

PRODUCT INFORMATION PACKET

marathon[®]
Motors

Model No: 324TSTDP16002
Catalog No: U445A
50,3600,DP,324TSC,3/60/230/460
Open Drip Proof (ODP)



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REGAL[®]

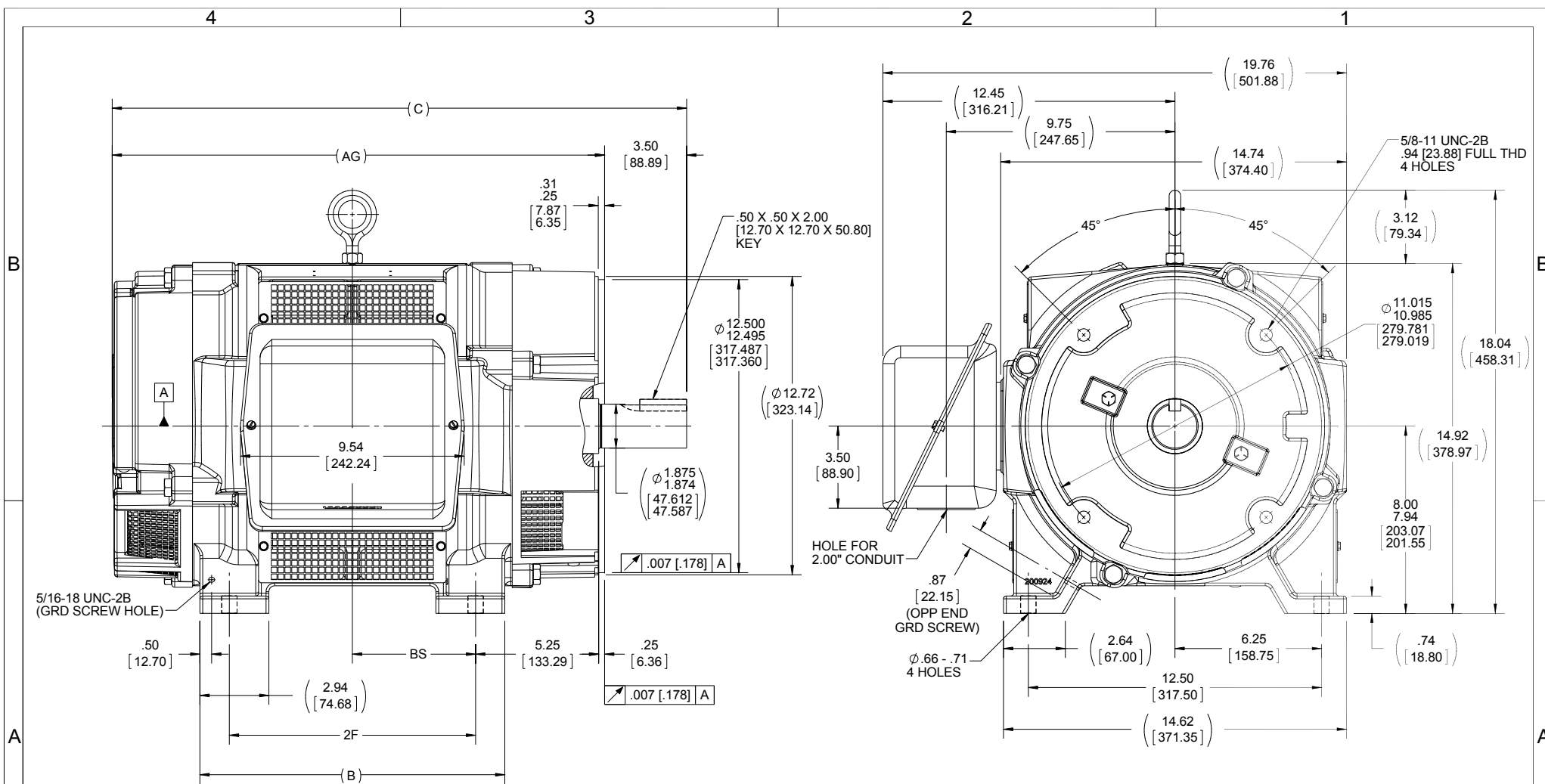


Nameplate Specifications

Output HP	50 Hp	Output KW	37.0 kW
Frequency	60 Hz	Voltage	230/460 V
Current	112.0/56.0 A	Speed	3550 rpm
Service Factor	1.15	Phase	3
Efficiency	93.6 %	Duty	Continuous
Insulation Class	F	Design Code	B
KVA Code	F	Frame	324TSC
Enclosure	Drip Proof	Overload Protector	No
Ambient Temperature	40 °C	Drive End Bearing Size	6312
Opp Drive End Bearing Size	6311	UL	Recognized
CSA	Y	CE	Y
IP Code	23		

Technical Specifications

Electrical Type	Squirrel Cage Induction Run	Starting Method	Part Wdg Start Low Volt Only & Wye Start Delta Run
Poles	2	Rotation	Reversible
Mounting	Rigid base	Motor Orientation	Horizontal
Drive End Bearing	Ball	Opp Drive End Bearing	Ball
Frame Material	Cast Iron	Shaft Type	TS
Overall Length	24.5 in	Frame Length	13.62 in
Shaft Diameter	1.875 in	Shaft Extension	3.5 in
Assembly/Box Mounting	F1/F2 Capable		
Outline Drawing	B-SS200379A-1362	Connection Diagram	A-EE7358



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 TO BE READ FROM CONDUIT BOX SIDE OF MOTOR

DASH	FRAME	B	C	2F	BS	AG
1362	324TSC	13.00 [330.20]	24.50 [622.30]	10.50 [266.70]	5.25 [133.35]	21.00 [533.40]
1512	326TSC	14.50 [368.30]	26.00 [660.40]	12.00 [304.80]	6.00 [152.40]	22.50 [571.50]

DRAWING REVISION A	REVISION BY W. JOERGER	DATE 10-29-2015
ECO ECO-0080794	APPROVED BY E. HEIL	DATE 10-29-2015
ECO DESCRIPTION NEW PRODUCTION		
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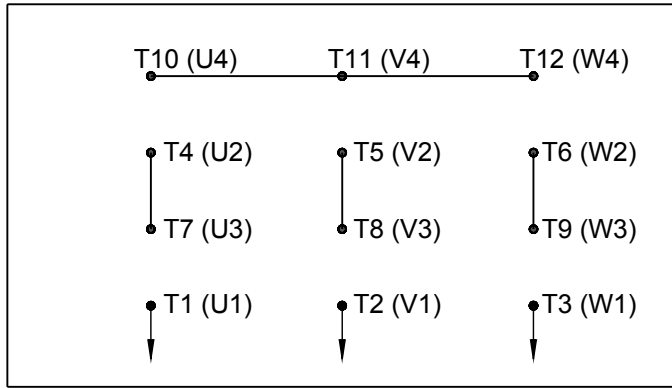
TOLERANCES UNLESS OTHERWISE SPECIFIED:		
DEC.	INCH	mm
.X	+0.1	[+2.5]
.XX	+0.03	[+0.76]
.XXX	+0.005	[+0.127]
.XXXX	+0.0005	[+0.0127]
REMOVE BURRS & BREAK SHARP EDGES: .003/.015 [0.076/.381] X 45°		
CORNER FILLETS: R.02 [51]		
MACHINED SURFACES: 200 $\sqrt{5.1}$		
mm SHOWN IN [BRACKETS]		

DRAWN BY W. JOERGER
DATE 10-29-2015
APPROVED BY E. HEIL
DATE 10-29-2015
REFERENCE
THIRD ANGLE PROJECTION

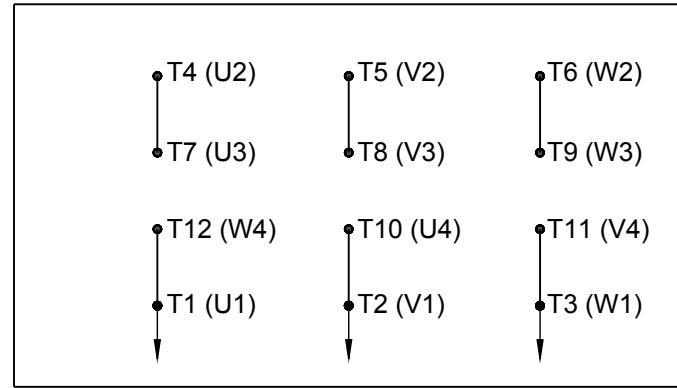
Regal Beloit America, Inc.	
DESCRIPTION OUTLINE DR PR - CAST IRON - 320TSC FR - BB - TS - D.E.V.	
MATERIAL	PROCESS/FINISH
SIZE B	DRAWING NUMBER SS200379A
	SHEET 1 OF 1

HIGH VOLTAGE

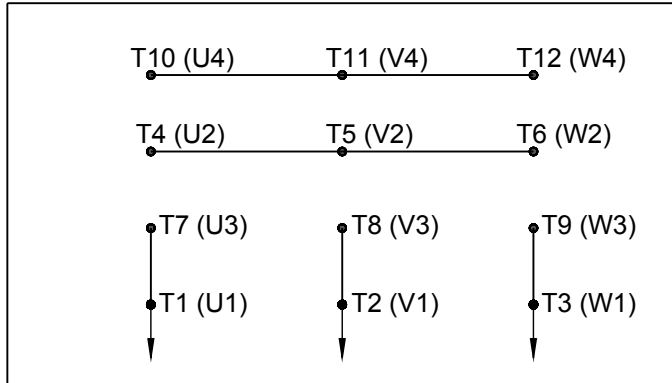
WYE START



DELTA RUN

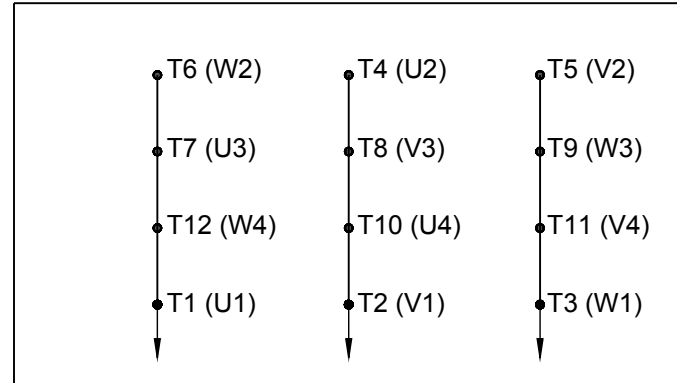


WYE START



LOW VOLTAGE

DELTA RUN



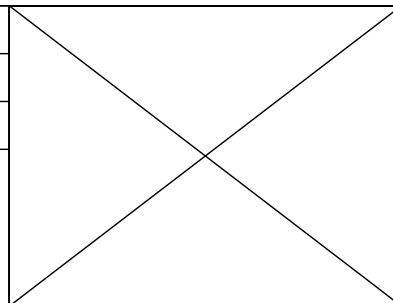
4/2 CKTY \triangle

DRAWING REVISION D	REVISION BY JWO	DATE 01-26-2016
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ECO ECO-0092547	APPROVED BY TB	DATE 01-26-2016
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ECO DESCRIPTION
ADDED IEC MARKINGS

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DRAWN BY BLR

DATE 03-09-1998

APPROVED BY GK

DATE 03-23-1998

REFERENCE

THIRD ANGLE PROJECTION



DESCRIPTION
CONN DIAGRAM-EXTERNAL
12 LEAD - DUAL VOLT. - WYE START - DELTA RUN

MATERIAL	PROCESS/FINISH
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SIZE A	DRAWING NUMBER EE7358	SHEET 1 OF 1
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CERTIFICATION DATA SHEET

Model#: 324TSTDP16002 AA **WINDING#:** K2862135 NONE 2
CONN. DIAGRAM: A-EE7358 **ASSEMBLY:** F1/F2 CAPABLE
OUTLINE: B-SS200379A-1362

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
50	37	3600	3550	324TSC	DP	F	B

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60	230/460	112/56	PWS(LV ONLY) & YDRUN	CONTINUOUS	F3	1.15	40	3300

FULL LOAD EFF: 93.6	3/4 LOAD EFF: 94.1	1/2 LOAD EFF: 94.1	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
			92.4	SQ CAGE IND RUN	31 / 15.5

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
74 LB-FT	690 / 345	115 LB-FT 155	210 LB-FT 284	35

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
82 dBA	92 dBA	3.1 LB-FT^2	- LB-FT^2	15 SEC.	-	450 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	FALSE	NONE	FALSE	RODENT	BLUE (ENAMEL)

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

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

If Inverter equals NONE, contact factory for further information

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

DATE: 06/21/2017 03:32:29 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



324TSTDP16002

Submittal
 Data @ 460 V

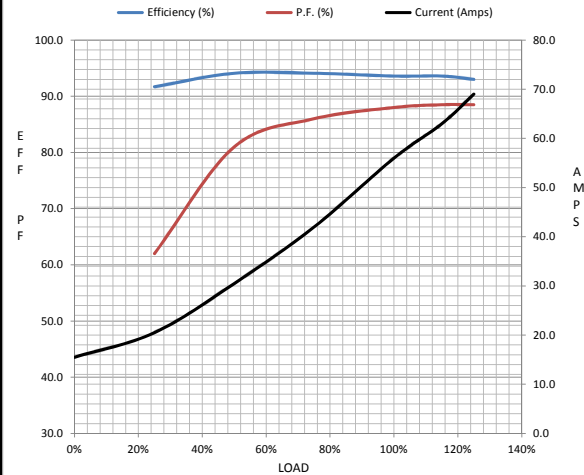
Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	15.5	20.5	30.5	42.0	56.0	63.0	69.0	345
Torque (ft-lb)	0.00	18.5	36.5	55.5	74.0	85.5	93.0	115
RPM	3600	3590	3575	3565	3550	3,545	3540	0
Efficiency (%)		91.7	94.1	94.1	93.6	93.6	93.0	
P.F. (%)	5.5	62.0	81.0	86.0	88.0	88.5	88.5	32.0

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	1800	3325	3550	3600
Current (Amps)	345	300	220	56.0	15.5
Torque (ft-lb)	115	100	210	74.0	0.00

Information Block				
HP	50.0			
Sync. RPM	3600			
Frame	326			
Enclosure	DP			
Construction	TDP			
Voltage	230/460 V			
Frequency	60 Hz			
Design	B			
LR Code letter	F			
Service Factor	1.15			
Temp Rise @ FL	35 ° C			
Duty	CONT			
Ambient	40 ° C			
Elevation	1,000 feet			
Rotor/Shaft wk ²	3.1 Lb-Ft ²			
Ref Wdg	K2862135 NONE			
Sound Pressure @ 1M	82 dBA			
VFD Rating	NONE			
Outline Dwg	B-SS200379A-1362			
Conn. Diag	A-EE7358			
Additional Specifications:				
0				
365THFS8036				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.1000	0.0630	0.4860	0.3700	17.4660



Speed -Torque Curve

