

PRODUCT INFORMATION PACKET



Model No: 825071.00

Catalog No: 825071.00

Explosion Proof Motor, 5 & 3 HP, 3 Ph, 60 & 50 Hz, 230/460 & 190/380 V, 1800 & 1500 RPM,
184TC Frame, EPFC



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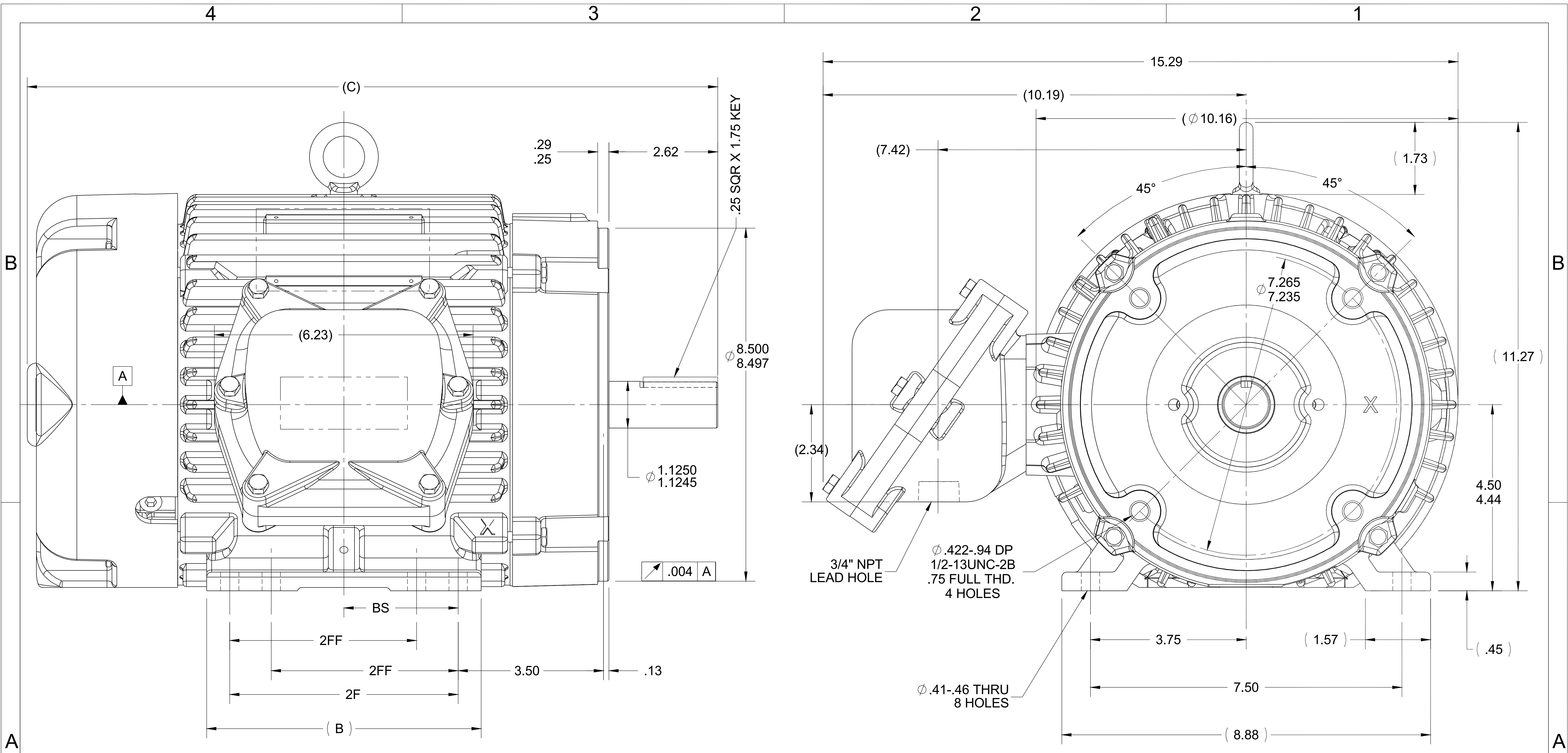


Nameplate Specifications

Phase	3	Output HP	5 & 3 Hp
Output KW	3.7 & 2.2 kW	Voltage	230/460 & 190/380 V
Speed	1755 & 1465 rpm	Service Factor	1.15 & 1.15
Frame	184TC	Enclosure	Explosion Proof Fan cooled
Thermal Protection	Thermostat	Efficiency	90.2 & 90.2 %
Ambient Temperature	40 °C	Frequency	60 & 50 Hz
Current	12.4/6.2 & 9.6/4.8 A	Power Factor	83.5
Duty	Continuous	Insulation Class	F
Design Code	B	KVA Code	J
Drive End Bearing Size	207	Opp Drive End Bearing Size	206
UL	UL Listed; also, UL Certified for Canada	CSA	N
CE	N	IP Code	54
Number of Speeds	1	Hazardous Location	EXP PROOF CL I GR C&D CL II GR F&G T3B

Technical Specifications

Electrical Type	Squirrel Cage Inverter Rated	Starting Method	Line Or Inverter
Poles	4	Rotation	Reversible
Resistance Main	2.62 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	18.62 in
Frame Length	10.00 in	Shaft Diameter	1.125 in
Shaft Extension	2.75 in	Assembly/Box Mounting	F1 Only
Connection Drawing	A-EE7308T-LE	Outline Drawing	035673-1000



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

1000	182/184	18.62	8.61	7.50	5.50	3.75
800	182/184	16.62	6.61	5.50	4.50	2.75
DASH	FRAME	C	B	2F	2FF	BS

DRAWING REVISION B	REVISION BY KIR	DATE 01/21/16
ECO ECO-0092270	APPROVED BY GR	DATE 01/21/16
ECO DESCRIPTION TITLE BLOCK UPDATED		
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TOLERANCES UNLESS OTHERWISE SPECIFIED:

DEC.	INCH	mm	ANGLE
.X	±0.1	[±2.5]	±7° 30"
.XX	±0.03	[±0.76]	
.XXX	±0.005	[±0.127]	
.XXXX	±0.0005	[±0.0127]	

REMOVE BURRS & BREAK SHARP EDGES: .003/.015 [0.076/.381] X 45°
 CORNER FILLETS: R.02 [51]
 MACHINED SURFACES: 200 INCH / 5.1 mm

DRAWN BY TJW 3/25/2008
DATE
APPROVED BY SW 3/26/2008
DATE
REFERENCE
THIRD ANGLE PROJECTION

REGAL™ Regal Beloit America, Inc.

DESCRIPTION
OUTLINE
180 FR. EPFC - C FACE - CAST C'BOX

MATERIAL PROCESS/FINISH

SIZE **B** DRAWING NUMBER **035673** SHEET 1 OF 1

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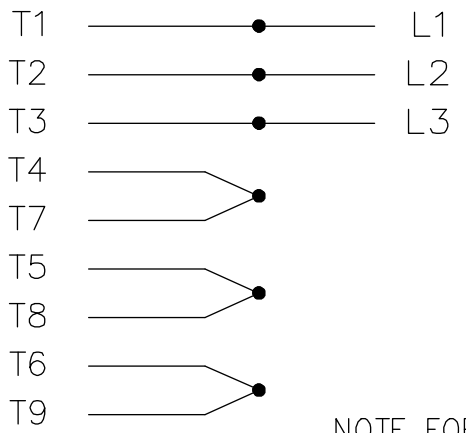
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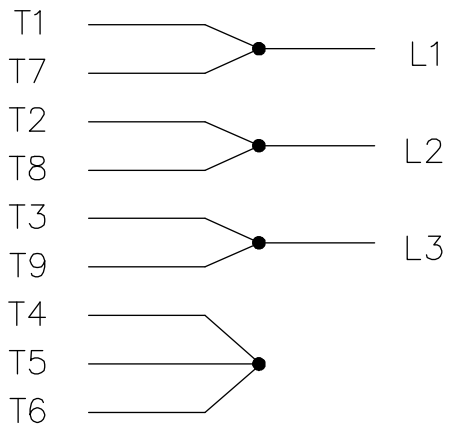
THREE PHASE
DUAL VOLTAGE MOTOR

HIGH VOLTAGE

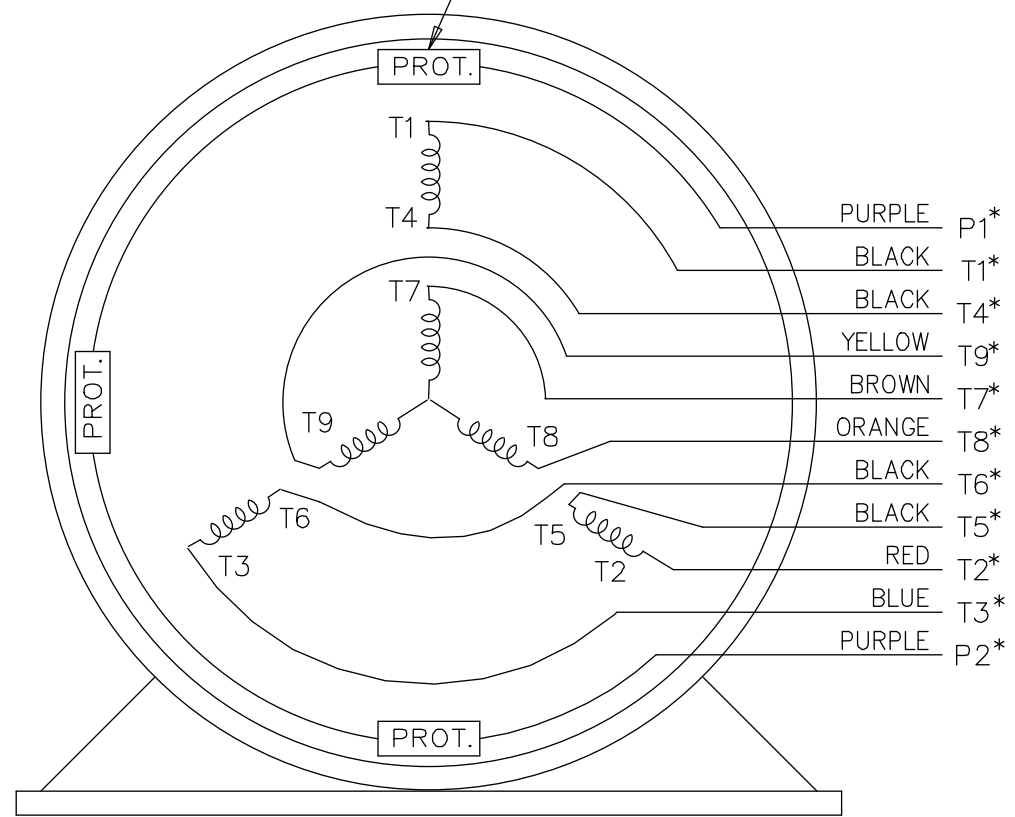


NOTE FOR FACTORY USE ONLY:
 TO SURGE TEST FOR COMMON CONNECT:
 HIGH VOLT: CONNECT P1 TO T1
 THEN P2 TO L1
 LOW VOLT: CONNECT P1 TO T1 & T7,
 THEN P2 TO L1

LOW VOLTAGE




THREMO-PROTECTORS
CONNECTED IN SERIES.



VIEW OF TERMINAL END

* USE LEADS AS PER PLANT STANDARD IRRWSPECTIVE OF THEIR COLOUR.

				TOLERANCES UNLESS SPECIFIED		 ELECTRIC MOTORS GEARMOTORS AND DRIVES	DRAWN TJB 05-07-2002		
NO.	REVISION	BY & DATE	CHK	ANG	±		FINISH	CHK	ML
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			05-08-2002	
03	RE-ISSUE	NJS 04-21-2004	JET	.XX	±.02	TITLE CONNECTION DIAGRAM	APPD	TB 05-08-2002	
02	REDRAWN	TAT 04-20-2004	ML	.XXX	±.005	3 PHASE - DUAL VOLTAGE MOTOR		SCALE 1=1	
01	NEW DRAWING CN 34708	TJB 05-08-2002	ML	.XXXX	±.0005	MAT'L.	REF		
					±7'30"		FMF		
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_LE	SIZE A	DRAWING NO. EE7308T-LE	PAGE OF 05
				DIST	LB-WP-LE				REV. 05



CERTIFICATION DATA SHEET

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

CATALOG #: 825071.00

CONN. DIAGRAM: A-EE7308T-LE

OUTLINE: 035673-1000

MOUNTING: F1 ONLY

WINDING #: K1844215 1

TYPICAL MOTOR PERFORMANCE DATA

HP	kW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
5&3	3.70&2.24	1800	1755&1465	184TC	EPFC	J	B

PH	Hz	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB°C
3	60/50	230/460&190/380	12.4/6.2&9.6/4.8	LINE OR INVERTER	CONTINUOUS	F3	1.15/1.15	40

FULL LOAD EFF:	90.2&90.2	3/4 LOAD EFF:	90.2	1/2 LOAD EFF:	90.2	GTD. EFF		ELEC. TYPE	
FULL LOAD PF:	83.5&79	3/4 LOAD PF:	78.5	1/2 LOAD PF:	70	89.5		SQ CAGE INV RATED	

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
15 LB-FT	92 / 46	34.5 LB-FT 230 %	45 LB-FT 300 %	50

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS / HOUR	APPROX. MOTOR WGT
62 dBA	72 dBA	0.5 LB-FT^2	50 LB-FT^2	25 SEC.	2	130 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	TRUE	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
207	206						

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

INVERTER TORQUE: CONSTANT 10:1
INV. HP SPEED RANGE: 1.5 X BASE SPEED
ENCODER: NONE NONE NONE NONE NONE PPR
BRAKE: NONE NONE NONE P/N NONE NONE NONE NONE FT-LB NONE V NONE HZ

Data Sheet

Date: 1/24/2018

825071.00



Data @ **460 V**

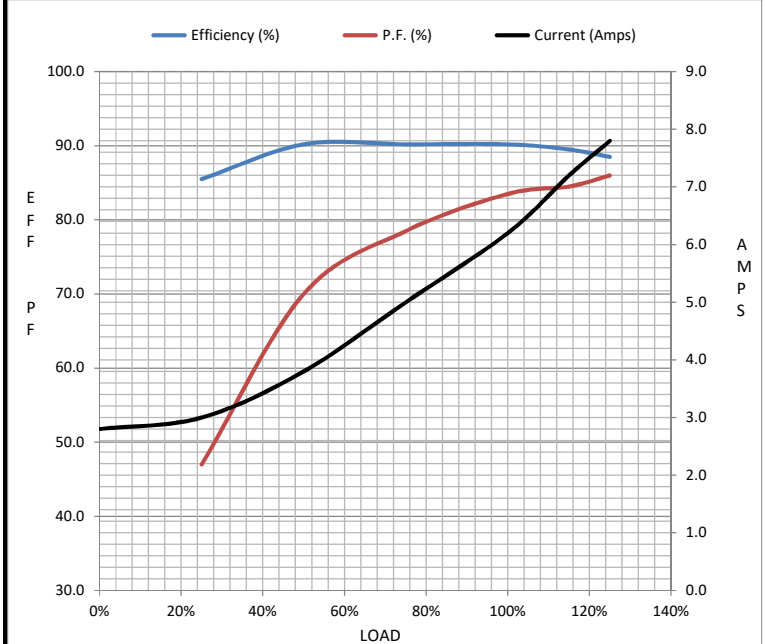
Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	2.80	3.0	3.8	5.0	6.2	7.2	7.8	46.0
Torque (ft-lb)	0.00	3.7	7.4	11.5	15.0	17.5	19.0	34.5
RPM	1800	1790	1780	1765	1755	1.745	1740	0
Efficiency (%)		85.5	90.2	90.2	90.2	89.5	88.5	
P.F. (%)	6.5	47.0	70.0	78.5	83.5	84.5	86.0	48.0

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1600	1755	1800
Current (Amps)	46.0	41.0	25.0	6.2	2.80
Torque (ft-lb)	34.5	31.0	45.0	15.0	0.00

Information Block				
HP	5.0			
Sync. RPM	1800			
Frame	184			
Enclosure	TEFC			
Construction	TFN			
Voltage	230/460#190/380 V			
Frequency	60 Hz			
Design	B			
LR Code letter	J			
Service Factor	1.15			
Temp Rise @ FL	50 °C			
Duty	CONT			
Ambient	40 °C			
Elevation	1,000 feet			
Rotor/Shaft wk ²	0.50 Lb-Ft ²			
Ref Wdg	K1844215 NONE			
Sound Pressure @ 1M	62 dBA			
VFD Rating	CONSTANT 10:1			
Outline Dwg	035673-1000			
Conn. Diag	A-EE7308T-LE			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
1.5080	1.1280	3.6910	5.6930	104.3280



Speed - Torque Curve

