

PRODUCT INFORMATION PACKET

Model No: 112MTFC4537
Catalog No: R425
5.5 HP General Purpose, 3 phase, 1800 RPM, 575 V, 112M Frame, TEFC
Cast Iron Motors



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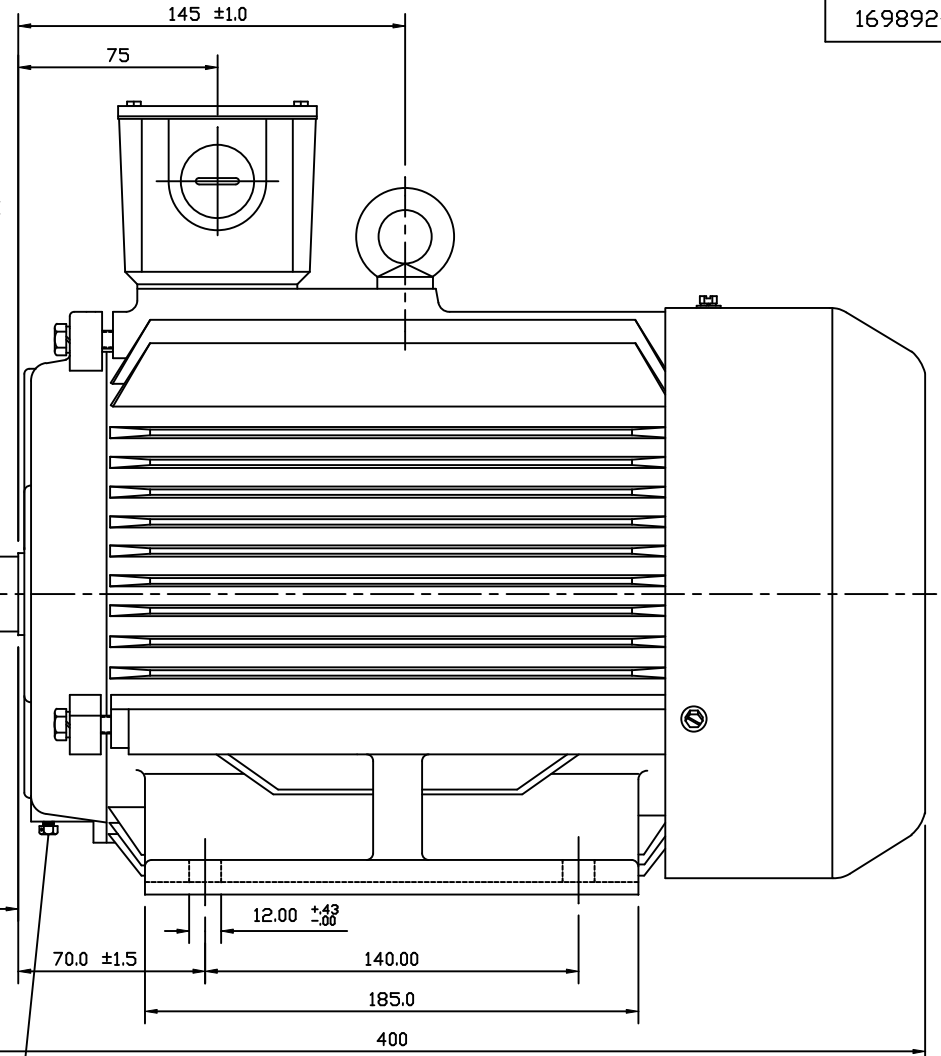
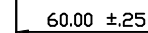
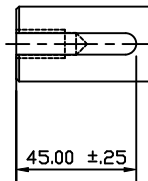
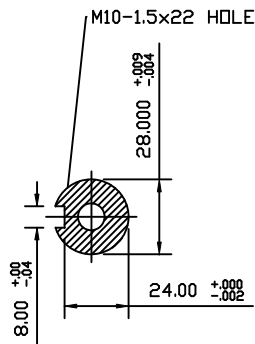
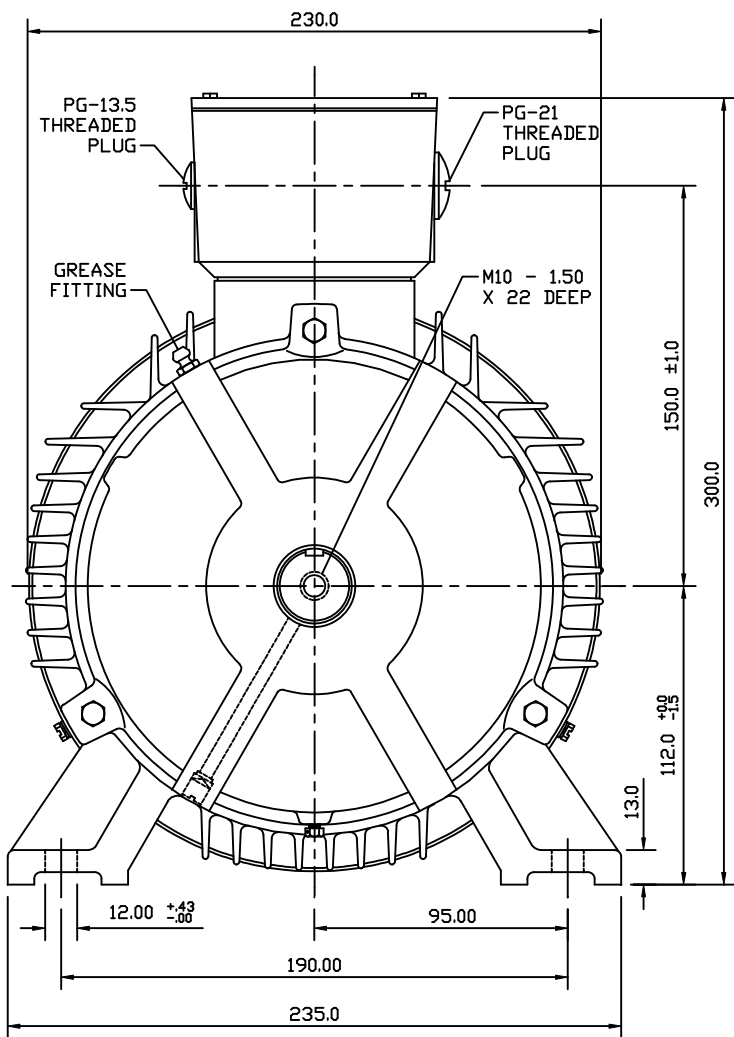
Nameplate Specifications

Output HP	5.50 Hp	Output KW	4.1 kW
Frequency	60 Hz	Voltage	575 V
Current	6.0 A	Speed	1761 rpm
Service Factor	1.15	Phase	3
Efficiency	87.6 %	Power Factor	77.3
Duty	Continuous	Insulation Class	F
Design Code	B	KVA Code	J
Frame	112M	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No	Ambient Temperature	40 °C
Drive End Bearing Size	6306	Opp Drive End Bearing Size	6306
UL	Recognized	CSA	Y
CE	Y	IP Code	55
Number of Speeds	1		

Technical Specifications

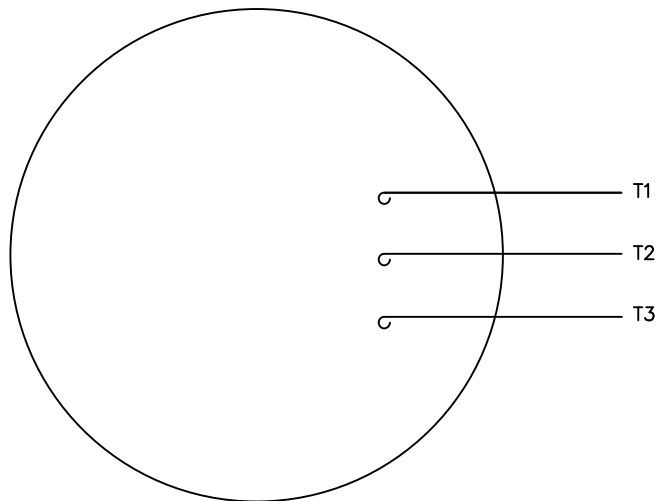
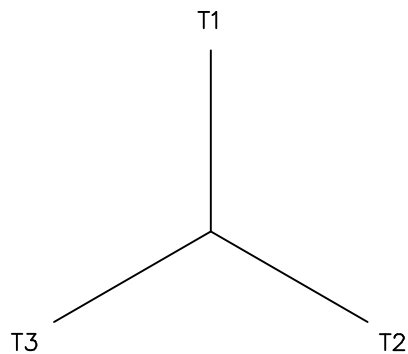
Electrical Type	Squirrel Cage Inverter Rated	Starting Method	Line Or Inverter
Poles	4	Rotation	Reversible
Mounting	Rigid Base	Motor Orientation	Horizontal
Drive End Bearing	Ball	Opp Drive End Bearing	Ball
Frame Material	Cast Iron	Shaft Type	IEC
Overall Length	15.74 in	Shaft Diameter	1.111 in
Shaft Extension	2.36 in	Assembly/Box Mounting	F3
Outline Drawing	16989260ME	Connection Drawing	00510205ME

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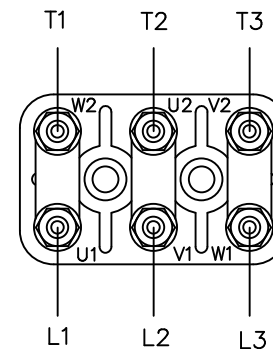


CONDENSATE DRAIN

		TOLERANCES UNLESS SPECIFIED		MARATHON ELECTRIC		DRAWN	
		DEC.	METRIC			CHK	
		.X	±.25	TITLE		APPD	SCALE 1=25.4
		.XX	±.76	OUTLINE DF112M (F3)		REF	
		.XXX	±.127	MATERIAL		FMF	
01	REDRAWN TO NEW STYLE	.XXXX	±.0127	FINISH		PREV	
NO.	REVISION	BY & DATE	CHK	ANG	±1/2°	RFP	
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				CAD FILE		16989260ME	SIZE B
				DRAWING NO.		169892-60	REV. 01



TERMINAL BLOCK CONNECTIONS



TO REVERSE ROTATION
INTERCHANGE ANY TWO
LINE LEADS

				TOLERANCES UNLESS SPECIFIED			DRAWN MSG 09-11-2007		
				DEC.	INCHES		CHK MSG 09-11-2007		
				.X	±.1		APPD SB 09-11-2007		
				.XX	±.02		SCALE 1=1		
				.XXX	±.005		REF DECAL 080464		
				.XXXX	±.0005	MAT'L.			
						FINISH			
NO.	REVISION	BY & DATE	CHK	ANG	±7'30"	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 00510205ME		SIZE	DRAWING NO. PAGE OF	REV.
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P.O. BOX 8003
WAUSAU, WI 54401-8003
PH. 715-675-3311

DATA VOLTS: 460

CERTIFICATION DATA SHEET

CUSTOMER:
ORDER #: _____
CONN. DIAGRAM: 00510205ME
OUTLINE: 16989260ME
WINDING: T08704008 FR 4
SPEED: _____

CUSTOMER P.O. #: _____
REFERENCE MODEL #: 112MTFC4537
CAT #: R425
CUSTOMER PART #: _____
MOUNTING: F3

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
5.5	4.1	1800	1761	112M	TEFC	TFC	J	B

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB	ELEV.
3	60	575	g Group Reference Voltage	LINE OR INVERTER	CONT	F	1.15	40	3300

F.L. EFF	87.6	3/4 LD EFF	87.1	1/2 LD EFF	85.4	GTD EFF	ELECT. TYPE
F.L. PF	77.3	3/4 LD PF	71.3	1/2 LD PF	56.1	0.0	SQ CAGE INV RATED

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (°C)
15.5 LB-FT	44.3	38.0 LB-FT 245%	44.6 LB-FT 288%	62

@ 3 FT.	POWER	ROTOR WK ²	MAX. LOAD WK ²	SAFE STALL TIME	STARTS/HOUR	MOTOR WGT
999 dBA	1008 dBA	0.00 LB-FT ²	0 LB-FT ²	0 SEC.	0	0 LB.

***** SUPPLEMENTAL INFORMATION *****

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	MOTOR ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
STANDARD	STANDARD	RIGID	HORIZONTAL	NO	NONE	NO	NONE	BLUE (ENAMEL)

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	ODE	POLYREX EM	STANDARD IEC	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON
BALL	BALL						
6306	6306						

THERMOSTATS	PROTECTORS	WDG RTD's	BRG RTD's	THERMISTORS	CONTROL	SPACE HEATERS
NONE	NOT	NONE	NONE	NONE	FALSE	NA

R1 (ohms/ph)	R2 (ohms/ph)	X1 (ohms/ph)	X2 (ohms/ph)	Xm (ohms/ph)	VIBRATION (in/sec)	FLOAT
0	0	0	0	0	0.150	ODE

* N O T E S *	INVERTER TORQUE: CONSTANT 10:1 INV. HP SPEED RANGE: 1.5 X BASE SPEED					
	ENCODER: NONE NONE NONE NONE PPR					

PREPARED BY: EARL BABBITTS DATE: 5/5/2017	BRAKE: NONE NONE NONE FT-LB: NA VOLTAGE: NONE HZ: UL: V-INS, CONST UL REC
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FORM: 3531 REV_4 2/27/06

Data Sheet

Date: 5/5/2017
 Customer: _____
 Attention: _____
 Submitted by: EARL BABBITTS



112MTC4537

Submittal

Data @ 575 V

Motor Load Data

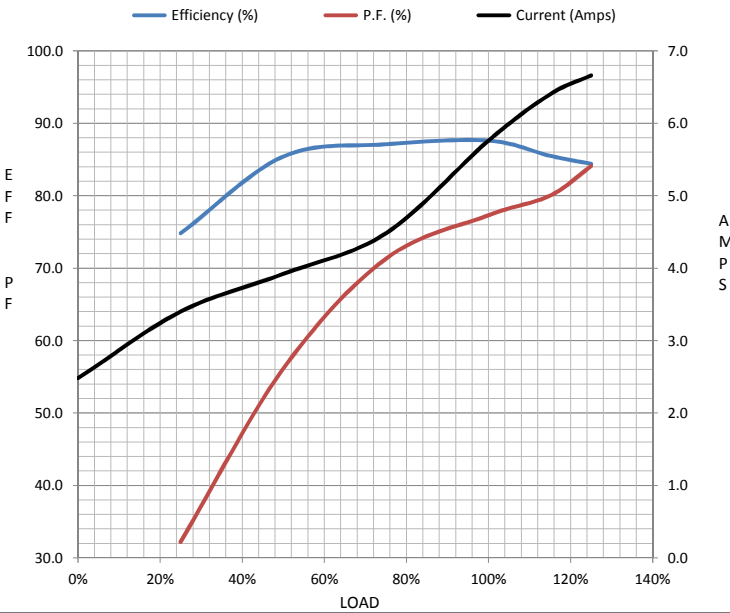
Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	2.48	3.4	3.9	4.5	5.8	6.4	6.7	44.3
Torque (ft-lb)	0.00	3.2	7.4	11.0	15.5	16.5	18.9	38.0
RPM	1800	1792	1782	1773	1761	1,755	1752	0
Efficiency (%)		74.8	85.4	87.1	87.6	85.5	84.4	
P.F. (%)	6.7	32.2	56.1	71.3	77.3	80.0	84.1	0.0

Motor Speed Data

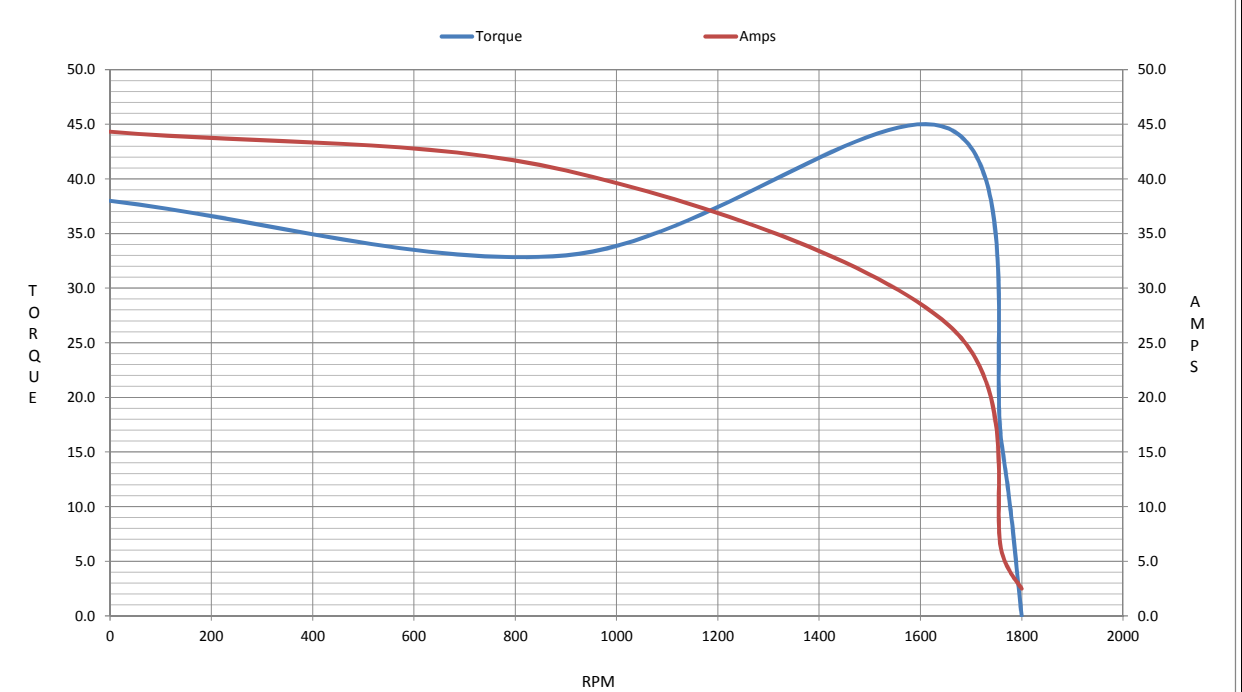
	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1656	1761	1800
Current (Amps)	44.3	40.8	26.6	5.8	2.48
Torque (ft-lb)	38.0	33.0	44.6	15.5	0.00

Information Block

HP	5.5			
Sync. RPM	1800			
Frame	112			
Enclosure	TEFC			
Construction	TFC			
Voltage	575 V			
Frequency	60 Hz			
Design	A			
LR Code letter	J			
Service Factor	1.15			
Temp Rise @ FL	62 °C			
Duty	CONT			
Ambient	40 °C			
Elevation	1,000 feet			
Rotor/Shaft wk ²	0.00 Lb-Ft ²			
Ref Wdg	T08704008 FR			
Sound Pressure @ 1M	999 dBA			
VFD Rating	CONSTANT 10:1			
Outline Dwg	16989260ME			
Conn. Diag	00510205ME			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.0000	0.0000	0.0000	0.0000	0.0000



Speed - Torque Curve



Date: 5/5/2017	REF: 112MTFC4537	Torque Capability Curve
Customer: _____	Data @ 575 Volts	
Attention: _____	marathon[®] electric	
Submitted by: EARL BABBITTS		

	Min CT RPM	Base RPM	CHP RPM	Max CHP RPM	Max RPM	Peak
HP	0.00	0.0	0.0	0.0	125	
Voltage (volts)	-	48	575	575	575	575
Frequency (HZ)	0	5	60	90	91	89
RPM	0	141	1,761	2,700	2,700	2,682
Current (Amps)	3.3	4.6	4.6	4.6	4.6	111
Rated Tq (ft-lb)	7.8	15.5	15.5	10.1	10.1	245
Peak Tq (ft-lb)	41.0	41.0	41.0	16.7	16.7	17.0

Motor Speed Data						Information Block	
	Locked Rotor	Pull-Up	Breakdown	Rated Load	Idle		
Speed (RPM)	0	750	1375	1475	1500	HP	5.5
Current (Amps)	295	261	176	55.1	21.4	Sync. RPM	1,800
Torque (ft-lbs)	235	200	325	142	0.00	Frame	112
						Enclosure	TEFC
						Construction	TFC
						Voltage	575
						Frequency	60 Hz
						Duty	CONT
						Design	A
						LR Code letter	J
						Poles	4
						Temp Rise @ FL	62 °C
						Ambient	40 °C
						Elevation	1,000 feet
						Ref Wdg	T08704008
						R #	FR
						dBA @ 1M	999
						VFD rating	CONSTANT 10:1
						OUTLINE:	16989260ME
						CONN DIAG:	00510205ME
							0
							0

Speed -Torque Curve

Legend: Torque (ft-lbs) (blue line), Current (Amps) (red line)

The graph shows torque increasing from ~235 ft-lb at 0 RPM to a peak of ~325 ft-lb at 1375 RPM, then dropping to 0 at 1500 RPM. Current starts at ~295 A at 0 RPM and decreases to ~21.4 A at 1500 RPM.

HP	5.5
Sync. RPM	1,800
Frame	112
Enclosure	TEFC
Construction	TFC
Voltage	575
Frequency	60 Hz
Duty	CONT
Design	A
LR Code letter	J
Poles	4
Temp Rise @ FL	62 °C
Ambient	40 °C
Elevation	1,000 feet
Ref Wdg	T08704008
R #	FR
dBA @ 1M	999
VFD rating	CONSTANT 10:1
OUTLINE:	16989260ME
CONN DIAG:	00510205ME
	0
	0

