

# PRODUCT INFORMATION PACKET

**marathon**<sup>®</sup>  
Motors

Model No: 445TSTDS16038  
Catalog No: U400A  
200,1800,DP,445TS,3/60/460  
Open Drip Proof (ODP)



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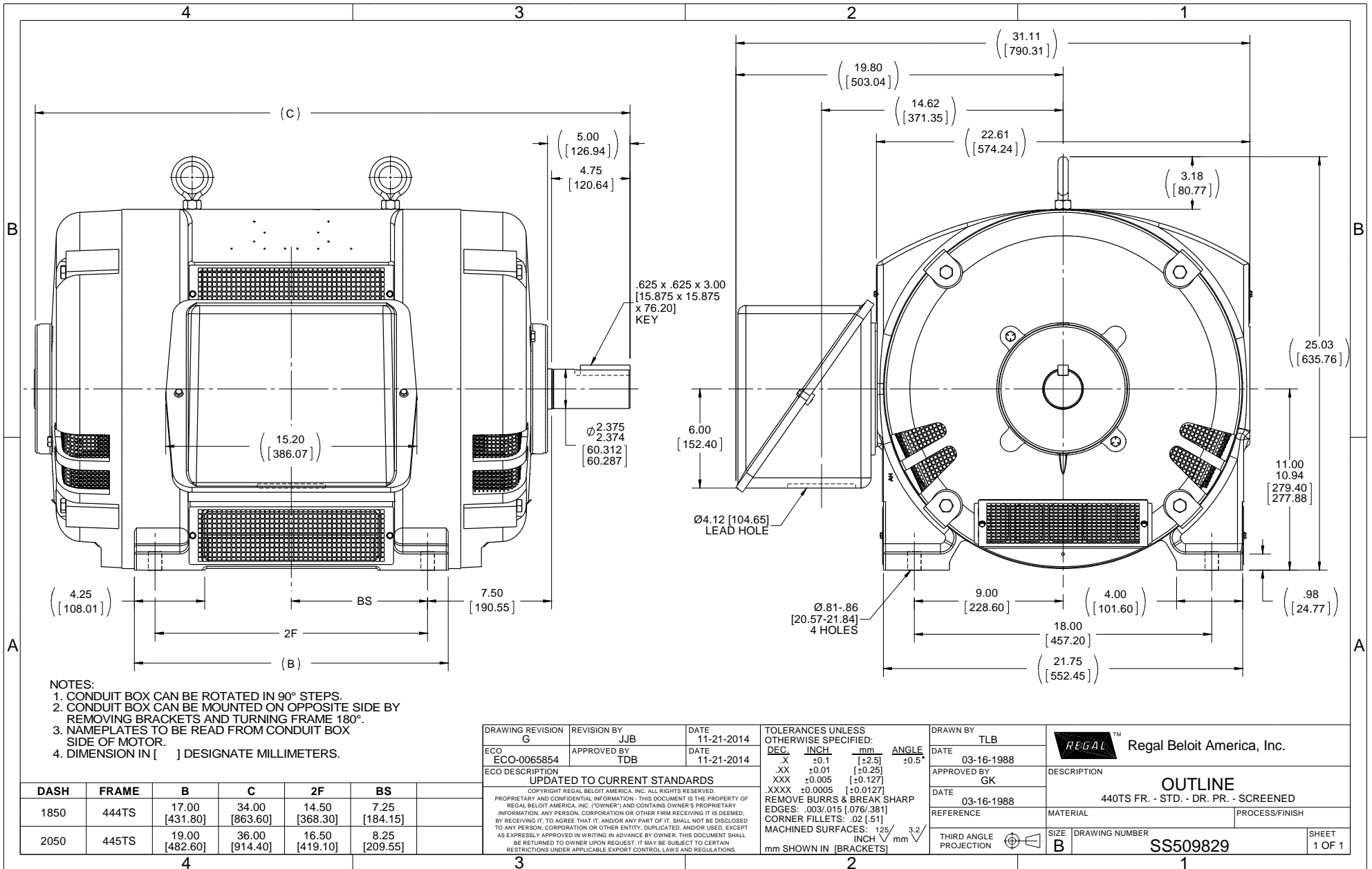
### Nameplate Specifications

Output HP	<b>200 Hp</b>	Output KW	<b>149.0 kW</b>
Frequency	<b>60 Hz</b>	Voltage	<b>460 V</b>
Current	<b>225.0 A</b>	Speed	<b>1785 rpm</b>
Service Factor	<b>1.15</b>	Phase	<b>3</b>
Efficiency	<b>95.8 %</b>	Duty	<b>Continuous</b>
Insulation Class	<b>F</b>	Design Code	<b>B</b>
KVA Code	<b>G</b>	Frame	<b>445TS</b>
Enclosure	<b>Drip Proof</b>	Overload Protector	<b>No</b>
Ambient Temperature	<b>40 °C</b>	Drive End Bearing Size	<b>6313</b>
Opp Drive End Bearing Size	<b>6313</b>	UL	<b>Recognized</b>
CSA	<b>Y</b>	CE	<b>Y</b>
IP Code	<b>12</b>		

### Technical Specifications

Electrical Type	<b>Squirrel Cage Induction Run</b>	Starting Method	<b>Part Wdg Start</b>
Poles	<b>4</b>	Rotation	<b>Reversible</b>
Mounting	<b>Rigid base</b>	Motor Orientation	<b>Horizontal</b>
Drive End Bearing	<b>Ball</b>	Opp Drive End Bearing	<b>Ball</b>
Frame Material	<b>Cast Iron</b>	Shaft Type	<b>TS</b>
Overall Length	<b>36 in</b>	Frame Length	<b>20.50 in</b>
Shaft Diameter	<b>2.375 in</b>	Shaft Extension	<b>5 in</b>
Assembly/Box Mounting	<b>F1/F2 Capable</b>		
Outline Drawing	<b>B-SS509829-2050</b>	Connection Diagram	<b>A-EE7341C</b>

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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. NAMEPLATES TO BE READ FROM CONDUIT BOX SIDE OF MOTOR.
  4. DIMENSION IN [ ] DESIGNATE MILLIMETERS.

DASH	FRAME	B	C	2F	BS
1850	444TS	17.00 [431.80]	34.00 [863.60]	14.50 [368.30]	7.25 [184.15]
2050	445TS	19.00 [482.60]	36.00 [914.40]	16.50 [419.10]	8.25 [209.55]

DRAWING REVISION G	REVISION BY JJB	DATE 11-21-2014	TOLERANCES UNLESS OTHERWISE SPECIFIED: DEC. INCH mm ANGLE .X ±0.1 [±2.5] .XX ±0.01 [±0.25] .XXX ±0.005 [±0.127] .XXXX ±0.0005 [±0.0127] REMOVE BURRS & BREAK SHARP EDGES: .003/.015 [076/381] CORNER FILLETS: .02 [51] MACHINED SURFACES: 125/3.2 mm SHOWN IN [BRACKETS]	DRAWN BY TLB	DATE 03-16-1988	REGAL™ Regal Beloit America, Inc.
ECO ECO-0065854	APPROVED BY TDB	DATE 11-21-2014		APPROVED BY GK	DATE 03-16-1988	DESCRIPTION <b>OUTLINE</b> 440TS FR. - STD. - DR. PR. - SCREENED
ECO DESCRIPTION UPDATED TO CURRENT STANDARDS COPYRIGHT REGAL BELOIT AMERICA, INC. ALL RIGHTS RESERVED. PROPRIETARY AND CONFIDENTIAL INFORMATION - THIS DOCUMENT IS THE PROPERTY OF REGAL BELOIT AMERICA, INC. ("OWNER") AND CONTAINS OWNER'S PROPRIETARY INFORMATION. ANY PERSON, CORPORATION OR OTHER FIRM RECEIVING IT IS DEEMED, BY RECEIVING IT, TO AGREE THAT IT, AND/OR ANY PART OF IT, SHALL NOT BE DISCLOSED TO ANY PERSON, CORPORATION OR OTHER ENTITY, DUPLICATED, AND/OR USED, EXCEPT AS EXPRESSLY APPROVED IN WRITING IN ADVANCE BY OWNER. THIS DOCUMENT SHALL BE RETURNED TO OWNER UPON REQUEST. IT MAY BE SUBJECT TO CERTAIN RESTRICTIONS UNDER APPLICABLE EXPORT CONTROL LAWS AND REGULATIONS.				REFERENCE	MATERIAL	PROCESS/FINISH
				THIRD ANGLE PROJECTION	SIZE B	DRAWING NUMBER SS509829
						SHEET 1 OF 1

EE7341C

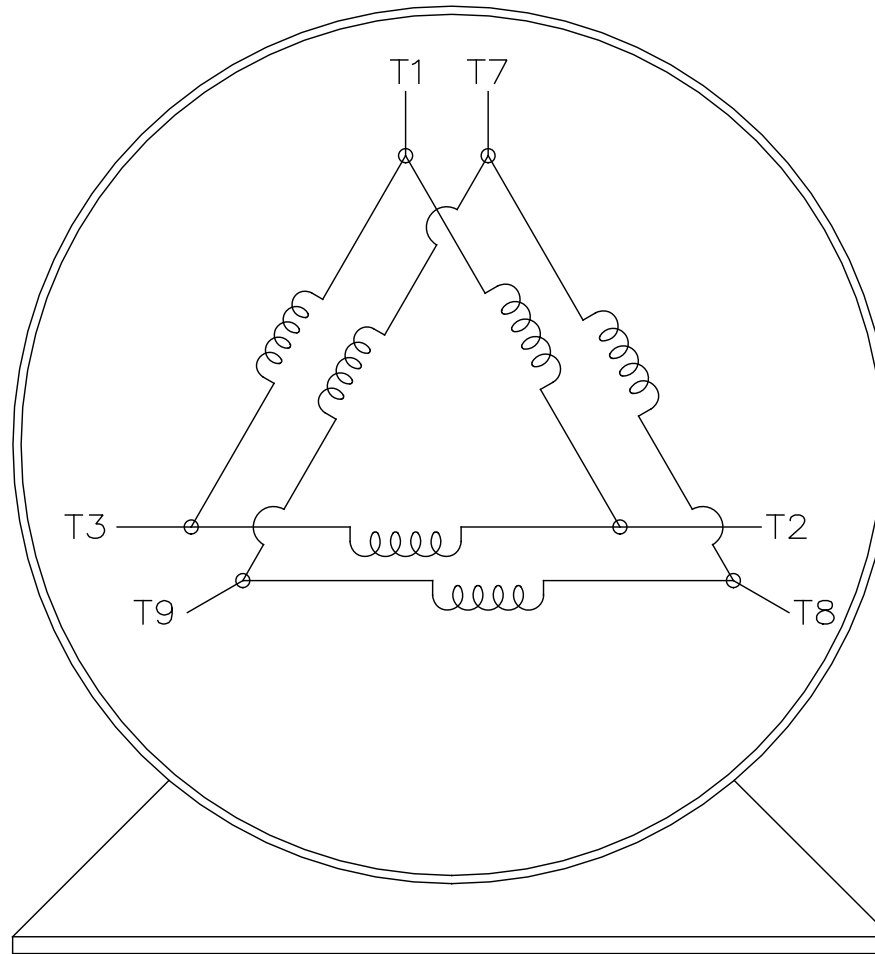
THREE PHASE – PART WINDING START  
DELTA – 6 LEADS

START

- CONNECT T1 TO LINE 1
- CONNECT T2 TO LINE 2
- CONNECT T3 TO LINE 3
- T7–T8–T9 OPEN

RUN

- CONNECT T1&T7 TO LINE 1
- CONNECT T2&T8 TO LINE 2
- CONNECT T3&T9 TO LINE 3



VIEW OF TERMINAL END

		TOLERANCES UNLESS SPECIFIED		<b>REGAL - BELOIT CORPORATION</b>		DRAWN/BLR 03-09-1998			
		DEC.	INCHES			CHK	ML	03-23-1998	
		.X	±			-	APPD	GK	03-23-1998
		.XX	±			-	TITLE		SCALE 1=1
						CONNECTION DIAGRAM			
						3Ø – 6 LEADS			
						REF			
D	RE-DRAWN WITH REGAL LOGO ECO-0110493	WGJ	09-30-2016	EMH	.XXXX	±	-	MAT'L.	FMF
NO.	REVISION	BY & DATE	CHK	ANG	±	-	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 EE7341C		SIZE	DRAWING NO. PAGE OF REV.
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**CERTIFICATION DATA SHEET**

**Model#:** 445TSTD516038 AN      **WINDING#:** T445466 NONE 1  
**CONN. DIAGRAM:** A-EE7341C      **ASSEMBLY:** F1/F2 CAPABLE  
**OUTLINE:** B-SS509829-2050

**TYPICAL MOTOR PERFORMANCE DATA**

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
200	149	1800	1785	445TS	DP	G	B

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60	460	225	PART WINDING START	CONTINUOUS	F1	1.15	40	3300

FULL LOAD EFF: 95.8	3/4 LOAD EFF: 96	1/2 LOAD EFF: 95.8	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 86.5	3/4 LOAD PF: 85	1/2 LOAD PF: 79.5	95.4	SQ CAGE IND RUN	61

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
589 LB-FT	1425	850 LB-FT 144	1425 LB-FT 242	45

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
80 dBA	90 dBA	46 LB-FT^2	1000 LB-FT^2	20 SEC.	2	1450 LBS.

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

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
STANDARD	STANDARD	RIGID	HORIZONTAL	FALSE	NONE	FALSE	NONE	BLUE (ENAMEL)

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	ODE	POLYREX EM	TS	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON
BALL	BALL						
6313	6313						

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

\*  
N  
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S  
\*

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 05:21:37 AM  
 FORM 3531 REV.3 02/07/99  
 \*\* Subject to change without notice.

Data Sheet

Date: 16-06-2017  
 Customer: \_\_\_\_\_  
 Attention: \_\_\_\_\_  
 Submitted by: FAREEDA DUDEKULA



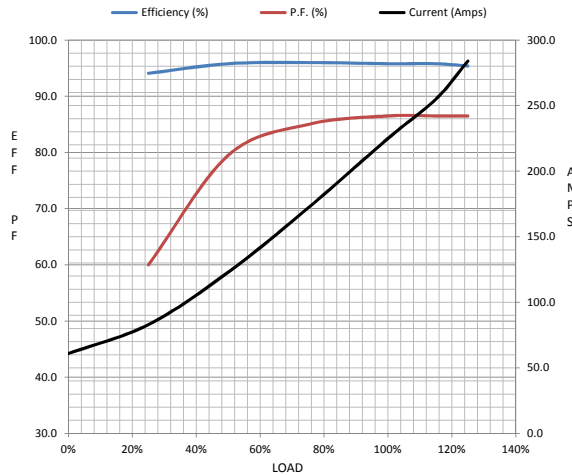
445TSTDS16038

Submittal

Data @ 460 V

Motor Load Data									
Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	61.0	83.0	123	172	225	255	284	1,425	
Torque (ft-lb)	0.00	146	293	440	589	664	738	850	
RPM	1800	1796	1792	1788	1785	1,780	1778	0	
Efficiency (%)		94.1	95.8	96.0	95.8	95.8	95.4		
P.F. (%)	4.0	60.0	79.5	85.0	86.5	86.5	86.5	28.0	

Motor Speed Data						Information Block	
	LR	Pull-Up	BD	Rated	Idle		
Speed (RPM)	0	900	1725	1785	1800	HP	200.0
Current (Amps)	1,425	1,250	775	225	61.0	Sync. RPM	1800
Torque (ft-lb)	850	875	1,425	589	0.00	Frame	445



Enclosure	DP			
Construction	TDS			
Voltage	460 V			
Frequency	60 Hz			
Design	A			
LR Code letter	G			
Service Factor	1.15			
Temp Rise @ FL	45 ° C			
Duty	CONT			
Ambient	40 ° C			
Elevation	1,000 feet			
Rotor/Shaft wk <sup>2</sup>	46.0 Lb-Ft <sup>2</sup>			
Ref Wdg	T445466 NONE			
Sound Pressure @ 1M	80 dBA			
VFD Rating	NONE			
Outline Dwg	B-SS509829-2050			
Conn. Diag	A-EE7341C			
Additional Specifications:				
0				
365THFS8036				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.0110	0.0090	0.1520	0.1420	3.9380

