

PRODUCT INFORMATION PACKET

marathon®
Motors

Model No: 324TSTGS16531

Catalog No: U078A

Hazardous Duty® Explosion Proof Motor, 40 & 30 HP, 3 Ph, 60 & 50 Hz, 230/460 & 190/380 V,
1800 & 1500 RPM, 324TS Frame, EPFC



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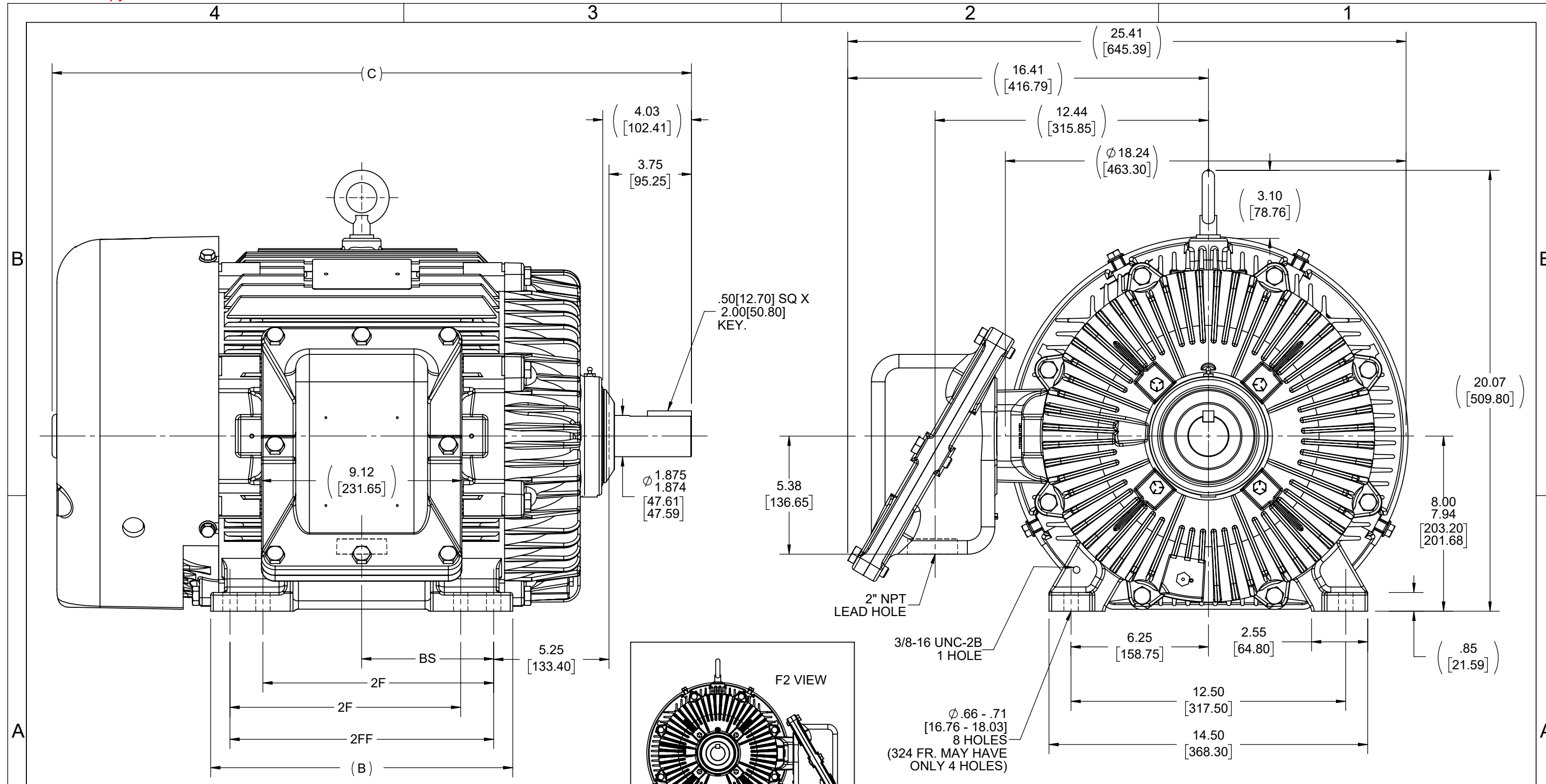
RegalRexnord

Nameplate Specifications

Phase	3	Output HP	40 & 30 Hp
Output KW	30.0 & 22.4 kW	Voltage	230/460 & 190/380 V
Speed	1780 & 1480 rpm	Service Factor	1.00 & 1.00
Frame	324TS	Enclosure	Explosion Proof Fan cooled
Thermal Protection	Thermostat	Efficiency	94.1 & 94.1 %
Ambient Temperature	50 °C	Frequency	60 & 50 Hz
Current	95/47.5 & 87/43.5 A	Power Factor	83
Duty	Continuous	Insulation Class	F
Design Code	B	KVA Code	G
Drive End Bearing Size	6312	Opp Drive End Bearing Size	6311
UL	UL Listed And CSA Certified	CSA	Y
CE	N	IP Code	54
Number of Speeds	1	Hazardous Location	DIV 1 EXP PROOF CL I GR CD CL II GR FG T3C

Technical Specifications

Electrical Type	Squirrel Cage Inverter Rated	Starting Method	Line Or Inverter
Poles	4	Rotation	Reversible
Resistance Main	.135 Ohms	Mounting	Rigid Base
Motor Orientation	Horizontal	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Cast Iron
Shaft Type	TS	Overall Length	28.87 in
Frame Length	13.00 in	Shaft Diameter	1.875 in
Shaft Extension	4 in	Assembly/Box Mounting	F1 ONLY
Inverter Load	CONSTANT 10:1		
Connection Drawing	A-EE7308T	Outline Drawing	B-SS28118-1300



NOTES:
 1. CONDUIT BOX CAN BE ROTATED IN 90° STEPS.
 2. NAMEPLATE TO BE READ FROM CONDUIT BOX SIDE OF MOTOR.

1150	324TS	27.60 [701.04]	13.00 [330.20]	---	10.50 [266.70]	5.25 [133.35]
1300	324/326TS	29.10 [739.06]	13.75 [349.25]	10.50 [266.70]	12.00 [304.80]	6.00 [152.40]
1450	326TS	30.60 [777.25]	15.00 [381.00]	12.00 [304.80]	13.50 [342.90]	6.75 [171.45]
DASH	FRAME	C	B	2F	2FF	BS

DRAWING REVISION L	REVISION BY MJ	REV DATE/© DATE 11/14/2022
REQUEST NUMBER CR-0011131	APPROVED BY CHRIS	DATE 11/14/2022
REQUEST NUMBER DESCRIPTION OUTLINE DRAWING IS UPDATED WITH NEW FRAME.		
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TOLERANCES (EXCEPT AS NOTED):
 DEC. INCH mm ANGLE
 .X ±0.1 [±3] ±7° 30"
 .XX ±0.03 [±0.8]
 .XXX ±0.005 [±0.13]
 .XXXX ±0.0005 [±0.013]
 REMOVE BURRS & BREAK SHARP EDGES: .003/.015 [.08/.38] X 45°
 CORNER FILLETS: R.02 [.5]
 MACHINED SURFACES: 200 INCH/mm 5.1
 mm DIMENSIONS IN [BRACKETS] ARE FOR REFERENCE ONLY

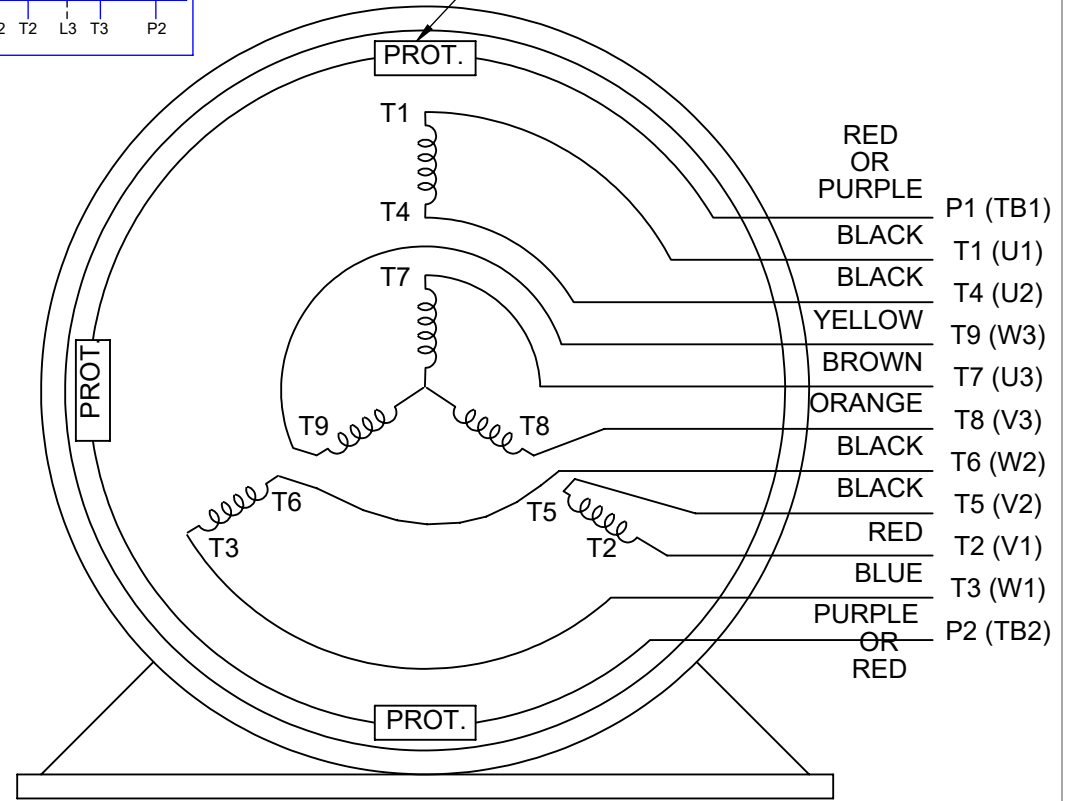
DRAWN BY MRB	Regal Rexnord Regal Beloit America, Inc.	
DATE 09-06-1995	DESCRIPTION OUTLINE	
APPROVED BY GK	320TS FR. - EPFC - BB	
DATE 09-06-1995	MATERIAL	PROCESS/FINISH
REFERENCE	SIZE B	DRAWING NUMBER SS28118
THIRD ANGLE PROJECTION	SHEET 1 OF 1	

HIGH VOLTAGE



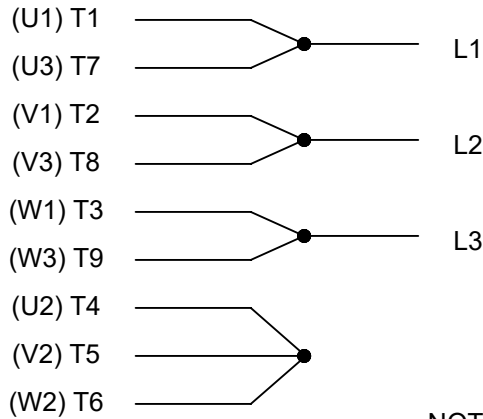
**THREE PHASE
DUAL VOLTAGE MOTOR**

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 ADDED TERMINAL CONNECTION DIAGRAM				APPROVED BY TB	DESCRIPTION CONN DIAGRAM-INTERNAL 3 PHASE - DUAL VOLTAGE MOTOR
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			REFERENCE EE7308/EE7300	SIZE A	DRAWING NUMBER EE7308T

CERTIFICATION DATA SHEET

Model#: 324TSTGS16531 BN **WINDING#:** K3244127 NONE 1
CONN. DIAGRAM: A-EE7308T **ASSEMBLY:** F1 ONLY
OUTLINE: B-SS28118-1300

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
40&30	30&22.4	1800	1780&1480	324TS	EPFC	G	B

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60/50	230/460#190/ 380	95/47.5&87/43 .5	LINE OR INVERTER	CONTINUOU S	F3	1.0/1.0	40	3300

FULL LOAD EFF: 94.1&94.1	3/4 LOAD EFF: 94.5	1/2 LOAD EFF: 94.5	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 83&82	3/4 LOAD PF: 79.5	1/2 LOAD PF: 71	93.6	SQ CAGE INV RATED	35 / 17.5

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
118 LB-FT	580 / 290	218 LB-FT 185	305 LB-FT 258	65

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
65 dBA	75 dBA	8.8 LB-FT^2	275 LB-FT^2	25 SEC.	2	700 LBS.

***** SUPPLEMENTAL INFORMATION *****

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
STANDARD	STANDARD	RIGID	HORIZONTAL	PREMIUM SEVERE DUTY	EXP PROOF CL I GR C&D CL II GR F&G T3B	FALSE	NONE	BLUE (EPOXY)

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	OPE						
BALL	BALL	POLYREX EM	TS	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON
6312	6311						

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

If Inverter equals NONE, contact factory for further information

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

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DATE: 06/21/2017 03:52:36 AM
 FORM 3531 REV.3 02/07/99
 ** Subject to change without notice.

Data Sheet

Date: 19-06-2017
 Customer: _____
 Attention: _____
 Submitted by: FAREEDA DUDEKULA



324TSTGS16531

Submittal

Data @ 460 V

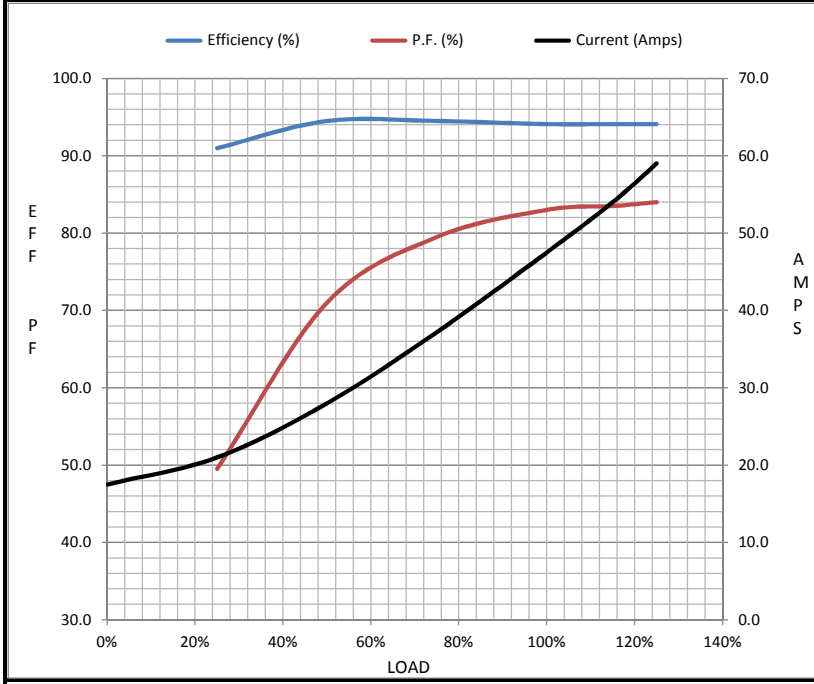
Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	17.5	21.0	28.0	37.2	47.5	54.0	59.0	290
Torque (ft-lb)	0.00	29.5	58.5	88.5	118	136	148	218
RPM	1800	1795	1790	1785	1780	1,775	1772	0
Efficiency (%)		91.0	94.5	94.5	94.1	94.1	94.1	
P.F. (%)	4.5	49.5	71.0	79.5	83.0	83.5	84.0	34.0

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1685	1780	1800
Current (Amps)	290	255	165	47.5	17.5
Torque (ft-lb)	218	190	305	118	0.00

Information Block				
HP	40.0			
Sync. RPM	1800			
Frame	324			
Enclosure	TEFC			
Construction	TFN			
Voltage	230/460#190/38(V)			
Frequency	60 Hz			
Design	B			
LR Code letter	G			
Service Factor	1.15			
Temp Rise @ FL	65 ° C			
Duty	CONT			
Ambient	40 ° C			
Elevation	1,000 feet			
Rotor/Shaft wk ²	8.8 Lb-Ft ²			
Ref Wdg	K3244127 NONE			
Sound Pressure @ 1M	65 dBA			
VFD Rating	CONSTANT 10:1			
Outline Dwg	B-SS28118-1300			
Conn. Diag	A-EE7308T			
Additional Specifications:				
0				
365THFS8036				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.0820	0.0660	0.5790	0.7980	13.5140



Speed - Torque Curve

