

# PRODUCT INFORMATION PACKET

Model No: 810140.00

Catalog No: 810140.00

Encoder Motors, TENV, 10 HP, 3 Ph, 60 Hz, 230/460 V, 1775 RPM, 215TC Frame



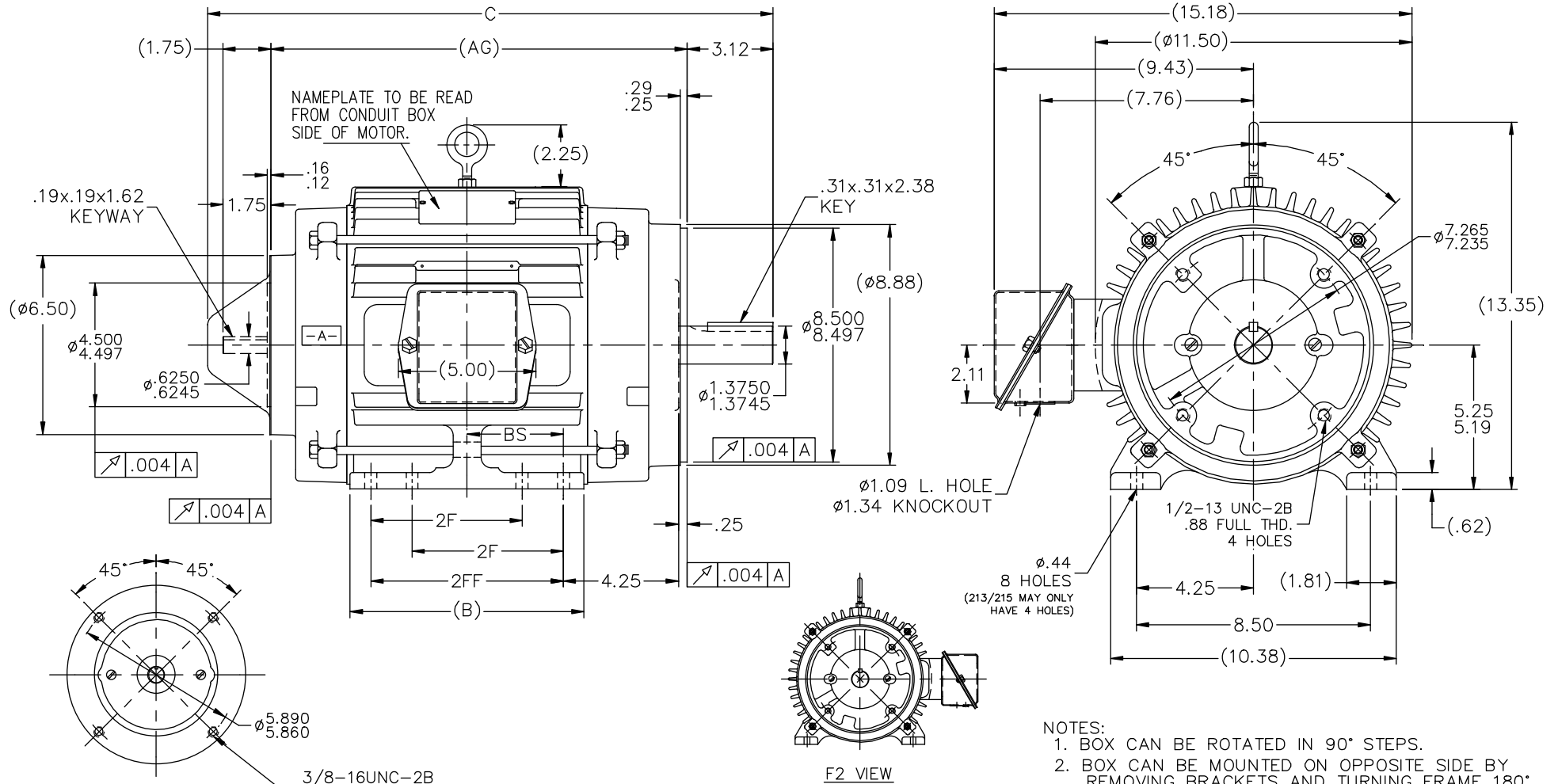
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**Nameplate Specifications**

Output HP	<b>10 Hp</b>	Output KW	<b>7.5 kW</b>
Frequency	<b>60 Hz</b>	Voltage	<b>230/460 V</b>
Current	<b>26.0/13.0 A</b>	Speed	<b>1775 rpm</b>
Service Factor	<b>1</b>	Phase	<b>3</b>
Efficiency	<b>91 %</b>	Power Factor	<b>78</b>
Duty	<b>Continuous</b>	Insulation Class	<b>H</b>
Design Code	<b>INV</b>	KVA Code	<b>L</b>
Frame	<b>215TC</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>N</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>.56 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>21.81 in</b>
Frame Length	<b>10.00 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-1000</b>	Connection Drawing	<b>A-EE7308T-LE</b>



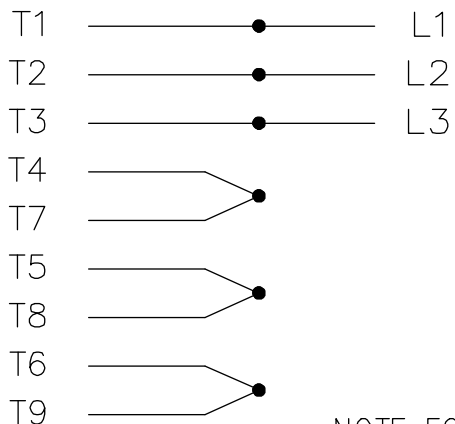
- NOTES:  
 1. BOX CAN BE ROTATED IN 90° STEPS.  
 2. BOX CAN BE MOUNTED ON OPPOSITE SIDE BY REMOVING BRACKETS AND TURNING FRAME 180°.

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		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	MATT'L.		
NO.		REVISION	BY & DATE	CHK ANG	±7'30"	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	SIZE DRAWING NO. PAGE OF REV.
						DIST LB	B	SS87557LE 2

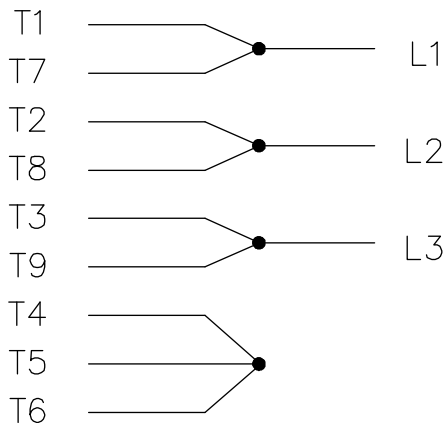
THREE PHASE  
DUAL VOLTAGE MOTOR

HIGH VOLTAGE

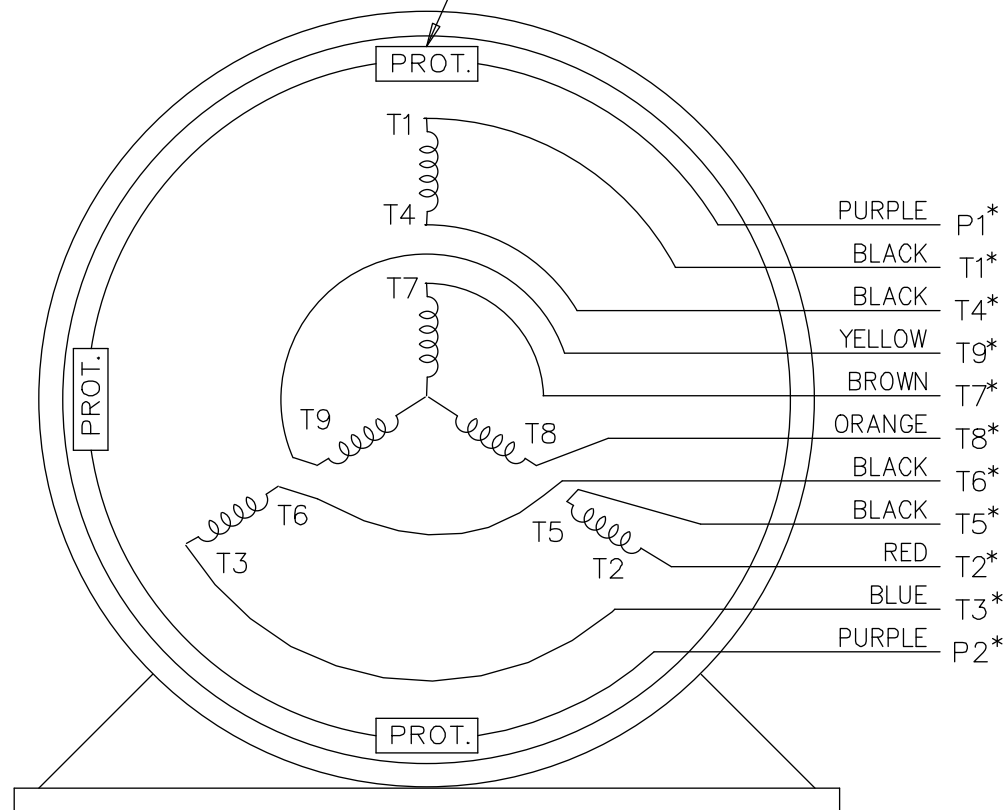


NOTE FOR FACTORY USE ONLY:  
TO SURGE TEST FOR COMMON CONNECT:  
HIGH VOLT: CONNECT P1 TO T1  
THEN P2 TO L1  
LOW VOLT: CONNECT P1 TO T1 & T7,  
THEN P2 TO L1

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	DRAWING NO.	PAGE	OF	REV.
					DEC.	INCHES					
05	ADDED * NOTE PER ECN # 26921	UD 01-30-2013	JD	DEC.	INCHES						
04	ADDED COLORS TO "T & P" LEADS CN 40494	MSG 08-08-2006	ML	.X	±.1						
03	RE-ISSUE	NJS 04-21-2004	JET	.XX	±.02						
02	REDRAWN	TAT 04-20-2004	ML	.XXX	±.005						
01	NEW DRAWING CN 34708	TJB 05-08-2002	ML	.XXXX	±.0005						
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							DIST LB-WP-LE				



ELECTRIC MOTORS  
GEARMOTORS  
AND DRIVES

TITLE CONNECTION DIAGRAM  
3 PHASE - DUAL VOLTAGE MOTOR

DRAWN	TJB	05-07-2002
CHK	ML	05-08-2002
APPD	TB	05-08-2002
SCALE	1=1	
REF		
FMF		
PREV		



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

**CERTIFICATION DATA SHEET**

**CATALOG #:** 810140.00

**CONN. DIAGRAM:** A-EE7308T-LE

**OUTLINE:** B-SS87557LE-1000

**MOUNTING:** F1/F2 CAPABLE

**WINDING #:** K2154321 1

**TYPICAL MOTOR PERFORMANCE DATA**

HP	kW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
10	7.46	1800	1775	215TC	TENV	L	INV

PH	Hz	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB°C
3	60	230/460	26/13	INVERTER ONLY	CONTINUOUS	H4	1.0	40

FULL LOAD EFF:	91	3/4 LOAD EFF:	91	1/2 LOAD EFF:	89.5	GTD. EFF		ELEC. TYPE	
FULL LOAD PF:	78	3/4 LOAD PF:	72	1/2 LOAD PF:	60.5	89.5		SQ CAGE INV DUTY	

F.L. TORQUE	LOCKED ROTOR AMPS	L,R. TORQUE	B,D. TORQUE	F.L. RISE°C
29.6 LB-FT	230 / 115	93.5 LB-FT 316 %	119 LB-FT 402 %	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	1.4 LB-FT^2	- LB-FT^2	- SEC.	-	240 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: 1/29/2018

810140.00



Data @ 460 V

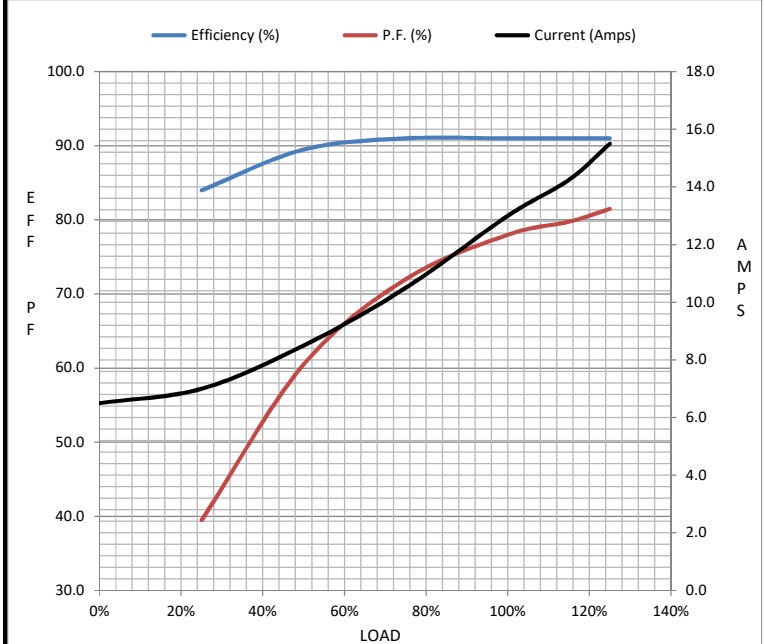
Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	6.5	7.0	8.5	10.5	13.0	14.3	15.5	115
Torque (ft-lb)	0.00	7.4	14.8	22.0	29.6	33.3	37.0	93.5
RPM	1800	1794	1786	1780	1775	1.771	1765	0
Efficiency (%)		84.0	89.5	91.0	91.0	91.0	91.0	
P.F. (%)	6.5	39.5	60.5	72.0	78.0	79.8	81.5	41.0

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1600	1775	1800
Current (Amps)	115	100	64.5	13.0	6.5
Torque (ft-lb)	93.5	90.0	119	29.6	0.00

Information Block				
HP	10.0			
Sync. RPM	1800			
Frame	215			
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>	1.40 Lb-Ft <sup>2</sup>			
Ref Wdg	K2154321 NONE			
Sound Pressure @ 1M	62 dBA			
VFD Rating	CONSTANT 2000:1			
Outline Dwg	B-SS87557LE-1000			
Conn. Diag	A-EE7308T-LE			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.3950	0.3610	1.4770	2.4250	36.9200



Speed - Torque Curve

