

# PRODUCT INFORMATION PACKET

**marathon**<sup>®</sup>  
Motors

Model No: 445TSTFN16004  
Catalog No: E342  
200,3600,TEFC,445TS,3/60/460  
Totally Enclosed Fan Cooled (TEFC)



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**REGAL**<sup>®</sup>



### 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>224.0 A</b>	Speed	<b>3575 rpm</b>
Service Factor	<b>1.15</b>	Phase	<b>3</b>
Efficiency	<b>95.4 %</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>Totally Enclosed Fan Cooled</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>43</b>		

### Technical Specifications

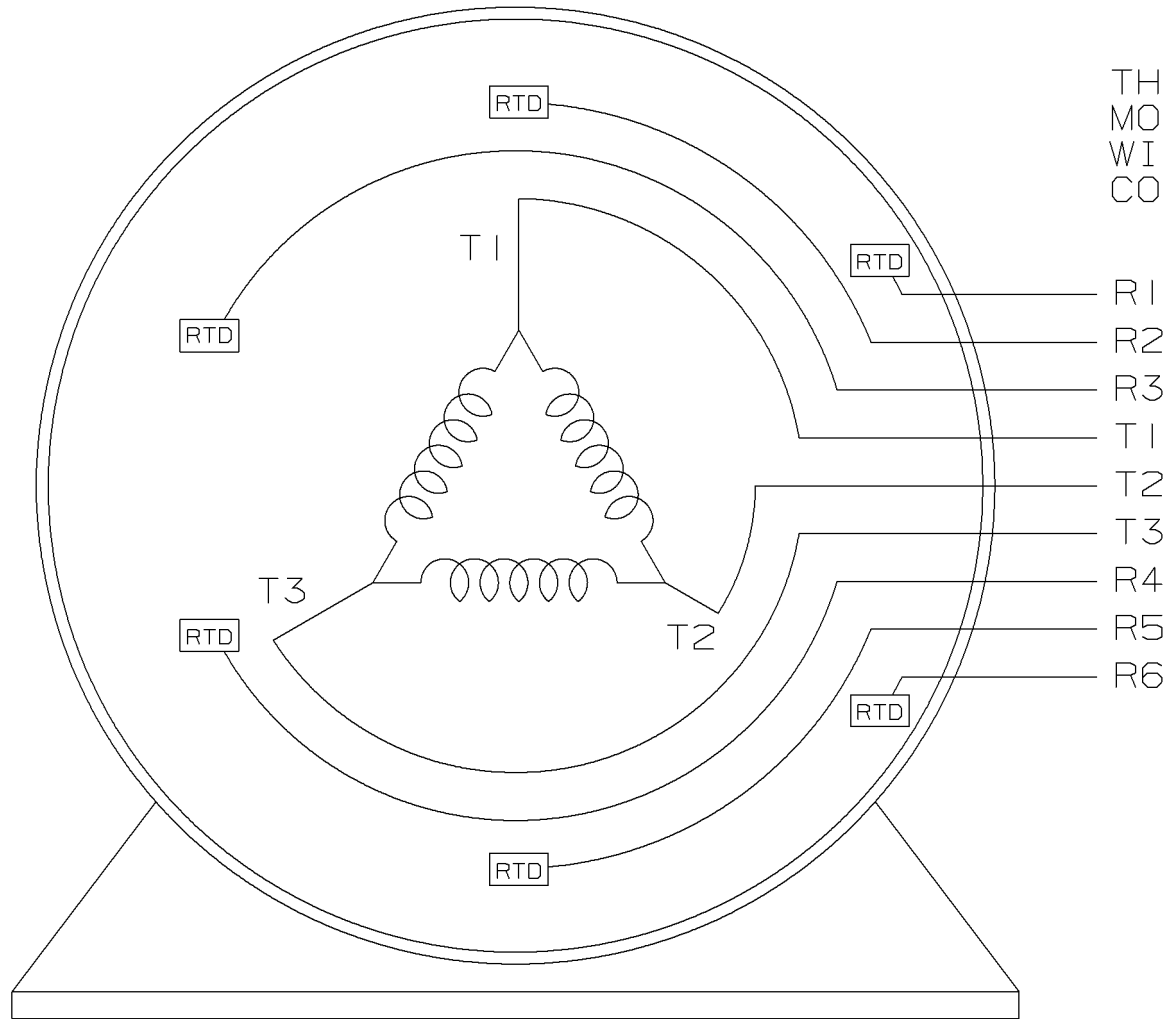
Electrical Type	<b>Squirrel Cage Induction Run</b>	Starting Method	<b>Across The Line</b>
Poles	<b>2</b>	Rotation	<b>Reversible</b>
Mounting	<b>Rigid base</b>	Motor Orientation	<b>Horizontal</b>
Drive End Bearing	<b>Ball</b>	Opp Drive End Bearing	<b>Ball</b>
Frame Material	<b>Cast Iron</b>	Shaft Type	<b>TS</b>
Overall Length	<b>39.6 in</b>	Frame Length	<b>20.25 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-SS514023-2025</b>	Connection Diagram	<b>A-EE7300BM</b>

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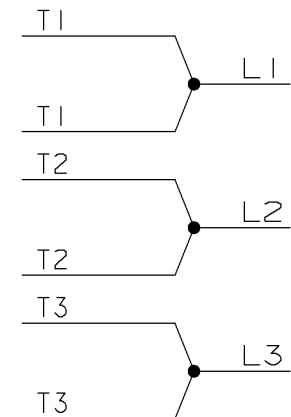
THREE PHASE - SINGLE VOLTAGE  
 MOTOR OR INDUCTION GENERATOR  
 WITH 6 RTD'S - 2 PER PHASE  
 CONDUIT BOX AT 'A'


TO REVERSE ROTATION:  
 INTERCHANGE ANY TWO  
 LINE LEAD CONNECTIONS.



VIEW OF TERMINAL END

IF MOTOR OR GEN.  
 HAS 6 LEADS



				✓ MAX. SURFACE ROUGHNESS UNLESS NOTED OTHERWISE	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOL. ON XX± XXX±.005 XXXX±.0005 ANGLES±		
				MATL SPEC			DRAWN BY DRS 01-30-2001
				FINISH			CHKD BY ML 01-30-2001
				REFERENCE DRW.			WAUSAU, WISCONSIN 54401
2	01-30-2001	REDRAWN ON CADD	DRS	PART NAME CONNECTION DIAGRAM SINGLE VOLT - 3Ø MOTOR	DRWG NO A-EE7300BM		

SHOP BOOK

PURCHASED

DISTRIBUTION - WA - LB - WP - LM - BR

CADD FILE NO.

EE7300BM

**CERTIFICATION DATA SHEET**

**Model#:** 445TSTFN16004 BB      **WINDING#:** T445280 NONE 1  
**CONN. DIAGRAM:** A-EE7300BM      **ASSEMBLY:** F1/F2 CAPABLE  
**OUTLINE:** B-SS514023-2025

**TYPICAL MOTOR PERFORMANCE DATA**

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
200	149	3600	3575	445TS	TEFC	G	B

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60	460	224	ACROSS THE LINE	CONTINUOUS	F1	1.15	40	3300

FULL LOAD EFF: 95.4	3/4 LOAD EFF: 95	1/2 LOAD EFF: 94.1	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 88	3/4 LOAD PF: 85.5	1/2 LOAD PF: 78.5	95	SQ CAGE IND RUN	69.5

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
294 LB-FT	1450	475 LB-FT 162	900 LB-FT 306	75

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
80 dBA	90 dBA	33.5 LB-FT^2	160 LB-FT^2	15 SEC.	2	2300 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	OPE						
BALL	BALL	POLYREX EM	TS	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON
6313	6313						

THERMO-PROTECTORS				THERMISTORS	CONTROL	SPACE /n HEATERS
THERMOSTATS	PROTECTORS	WDG RTDs	BRG RTDs			
NONE	NOT	PLATINUM TWO PER PHASE 100	NONE	NONE	FALSE	NONE VOLTS

If Inverter equals NONE, contact factory for further information

\*  
N  
O  
T  
E  
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
- FT-LB NONE V NONE Hz

DATE: 06/21/2017 05:28:34 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



445TSTFN16004

Submittal

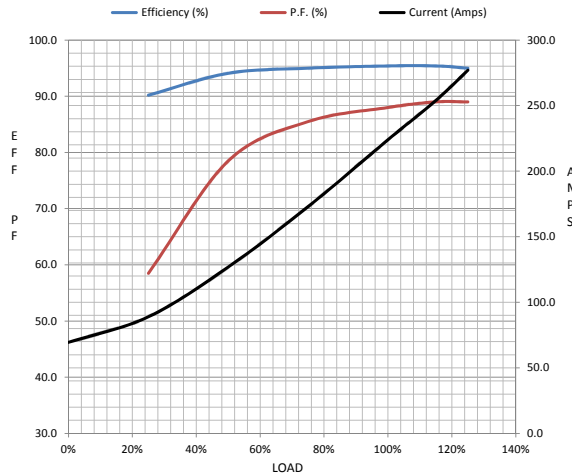
Data @ 460 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	69.5	89.0	127	173	224	254	277	1,450
Torque (ft-lb)	0.00	73.0	147	220	294	338	368	500
RPM	3600	3595	3590	3580	3575	3,570	3565	0
Efficiency (%)		90.2	94.1	95.0	95.4	95.4	95.0	
P.F. (%)	6.8	58.5	78.5	85.5	88.0	89.0	89.0	25.0

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle	Information Block	
Speed (RPM)	0	1800	3430	3575	3600	HP	200.0
Current (Amps)	1,450	1,210	950	224	69.5	Sync. RPM	3600
Torque (ft-lb)	500	415	870	294	0.00	Frame	445



HP	200.0			
Sync. RPM	3600			
Frame	445			
Enclosure	TEFC			
Construction	TFN			
Voltage	460 V			
Frequency	60 Hz			
Design	A			
LR Code letter	G			
Service Factor	1.15			
Temp Rise @ FL	75 ° C			
Duty	CONT			
Ambient	40 ° C			
Elevation	1,000 feet			
Rotor/Shaft wk²	33.5 Lb-Ft²			
Ref Wdg	T445280 NONE			
Sound Pressure @ 1M	80 dBA			
VFD Rating	NONE			
Outline Dwg	B-SS514023-2025			
Conn. Diag	A-EE7300BM			
Additional Specifications:				
0				
365THFS8036				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.0100	0.0090	0.1210	0.0920	3.8340

Speed -Torque Curve

