

PRODUCT INFORMATION PACKET

marathon®
Motors

Model No: 324TTGS16577

Catalog No: U048A

Hazardous Duty® Explosion Proof Motor, 25 & 20 HP, 3 Ph, 60 & 50 Hz, 230/460 & 190/380 V,
1200 & 1000 RPM, 324T Frame, EPFC



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RegalRexnord

Nameplate Specifications

Phase	3	Output HP	25 & 20 Hp
Output KW	18.7 & 14.9 kW	Voltage	230/460 & 190/380 V
Speed	1182 & 982 rpm	Service Factor	1.15 & 1.15
Frame	324T	Enclosure	Explosion Proof Fan cooled
Thermal Protection	Thermostat	Efficiency	93 & 92.4 %
Ambient Temperature	40 °C	Frequency	60 & 50 Hz
Current	65/32.5 & 63/31.5 A	Power Factor	78
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	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	6	Rotation	Reversible
Resistance Main	.255 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	29.10 in
Frame Length	11.50 in	Shaft Diameter	2.125 in
Shaft Extension	5.53 in	Assembly/Box Mounting	F1 ONLY
Inverter Load	CONSTANT 10:1		
Connection Drawing	A-EE7308T	Outline Drawing	B-SS28022-1150

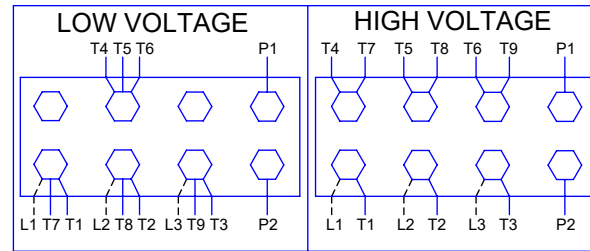
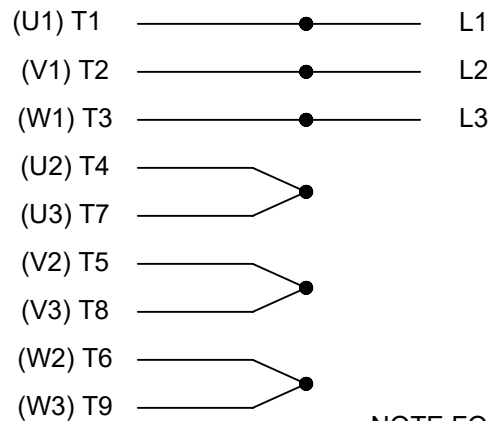


1. CONDUIT BOX CAN BE ROTATED IN 90° STEPS.
2. CONDUIT BOX CAN BE MOUNTED ON OPPOSITE SIDE BY REMOVING BRACKETS AND TURNING FRAME 180°.
3. NAMEPLATE READ FROM CONDUIT BOX SIDE OF MOTOR.

1150	324T	29.10 [739.14]	13.00 [330.20]	---	10.50 [266.70]	5.25 [133.35]
1300	324/326T	30.60 [777.16]	13.75 [349.25]	10.50 [266.70]	12.00 [304.80]	6.00 [152.51]
DASH	FRAME	C	B	2F	2FF	BS

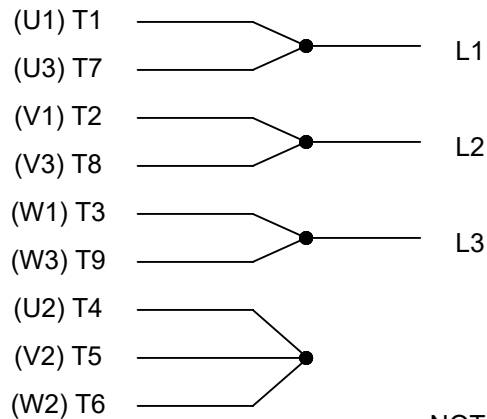
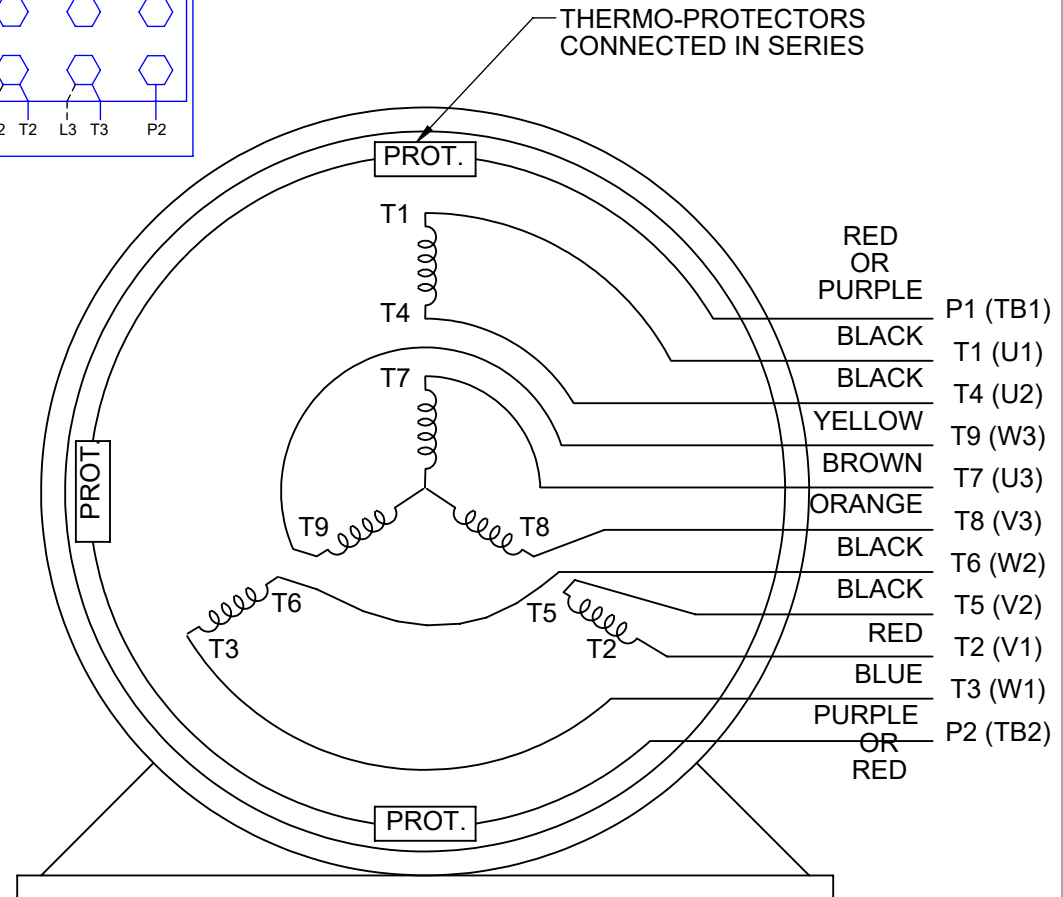
DRAWING REVISION P		REVISION BY MJ		REV DATE/© DATE 11/11/2022		TOLERANCES (EXCEPT AS NOTED): DEC. INCH mm ANGLE				DRAWN BY DJK		<div></div> <div>Regal Beloit America, Inc.</div>									
REQUEST NUMBER CR-0011131		APPROVED BY CHRIS		DATE 11/11/2022		.X ±0.1 [±3] .XX ±0.03 [±0.8] .XXX ±0.005 [±0.13] .XXXX ±0.0005 [±0.013]				DATE 04-30-1993		<div>DESCRIPTION</div> <div>OUTLINE</div> <div>320T FR. - EPFC - BB - TS</div>									
REQUEST NUMBER DESCRIPTION OUTLINE DRAWING IS UPDATED WITH NEW FRAME.						REMOVE BURRS & BREAK SHARP EDGES: .003/.015 [.08/.38] X 45° CORNER FILLETS: R.02 [.5] MACHINED SURFACES: 200 INCH mm 5.1				APPROVED BY GK 05-04-1993											
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												THIRD ANGLE PROJECTION				SIZE B		DRAWING NUMBER SS28022		SHEET 1 OF 1	

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

THREE PHASE
DUAL VOLTAGE MOTOR

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

DRAWING REVISION T	REVISION BY ZR	DATE 01-14-2019
ECO ECO-0159915	APPROVED BY DR	DATE 01-15-2019

ECO DESCRIPTION
ADDED TERMINAL CONNECTION DIAGRAM

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DRAWN BY SMC	DATE 05-13-1992
APPROVED BY TB	DATE 05-13-1992
REFERENCE EE7308/EE7300	THIRD ANGLE PROJECTION



Regal Beloit America, Inc.

DESCRIPTION

CONN DIAGRAM-INTERNAL
 3 PHASE - DUAL VOLTAGE MOTOR

MATERIAL	PROCESS/FINISH
SIZE A	DRAWING NUMBER EE7308T
SHEET 1 OF 1	

CERTIFICATION DATA SHEET

Model#: 324TTGS16577 AN
 CONN. DIAGRAM: A-EE7308T
 OUTLINE: B-SS28022-1150

WINDING#: 324679 NONE 3
 ASSEMBLY: F1 ONLY

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
25&20	18.7&14.9	1200	1182&982	324T	EPFC	G	B

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60/50	230/460#190/ 380	65/32.5&63/31 .5	LINE OR INVERTER	CONTINUOU S	F3	1.15/1.15	40	3300

FULL LOAD EFF: 93&92.4	3/4 LOAD EFF: 93	1/2 LOAD EFF: 92.4	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 78&78	3/4 LOAD PF: 73	1/2 LOAD PF: 63	92.4	SQ CAGE INV RATED	28 / 14

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
112 LB-FT	364 / 182	175 LB-FT 156	300 LB-FT 268	55

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
56 dBA	66 dBA	8.5 LB-FT^2	425 LB-FT^2	20 SEC.	2	650 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	T	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

* N O T E S *	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

DATE: 06/21/2017 05:45:46 AM
 FORM 3531 REV.3 02/07/99
 ** Subject to change without notice.

Data Sheet

Date: 29-06-2017

Customer:

Attention:

Submitted by: FAREEDA DUDEKULA



324TTGS16577

Submittal

Data @ 460 V

Motor Load Data

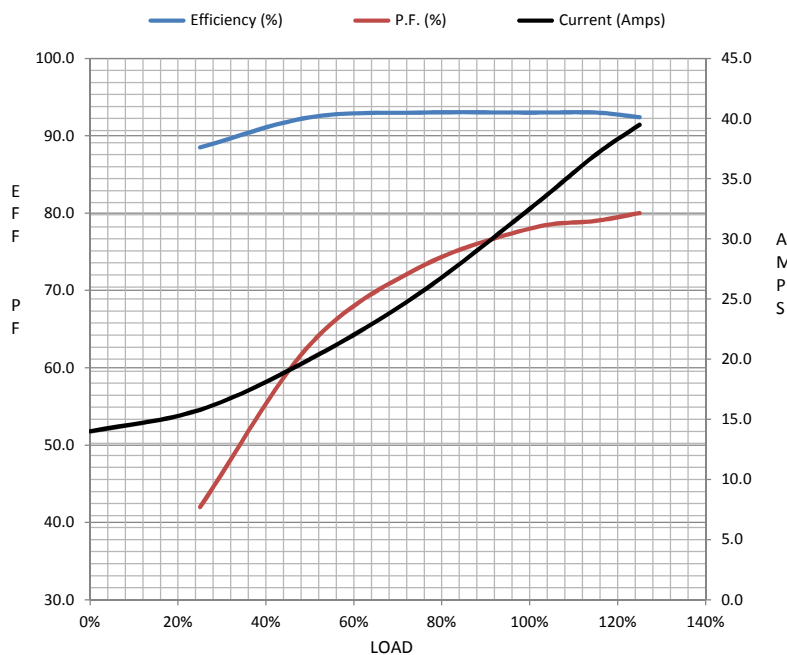
Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	14.0	15.8	20.0	25.5	32.5	37.0	39.5	182	
Torque (ft-lb)	0.00	27.5	55.0	83.5	112	128	140	175	
RPM	1200	1195	1190	1188	1182	1,178	1175	0	
Efficiency (%)		88.5	92.4	93.0	93.0	93.0	92.4		
P.F. (%)	4.5	42.0	63.0	73.0	78.0	79.0	80.0	30.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	600	1100	1182	1200
Current (Amps)	182	168	125	32.5	14.0
Torque (ft-lb)	175	190	300	112	0.00

Information Block

HP	25.0			
Sync. RPM	1200			
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	55 ° C			
Duty	CONT			
Ambient	40 ° C			
Elevation	1,000 feet			
Rotor/Shaft wk ²	8.5 Lb-Ft ²			
Ref Wdg	324679 NONE			
Sound Pressure @ 1M	56 dBA			
VFD Rating	CONSTANT 10:1			
Outline Dwg	B-SS28022-1150			
Conn. Diag	A-EE7308T			
Additional Specifications:				
0				
365THFS8036				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.1760	0.1360	1.0460	1.3050	18.1150



Speed - Torque Curve

