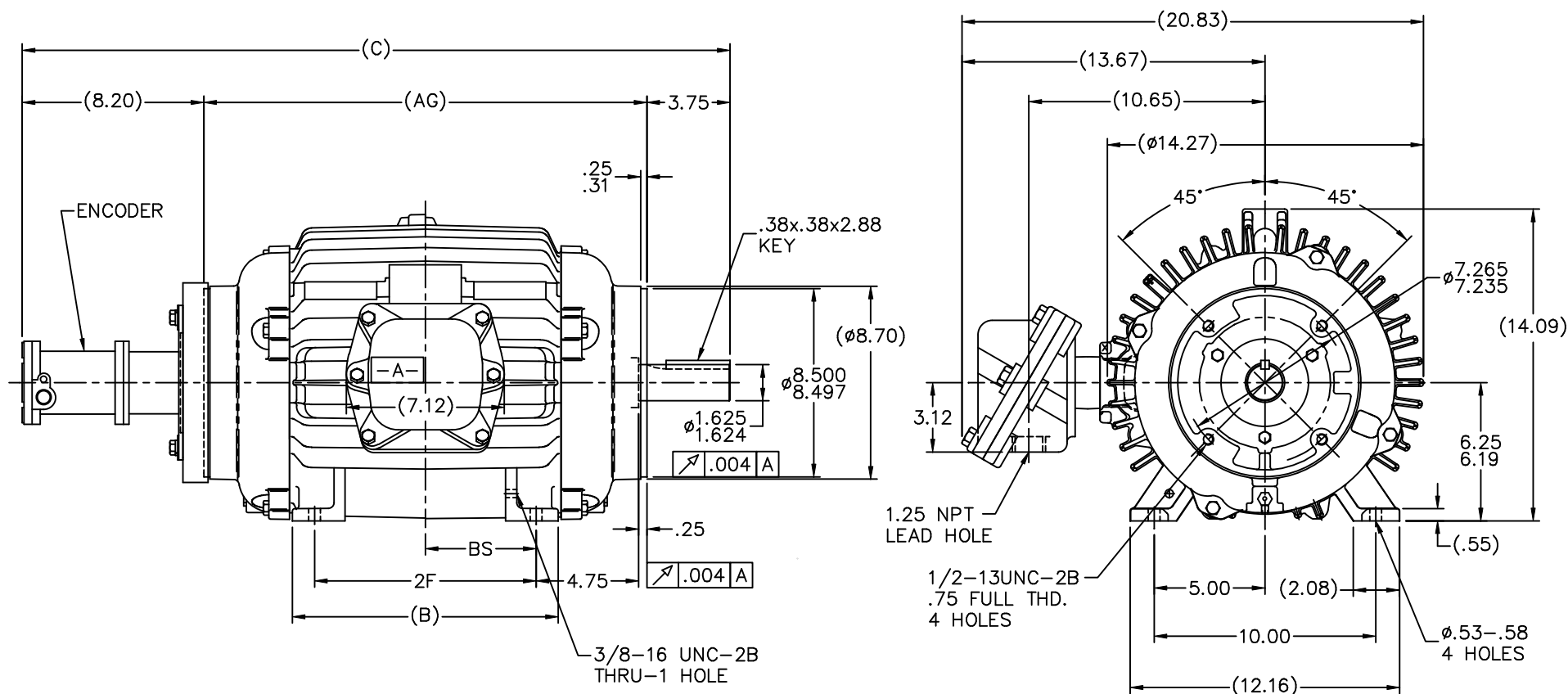
Phase	3	Output HP	10 Hp
Output KW	7.5 kW	Voltage	230/460 V
Speed	1775 r/min	Synchronous RPM	1800 r/min
Service Factor	1.0	Frame	254TC
Enclosure	Explosion Proof Non Ventilated	Thermal Protection	Thermostat
Efficiency	91.7 %	Ambient Temperature	40 °C
Frequency	60 Hz	Current	27.0/13.5 A
Power Factor	75	Duty	Continuous
Insulation Class	F	Design Code	INV
KVA Code	J	Drive End Bearing Size	6309
Opp Drive End Bearing Size	6309	UL	UL Listed And CSA Certified
CSA	Y	CE	N
IP Code	54	Number of Speeds	1
Hazardous Location	DIV 1 EXP PROOF CL I GR CD CL II GR FG T3C		

Technical Specifications

Electrical Type	Squirrel Cage Inverter Duty	Starting Method	Inverter Only
Poles	4	Rotation	Reversible
Resistance Main	.675 O	Mounting	Rigid Base
Motor Orientation	Horizontal	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Cast Iron
Shaft Type	T	Overall Length	30.2 in
Frame Length	10.5 in	Shaft Diameter	1 5/8 in
Shaft Extension	3.75 in	Assembly/Box Mounting	F1/F2 Capable
Inverter Load	Constant 2000:1		

Drawings

Connection Drawing	A-EE7308T	Outline Drawing	B-SS203518-1050
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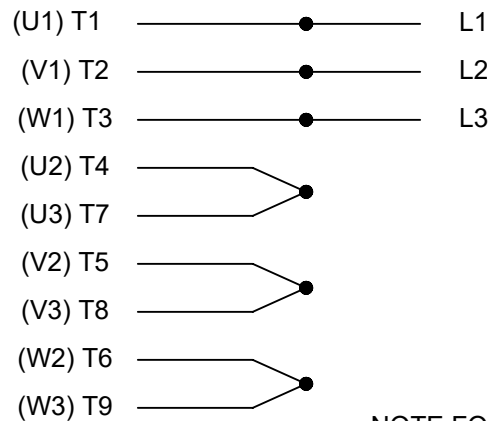
NOTES:

1. BOX CAN ONLY BE ROTATED CLOCKWISE UP TO 270° FROM ITS ORIGINAL POSITION.
2. NAMEPLATE TO BE READ FROM C'BOX SIDE OF MOTOR.

1050	254TC	30.20	18.25	10.25	8.25	4.12			
1225	256TC	31.95	20.00	12.00	10.00	5.00			
DASH	FRAME	C	AG	B	2F	BS			

						TOLERANCES UNLESS SPECIFIED		DRAWN MJD 03-08-2000						
					DEC.	INCHES		CHK	ML	03-07-2000				
					.X	±.1		APPD	DR	03-07-2000				
					.XX	±.03		TITLE OUTLINE - BEI HS38 ENCODER						
2	REDRAWN IN AUTOCAD	TAT 06-24-2005	DRS	.XXX	±.005	250T FR. - EXP. PR. - TGN - 'C' FACE				SCALE	7=32			
1	NEW DRAWING MU29397	MJD 03-07-2000		.XXXX	±.0005	MAT'L				REF				
NO.	REVISION	BY & DATE	CHK	ANG	±7°30"	FINISH				FIMF				
										PREV				
THIS DRAWING IN DESIGN AND DETAIL IS OUR PROPERTY AND MUST NOT BE USED EXCEPT IN CONNECTION WITH OUR WORK ALL RIGHTS OF DESIGN AND INVENTION ARE RESERVED THIS IS AN ELECTRONICALLY GENERATED DOCUMENT - DO NOT SIGN OR RE-SIGN						RFP	CAD FILE ss203518			SIZE	DRAWING NO.	PAGE	OF	REV
						DIST	LB	B			SS203518			2

LOW VOLTAGE



NOTE FOR FACTORY USE ONLY:
TO SURGE TEST FOR COMMON CONNECT:
HIGH VOLT: CONNECT P1 TO T1
THEN P2 TO L1
LOW VOLT: CONNECT P1 TO T1 & T7,
THEN P2 TO L1

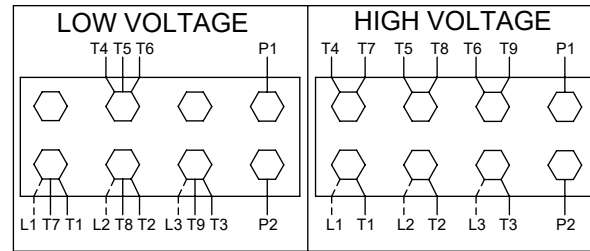
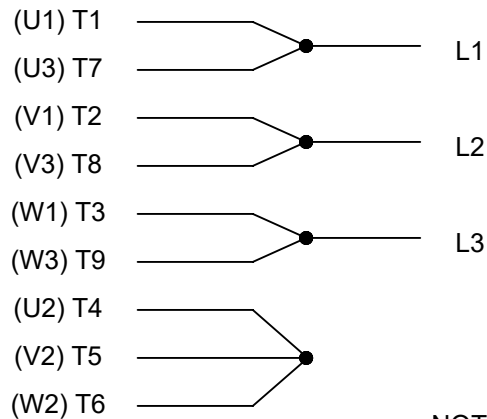


Diagram illustrating the terminal end of a cable, showing internal wiring and components. The diagram is labeled "VIEW OF TERMINAL END" at the bottom.

Key components and labels include:

- Thermo-Protectors:** Two components labeled "PROT." are shown, connected in series, as indicated by the text "THERMO-PROTECTORS CONNECTED IN SERIES" at the top.
- Wires and Terminals:**
 - T1 (U1) - RED OR PURPLE
 - T4 (U2) - BLACK
 - T7 (U3) - BLACK
 - T9 (W3) - YELLOW
 - T8 (V3) - BROWN
 - T6 (W2) - ORANGE
 - T5 (V2) - BLACK
 - T2 (V1) - BLACK
 - T3 (W1) - RED
 - T1 (U1) - BLUE
 - T3 (W1) - PURPLE OR RED
- Other Labels:**
 - P1 (TB1)
 - P2 (TB2)

NOTE: LEAD'S COLOR CAN BE YELLOW OR WHITE FOR IMG PLANT

DRAWING REVISION U		REVISION BY SB	REV DATE/© DATE 08/01/2025	PRIMARY DIMENSIONS ARE INCH mm DIMENSIONS IN [BRACKETS] ARE FOR REFERENCE ONLY	DRAWN BY SMC		marathon™		
REQUEST NUMBER CR-0023654		APPROVED BY SBD	DATE 08/01/2025		DATE 05-13-1992				
REQUEST NUMBER DESCRIPTION DRAWING TITLE BLOCK UPDATED					APPROVED BY TB		DESCRIPTION CONN DIAGRAM-EXTERNAL 3 PHASE - DUAL VOLTAGE MOTOR		
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					REFERENCE EE7308/EE7300		MATERIAL		PROCESS/FINISH
				THIRD ANGLE PROJECTION		SIZE A	DRAWING NUMBER EE7308T		SHEET 1 OF 1

Data Sheet

Date: 6/29/2017

Customer: _____

Attention: _____

Submitted by: FAREEDA DUDEKULA



254THEN8059

Submittal

Data @ 460 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	7.0	7.5	9.0	11.0	13.5	14.8	16.0	95.0	
Torque (ft-lb)	0.00	7.5	14.5	22.0	29.5	33.3	37.0	79.0	
RPM	1800	1795	1785	1780	1775	1,771	1765	0	
Efficiency (%)		84.0	90.2	91.7	91.7	91.7	91.7		
P.F. (%)	6.0	36.0	55.0	67.0	75.0	78.0	81.0	38.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle	Information Block				
Speed (RPM)	0	900	1610	1775	1800	HP	10.0			
Current (Amps)	95.0	88.0	58.0	13.5	7.0	Sync. RPM	1800			
Torque (ft-lb)	79.0	68.0	111	29.5	0.00	Frame	254			
— Efficiency (%) — P.F. (%) — Current (Amps) EFFICIENCY (%) P.F. (%) CURRENT (AMPS) LOAD						Enclosure	TENV			
						Construction	TTN			
						Voltage	230/460 V			
						Frequency	60 Hz			
						Design	A			
						LR Code letter	J			
						Service Factor	1.15			
						Temp Rise @ FL	65 ° C			
						Duty	CONT			
						Ambient	40 ° C			
						Elevation	1,000 feet			
						Rotor/Shaft wk ²	2.50 Lb-Ft ²			
						Ref Wdg	K2544148 NONE			
						Sound Pressure @ 1M	62 dBA			
						VFD Rating	CONSTANT 2000:1			
						Outline Dwg	B-SS203518-1050			
						Conn. Diag	A-EE7308T			
Additional Specifications:										
0										
EQUIV CKT (OHMS / PHASE)										
R1		R2		X1		X2	Xm			
0.4320		0.3350		1.5000		1.7410	36.9200			

Speed -Torque Curve

