

PRODUCT INFORMATION PACKET

Model No: LM21171

Catalog No: LM21171

Speed Ratio Motors, Drip Proof, 20 HP, 3 Ph, 60 Hz, 230/460 V, 1760 RPM, 256T Frame



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Nameplate Specifications

Output HP	20 Hp	Output KW	14.9 kW
Frequency	60 Hz	Voltage	230/460 V
Current	52.0/26.0 A	Speed	1760 rpm
Service Factor	1	Phase	3
Efficiency	91 %	Power Factor	79.3
Duty	Continuous	Insulation Class	F
Design Code	INV	KVA Code	H
Frame	256T	Enclosure	Drip Proof
Thermal Protection	No Protection	Ambient Temperature	40 °C
Drive End Bearing Size	309	Opp Drive End Bearing Size	208
UL	Recognized	CSA	Y
CE	Y	IP Code	12
Number of Speeds	1		

Technical Specifications

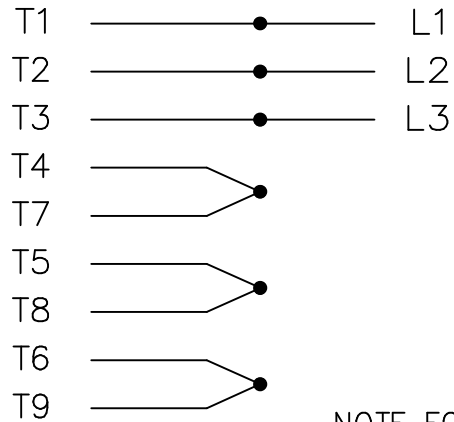
Electrical Type	Squirrel Cage Inverter Duty	Starting Method	Inverter Only
Poles	4	Rotation	Reversible
Resistance Main	.428 Ohms	Mounting	Rigid Base
Motor Orientation	Horizontal	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Rolled Steel
Shaft Type	T	Overall Length	22.32 in
Frame Length	15.45 in	Shaft Diameter	1.625 in
Shaft Extension	4 in	Assembly/Box Mounting	F1/F2 CAPABLE
Outline Drawing	A-SS86503LN-1545	Connection Drawing	A-EE7308T-LN

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STACK:

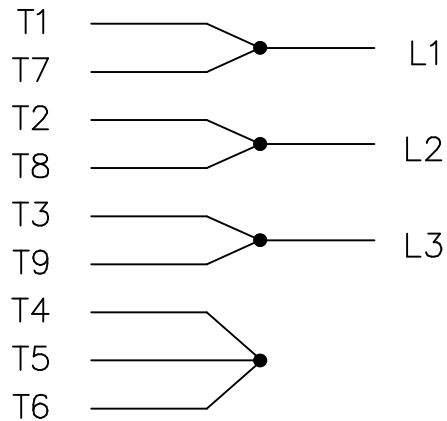
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HIGH VOLTAGE



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

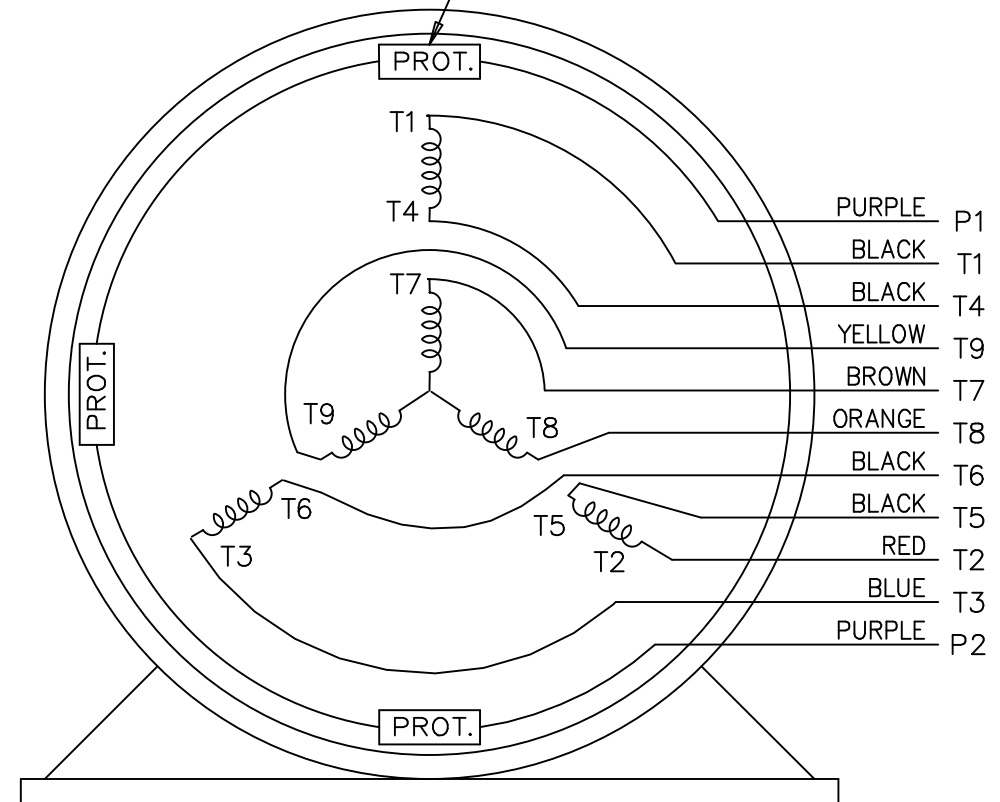
LOW VOLTAGE




THREE PHASE DUAL VOLTAGE MOTOR

EE7308T-LN

THREMO-PROTECTORS
CONNECTED IN SERIES.



VIEW OF TERMINAL END

				TOLERANCES UNLESS SPECIFIED			DRAWN BJK 07-16-2002			
				DEC.	INCHES		CHK	DRS	07-18-2002	
				.X	±.1		APPD	GK	07-18-2002	
				.XX	±.02		SCALE 1=1			
2	ADDED COLORS TO "T & P" LEADS CN 40494	MSG 08-08-2006	ML	.XXX	±.005	TITLE CONNECTION DIAGRAM 3 PHASE – DUAL VOLTAGE MOTOR			REF	
1	NEW DRAWING	BJK 07-18-2002	DRS	.XXXX	±.0005	MAT'L.			FMF	
NO.	REVISION	BY & DATE	CHK	ANG	±7'30"	FINISH			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_ln		SIZE	DRAWING NO.	PAGE OF	REV.
			DIST LB				A	EE7308T-LN		2



CERTIFICATION DATA SHEET

2100 WASHINGTON ST.
GRAFTON, WI
PH. 262-277-8810

CONN. DIAGRAM: A-EE7308T-LN

CATALOG #: LM21171

OUTLINE: A-SS86503LN-1545

WINDING #: K2154280 R3 6

MOUNTING: F1/F2 CAPABLE

TYPICAL MOTOR PERFORMANCE DATA

HP	kW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
20	14.9	1800	1760	256T	DP	H	INV

PH	Hz	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB°C
3	60	230/460	52/26	INVERTER ONLY	CONTINUOUS	F3	1.0	40

FULL LOAD EFF:	91	3/4 LOAD EFF:	91.7	1/2 LOAD EFF:	90.2	GTD. EFF	ELEC. TYPE
FULL LOAD PF:	79.3	3/4 LOAD PF:	74	1/2 LOAD PF:	63	89.5	SQ CAGE INV DUTY

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
59.5 LB-FT	320 / 160	145 LB-FT 244 %	175 LB-FT 294 %	55

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS / HOUR	APPROX. MOTOR WGT
70 dBA	80 dBA	1.7 LB-FT^2	- LB-FT^2	- SEC.	-	185 LBS.

*** SUPPLEMENTAL INFORMATION ***

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
STANDARD	STANDARD	RIGID	HORIZONTAL	FALSE	NONE	FALSE	NONE	GRAY - LINCOLN

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	ODE						
BALL	BALL						
309	208	POLYREX EM	T	NONE	NONE	1045 HOT ROLLED (C-204)	ROLLED STEEL

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

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INVERTER TORQUE: CONSTANT 2:1

INV. HP SPEED RANGE: NONE

ENCODER: NONE

NONE NONE

NONE NONE PPR

BRAKE: NONE NONE

NONE P/N NONE

NONE NONE

FT-LB V NONE Hz

Data Sheet

Date: 1/23/2018

LM21171



Data @ 460 V

Motor Load Data

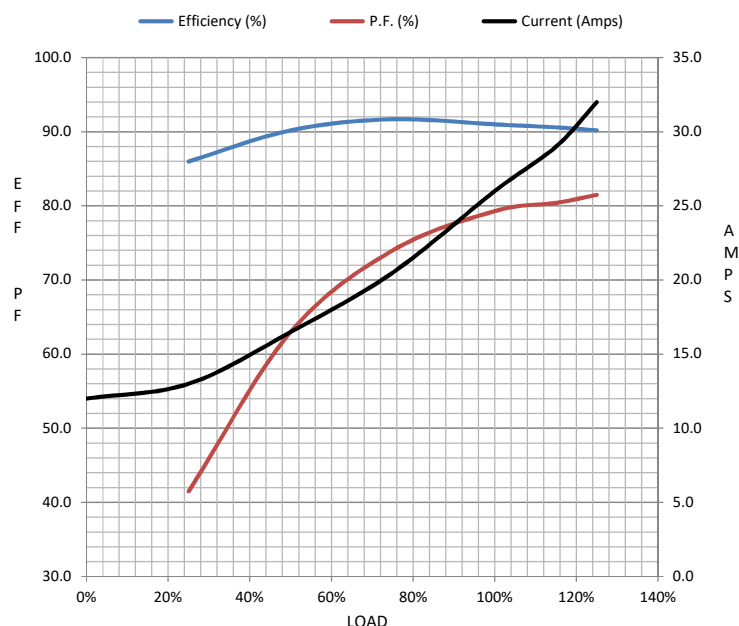
Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	12.0	13.0	16.5	20.5	26.0	29.0	32.0	160	
Torque (ft-lb)	0.00	15.0	29.5	44.5	59.5	67.3	75.0	145	
RPM	1800	1790	1785	1770	1760	1,756	1750	0	
Efficiency (%)		86.0	90.2	91.7	91.0	90.6	90.2		
P.F. (%)	5.5	41.5	63.0	74.0	79.3	80.4	81.5	43.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1625	1760	1800
Current (Amps)	160	135	100	26.0	12.0
Torque (ft-lb)	145	140	175	59.5	0.00

Information Block

HP	20.0			
Sync. RPM	1800			
Frame	256			
Enclosure	DP			
Construction	TDX			
Voltage	230/460 V			
Frequency	60 Hz			
Design	B			
LR Code letter	H			
Service Factor	1.0			
Temp Rise @ FL	55 °C			
Duty	CONT			
Ambient	40 °C			
Elevation	1,000 feet			
Rotor/Shaft wk²	1.70 Lb-Ft²			
Ref Wdg	K2154280 R3			
Sound Pressure @ 1M	70 dBA			
VFD Rating	CONSTANT 2:1			
Outline Dwg	A-SS86503LN-1545			
Conn. Diag	A-EE7308T-LN			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.9410	0.8260	3.2500	4.7710	67.3080



Speed - Torque Curve

