

# PRODUCT INFORMATION PACKET



Model No: LM22649  
Catalog No: LM22649  
Speed Ratio Motor, 0.50 HP, 3 Ph, 60 Hz, 230/460 V, 1800 RPM, 56C Frame, TEFC



Regal and Leeson are trademarks of Regal Rexnord Corporation or one of its affiliated companies.  
©2023 Regal Rexnord Corporation, All Rights Reserved. MC017097E





### Nameplate Specifications

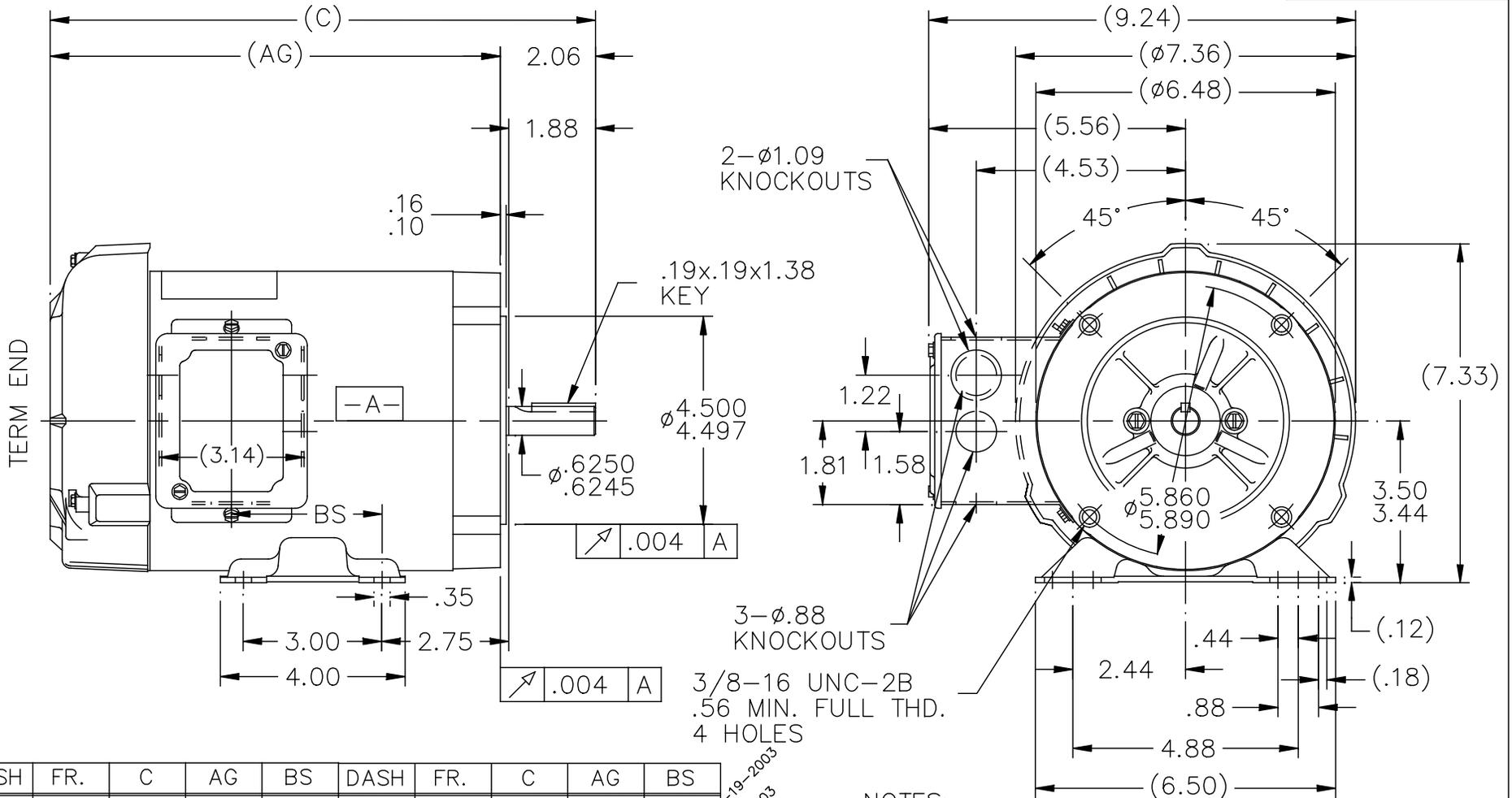
Phase	<b>3</b>	Output HP	<b>0.50 Hp</b>
Output KW	<b>0.37 kW</b>	Voltage	<b>230/460 V</b>
Speed	<b>1750 rpm</b>	Service Factor	<b>1.0</b>
Frame	<b>56C</b>	Enclosure	<b>Totally Enclosed Fan Cooled</b>
Thermal Protection	<b>Thermostat</b>	Efficiency	<b>68 %</b>
Ambient Temperature	<b>40 °C</b>	Frequency	<b>60 Hz</b>
Current	<b>2.4/1.2 A</b>	Power Factor	<b>61.1</b>
Duty	<b>Continuous</b>	Insulation Class	<b>F</b>
Design Code	<b>B</b>	KVA Code	<b>M</b>
Drive End Bearing Size	<b>6203</b>	Opp Drive End Bearing Size	<b>6203</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 Rated</b>	Starting Method	<b>Line Or Inverter</b>
Poles	<b>4</b>	Rotation	<b>Reversible</b>
Resistance Main	<b>40 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>Rolled Steel</b>
Shaft Type	<b>NEMA 56</b>	Overall Length	<b>11.81 in</b>
Frame Length	<b>6.56 in</b>	Shaft Diameter	<b>0.625 in</b>
Shaft Extension	<b>1.88 in</b>	Assembly/Box Mounting	<b>F1 ONLY</b>
Inverter Load	<b>CONSTANT 4:1</b>		
Outline Drawing	<b>100110-656</b>	Connection Drawing	<b>EE7308T</b>

This is an uncontrolled document once printed or downloaded and is subject to change without notice. Date Created:11/16/2023

100110



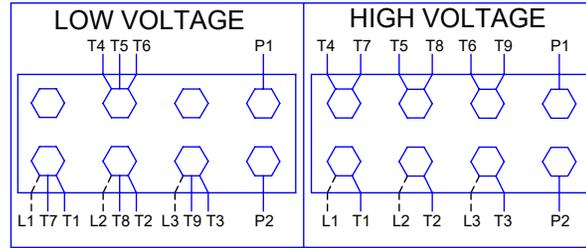
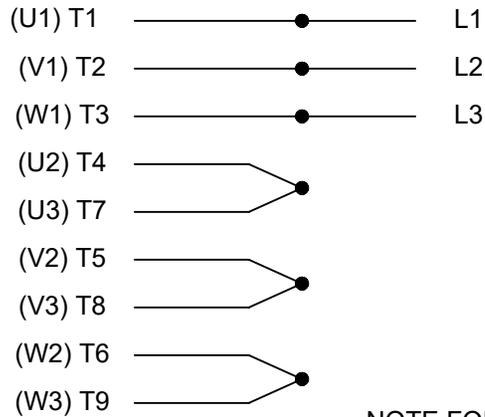
DASH	FR.	C	AG	BS	DASH	FR.	C	AG	BS
606	56-60	11.31	9.25	2.75	756	56-75	12.81	10.75	4.25
656	56-65	11.81	9.75	3.25	806	56-80	13.31	11.25	4.75
706	56-70	12.31	10.25	3.75	856	56-85	13.81	11.75	5.25

NOTES:  
 1. CONDUIT BOX CAN BE ROTATED 180°  
 2. NAMEPLATE READ FROM CONDUIT BOX SIDE OF MOTOR.

		TOLERANCES UNLESS SPECIFIED		DRAWN KL 02/28/1994			
		DEC.	INCHES	CHK ML 02/28/1994			
		.X	±.1	APPD ET 03/02/1994			
5	CHANGED LOGO TO REGAL	SL	04/20/2016	SM	.XX ±.03	TITLE OUTLINE	SCALE 5=16
4	AD'D NAMEPLATE LOC. CN 27400-296	BLR	08/05/1999	ML	.XXX ±.005	56 FR. - TEFC - 3ø - C'FACE	REF
3	REDRAWN ON CADD - NO CHANGE 4128208	KL	04/01/1998	ML	.XXXX ±.0005	MAT'L.	FMF MU48878
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 100110		SIZE A	DRAWING NO. 100110	PAGE OF 5
		DIST WP					REV. 5

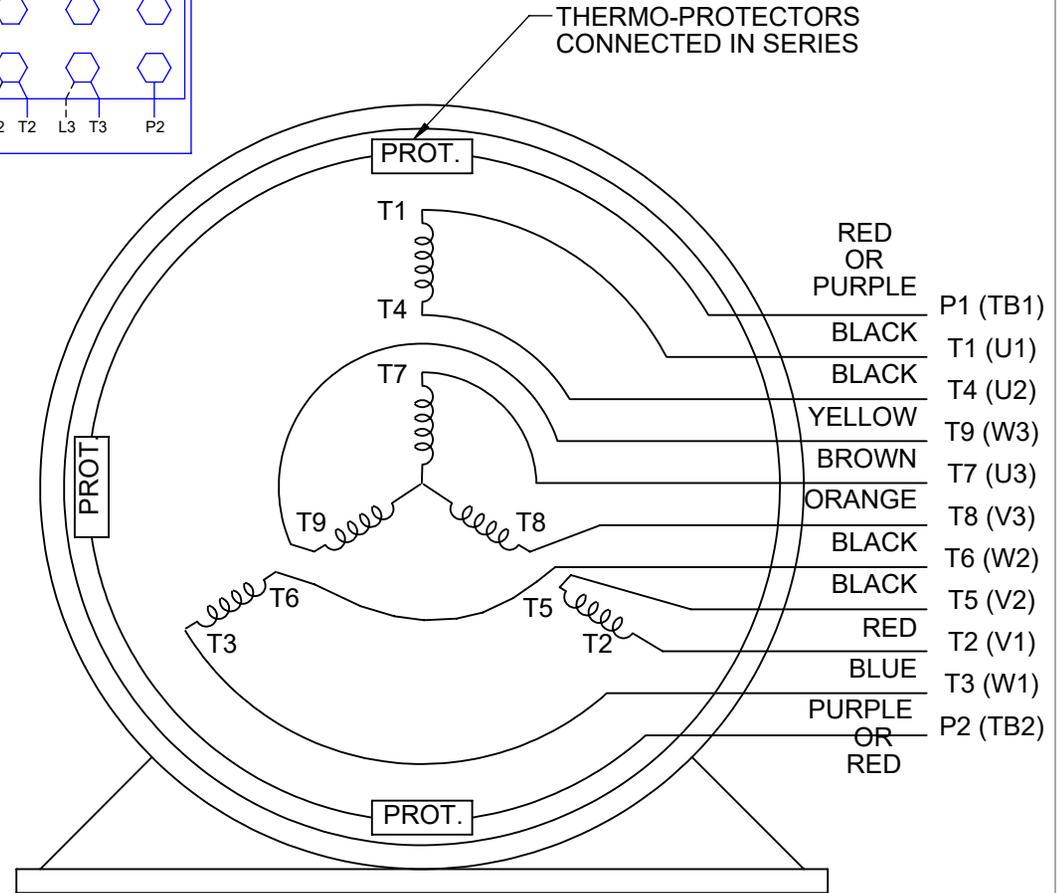


**HIGH VOLTAGE**



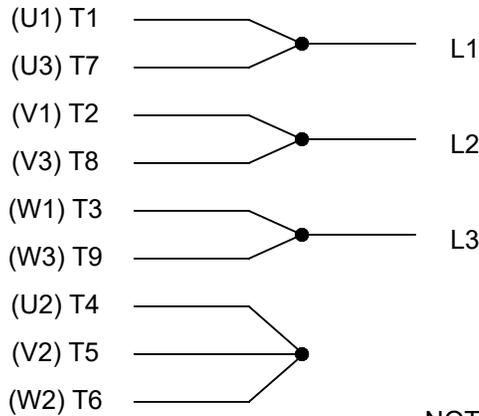
**THREE PHASE  
DUAL VOLTAGE MOTOR**

THERMO-PROTECTORS  
CONNECTED IN SERIES



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**



**VIEW OF TERMINAL END**

NOTE: LEAD'S COLOR CAN BE YELLOW OR WHITE FOR MT2 PLANT

DRAWING REVISION T	REVISION BY ZR	DATE 01-14-2019		DRAWN BY SMC	Regal Beloit America, Inc.	
ECO ECO-0159915	APPROVED BY DR	DATE 01-15-2019		DATE 05-13-1992		
ECO DESCRIPTION <b>ADDED TERMINAL CONNECTION DIAGRAM</b>				APPROVED BY TB	DESCRIPTION <b>CONN DIAGRAM-INTERNAL</b> 3 PHASE - DUAL VOLTAGE MOTOR	
<small>COPYRIGHT REGAL BELOIT AMERICA, INC. ALL RIGHTS RESERVED. PROPRIETARY AND CONFIDENTIAL INFORMATION - THIS DOCUMENT IS THE PROPERTY OF REGAL BELOIT AMERICA, INC. ("OWNER") AND CONTAINS OWNER'S PROPRIETARY INFORMATION. ANY PERSON, CORPORATION OR OTHER FIRM RECEIVING IT IS DEEMED, BY RECEIVING IT, TO AGREE THAT IT, AND/OR ANY PART OF IT, SHALL NOT BE DISCLOSED TO ANY PERSON, CORPORATION OR OTHER ENTITY, DUPLICATED, AND/OR USED, EXCEPT AS EXPRESSLY APPROVED IN WRITING IN ADVANCE BY OWNER. THIS DOCUMENT SHALL BE RETURNED TO OWNER UPON REQUEST. IT MAY BE SUBJECT TO CERTAIN RESTRICTIONS UNDER APPLICABLE EXPORT CONTROL LAWS AND REGULATIONS.</small>				DATE 05-13-1992	MATERIAL	PROCESS/FINISH
			REFERENCE EE7308/EE7300	SIZE A	DRAWING NUMBER EE7308T	SHEET 1 OF 1
			THIRD ANGLE PROJECTION			



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

CONN. DIAGRAM: A-EE7308T-LN

OUTLINE: A-100110LN-656

WINDING #: ZT408 R3 3

CATALOG #: LM22649

MOUNTING: F1 ONLY

**TYPICAL MOTOR PERFORMANCE DATA**

HP	kW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
1/2	0.37	1800	1750	56C-65	TEFC	M	B

PH	Hz	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB°C
3	60	230/460	2.4/1.2	LINE OR INVERTER	CONTINUOUS	F3	1.0	40

FULL LOAD EFF:	68	3/4 LOAD EFF:	65.5	1/2 LOAD EFF:	63.5	GTD. EFF	ELEC. TYPE
FULL LOAD PF:	61.1	3/4 LOAD PF:	48.5	1/2 LOAD PF:	38	64	SQ CAGE INV RATED

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
1.5 LB-FT	14 / 7	6.2 LB-FT 413 %	7.2 LB-FT 480 %	45

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS / HOUR	APPROX. MOTOR WGT
62 dBA	72 dBA	0.05 LB-FT^2	- LB-FT^2	- SEC.	-	25 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	FALSE	NONE	FALSE	NONE	GRAY (POWDER)

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	ODE						
BALL	BALL	POLYREX EM	STANDARD 56	NONE	NONE	1144 STRESSPROOF (C-223)	ROLLED STEEL
203	203						

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 4:1
<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 V NONE Hz

Data Sheet

Date: 1/23/2018

LM22649



Data @ 460 V

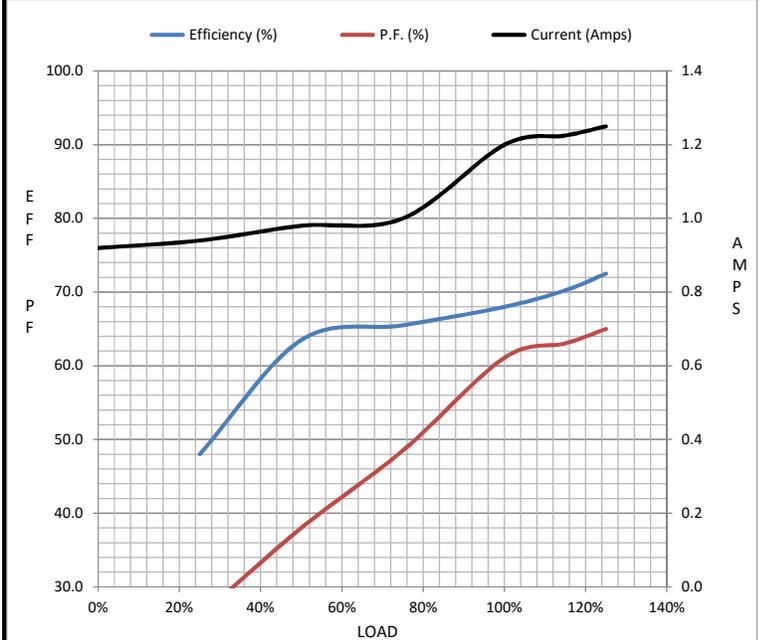
Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	0.92	0.94	0.98	1.00	1.20	1.23	1.25	7.0
Torque (ft-lb)	0.00	0.37	0.75	1.10	1.50	1.75	2.00	6.2
RPM	1800	1785	1775	1760	1750	1.744	1735	0
Efficiency (%)		48.0	63.5	65.5	68.0	70.3	72.5	
P.F. (%)	14.0	26.0	38.0	48.5	61.1	63.1	65.0	82.0

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	500	1150	1750	1800
Current (Amps)	7.0	6.5	4.8	1.20	0.92
Torque (ft-lb)	6.2	6.2	7.2	1.50	0.00

Information Block				
HP	0.5			
Sync. RPM	1800			
Frame	56			
Enclosure	TEFC			
Construction	TFR			
Voltage	230/460 V			
Frequency	60 Hz			
Design	B			
LR Code letter	M			
Service Factor	1.15			
Temp Rise @ FL	45 °C			
Duty	CONT			
Ambient	40 °C			
Elevation	1,000 feet			
Rotor/Shaft wk <sup>2</sup>	0.05 Lb-Ft <sup>2</sup>			
Ref Wdg	ZT408 R3			
Sound Pressure @ 1M	62 dBA			
VFD Rating	CONSTANT 4:1			
Outline Dwg	A-100110LN-656			
Conn. Diag	A-EE7308T-LN			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
21.4330	13.5510	15.9890	11.9640	295.4070



Speed - Torque Curve

