PRODUCT INFORMATION PACKET

Model No: 112MTFC4511
Catalog No: R324
Cast Iron Motor, 5.50 & 5.50 HP, 3 Ph, 60 & 50 Hz, 230/460 & 200/400 V, 3600 & 3000 RPM, 112M V Frame, TEFC

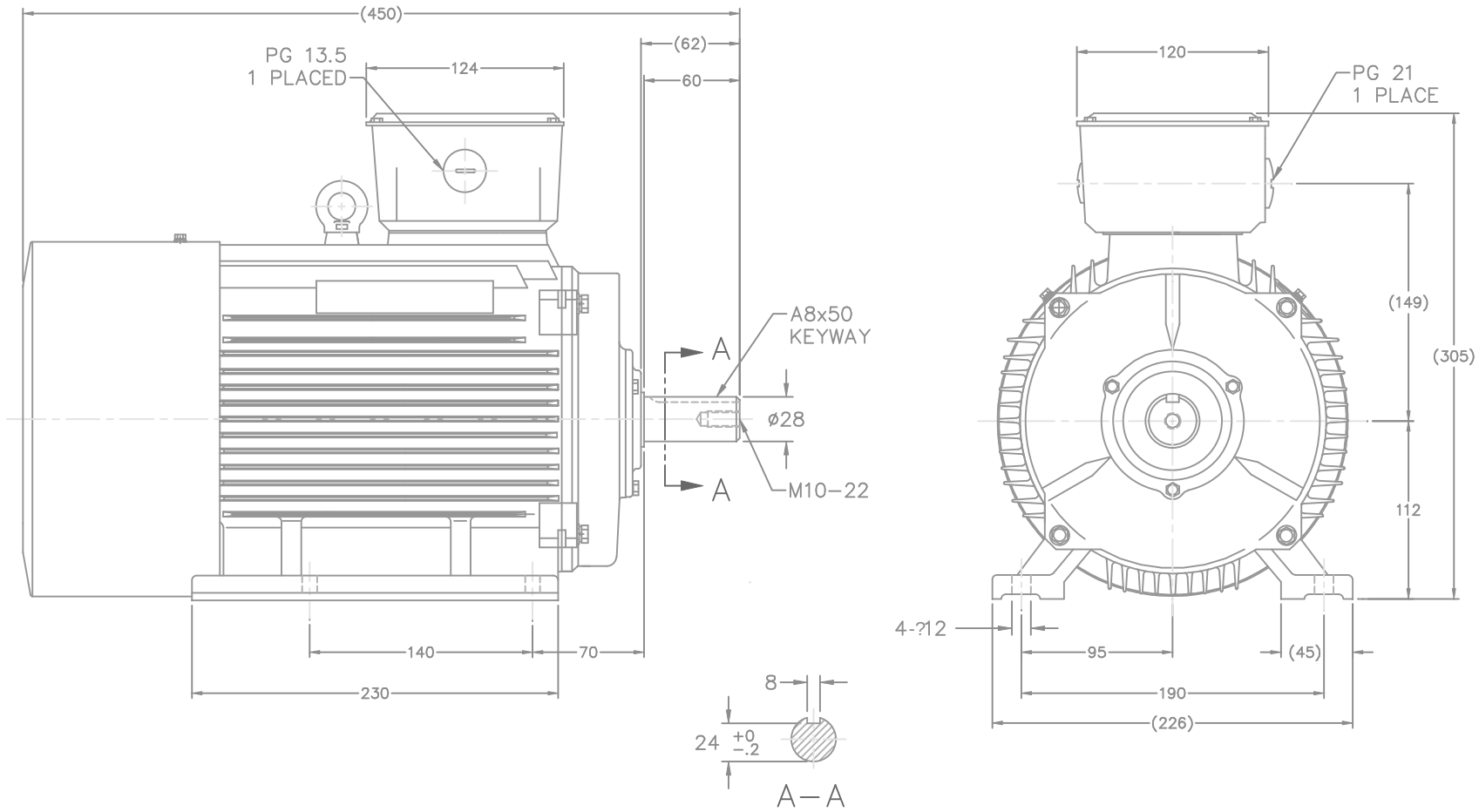
marathon® Motors

Nameplate Specifications

Phase	3	Output HP	5.50 & 5.50 Hp
Output KW	4.1 & 4.1 kW	Voltage	230/460 & 200/400 V
Speed	3500 & 2880 rpm	Service Factor	1.15 & 1.15
Frame	112M V	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No Protection	Efficiency	87.5 & 86.5 %
Ambient Temperature	40 °C	Frequency	60 & 50 Hz
Current	12.6/6.3 & 14.6/7.3 A	Power Factor	93.1
Duty	Continuous	Insulation Class	F
Design Code	B	KVA Code	H
Drive End Bearing Size	6306	Opp Drive End Bearing Size	6306
UL	No	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	2	Rotation	Reversible
Resistance Main	2.57 Ohms	Mounting	Rigid Base
Motor Orientation	Horizontal Or Shaft Down	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Cast Iron
Shaft Type	IEC	Overall Length	17.71 in
Shaft Diameter	1.111 in	Shaft Extension	2.36 in
Assembly/Box Mounting	F3		
Outline Drawing	SS620004	Connection Drawing	A-EE7308



ALL DIMENSIONS TO BE REF.
DIMENSION.

				TOLERANCES UNLESS SPECIFIED		MARATHON ELECTRIC	DRAWN CTO 08-04-2004
				DEC.	INCHES		CHK ML 08-04-2004
				.X	±.1		APPD SB 08-04-2004
				.XX	±.03	TITLE OUTLINE – IEC 112M FR.	SCALE 3=8
				.XXX	±.005		REF
1	ADDED SHAFT DETAIL AND FOOT HOLE DIM'S CN 38637	DRS 11-22-2004	ML	.XXXX	±.0005	MAT'L.	FMF
NO.	REVISION	BY & DATE	CHK	ANG	±7'30"	FINISH	PREV

RFP		CAD FILE ss620004	SIZE	DRAWING NO. PAGE OF	REV.
DIST WA			B	SS620004	1

EE7308

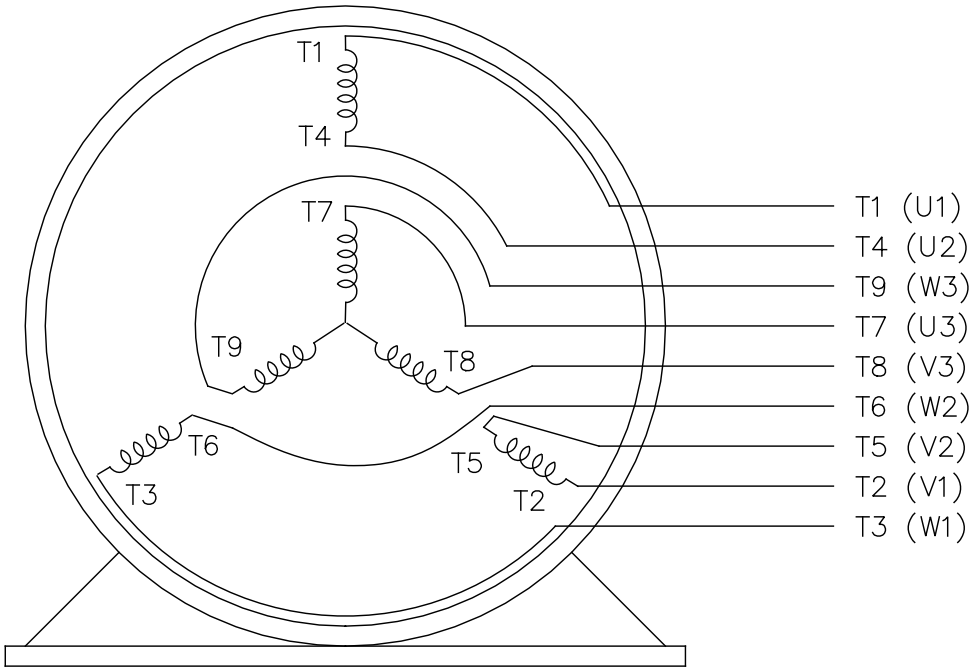
THREE PHASE
DUAL VOLTAGE MOTOR

HIGH VOLTAGE

(U1) T1 — L1
(V1) T2 — L2
(W1) T3 — L3
(U2) T4
(U3) T7
(V2) T5
(V3) T8
(W2) T6
(W3) T9

LOW VOLTAGE

(U1) T1
(U3) T7 — L1
(V1) T2
(V3) T8 — L2
(W1) T3
(W3) T9 — L3
(U2) T4
(V2) T5
(W2) T6



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
5	CHG TO REGAL LOGO	SL 09/10/2015	AB
4	REVISED IEC NOTATIONS	MSG 11/15/2011	CMN
3	ADDED IEC NOTATIONS... (U1), (V1) ETC. MU95194	MSG 5/10/2010	MJS
2	ADDED THE OPTIONAL CORD CONNECTION MU46318	RDH 04/24/2003	DRS
1	REDRAWN	RM 11/20/1990	

TOLERANCES UNLESS SPECIFIED

DEC.	INCHES
.X	±.1
.XX	±.02
.XXX	±.005
.XXXX	±.0005
ANG	±7'30"

Regal Beloit America, Inc.

TITLE CONNECTION DIAGRAM
3ø – DUAL VOLTAGE MOTOR

MAT'L.
FINISH
CAD FILE ee7308
RFP
DIST WP

DRAWN RM	11/20/1990
CHK ML	11/21/1990
APPD SAS	04/24/2003
SCALE	1=1
REF	
FMF	
PREV	

SIZE A | DRAWING NO. EE7308 | PAGE OF | REV. 5

P.O. BOX 8003
WAUSAU, WI 54401-8003
PH. 715-675-3311

DATA VOLTS: 460

CERTIFICATION DATA SHEET

CUSTOMER:
ORDER #:
CONN. DIAGRAM: A-EE7308
OUTLINE: SS620004
WINDING: 112MTFC4511 NONE 1
SPEED:

CUSTOMER P.O. #:
REFERENCE MODEL #: 112MTFC4511
CAT #: R324
CUSTOMER PART #:
MOUNTING: F3

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
5.5	4.1	3600	3500	112M	TEFC	TFC	H	N

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB	ELEV.
3	60/50	230/460#200/400	12.6/6.3&14.6/7.3	LINE OR INVERTER	CONT	F	1.15	40	3300

F.L. EFF	87.5	3/4 LD EFF	87.5	1/2 LD EFF	86.5	GTD EFF	ELECT. TYPE	
F.L. PF	93.1	3/4 LD PF	91.5	1/2 LD PF	87.5	85.5	SQ CAGE INV RATED	

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (°C)	
8.3 LB-FT	47.5	17.0 LB-FT 205%	25.8 LB-FT 311%	40	

@ 3 FT.	POWER	ROTOR WK²	MAX. LOAD WK²	SAFE STALL TIME	STARTS/HOUR	MOTOR WGT
72 dBA	81 dBA	0.00 LB-FT²	0 LB-FT²	0 SEC.	0	120 LB.

*** SUPPLEMENTAL INFORMATION ***

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	MOTOR ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
STANDARD	STANDARD	RIGID	ZONTAL OR SHAFT D	TRUE	NONE	NO	NONE	BLUE (ENAMEL)

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

*
NOTES
*

INVERTER TORQUE: CONSTANT 20:1
INV. HP SPEED RANGE: 1.5 X BASE SPEED

ENCODER: NONE
NONE
NONE NONE PPR

BRAKE: NONE
NONE NONE
FT-LB: NA
VOLTAGE: NONE HZ:
UL: NONE

PREPARED BY: EARL BABBITTS
DATE: 5/5/2017

FORM: 3531 REV_4 2/27/06

Data Sheet

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

marathon® electric

112MTFC4511

Submittal

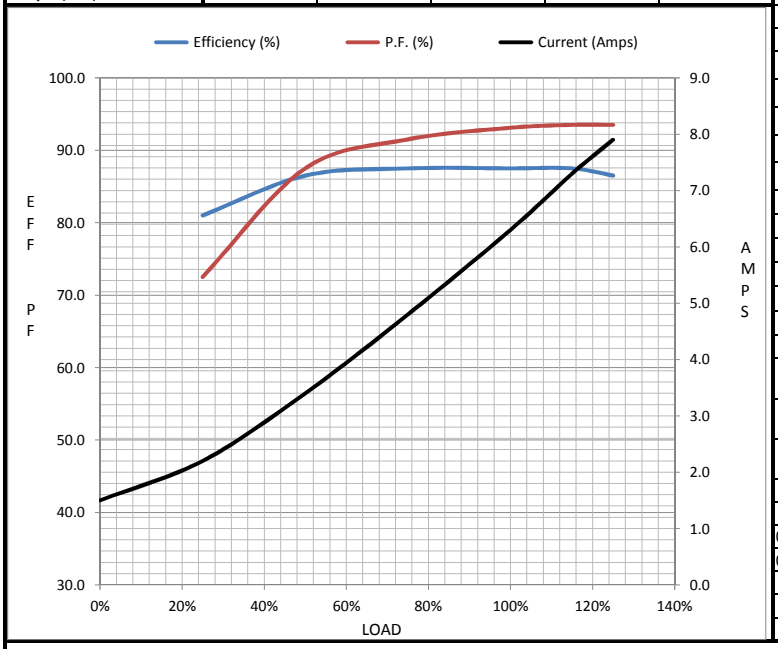
Data @ 460 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	1.50	2.20	3.4	4.8	6.3	7.3	7.9	47.5	
Torque (ft-lb)	0.00	2.00	4.1	6.2	8.3	9.6	10.5	17.0	
RPM	3600	3575	3555	3525	3500	3,480	3470	0	
Efficiency (%)		81.0	86.5	87.5	87.5	87.5	86.5		
P.F. (%)	17.0	72.5	87.5	91.5	93.1	93.5	93.5	49.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	1000	2885	3500	3600
Current (Amps)	47.5	42.0	30.0	6.3	1.50
Torque (ft-lb)	17.0	15.0	25.8	8.3	0.00



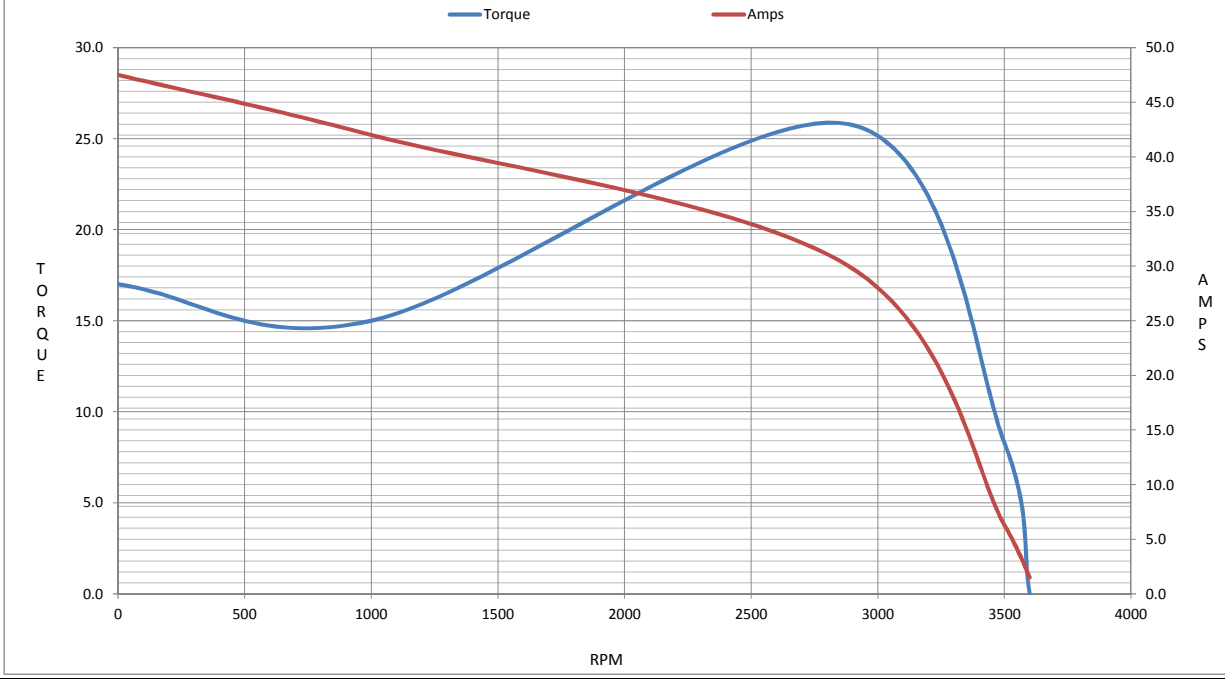
Information Block

HP	5.5
Sync. RPM	3600
Frame	112
Enclosure	TEFC
Construction	TFC
Voltage	230/460#200/400 V
Frequency	60 Hz
Design	A
LR Code letter	H
Service Factor	1.15
Temp Rise @ FL	40 °C
Duty	CONT
Ambient	40 °C
Elevation	1,000 feet
Rotor/Shaft wk²	0.00 Lb-Ft²
Ref Wdg	112MTFC4511 NONE
Sound Pressure @ 1M	72 dBA
VFD Rating	CONSTANT 20:1
Outline Dwg	SS620004
Conn. Diag	A-EE7308
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:** 112MTFC4511

Customer:

Attention:

Submitted by: EARL BABBITTS

marathon electric

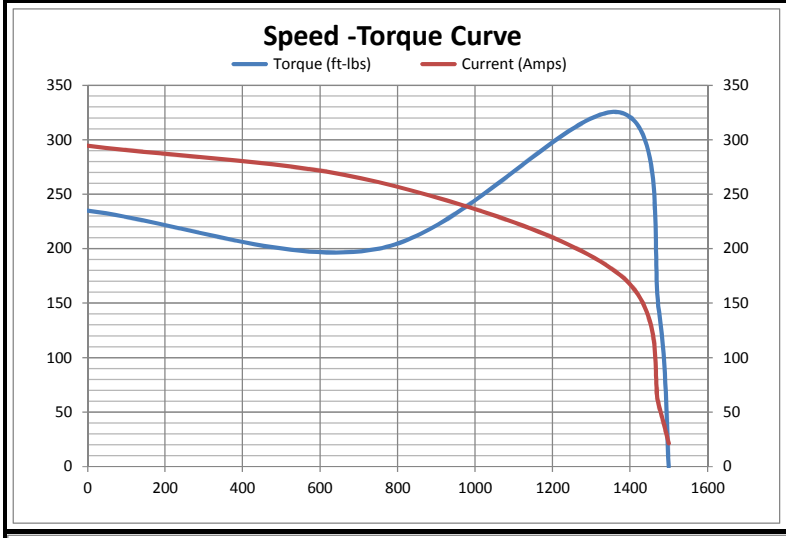
Torque Capability Curve

Data @ 460 **Volts**

		Min CT RPM	Base RPM	CHP RPM	Max CHP RPM	Max RPM	Peak
HP	0.00	0.00	0.0	0.0	0.0	125	
Voltage (volts)	-	0	460	460	460	460	
Frequency (HZ)	0	0	60	66	68	44	
RPM	0	0	3,500	4,000	4,000	2,682	
Current (Amps)	6.3	6.3	6.3	6.3	6.3	143	158
Rated Tq (ft-lb)	8.3	8.3	8.3	7.3	7.3	245	
Peak Tq (ft-lb)	23.7	23.7	23.7	17.9	17.9	41.5	

Motor Speed Data

	Locked Rotor	Pull-Up	Breakdown	Rated Load	Idle
Speed (RPM)	0	750	1375	1475	1500
Current (Amps)	295	261	176	55.1	21.4
Torque (ft-lbs)	235	200	325	142	0.00



Information Block		
HP	5.5	
Sync. RPM	3,600	
Frame	112	
Enclosure	TEFC	
Construction	TFC	
Voltage	230/460#200/400	
Frequency	60	Hz
Duty	CONT	
Design	A	
LR Code letter	H	
Poles	2	
Temp Rise @ FL	40	°C
Ambient	40	°C
Elevation	1,000	feet
Ref Wdg	112MTFC4511	
R #	NONE	
dBA @ 1M	72	
VFD rating	CONSTANT 20:1	
OUTLINE:	SS620004	
CONN DIAG:	A-EE7308	
0		
0