

# PRODUCT INFORMATION PACKET



Model No: 824533.00  
Catalog No: 824533.00  
20 HP Severe Duty Motor, 3 phase, 1800 RPM, 230/460 V, 256TV Frame, TEAO  
Severe Duty Motors



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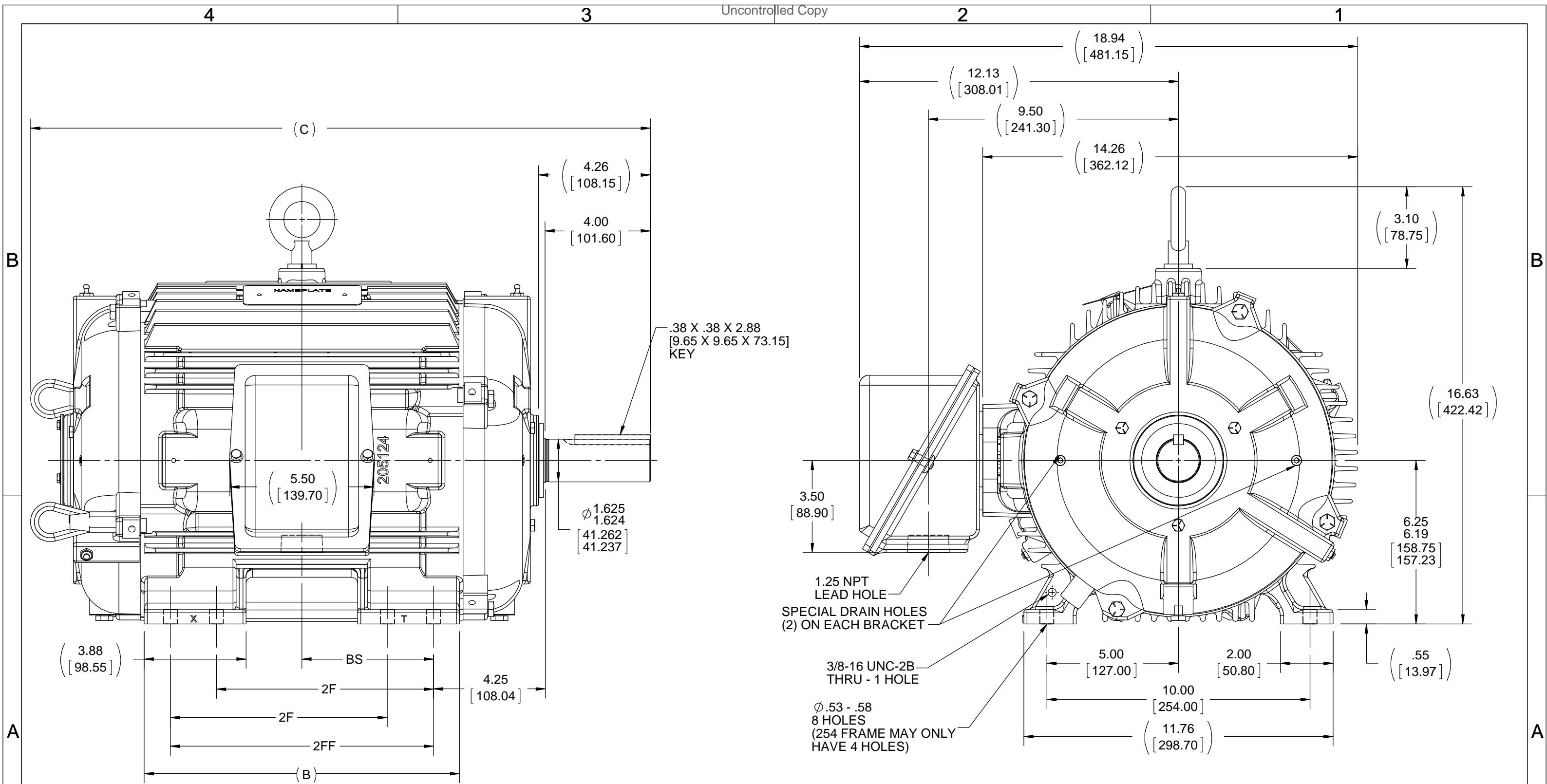
### Nameplate Specifications

Output HP	20 Hp	Output KW	14.9 kW
Frequency	60 Hz	Voltage	230/460 V
Current	50.0/25.0 A	Speed	1765 rpm
Service Factor	1.15	Phase	3
Efficiency	91 %	Power Factor	82
Duty	Continuous	Insulation Class	F
Design Code	B	KVA Code	F
Frame	256TV	Enclosure	Totally Enclosed Air Over
Thermal Protection	No	Ambient Temperature	40 °C
Drive End Bearing Size	6309	Opp Drive End Bearing Size	6210
UL	Recognized	CSA	Y
CE	Y	IP Code	56
Number of Speeds	1		

### Technical Specifications

Electrical Type	Squirrel Cage Inverter Rated	Starting Method	Line Or Inverter
Poles	4	Rotation	Reversible
Resistance Main	.468 Ohms	Mounting	Rigid Base
Motor Orientation	Horizontal Or Up Or Down	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Cast Iron
Shaft Type	T	Overall Length	24.31 in
Frame Length	12.25 in	Shaft Diameter	1.625 in
Shaft Extension	4 in	Assembly/Box Mounting	F1/F2 CAPABLE
Outline Drawing	B-SS208432-1225	Connection Drawing	A-EE7308-LE

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

\*\*SPECIAL DRAIN HOLES BOTH BRACKETS\*\*

1050	254T	21.82 [554.228]	10.50 [266.70]	----- -----	8.25 [209.55]	4.12 [104.65]
1225	256T	23.57 [598.678]	12.00 [304.80]	8.25 [209.55]	10.00 [254.00]	5.00 [127.00]
DASH	FRAME	C	B	2F	2FF	BS

DRAWING REVISION B	REVISION BY NK	DATE 8/9/2018
ECO ECO-0150436	APPROVED BY ST	DATE 8/9/2018
ECO DESCRIPTION C - DIMENSION UPDATED		

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TOLERANCES UNLESS OTHERWISE SPECIFIED:

DEC.	INCH	mm	ANGLE
.X	±0.1	[±2.5]	±7° 30"
.XX	±0.02	[±0.51]	
.XXX	±0.005	[±0.127]	
.XXXX	±0.0005	[±0.0127]	

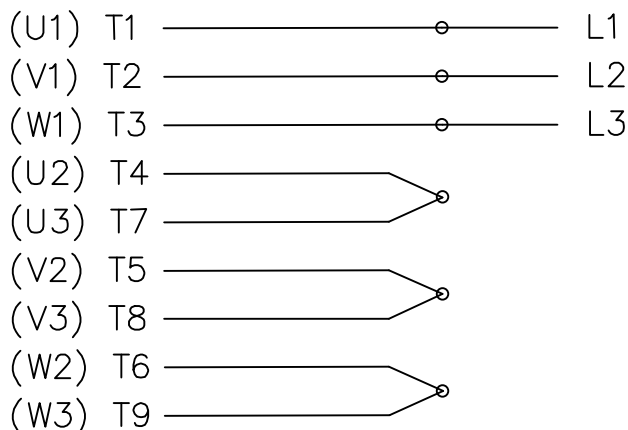
REMOVE BURRS & BREAK SHARP EDGES: .003/.015 [0.076/.381] X 45° CORNER FILLETS: R.02 [0.51] MACHINED SURFACES: 200 INCH/mm 5.1 mm SHOWN IN [BRACKETS]

DRAWN BY W. JOERGER
DATE 03-23-2015
APPROVED BY E. HEIL
DATE 03-23-2015
REFERENCE
THIRD ANGLE PROJECTION

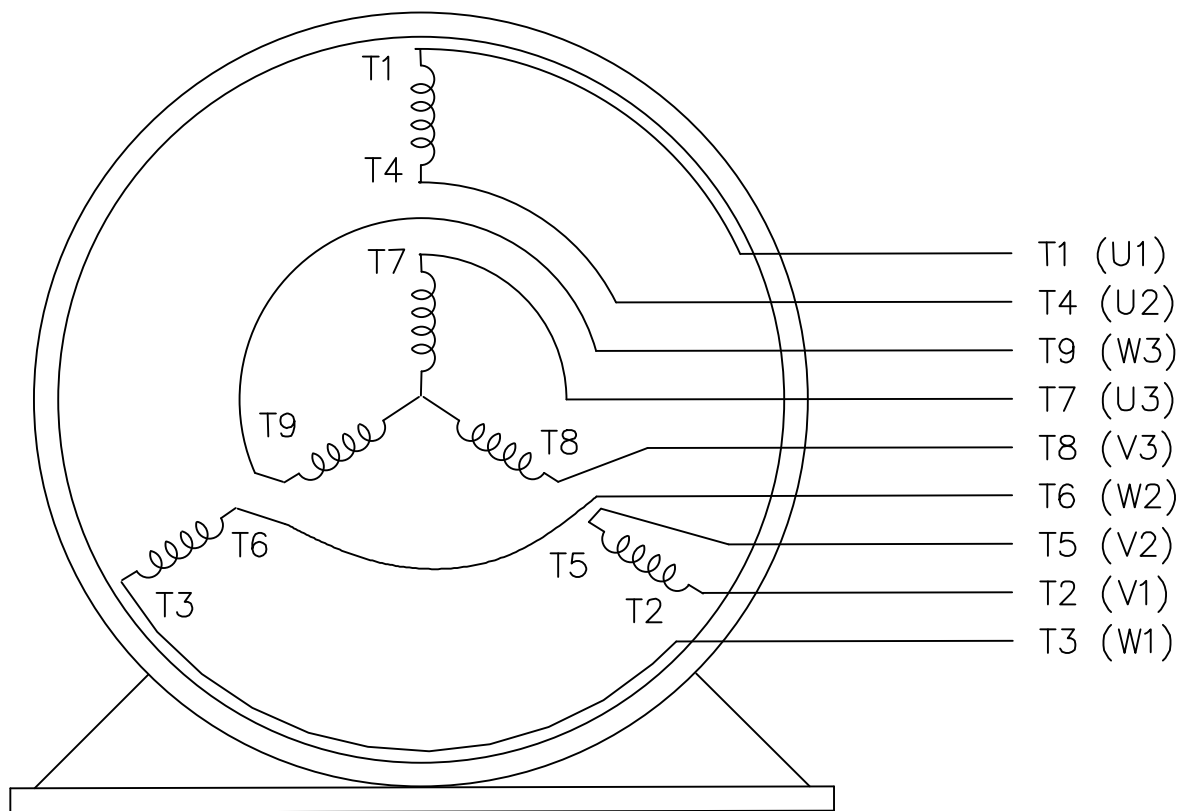
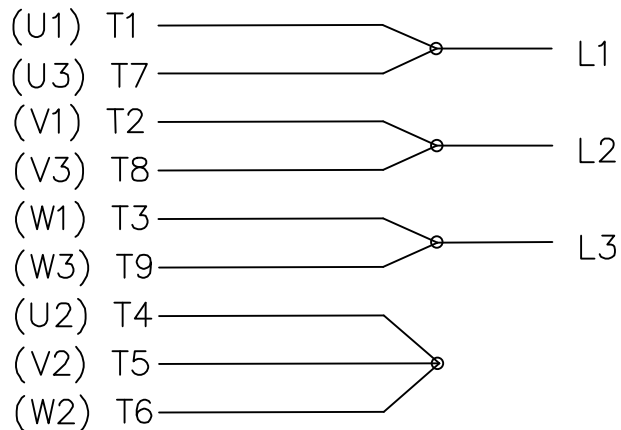
<b>REGAL</b> ™ Regal Beloit America, Inc.	
DESCRIPTION <b>OUTLINE</b>	
TEAO - HORIZ OR SHAFT UP/DOWN - 250T FR - INPRO SEAL RR	
MATERIAL	PROCESS/FINISH
SIZE B	DRAWING NUMBER SS208432
	SHEET 1 OF 1

### THREE PHASE DUAL VOLTAGE MOTOR

#### HIGH VOLTAGE



#### LOW VOLTAGE




- T1 (U1)
- T4 (U2)
- T9 (W3)
- T7 (U3)
- T8 (V3)
- T6 (W2)
- T5 (V2)
- T2 (V1)
- T3 (W1)

VIEW OF TERMINAL END

REF.  
WINDING DIAGRAM

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

				TOLERANCES UNLESS SPECIFIED		 ELECTRIC MOTORS GEARMOTORS AND DRIVES	DRAWN HLB 04-29-2002		
				DEC.	INCHES		CHK	ML 05-03-2002	
				.X	±.1		APPD	GK 05-03-2002	
				.XX	±.01	TITLE CONNECTION DIAGRAM 3Ø - DUAL VOLTAGE MOTOR	SCALE	1=1	
2	ADDED IEC NOTATIONS... (U1), (V1) ETC. (MU105786)	REP 01-11-2012	DR	.XXX	±.005		REF		
1	NEW DRAWING	HLB 05-03-2002	ML	.XXXX	±.0005	MAT'L.	FMF		
NO.	REVISION	BY & DATE	CHK	ANG	±1/2'	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 EE7308-LE	SIZE	DRAWING NO. PAGE OF	REV.
				DIST	LB-WP		A	EE7308-LE	2



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

**CERTIFICATION DATA SHEET**

**CATALOG #:** 824533.00

**CONN. DIAGRAM:** A-EE7308-LE

**OUTLINE:** B-SS208432-1225

**WINDING #:** K2564181 R10 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	1765	256TV	TEAO	F	B

PH	Hz	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB°C
3	60	230/460	50/25	LINE OR INVERTER	CONTINUOUS	F3	1.15	40

FULL LOAD EFF:	91	3/4 LOAD EFF:	91	1/2 LOAD EFF:	90.2	GTD. EFF	ELEC. TYPE
FULL LOAD PF:	82	3/4 LOAD PF:	79.5	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
59.5 LB-FT	280 / 140	108 LB-FT 182 %	145 LB-FT 244 %	0

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS / HOUR	APPROX. MOTOR WGT
- dBA	- dBA	2.7 LB-FT^2	- LB-FT^2	20 SEC.	-	325 LBS.

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

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
STANDARD	STANDARD	RIGID	HORIZONTAL OR UP OR DOWN	PREMIUM SEVERE DUTY	NONE	FALSE	NONE	BLUE (EPOXY)

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
6309	6210						

THERMO-PROTECTORS				THERMISTORS	CONTROL	SPACE HEATERS
THERMOSTATS	PROTECTORS	WDG RTDs	BRG RTDs			
NONE	NOT	NONE	NONE	NONE	FALSE	NONE VOLTS

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\*

<b>INVERTER TORQUE:</b> VARIABLE 10:1
<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 NONE FT-LB NONE V NONE Hz

Data Sheet

Date: 1/23/2018

824533.00



Data @ **460 V**

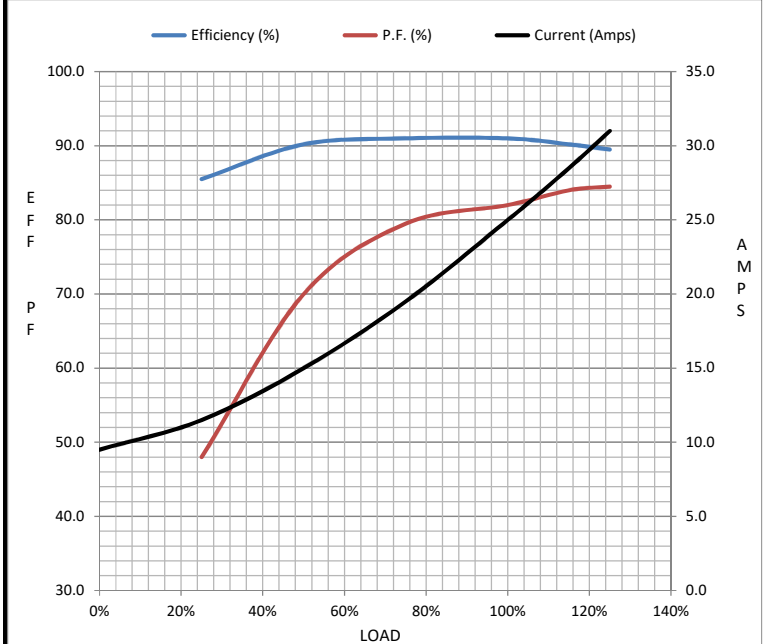
Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	9.5	11.5	15.0	19.5	25.0	28.5	31.0	140
Torque (ft-lb)	0.00	14.5	29.5	44.5	59.5	68.5	75.0	108
RPM	1800	1790	1785	1775	1765	1760	1755	0
Efficiency (%)		85.5	90.2	91.0	91.0	90.2	89.5	
P.F. (%)	7.0	48.0	70.0	79.5	82.0	84.0	84.5	41.5

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1625	1765	1800
Current (Amps)	140	125	86.0	25.0	9.5
Torque (ft-lb)	108	94.0	145	59.5	0.00

Information Block				
HP	20.0			
Sync. RPM	1800			
Frame	256			
Enclosure	TEAO			
Construction	TTN			
Voltage	230/460 V			
Frequency	60 Hz			
Design	B			
LR Code letter	F			
Service Factor	1.15			
Temp Rise @ FL	0 °C			
Duty	CONT			
Ambient	40 °C			
Elevation	1,000 feet			
Rotor/Shaft wk <sup>2</sup>	2.70 Lb-Ft <sup>2</sup>			
Ref Wdg	K2564181 R10			
Sound Pressure @ 1M	999 dBA			
VFD Rating	VARIABLE 10:1			
Outline Dwg	B-SS208432-1225			
Conn. Diag	A-EE7308-LE			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.3010	0.2230	1.0170	1.4160	26.1280



Speed - Torque Curve

