

# PRODUCT INFORMATION PACKET



Model No: 825078.00  
Catalog No: 825078.00  
Explosion Proof Motor, 20 & 15 HP, 3 Ph, 60 & 50 Hz, 230/460 & 190/380 V, 3600 & 3000 RPM,  
256TC Frame, EPFC



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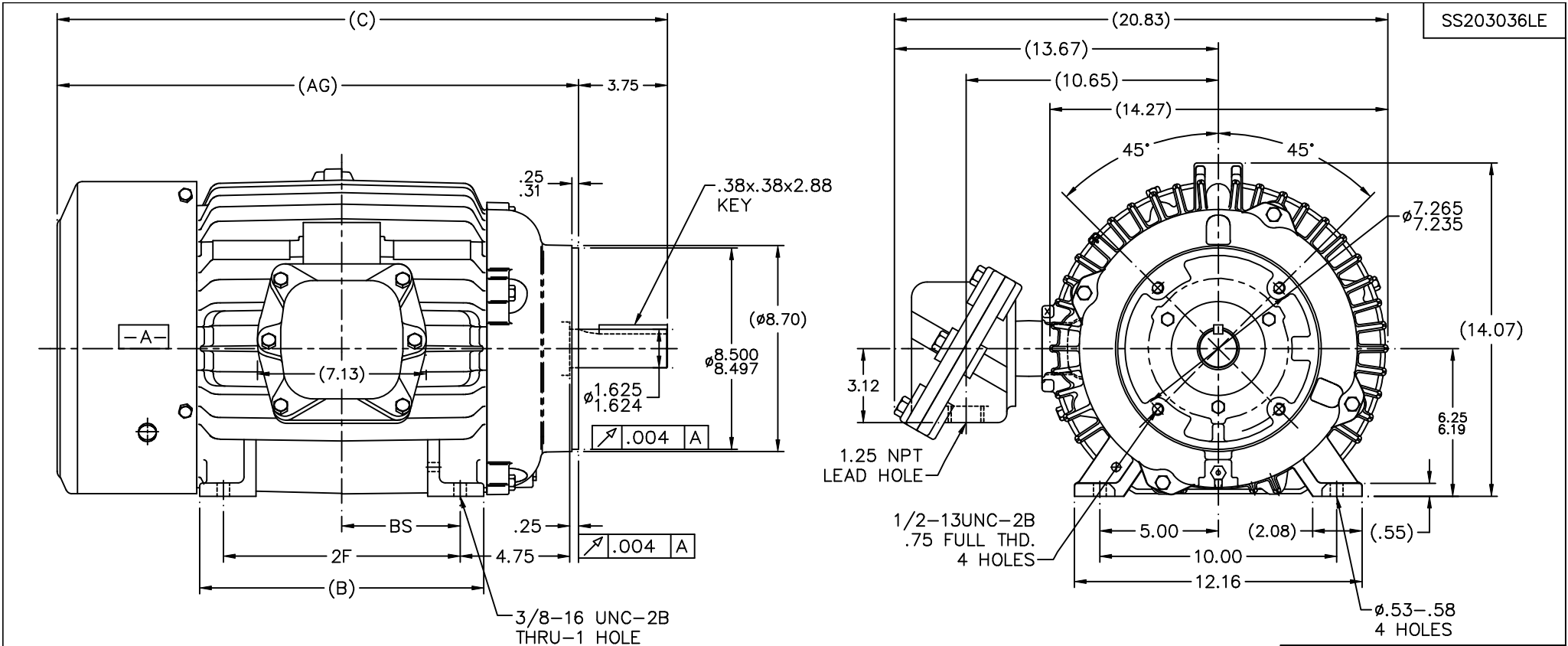
### Nameplate Specifications

Phase	<b>3</b>	Output HP	<b>20 &amp; 15 Hp</b>
Output KW	<b>14.9 &amp; 11.2 kW</b>	Voltage	<b>230/460 &amp; 190/380 V</b>
Speed	<b>3537 &amp; 2955 rpm</b>	Service Factor	<b>1.15 &amp; 1.15</b>
Frame	<b>256TC</b>	Enclosure	<b>Explosion Proof Fan cooled</b>
Thermal Protection	<b>No Protection</b>	Efficiency	<b>92.4 &amp; 92.4 %</b>
Ambient Temperature	<b>40 °C</b>	Frequency	<b>60 &amp; 50 Hz</b>
Current	<b>47/23.4 &amp; 42/21 A</b>	Power Factor	<b>86</b>
Duty	<b>Continuous</b>	Insulation Class	<b>F</b>
Design Code	<b>B</b>	KVA Code	<b>G</b>
Drive End Bearing Size	<b>309</b>	Opp Drive End Bearing Size	<b>210</b>
UL	<b>UL Listed And CSA Certified</b>	CSA	<b>Y</b>
CE	<b>N</b>	IP Code	<b>54</b>
Number of Speeds	<b>1</b>	Hazardous Location	<b>EXP PROOF CL I GR C&amp;D CL II GR F&amp;G T3B</b>

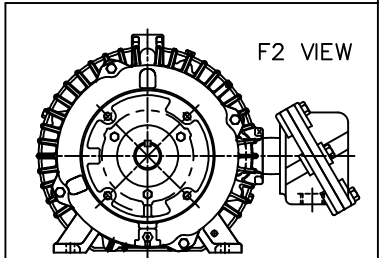
### Technical Specifications

Electrical Type	<b>Squirrel Cage Inverter Rated</b>	Starting Method	<b>Line Or Inverter</b>
Poles	<b>2</b>	Rotation	<b>Reversible</b>
Resistance Main	<b>.394 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>25.77 in</b>
Frame Length	<b>12.25 in</b>	Shaft Diameter	<b>1.625 in</b>
Shaft Extension	<b>4 in</b>	Assembly/Box Mounting	<b>F1 ONLY</b>
Inverter Load	<b>CONSTANT 10:1</b>		
Outline Drawing	<b>SS203036LE-1225</b>	Connection Drawing	<b>EE7308T-LE</b>





- NOTES:  
 1. BOX CAN ONLY BE ROTATED CLOCKWISE UP TO 270° FROM ITS ORIGINAL POSITION.  
 2. NAMEPLATE TO BE READ FROM CONDUIT BOX SIDE OF MOTOR.



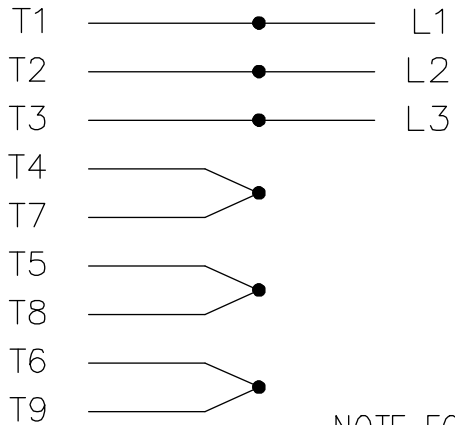
(B-SS203001)

DASH	FRAME	B	C	AG	2F	BS
1050	254TC	10.25	24.02	20.27	8.25	4.12
1225	256TC	12.00	25.77	22.02	10.00	5.00

		TOLERANCES UNLESS SPECIFIED		LEESON		ELECTRIC MOTORS GEARMOTORS AND DRIVES		DRAWN TJB 05-13-2002	
NO.	REVISION	BY & DATE	CHK	ANG	FINISH	SCALE	REF	CHK	ML
1	NEW DRAWING CN 34438	TJB 05-15-2002	TB	.XXX ±.0005	MATL	1=4		APPD	TB 05-15-2002
				RFP	CAD FILE ss203036LE				
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						SIZE	DRAWING NO.	PAGE	OF
						B	SS203036LE	1	REV.
						DIST	LB		1

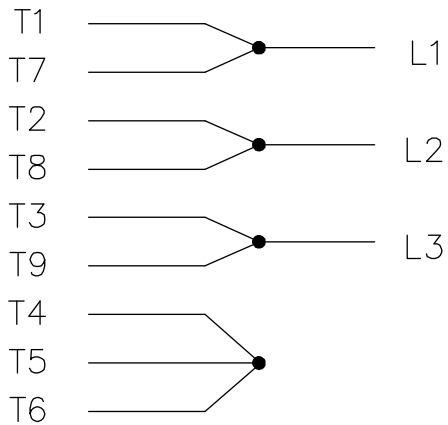
THREE PHASE  
DUAL VOLTAGE MOTOR

HIGH VOLTAGE

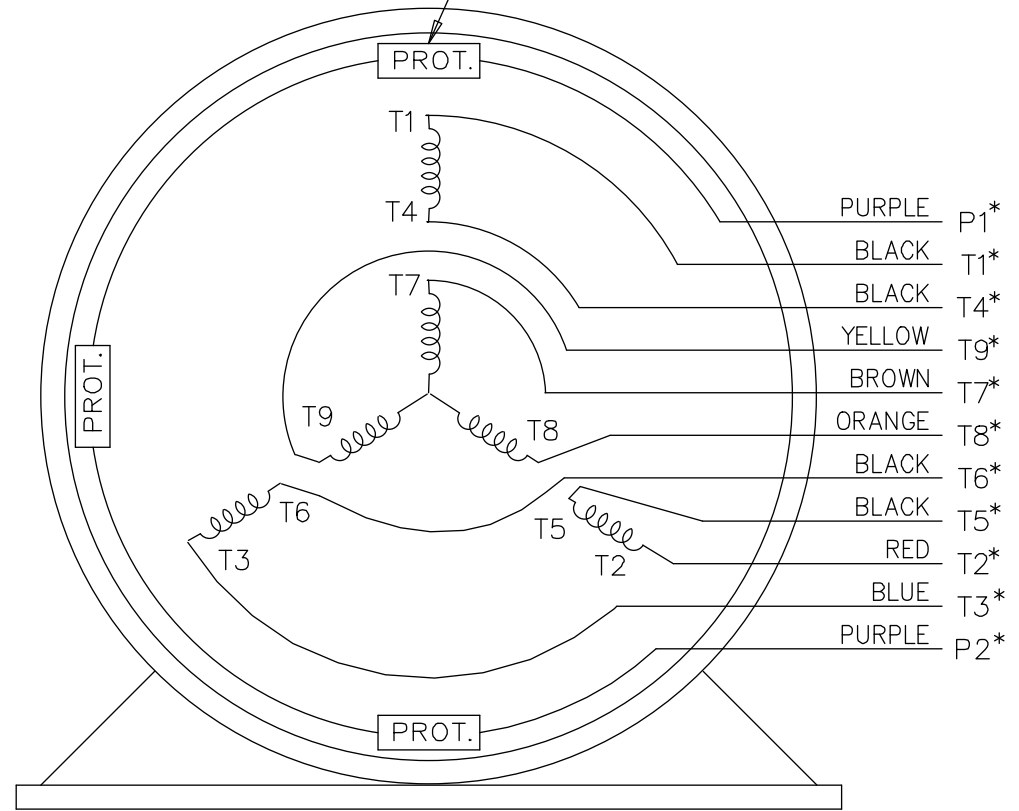


NOTE FOR FACTORY USE ONLY:  
 TO SURGE TEST FOR COMMON CONNECT:  
 HIGH VOLT: CONNECT P1 TO T1  
 THEN P2 TO L1  
 LOW VOLT: CONNECT P1 TO T1 & T7,  
 THEN P2 TO L1

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		



**CERTIFICATION DATA SHEET**

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

**CATALOG #:** 825078.00

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

**OUTLINE:** B-SS203036LE-1225

**MOUNTING:** F1 ONLY

**WINDING #:** K256288 10

**TYPICAL MOTOR PERFORMANCE DATA**

HP	kW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
20&15	14.9&11.2	3600	3537&2955	256TC	EPFC	G	B

PH	Hz	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB°C
3	60/50	230/460&190/380	47/23.4&42/21	LINE OR INVERTER	CONTINUOUS	F3	1.15/1.15	40

FULL LOAD EFF:	92.4&92.4	3/4 LOAD EFF:	91.7	1/2 LOAD EFF:	91	GTD. EFF		ELEC. TYPE	
FULL LOAD PF:	86&86.5	3/4 LOAD PF:	85	1/2 LOAD PF:	78	91.7		SQ CAGE INV RATED	

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
29.7 LB-FT	290 / 145	55 LB-FT 185 %	84 LB-FT 283 %	55

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS / HOUR	APPROX. MOTOR WGT
72 dBA	82 dBA	1.3 LB-FT^2	26 LB-FT^2	20 SEC.	2	370 LBS.

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

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
C-FACE	STANDARD	RIGID	HORIZONTAL	PREMIUM SEVERE DUTY	EXP PROOF CL I GR C&D CL II GR F&G T3B	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	210						

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

<b>INVERTER TORQUE:</b> CONSTANT 10:1
<b>INV. HP SPEED RANGE:</b> NONE
<b>ENCODER:</b> NONE NONE NONE NONE NONE PPR
<b>BRAKE:</b> NONE NONE NONE P/N NONE NONE NONE FT-LB NONE V NONE HZ

Data Sheet

Date: 1/24/2018

825078.00



Data @ **460 V**

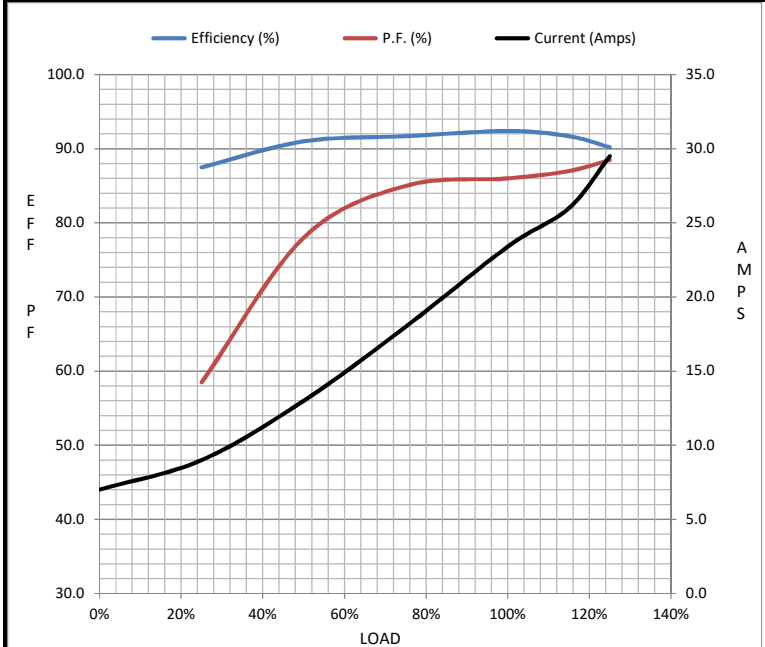
Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	7.0	9.0	13.0	18.0	23.4	26.0	29.5	145
Torque (ft-lb)	0.00	7.5	15.0	22.0	29.7	31.0	37.5	55.0
RPM	3600	3585	3570	3555	3537	3,525	3515	0
Efficiency (%)		87.5	91.0	91.7	92.4	91.7	90.2	
P.F. (%)	10.5	58.5	78.0	85.0	86.0	87.0	88.5	37.0

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	1800	3155	3537	3600
Current (Amps)	145	131	100	23.4	7.0
Torque (ft-lb)	55.0	50.0	84.0	29.7	0.00

Information Block				
HP	20.0			
Sync. RPM	3600			
Frame	256			
Enclosure	TEFC			
Construction	TFN			
Voltage	230/460#190/380 V			
Frequency	60 Hz			
Design	B			
LR Code letter	G			
Service Factor	1.15			
Temp Rise @ FL	55 °C			
Duty	CONT			
Ambient	40 °C			
Elevation	1,000 feet			
Rotor/Shaft wk <sup>2</sup>	1.30 Lb-Ft <sup>2</sup>			
Ref Wdg	K256288 NONE			
Sound Pressure @ 1M	72 dBA			
VFD Rating	CONSTANT 10:1			
Outline Dwg	B-SS203036LE-1225			
Conn. Diag	A-EE7308T-LE			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.2530	0.2230	1.0790	1.1190	37.7720



Speed - Torque Curve

