

# PRODUCT INFORMATION PACKET

Model No: 810157.00

Catalog No: 810157.00

Encoder Motors, TENV, 7.50 HP, 3 Ph, 60 Hz, 230/460 V, 1775 RPM, 213TC Frame



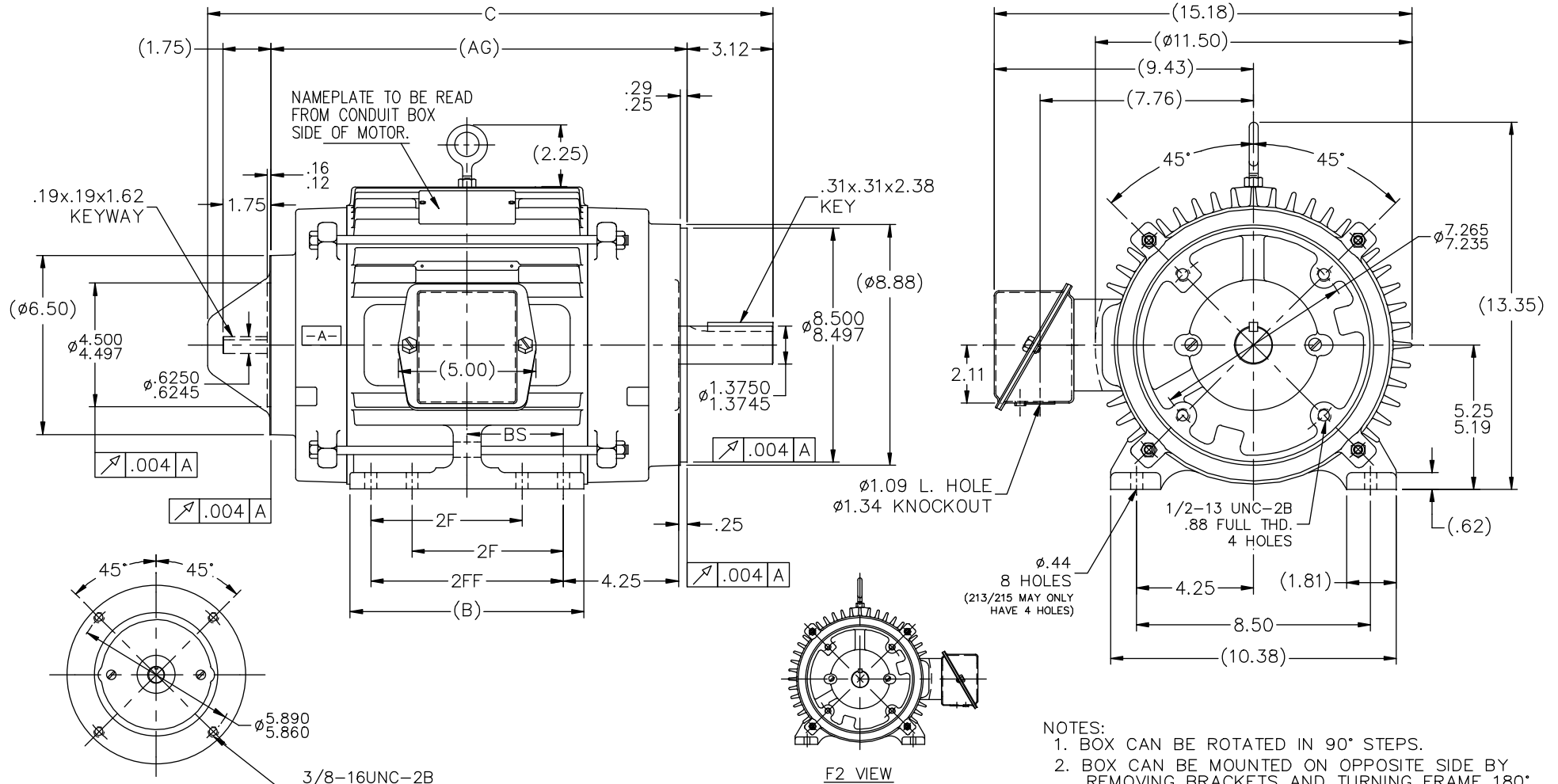
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**Nameplate Specifications**

Output HP	<b>7.50 Hp</b>	Output KW	<b>5.6 kW</b>
Frequency	<b>60 Hz</b>	Voltage	<b>230/460 V</b>
Current	<b>21.0/10.5 A</b>	Speed	<b>1775 rpm</b>
Service Factor	<b>1</b>	Phase	<b>3</b>
Efficiency	<b>90.2 %</b>	Power Factor	<b>75</b>
Duty	<b>Continuous</b>	Insulation Class	<b>H</b>
Design Code	<b>INV</b>	KVA Code	<b>L</b>
Frame	<b>213TC</b>	Enclosure	<b>Totally Enclosed Non Ventilated</b>
Thermal Protection	<b>No Protection</b>	Ambient Temperature	<b>40 °C</b>
Drive End Bearing Size	<b>309</b>	Opp Drive End Bearing Size	<b>207</b>
UL	<b>Recognized</b>	CSA	<b>Y</b>
CE	<b>Y</b>	IP Code	<b>43</b>
Number of Speeds	<b>1</b>		

**Technical Specifications**

Electrical Type	<b>Squirrel Cage Inverter Duty</b>	Starting Method	<b>Inverter Only</b>
Poles	<b>4</b>	Rotation	<b>Reversible</b>
Resistance Main	<b>3.25 Ohms</b>	Mounting	<b>Rigid Base</b>
Motor Orientation	<b>Horizontal</b>	Drive End Bearing	<b>Ball</b>
Opp Drive End Bearing	<b>Ball</b>	Frame Material	<b>Cast Iron</b>
Shaft Type	<b>T</b>	Overall Length	<b>20.56 in</b>
Frame Length	<b>8.75 in</b>	Shaft Diameter	<b>1.375 in</b>
Shaft Extension	<b>3.38 in</b>	Assembly/Box Mounting	<b>F1/F2 CAPABLE</b>
Outline Drawing	<b>B-SS87557LE-875</b>	Connection Drawing	<b>A-EE7308T-LE</b>



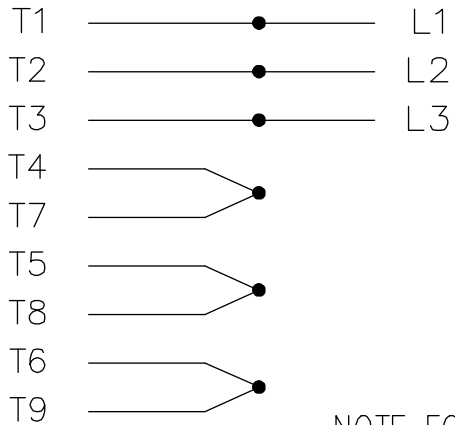
- NOTES:  
 1. BOX CAN BE ROTATED IN 90° STEPS.  
 2. BOX CAN BE MOUNTED ON OPPOSITE SIDE BY REMOVING BRACKETS AND TURNING FRAME 180°.

DASH	FRAME	B	C	AG	2F	2FF	BS	MTG
875	213/5TC	8.50	20.56	15.12	5.50	7.00	3.50	F1/F2
1000	215TC	9.75	21.81	16.37	7.00	8.25	4.12	F1/F2

		TOLERANCES UNLESS SPECIFIED		LEESON ELECTRIC MOTORS GEARMOTORS AND DRIVES		DRAWN NJS 05-16-2002	
		DEC.	INCHES			CHK	ML 05-20-2002
		.X	±.1	TITLE OUTLINE		APPD	TB 05-20-2002
		.XX	±.03	215TC FR. - TENV - DBL 'C' FACE AND EXT.		SCALE	9=32
2	ADDED F2 VIEW	UD	06/17/13	ST	.XXX	±.005	REF
1	NEW DRAWING CN35134	NJS	05/20/2002	TB	.XXXX	±.0005	FMF
NO.		REVISION		BY & DATE		FINISH	
		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 SCALE THIS PRINT		RFP	05-20-2002	CAD FILE	SS87557LE
				DIST	LB	SIZE	DRAWING NO. PAGE OF REV.
						B	SS87557LE 2

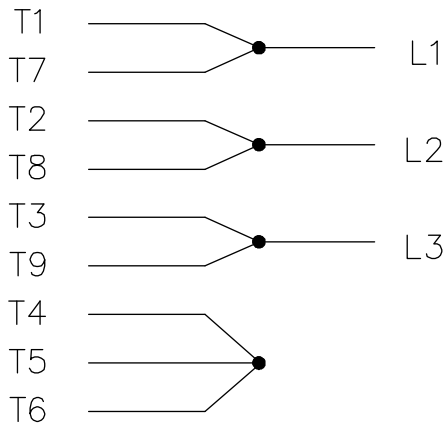
THREE PHASE  
DUAL VOLTAGE MOTOR

HIGH VOLTAGE

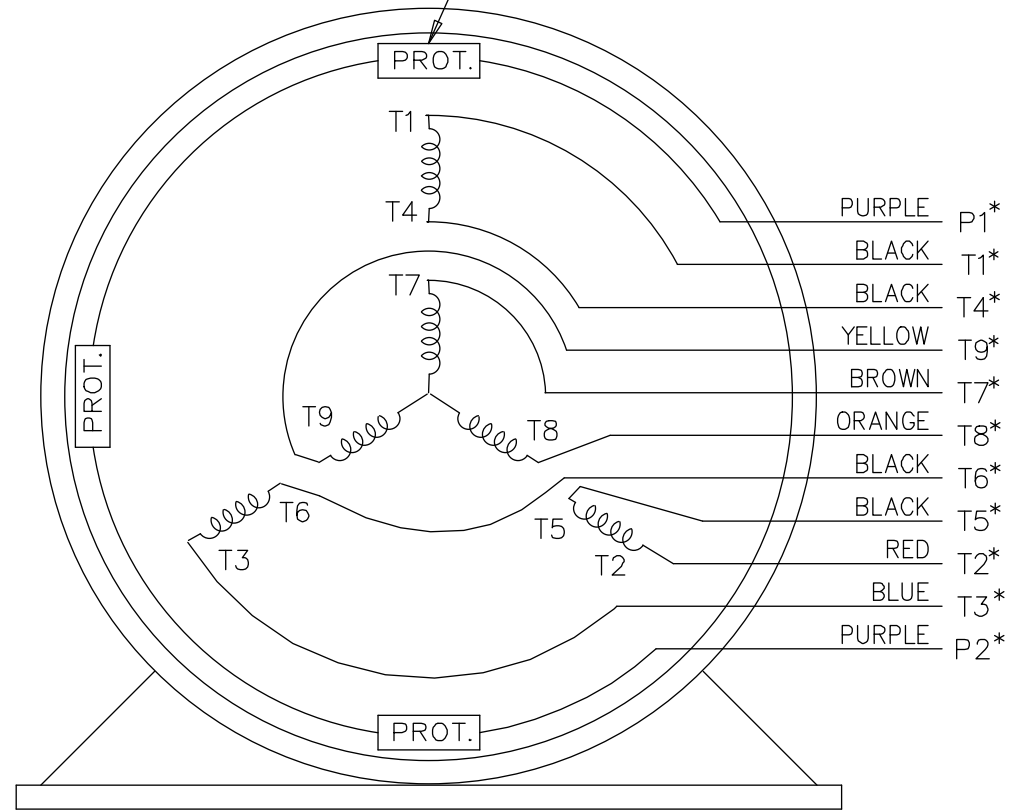


NOTE FOR FACTORY USE ONLY:  
 TO SURGE TEST FOR COMMON CONNECT:  
 HIGH VOLT: CONNECT P1 TO T1  
 THEN P2 TO L1  
 LOW VOLT: CONNECT P1 TO T1 & T7,  
 THEN P2 TO L1

LOW VOLTAGE



THREMO-PROTECTORS  
CONNECTED IN SERIES.



VIEW OF TERMINAL END

\* USE LEADS AS PER PLANT STANDARD IRRWSPECTIVE OF THEIR COLOUR.

NO.	REVISION	BY & DATE	CHK	ANG	TOLERANCES UNLESS SPECIFIED		FINISH	DRAWN TJB 05-07-2002	
					DEC.	INCHES			
05	ADDED * NOTE PER ECN # 26921	UD 01-30-2013	JD	DEC.	INCHES			CHK ML 05-08-2002	
04	ADDED COLORS TO "T & P" LEADS CN 40494	MSG 08-08-2006	ML	.X	±.1			APPD TB 05-08-2002	
03	RE-ISSUE	NJS 04-21-2004	JET	.XX	±.02			SCALE 1=1	
02	REDRAWN	TAT 04-20-2004	ML	.XXX	±.005			REF	
01	NEW DRAWING CN 34708	TJB 05-08-2002	ML	.XXXX	±.0005			FMF	
					±7'30"			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 SCALE THIS PRINT			RFP	CAD FILE EE7308T_LE			SIZE A	DRAWING NO. EE7308T-LE	PAGE OF 05
			DIST	LB-WP-LE					REV. 05



ELECTRIC MOTORS  
GEARMOTORS  
AND DRIVES

TITLE CONNECTION DIAGRAM  
3 PHASE - DUAL VOLTAGE MOTOR



1051 CHEYENNE AVE.  
 GRAFTON, WI 53024  
 PH. 262-377-8810

PO#:  
 CATALOG #: 810157.00

CONN. DIAGRAM: A-EE7308T-LE

OUTLINE: B-SS87557LE-875

MOUNTING: F1/F2 CAPABLE

WINDING #: K2134188 1

**TYPICAL MOTOR PERFORMANCE DATA**

HP	kW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
7 1/2	5.60	1800	1775	213TC	TENV	L	INV

PH	Hz	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB°C
3	60	230/460	21/10.5	INVERTER ONLY	CONTINUOUS	H4	1.0	40

FULL LOAD EFF:	90.2	3/4 LOAD EFF:	90.2	1/2 LOAD EFF:	88.5	GTD. EFF		ELEC. TYPE	
FULL LOAD PF:	75	3/4 LOAD PF:	68	1/2 LOAD PF:	55.5	88.5	SQ CAGE INV DUTY		

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
22.2 LB-FT	182 / 91	80 LB-FT 360 %	88 LB-FT 423 %	85

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS / HOUR	APPROX. MOTOR WGT
62 dBA	72 dBA	1.05 LB-FT^2	0 LB-FT^2	0 SEC.	0	180 LBS.

**\*\*\* SUPPLEMENTAL INFORMATION \*\*\***

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
C-FACE	ENCODER	RIGID	HORIZONTAL	FALSE	NONE	FALSE	NONE	BLUE - LEESON (ENAMEL)

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	ODE						
BALL	BALL	POLYREX EM	T	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON
309	207						

THERMO-PROTECTORS				THERMISTORS	CONTROL	SPACE HEATERS
THERMOSTATS	PROTECTORS	WDG RTDs	BRG RTDs			
TSTATS (N/C)	NOT	NONE	NONE	NONE	FALSE	NONE VOLTS

\*  
N  
O  
T  
E  
S

<b>INVERTER TORQUE:</b> CONSTANT 2000:1
<b>INV. HP SPEED RANGE:</b> 2.0 X BASE SPEED
<b>ENCODER:</b> PROVISIONS ONLY
NORTHSTAR ST56
NONE NONE PPR
<b>BRAKE:</b> NONE NONE
NONE P/N NONE
NONE NONE
FT-LB NONE V NONE Hz

Data Sheet

Date: 1/17/2018

810157.00



Data @ 460 V

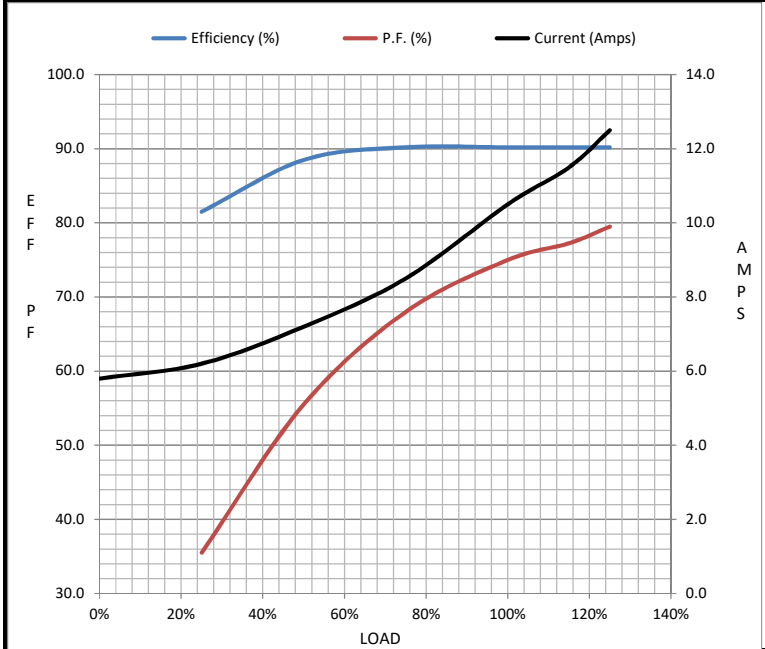
Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	5.8	6.2	7.2	8.5	10.5	11.5	12.5	91.0
Torque (ft-lb)	0.00	5.5	11.0	16.6	22.2	25.1	28.0	80.0
RPM	1800	1795	1788	1782	1775	1.772	1768	0
Efficiency (%)		81.5	88.5	90.2	90.2	90.2	90.2	
P.F. (%)	6.5	35.5	55.5	68.0	75.0	77.3	79.5	44.5

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1575	1775	1800
Current (Amps)	91.0	85.0	53.0	10.5	5.8
Torque (ft-lb)	80.0	75.0	94.0	22.2	0.00

Information Block				
HP	7.5			
Sync. RPM	1800			
Frame	213			
Enclosure	TENV			
Construction	TTN			
Voltage	230/460 V			
Frequency	60 Hz			
Design	A			
LR Code letter	L			
Service Factor	1.15			
Temp Rise @ FL	85 °C			
Duty	CONT			
Ambient	40 °C			
Elevation	1,000 feet			
Rotor/Shaft wk <sup>2</sup>	1.05 Lb-Ft <sup>2</sup>			
Ref Wdg	K2134188 NONE			
Sound Pressure @ 1M	62 dBA			
VFD Rating	CONSTANT 2000:1			
Outline Dwg	B-SS87557LE-875			
Conn. Diag	A-EE7308T-LE			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.5750	0.4610	1.9430	2.9860	43.8480



Speed - Torque Curve

