

PRODUCT INFORMATION PACKET

marathon[®]
Motors

Model No: 145TTFR16013
Catalog No: GT3106
2,3600,TEFC,145JM,3/60/230/460
JM



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REGAL[®]

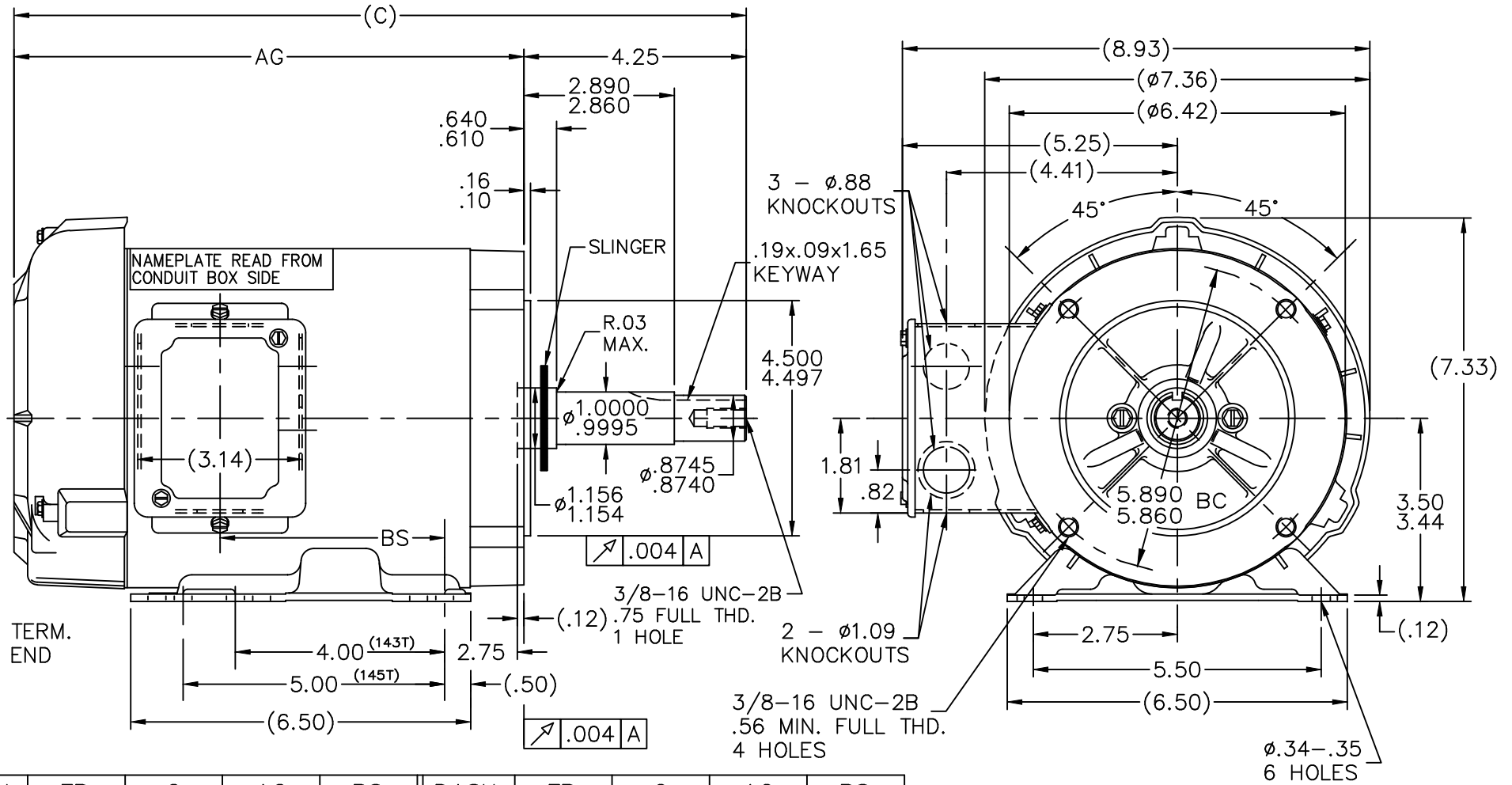


Nameplate Specifications

Output HP	2 Hp	Output KW	1.49 kW
Frequency	60 Hz	Voltage	230/460 V
Current	5/2.5 A	Speed	3500 rpm
Service Factor	1.15	Phase	3
Efficiency	85.5 %	Duty	CONTINUOUS
Insulation Class	F	Design Code	B
KVA Code	K	Frame	145JM
Enclosure	TEFC	Overload Protector	NOT
Ambient Temperature	40 °C	Drive End Bearing Size	6206
Opp Drive End Bearing Size	6203	UL	Recognized
CSA	Y	CE	Y
IP Code	43		

Technical Specifications

Electrical Type	SQ CAGE INV RATED	Starting Method	LINE OR INVERTER
Poles	2	Rotation	REV
Mounting	RIGID	Motor Orientation	HORIZONTAL OR SHAFT DOWN
Drive End Bearing	BALL	Opp Drive End Bearing	BALL
Frame Material	ROLLED STEEL	Shaft Type	JM
Overall Length	16.5 in	Frame Length	9.06 in
Shaft Diameter	0.88 in	Shaft Extension	4.25 in
Assembly/Box Mounting	F1 ONLY		
Outline Drawing	A-100133-906	Connection Diagram	A-EE7308



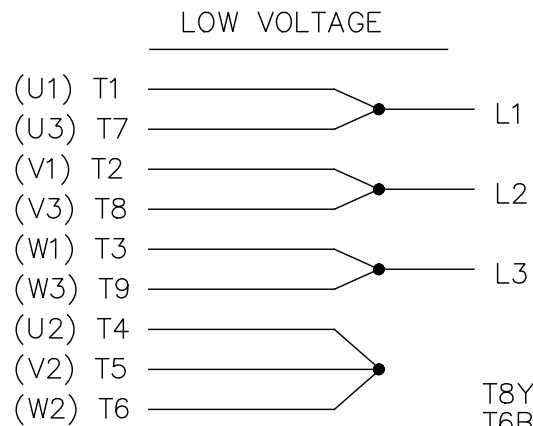
DASH	FR	C	AG	BS	DASH	FR	C	AG	BS
706	140T	14.50	10.25	3.44	856	140T	16.00	11.75	4.94
756	140T	15.00	10.75	3.94	906	140T	16.50	12.25	5.44
806	140T	15.50	11.25	4.44	956	140T	17.00	12.75	5.94

NOTE:
'C' BOX CAN BE ROTATED 180°

		TOLERANCES UNLESS SPECIFIED		MARATHON ELECTRIC		DRAWN MRB 12-20-1994		
		DEC.	INCHES			CHK	ML 12-21-1994	
		.X	±.1			APPD	GK 12-21-1994	
		.XX	±.03	TITLE OUTLINE JM EXT.		SCALE	11=32	
7	REDRAWN IN AUTOCAD	TAT 07-06-2004	ML .XXX	±.005	140 FR. - TEFC - 355C - BB - 'C' FACE		REF	
6	REDRAWN ON CADD	MRB 12-21-1994	.XXXX	±.0005	MAT'L.		FMF	
NO.	REVISION	BY & DATE	CHK	ANG	±7'30"	FINISH	PREV	
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		DIST WP			A	100133		7

EE7308

THREE PHASE
DUAL VOLTAGE MOTOR



VIEW OF TERMINAL END

REF.
WINDING DIAGRAM

T8Y, T2Y, T2BL, T4BX, T2EC, T2G
T6BZ, T2B, T6BL, T4AV, T6B, T4B

OPTIONAL CORD
CONNECTION

L1 — WHITE
L2 — RED
L3 — BLACK

NO.	REVISION	BY & DATE	CHK	ANG	TOLERANCES UNLESS SPECIFIED		FINISH	DRAWN RM 11/20/1990				
					DEC.	INCHES						
5	CHG TO REGAL LOGO	SL 09/10/2015	AB					CHK ML 11/21/1990				
4	REVISED IEC NOTATIONS	MSG 11/15/2011	CMN	.X	±.1			APPD SAS 04/24/2003				
3	ADDED IEC NOTATIONS... (U1), (V1) ETC. MU95194	MSG 5/10/2010	MJS	.XX	±.02		TITLE CONNECTION DIAGRAM	SCALE 1=1				
2	ADDED THE OPTIONAL CORD CONNECTION MU46318	RDH 04/24/2003	DRS	.XXX	±.005		3Ø - DUAL VOLTAGE MOTOR	REF				
1	REDRAWN	RM 11/20/1990		.XXXX	±.0005		MAT'L.	FMF				
					±7'30"			PREV				
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							DIST WP					



CERTIFICATION DATA SHEET

Model#: 145TTFR16013 AA **WINDING#:** ZT2142 FR 3
CONN. DIAGRAM: A-EE7308 **ASSEMBLY:** F1 ONLY
OUTLINE: A-100133-906

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
2&1 1/2	1.49&1.12	3600	3500&2910	145JM	TEFC	K	B

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60/50	230/460#190/380	5/2.5&4.6/2.3	LINE OR INVERTER	CONTINUOUS	F3	1.15/1.0	40	3300

FULL LOAD EFF: 85.5&85.5	3/4 LOAD EFF: 85.9	1/2 LOAD EFF: 84	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 86&85	3/4 LOAD PF: 82	1/2 LOAD PF: 72.5	84	SQ CAGE INV RATED	2 / 1

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
3 LB-FT	43.4 / 21.7	9.5 LB-FT 316	12.2 LB-FT 406	40

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
69 dBA	79 dBA	0.065 LB-FT^2	4 LB-FT^2	20 SEC.	2	80 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 OR SHAFT DOWN	FALSE	NONE	PROVISIONS ONLY	NONE	BLUE (POWDER)

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	OPE						
BALL	BALL	POLYREX EM	JM	NONE	NONE	1144 STRESSPROOF (C-223)	ROLLED STEEL
6206	6203						

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

If Inverter equals NONE, contact factory for further information

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INVERTER TORQUE: CONSTANT 2:1 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: 06/23/2017 07:06:17 AM
 FORM 3531 REV.3 02/07/99
 ** Subject to change without notice.

Data Sheet

Date: 6/29/2017

14STFR16013

Customer:



Submital

Attention:

FAREEDA DUDEKULA

Data @ 460 V

Submitted by:

Motor Load Data

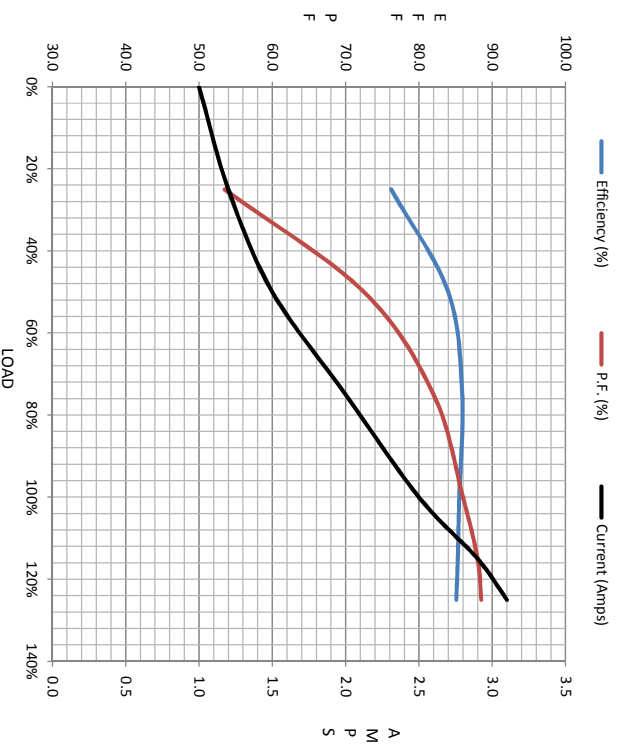
Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	1.00	1.20	1.50	2.00	2.50	2.90	3.1	21.7
Torque (ft-lb)	0.00	0.74	1.48	2.23	3.0	3.5	3.8	9.5
RPM	3600	3575	3550	3525	3500	3,485	3470	0
Efficiency (%)		76.2	84.0	85.9	85.5	85.3	85.1	
P.F. (%)	20.0	53.5	72.5	82.0	86.0	88.0	88.5	42.0

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (rpm)	0	1500	2615	3500	3600
Current (Amps)	21.7	20.5	14.5	2.50	1.00
Torque (ft-lb)	9.5	9.4	12.2	3.0	0.00

Information Block

HP	2.0			
Sync. RPM	3600			
Frame	145			
Enclosure	TEFC			
Construction	TFR			
Voltage	30/460#190/38 V			
Frequency	60 Hz			
Design	B			
LR Code letter	K			
Service Factor	1.15			
Temp Rise @ FL	36 °C			
Duty	CONT			
Ambient	40 °C			
Elevation	1,000 feet			
Rotor/Shaft wkt	0.07 Lb-Fe			
Rel Wdg	Z12142 FR			
Sound Pressure @ 1M	69 dBA			
VFD Rating	CONSTANT 2:1			
Outline Dwg	A-100133-906			
Conn. Diag	A-EE7308			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
4.4020	3.1240	6.5320	5.5380	208.7400



Speed - Torque Curve

