

# PRODUCT INFORMATION PACKET



Model No: LM24199

Catalog No: LM24199

General Purpose Motor, 20 & 20 HP, 3 Ph, 60 & 50 Hz, 230/460 & 190-208/380-415 V, 1800 & 1500 RPM,  
256T Frame, DP



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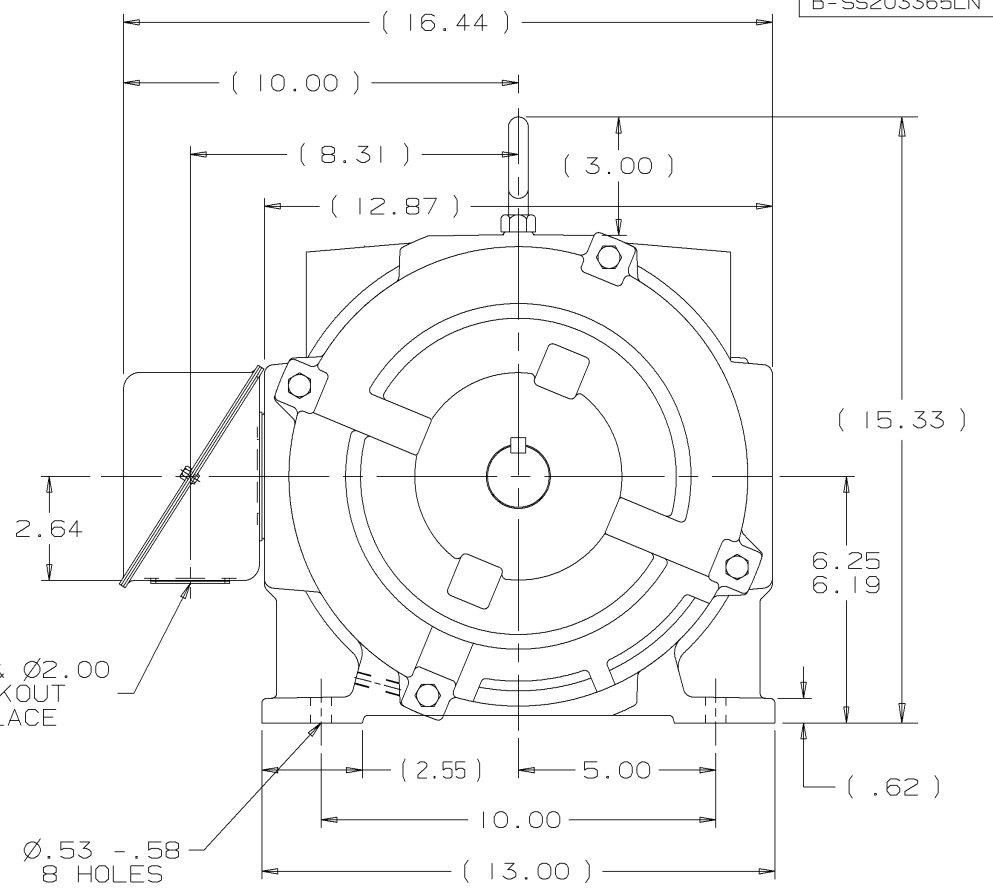
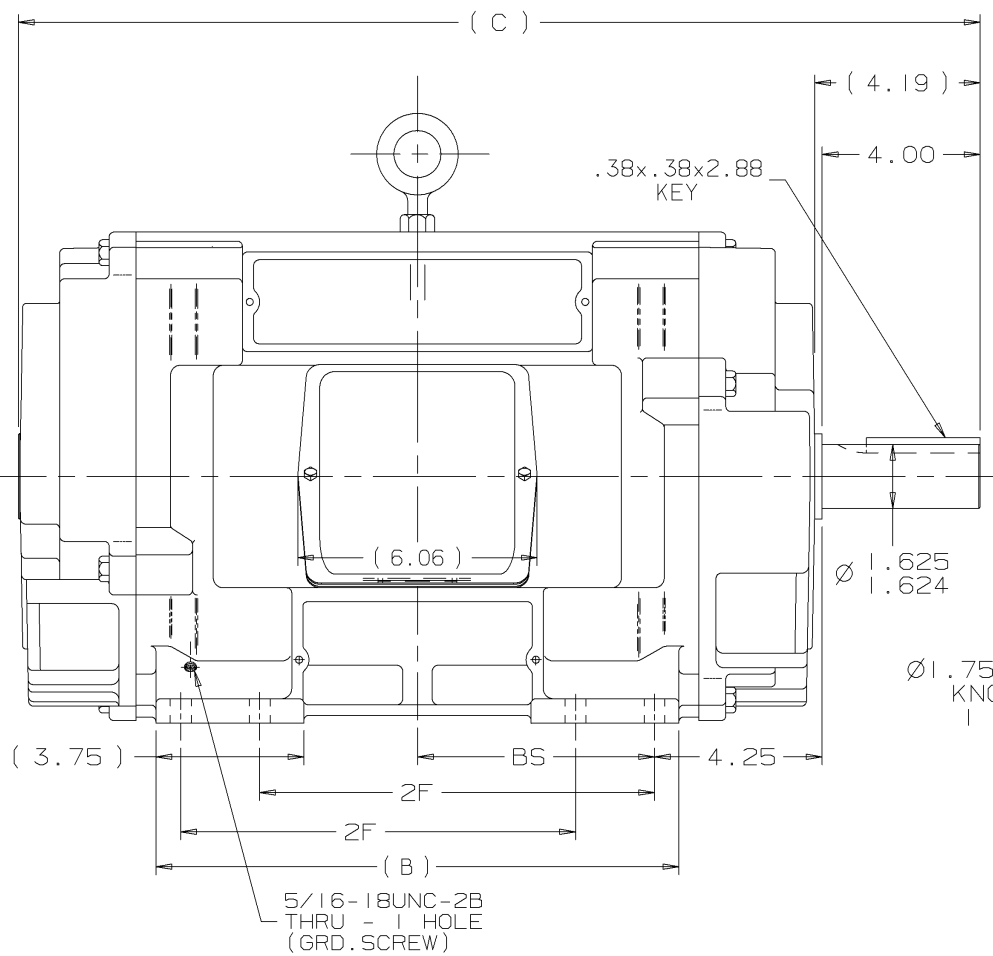


### Nameplate Specifications

Phase	3	Output HP	20 & 20 Hp
Output KW	14.9 & 14.9 kW	Voltage	230/460 & 190-208/380-415 V
Speed	1775 & 1467 rpm	Service Factor	1.25 & 1.15
Frame	256T	Enclosure	Drip Proof
Thermal Protection	No Protection	Efficiency	93 & 91 %
Ambient Temperature	40 °C	Frequency	60 & 50 Hz
Current	48/24 & 59-55/29.5-27.5 A	Power Factor	82.5
Duty	Continuous	Insulation Class	F
Design Code	B	KVA Code	F
Drive End Bearing Size	6309	Opp Drive End Bearing Size	6208
UL	Recognized	CSA	Y
CE	Y	IP Code	22
Number of Speeds	1		

### Technical Specifications

Electrical Type	Squirrel Cage Induction Run	Starting Method	Across The Line
Poles	4	Rotation	Reversible
Resistance Main	.12 Ohms	Mounting	Rigid Base
Motor Orientation	Horizontal	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Cast Iron
Shaft Type	T	Overall Length	24.37 in
Frame Length	14.25 in	Shaft Diameter	1.625 in
Shaft Extension	4 in	Assembly/Box Mounting	F1/F2 CAPABLE
Connection Drawing	A-EE7308-LN	Outline Drawing	B-SS203365LN-1425



- NOTES:  
 1. BOX CAN BE ROTATED IN 90° STEPS.  
 2. BOX CAN BE MOUNTED ON OPPOSITE SIDE BY REMOVING BRACKETS AND TURNING FRAME 180°.  
 3. NAMEPLATE TO BE READ FROM CONDUIT BOX SIDE OF MOTOR.

DASH	FRAME	B	C	2F	BS
1275	254T	11.75	22.87	8.25	5.25
1425	256T	13.25	24.37	10.00	6.00

REV	DATE	CHANGE	NAME
4	05-24-2001	UPDATED C*BOX GEOMETRY CN 28427	DRS
3	03-29-2001	CORRECTED 2F AND BS DIMENSIONS CN 30749	TJB
2	02-04-2000	REVISED TO NEC CONDUIT BOX CN 28428	BJW

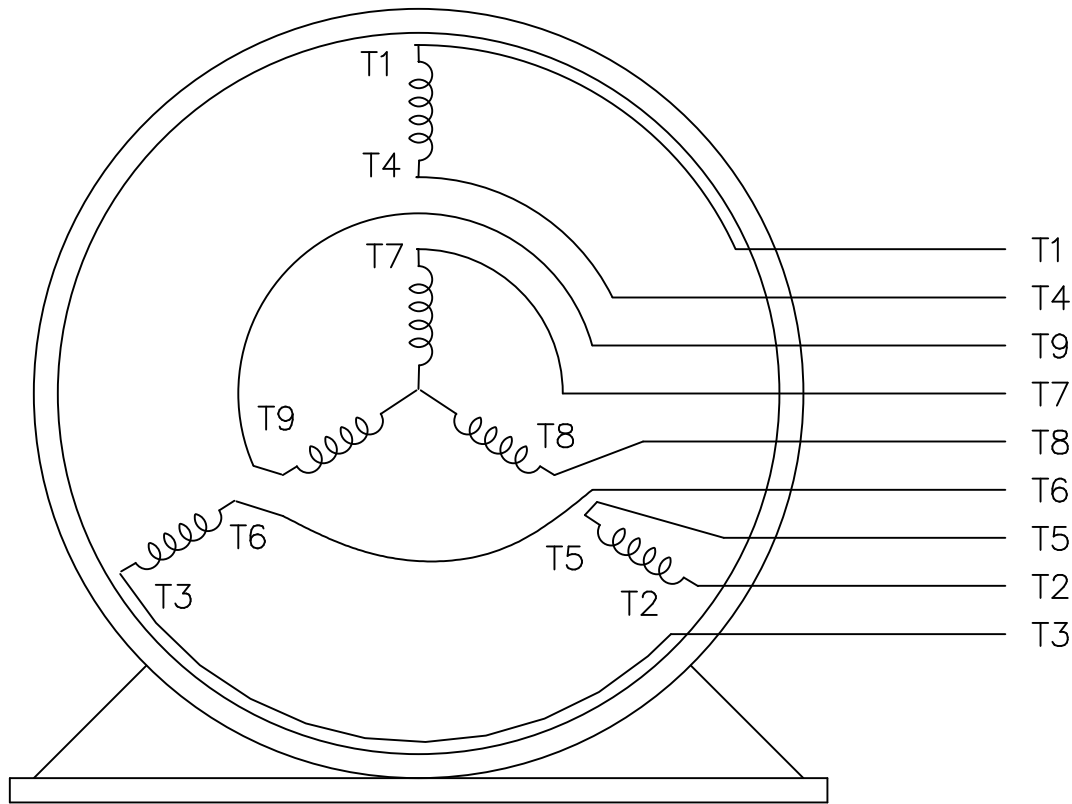
	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOL. ON XX±.03 XXX±.005 XXXX±.0005 ANGLES± 7'30"		DRAWN TRB 09-20-1999
	MAX. SURFACE ROUGHNESS UNLESS OTHERWISE NOTED	FINISH	CHKD BY ML 09-21-1999
	MATERIAL	APPD BY TB 09-21-1999	DRWG NO B-SS203365LN
PART NAME OUTLINE 250T FR - DR.PR. - CAST IRON		PURCHASED	CADD FILE NO. SS203365LN

THREE PHASE  
DUAL VOLTAGE MOTOR

HIGH VOLTAGE



LOW VOLTAGE



VIEW OF TERMINAL END

REF.  
WINDING DIAGRAM

T8Y, T2Y, T2BL, T4BX, T2EC, T2G  
T6BZ, T2B, T6BL, T4AV, T6B, T4B

OPTIONAL CORD  
CONNECTION

L1 — WHITE  
L2 — RED  
L3 — BLACK

NO.	REVISION	BY & DATE	CHK	TOLERANCES UNLESS SPECIFIED		FINISH	DRAWN	DATE				
				DEC.	INCHES							
				.X	±.1		BLR	06/11/1999				
							ML	06/18/1999				
							GK	06/18/1999				
3	ADDED THE OPTIONAL CORD CONNECTION MU46318	RDH 04/24/2003	DRS	.XX	±.02	TITLE CONNECTION DIAGRAM		SCALE 1=1				
2	RE-ISSUE, ADDED '-' TO PART NUMBER	BLR 08/09/1999	GK	.XXX	±.005	3∅ - DUAL VOLTAGE MOTOR		REF				
1	NEW DRAWING	BLR 06/18/1999	GK	.XXXX	±.0005	MAT'L.		FMF				
				ANG	±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 EE7308LN		SIZE A	DRAWING NO. EE7308-LN	PAGE OF 3	REV. 3
						DIST WP						



P.O. BOX 8003  
 WAUSAU, WI 54401-8003  
 PH. 715-675-3311



DATA VOLTS: 460

**CERTIFICATION DATA SHEET**

CONN. DIAGRAM: A-EE7308-LN  
 OUTLINE: B-SS203365LN-1425  
 WINDING: K2564317

CAT #: LM24199

NONE 1

**TYPICAL MOTOR PERFORMANCE DATA**

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
20	14.9	1800	1775	256T	DP	TDN	G	B

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB	ELEV.
3	60/50	30/460#190-208/380-41	48/24&59-55/29.5-27.5	ACROSS THE LINE	CONT	F	1.15	40	3300

F.L. EFF	93.0	3/4 LD EFF	93.0	1/2 LD EFF	92.4	GTD EFF	ELECT. TYPE
F.L. PF	82.5	3/4 LD PF	78.5	1/2 LD PF	69.0	91.0	SQ CAGE IND RUN

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (°C)
59.0 LB-FT	145	115 LB-FT 195%	150 LB-FT 254%	25

PRESSURE @ 3	POWER	ROTOR WK²	MAX. LOAD WK²	SAFE STALL TIME	STARTS/HOUR	MOTOR WGT
70 dBA	79 dBA	3.2 LB-FT²	0 LB-FT²	20 SEC.	0	425 LB.

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

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	MOTOR ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
STANDARD	STANDARD	RIGID	HORIZONTAL	NO	NONE	NO	NONE	GRAY - LINCOLN

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	ODE	POLYREX EM	T	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON
BALL	BALL						
6309	6208						

THERMOSTATS	PROTECTORS	WDG RTD's	BRG RTD's	THERMISTORS	CONTROL	SPACE HEATERS
NONE	NOT	NONE	NONE	NONE	FALSE	NA

R1 (ohms/ph)	R2 (ohms/ph)	X1 (ohms/ph)	X2 (ohms/ph)	Xm (ohms/ph)	VIBRATION (in/sec)	FLOAT
0.29	0.179	1.044	1.605	29.962	0.150	ODE

* N O T E S *	INVERTER TORQUE: NONE					
	INV. HP SPEED RANGE: NONE					
	ENCODER: NONE					
	NONE					
	NONE					

DATE: 1/24/2018	BRAKE: NONE					
	NONE					
	NONE					
	FT-LB: NA					
	VOLTAGE: NONE					
	HZ:					
	UL: V-INS, CONST UL REC					

Data Sheet

Date: 1/24/2018

LM24199



Data @ **460 V**

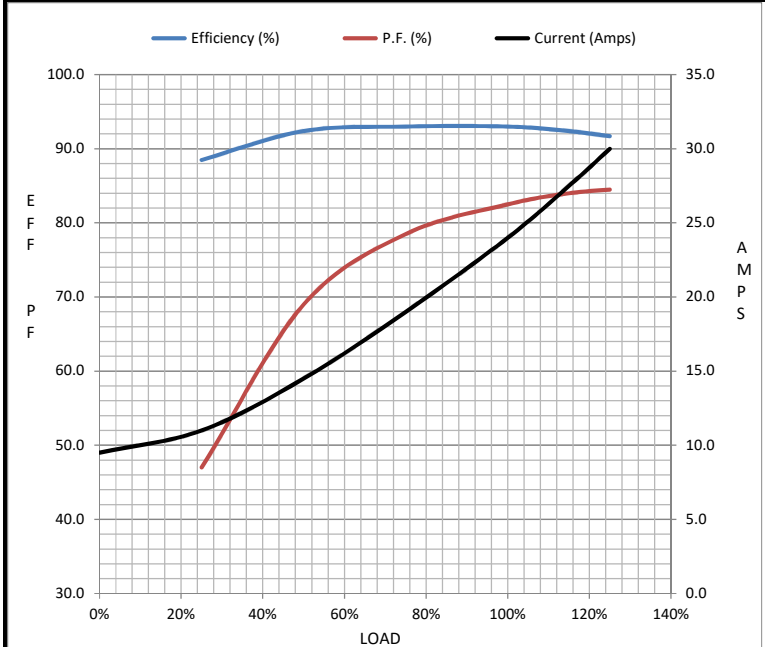
Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	9.5	11.0	14.5	19.0	24.0	27.5	30.0	145
Torque (ft-lb)	0.00	14.5	29.5	44.0	59.0	68.5	74.5	115
RPM	1800	1795	1788	1780	1775	1.765	1760	0
Efficiency (%)		88.5	92.4	93.0	93.0	92.4	91.7	
P.F. (%)	5.5	47.0	69.0	78.5	82.5	84.0	84.5	40.0

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1675	1775	1800
Current (Amps)	145	135	100	24.0	9.5
Torque (ft-lb)	115	100	150	59.0	0.00

Information Block				
HP	20.0			
Sync. RPM	1800			
Frame	256			
Enclosure	DP			
Construction	TDN			
Voltage	230/460#190-208/380-415 V			
Frequency	60 Hz			
Design	B			
LR Code letter	G			
Service Factor	1.15			
Temp Rise @ FL	25 °C			
Duty	CONT			
Ambient	40 °C			
Elevation	1,000 feet			
Rotor/Shaft wk <sup>2</sup>	3.2 Lb-Ft <sup>2</sup>			
Ref Wdg	K2564317 NONE			
Sound Pressure @ 1M	70 dBA			
VFD Rating	NONE			
Outline Dwg	B-SS203365LN-1425			
Conn. Diag	A-EE7308-LN			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.2900	0.1790	1.0440	1.6050	29.9620



Speed - Torque Curve

