

# PRODUCT INFORMATION PACKET

Model No: 5K49NN4581

Catalog No: K2115

Explosion Proof Motor, 1.50 HP, 3 Ph, 60 Hz, 230/460 V, 1800 RPM, 56C Frame, EPFC



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### Nameplate Specifications

Phase	<b>3</b>	Output HP	<b>1.50 Hp</b>
Output KW	<b>1.1 kW</b>	Voltage	<b>230/460 V</b>
Speed	<b>1725 rpm</b>	Service Factor	<b>1.15</b>
Frame	<b>56C</b>	Enclosure	<b>Explosion Proof Fan cooled</b>
Thermal Protection	<b>Automatic</b>	Efficiency	<b>80 %</b>
Ambient Temperature	<b>40 °C</b>	Frequency	<b>60 Hz</b>
Current	<b>4.8/2.4 A</b>	Power Factor	<b>74</b>
Duty	<b>Continuous</b>	Insulation Class	<b>B</b>
Design Code	<b>NO DESIGN CODE</b>	KVA Code	<b>K</b>
Drive End Bearing Size	<b>6203</b>	Opp Drive End Bearing Size	<b>6203</b>
UL	<b>UL Listed And CSA Certified</b>	CSA	<b>N</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>

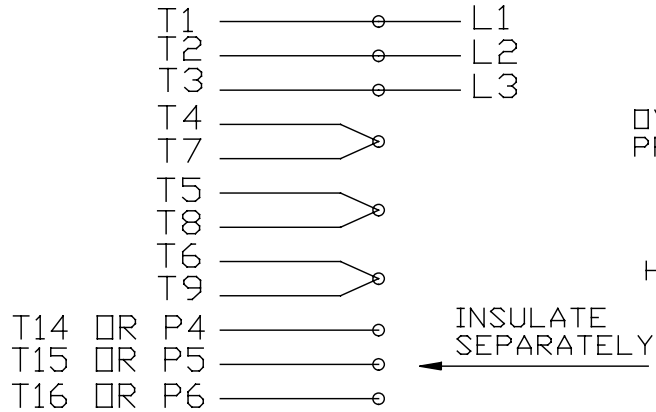
### Technical Specifications

Electrical Type	<b>Squirrel Cage Induction Run</b>	Starting Method	<b>Across The Line</b>
Poles	<b>4</b>	Rotation	<b>Reversible</b>
Resistance Main	<b>12.1 Ohms</b>	Mounting	<b>Round</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>T</b>	Overall Length	<b>14.44 in</b>
Frame Length	<b>7.31 in</b>	Shaft Diameter	<b>0.625 in</b>
Shaft Extension	<b>2.06 in</b>	Assembly/Box Mounting	<b>F1 ONLY</b>
Outline Drawing	<b>B-104188GE-731</b>	Connection Drawing	<b>A-EE7335-GE</b>

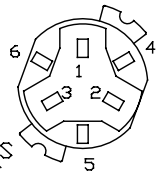


EE7335

### HIGH VOLTAGE CONNECTIONS

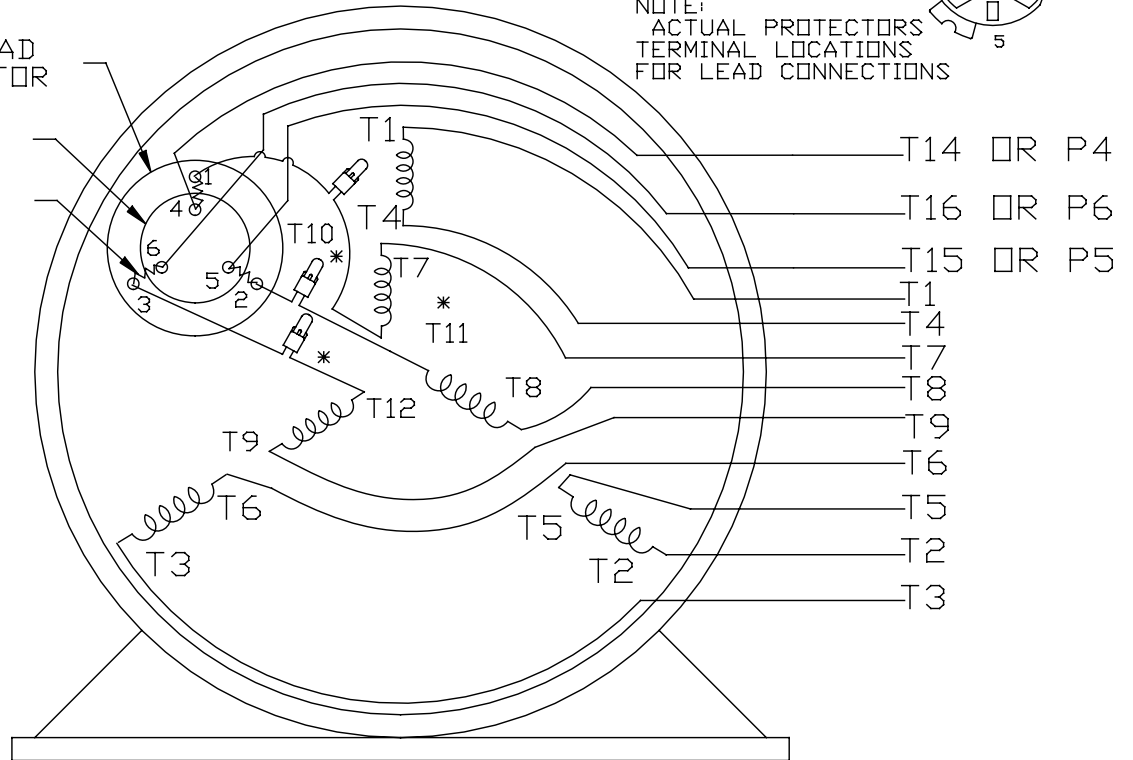


### THREE PHASE - DUAL VOLTAGE MOTOR WITH OVERLOAD PROTECTOR



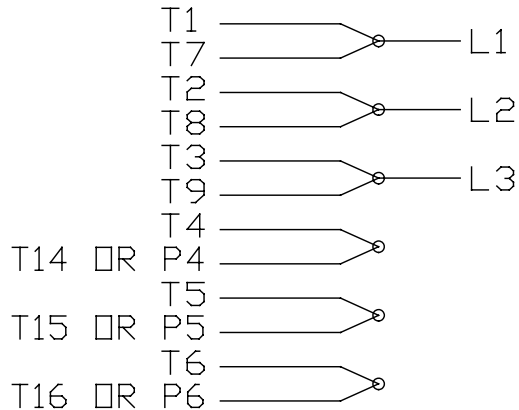
NOTE:  
ACTUAL PROTECTORS  
TERMINAL LOCATIONS  
FOR LEAD CONNECTIONS

OVERLOAD  
PROTECTOR  
DISC  
HEATER



VIEW OF TERMINAL END

### LOW VOLTAGE CONNECTIONS



\* USE PRESSURE CONNECTORS FOR MT2 PLANT ONLY

T2K
T4D
T6AN

NO.	REVISION	BY & DATE	CHK	TOLERANCES UNLESS SPECIFIED		FINISH	DRAWN	SCALE	REV.	
				DEC.	INCHES					
17	CHANGED LOGO FROM MARATHON TO REGAL	KIR 02/16/16	AB	DEC.	INCHES	<b>Regal Beloit America, Inc.</b>	KL	08-09-1993		
16	PRESSURE CONNECTORS QUANTITY WAS 6	PVR 10/29/13	GR	.X	±.1		CHK	ML	08/10/1993	
15	PRESSURE CONNECTORS ADDED	GR 03/04/13	SR	.XX	±.01		APPD	GK	08/10/1993	
14	ADDED ACTUAL PROECTOR VIEW CN 17481	KL 05/18/94		.XXX	±.005		TITLE		1=1	
13	REDRAWN IN AUTO CAD	KL 08/11/93		.XXXX	±.0005		3Ø-DUAL VOLT WITH OVERLOAD PROTECTO	REF		
				ANG	±1/2*	MAT'L.	FMF			
				RFP		FINISH	PREV			
				DIST		CAD FILE	EE7335	SIZE	DRAWING NO.	
							A	EE7335	17	

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

DATA VOLTS: 460

**CERTIFICATION DATA SHEET**

CUSTOMER: \_\_\_\_\_  
ORDER #: \_\_\_\_\_  
CONN. DIAGRAM: A-EE7335-GE  
OUTLINE: B-104188GE-731  
WINDING: ZT416 R17 3  
SPEED: \_\_\_\_\_

CUSTOMER P.O. #: \_\_\_\_\_  
REFERENCE MODEL #: 5K49NN4581  
CAT #: K2115  
CUSTOMER PART #: \_\_\_\_\_  
MOUNTING: F1 ONLY

**TYPICAL MOTOR PERFORMANCE DATA**

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
1.5	1.1	1800	1735	56C	EPFC	TFR	K	B

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB	ELEV.
3	60	230/460	4.8/2.4	ACROSS THE LINE	CONT	B	1.15	40	3300

F.L. EFF	80.0	3/4 LD EFF	80.0	1/2 LD EFF	76.5	GTD EFF	ELECT. TYPE
F.L. PF	74.0	3/4 LD PF	62.5	1/2 LD PF	50.0	77.5	SQ CAGE IND RUN

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (°C)
4.5 LB-FT	17.5	14.5 LB-FT 322%	18.2 LB-FT 404%	70

@ 3 FT.	POWER	ROTOR WK <sup>2</sup>	MAX. LOAD WK <sup>2</sup>	SAFE STALL TIME	STARTS/HOUR	MOTOR WGT
62 dBA	71 dBA	0.07 LB-FT <sup>2</sup>	10 LB-FT <sup>2</sup>	12 SEC.	2	30 LB.

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

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	MOTOR ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
C-FACE	STANDARD	ROUND	HORIZONTAL	NO	DF CL I GR C&D CL II GF	YES	NONE	GRAY - GE (POWDER)

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	ODE	POLYREX EM	T	NONE	NONE	144 STRESSPROOF (C-22)	ROLLED STEEL
BALL	BALL						
6203	6203						

THERMOSTATS	PROTECTORS	WDG RTD's	BRG RTD's	THERMISTORS	CONTROL	SPACE HEATERS
NONE	AUTOMATIC	NONE	NONE	NONE	FALSE	NA

R1 (ohms/ph)	R2 (ohms/ph)	X1 (ohms/ph)	X2 (ohms/ph)	Xm (ohms/ph)	VIBRATION (in/sec)	FLOAT
7.56	5.67	9.45	7.56	168.21	0.150	ODE

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

PREPARED BY: VINAYAK YERATE DATE: 8/30/2017	BRAKE: NONE NONE NONE FT-LB: NA VOLTAGE: NONE HZ:
FORM: 3531 REV_4 2/27/06	UL: X-GE-INS, CONST, AUTO PRT UL REC

Data Sheet

Date: 8/30/2017  
 Customer: \_\_\_\_\_  
 Attention: \_\_\_\_\_  
 Submitted by: VINAYAK YERATE



5K49NN4581

Submittal

Data @ 460 V

Motor Load Data

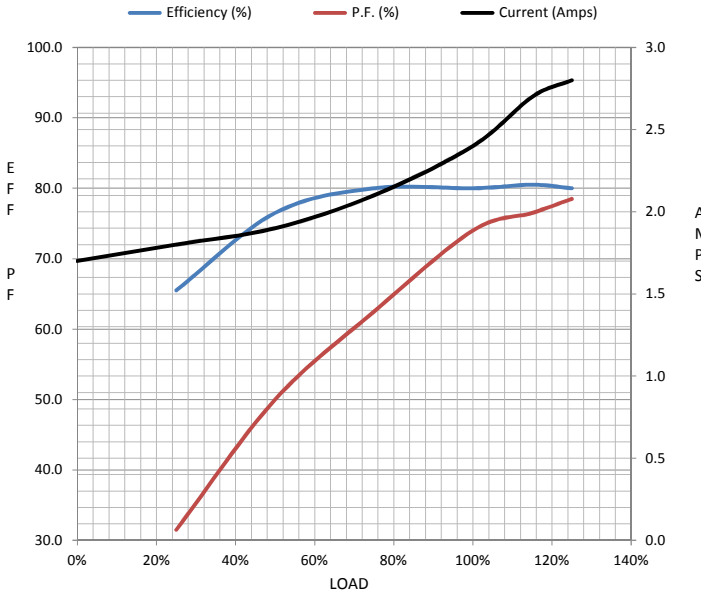
Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	1.70	1.80	1.90	2.10	2.40	2.70	2.80	17.5
Torque (ft-lb)	0.00	1.10	2.20	3.3	4.5	5.3	5.7	14.5
RPM	1800	1785	1770	1750	1735	1,725	1710	0
Efficiency (%)		65.5	76.5	80.0	80.0	80.5	80.0	
P.F. (%)	10.5	31.5	50.0	62.5	74.0	76.5	78.5	71.0

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	600	1215	1735	1800
Current (Amps)	17.5	16.0	12.0	2.40	1.70
Torque (ft-lb)	14.5	14.5	18.2	4.5	0.00

Information Block

HP	1.5			
Sync. RPM	1800			
Frame	56			
Enclosure	EPFC			
Construction	TFR			
Voltage	230/460 V			
Frequency	60 Hz			
Design	B			
LR Code letter	K			
Service Factor	1.15			
Temp Rise @ FL	70 °C			
Duty	CONT			
Ambient	40 °C			
Elevation	1,000 feet			
Rotor/Shaft wk <sup>2</sup>	0.07 Lb-Ft <sup>2</sup>			
Ref Wdg	ZT416 R17			
Sound Pressure @ 1M	62 dBA			
VFD Rating	NONE			
Outline Dwg	B-104188GE-731			
Conn. Diag	A-EE7335-GE			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
7.5600	5.6700	9.4500	7.5600	168.2100



Speed - Torque Curve

