

PRODUCT INFORMATION PACKET

marathon[®]
Motors

Model No: 160MTFC6536

Catalog No: R334A

15 HP General Purpose, 3 phase, 1800 RPM, 230/460 V, 160M Frame, TEFC
Cast Iron TEFC Motors



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REGAL

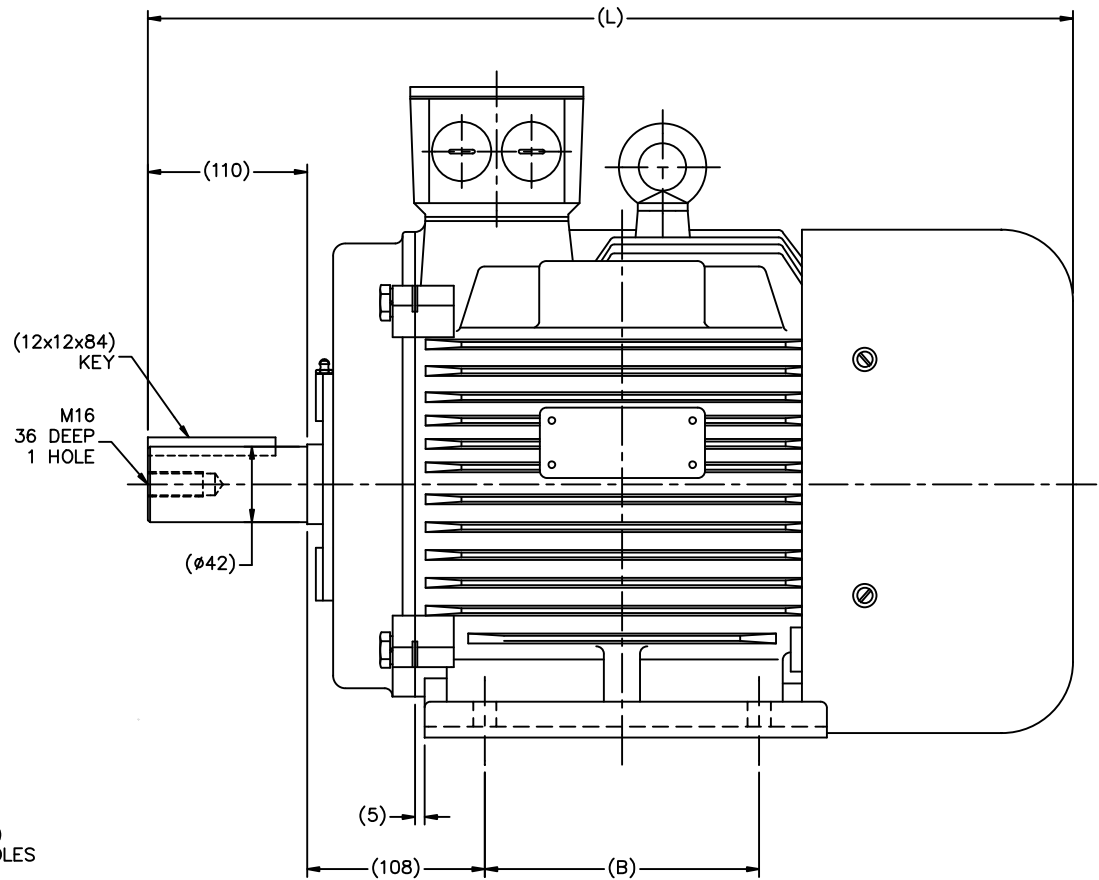
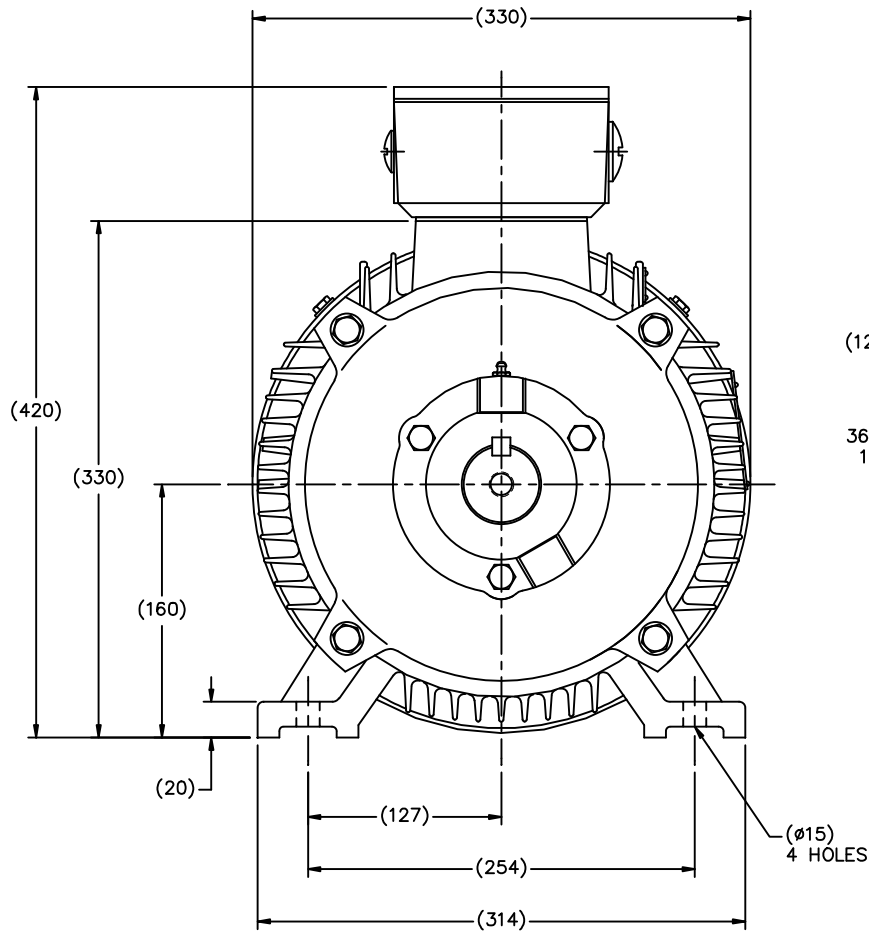
Nameplate Specifications

Output HP	15 Hp	Output KW	11.2 kW
Frequency	60 Hz	Voltage	230/460 V
Current	37.0/18.5 A	Speed	1775 rpm
Service Factor	1.15	Phase	3
Efficiency	92.4 %	Power Factor	82.5
Duty	Continuous	Insulation Class	F
Design Code	B	KVA Code	H
Frame	160M	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No	Ambient Temperature	40 °C
Drive End Bearing Size	6309	Opp Drive End Bearing Size	6209
UL	No	CSA	Y
CE	Y	IP Code	55

Technical Specifications

Electrical Type	Squirrel Cage Inverter Rated	Starting Method	Part Wdg Start & Wye Start Delta Run Or Inverter
Poles	4	Rotation	Reversible
Resistance Main	.129 Ohms	Mounting	Rigid Base
Motor Orientation	Horizontal	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Cast Iron
Shaft Type	IEC	Overall Length	23.62 in
Shaft Diameter	1.666 in	Shaft Extension	4.33 in
Assembly/Box Mounting	F3		
Connection Drawing	004172.01ME	Outline Drawing	B-SS622239


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(MAY NOT BE DRAWN TO SCALE)

(DIMENSIONS ARE IN MILLIMETERS)

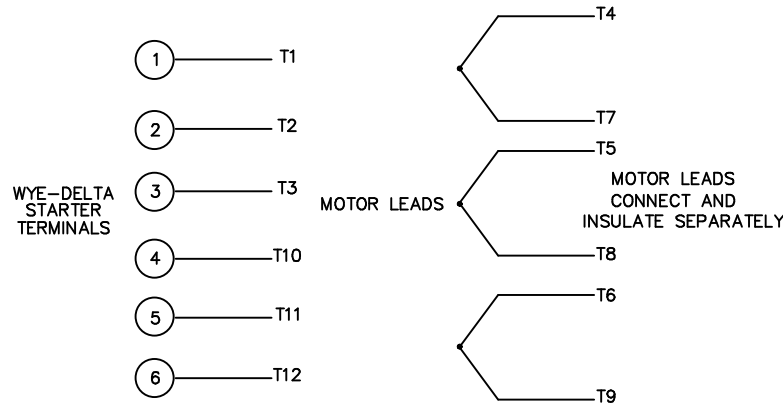
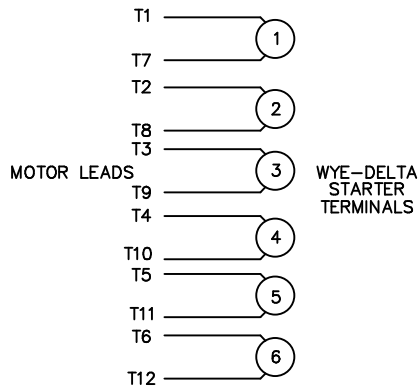
DF160M1-2R	193315.60	600	210
DF160M2-2R	193318.60	600	210
DF160M-4R	193316.60	600	210
DF160L-2R	193321.60	645	254
DF160L-4R	193319.60	645	254
DF160M-6R	193314.60	600	210
FRAME	PART #	L	B

		TOLERANCES UNLESS SPECIFIED		 REGAL-BELOIT CORPORATION		DRAWN MSG 11-17-2010	
		DEC.	METRIC			CHK MJS 11-18-2010	
		.X	±2.5	TITLE OUTLINE - IEC PREMIUM		APPD SB 11-18-2010	
		.XX	±.76	DF160-R (II)		SCALE 5=16	
		.XXX	±.127	MAT'L		REF	
		.XXXX	±.0127	FINISH		FMF HEBEI	
		ANG	±7'30"	RFP 11-18-2010		PREV	
NO. REVISION		BY & DATE		CAD FILE ss622239		SIZE B	DRAWING NO. PAGE OF REV. SS622239
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				DIST			

WYE - DELTA STARTING USEABLE ON 2,4 AND 6 POLE MOTORS.

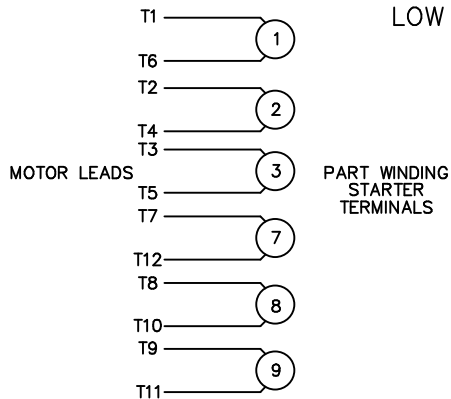
LOW VOLTAGE CONNECTION

HIGH VOLTAGE CONNECTION



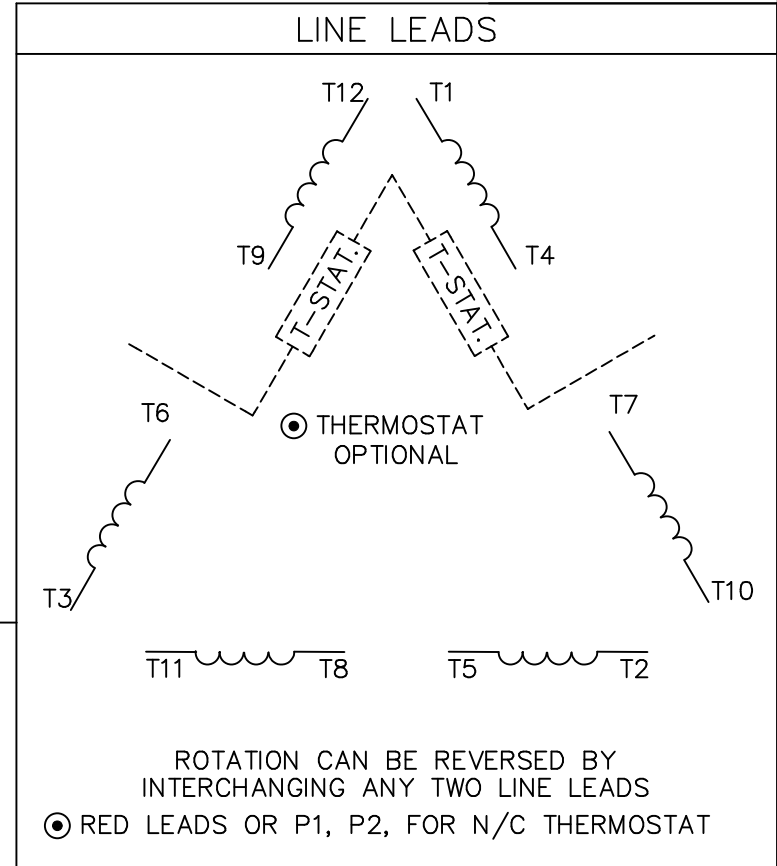
REFER TO THE WYE-DELTA STARTER CONNECTION INSTRUCTIONS FOR PROPER CONNECTION OF POWER LINES TO STARTER.

PART WINDING START USABLE ON 4 & 6 POLE MOTORS
LOW VOLTAGE CONNECTION ONLY



REFER TO THE PART WINDING STARTER INSTRUCTIONS FOR PROPER CONNECTION OF POWER LINES TO STARTER.

REFER TO THE CUTLER - HAMMER OR EQUIV. FOR PROPER SELECTION OF OVERLOAD HEATER COILS.



ACROSS THE LINE START & RUN				
	LINE 1	LINE 2	LINE 3	JOIN & INSULATE SEPARATELY
HIGH VOLT	T1, T12	T2, T10	T3, T11	(T4, T7) (T5, T8) (T6, T9)
LOW VOLT	T1, T6 T7, T12	T2, T4 T8, T10	T3, T5 T9, T11	

				TOLERANCES UNLESS SPECIFIED	
				DEC.	INCHES
				.X	±.1
03	REV'D LOW VOLTAGE CONN. LEADS PER ELEC.	BJB 06/07/00	.XX	±.01	
02	ADDED T-STAT. NOTES PER ELECTRICAL	KMM 06/02/98	.XXX	±.005	
01	REDRAWN TO CAD	DBT 06/02/97	.XXXX	±.0005	
NO.	REVISION	BY & DATE	CHK	ANG	±1/2'
			RFP		
			DIST		

TITLE DELTA - WYE CONNECTION DIAGRAM
MAT'L.
FINISH

DRAWN	WLW 09/08/77
CHK	RPB 09/12/77
APPD	JCW 09/12/77
SCALE	1=1
REF	
FMF	
PREV	
SIZE	DRAWING NO.
A	004172-01ME
REV.	03



P.O. BOX 9003
WAUSAU, WI 54401-9003
PH. 715-675-3311

DATA VOLTS: 460

CERTIFICATION DATA SHEET

CUSTOMER: _____
ORDER #: _____
CONN. DIAGRAM: 004172.01ME
OUTLINE: B-SS622239
WINDING: T12904005 NONE 3
SPEED: _____

CUSTOMER P.O. #: _____
REFERENCE MODEL #: 160MTFC6536
CAT #: R334A
CUSTOMER PART #: _____
MOUNTING: F3

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN	
15	11.2	1800	1765	160M	TEFC	TEFC	H	A	
PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB	ELEV.
3	60/50	230/460#200/400	36/18&31/15.5	PWS & YDRUN OR INV	CONT	F	1.15	40	3300

F.L. EFF	92.4	3/4 LD EFF	92.4	1/2 LD EFF	91.7	GTD EFF	0.0	ELECT. TYPE	SO CAGE INV RATED
F.L. PF	84.0	3/4 LD PF	78.0	1/2 LD PF	67.5				

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE		B.D. TORQUE		F.L. RISE (°C)	
44.6 LB-FT	140	126 LB-FT	283%	154 LB-FT	345%	45	

@ 3 FT.	POWER	ROTOR WK ³	MAX. LOAD WK ²	SAFE STALL TIME	STARTS/HOUR	MOTOR WGT
999 DBA	1008 DBA	2.09 LB-FT ²	2.1 LB-FT ²	15 SEC.	2	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	UM SEVERE	NONE	NO	NONE	BLUE (ENAMEL)

BEARINGS	GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT	MATERIAL	FRAME MATERIAL
DE ODE BALL BALL 6309	POLYREX EM	STANDARD IEC	NONE	NONE	1045 HOT ROLLED (C-204		CAST IRON

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 ODE
0	0	0	0	0	0.080	

INVERTER TORQUE: CONSTANT 10:1
INV. HP SPEED RANGE: 1.5 X BASE SPEED

ENCODER: NONE	NONE	NONE	NONE	BRAKE: NONE	NONE	NONE	PPR
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PREPARED BY: EARL BABBITTS
DATE: 5/5/2017

FORM: 3531 REV_4 2/27/06
UL: NONE
HZ:

Data Sheet

Date: 5/5/2017

Customer:

Attention:

Submitted by:

EARL BABBITTS



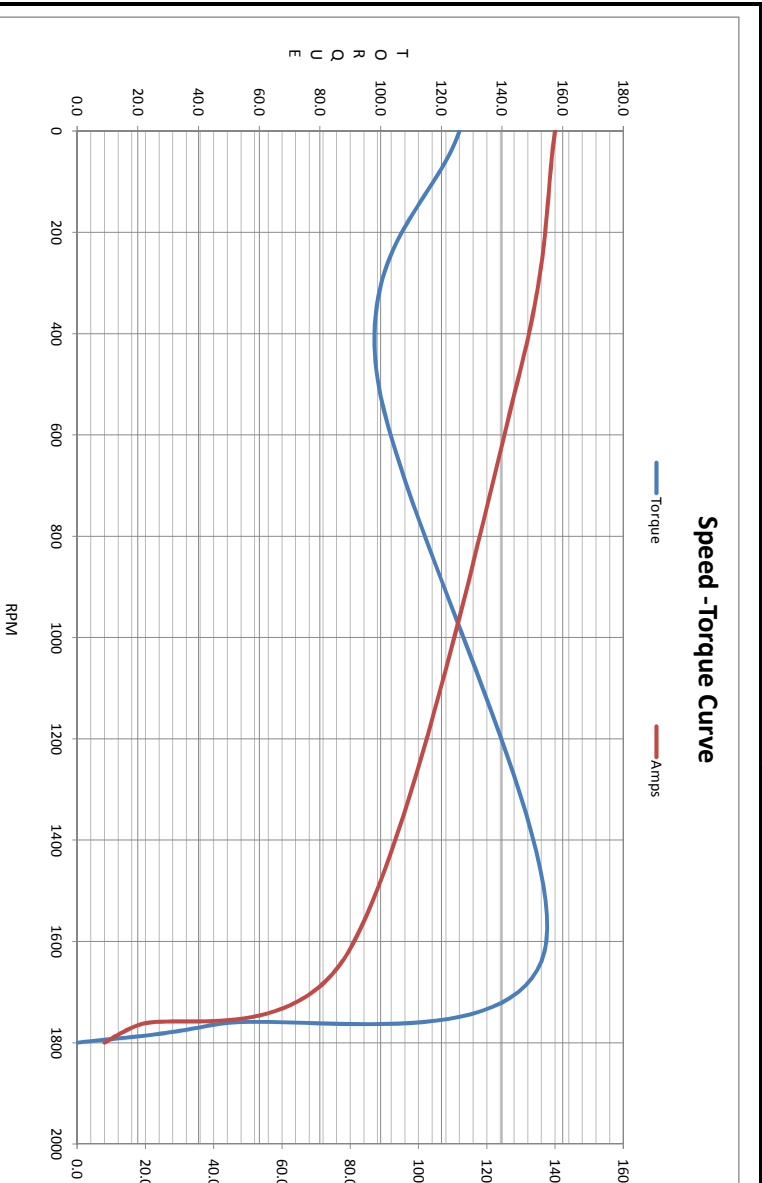
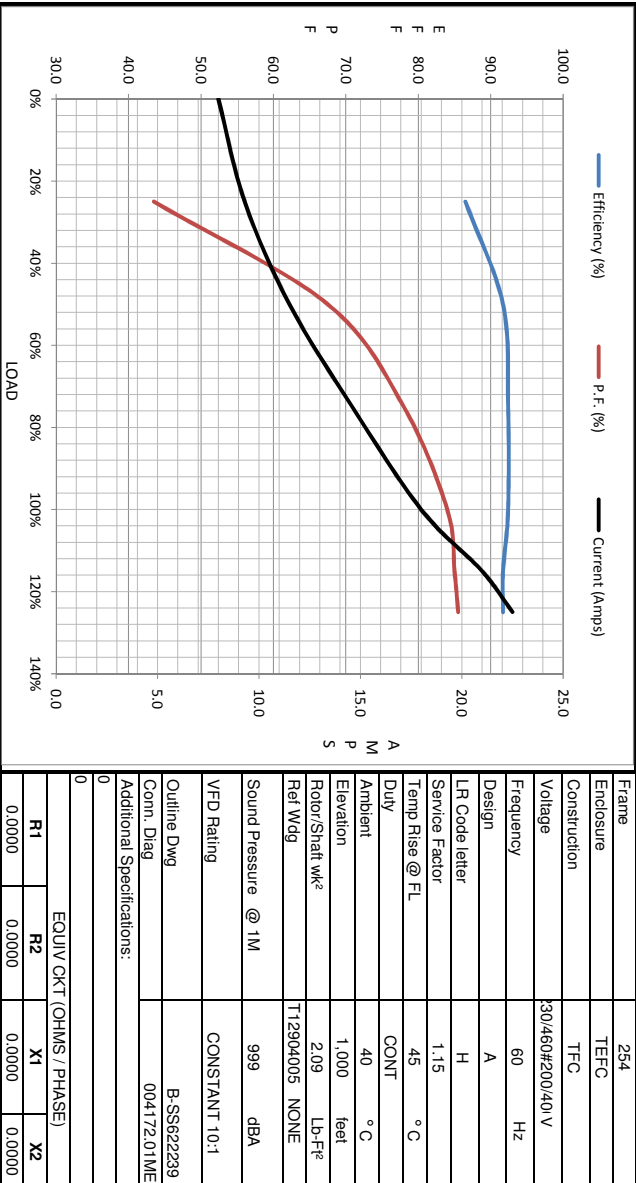
160MTFC6536

Submital

Data @ 460 V

Load	Motor Load Data							
	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	8.0	9.3	11.5	14.6	18.0	21.0	22.5	140
Torque (ft-lb)	0.00	11.0	22.0	33.2	44.6	51.3	55.7	126
RPM	1800	1794	1788	1780	1765	1,770	1765	0
Efficiency (%)		86.5	91.7	92.4	92.4	91.7	91.7	
P.F. (%)	6.0	43.5	67.5	78.0	84.0	85.0	85.5	0.0

	Motor Speed Data					Information Block																		
	LR	Pull-Up	BD	Rated	Idle	HP	Frame	Enclosure	Construction	Voltage	Frequency	Design	LR Code letter	Service Factor	Temp Rise @ FL	Duty	Ambient Elevation	Motor/Shaft wk ²	Ret Wdg	Sound Pressure @ 1M	VFD Rating	Outline Dwg	Conn. Diag	Additional Specifications:
Speed (RPM)	0	467	1620	1765	1800	150	254	TEFC	TFC	30/460#200/40 V	60	A	H	1.15	45	CONT	40 °C	1,000	2/09	999	CONSTANT 10:1	B-SS62239	004172.01ME	
Current (Amps)	140	130	79.5	18.0	8.0		1800																	
Torque (ft-lb)	126	98.5	154	44.6	0.00																			



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



Torque Capability Curve

REF: 160MTFC6536
 Data @ 460 Volts

HP	0.00	0.00	15	15	15	125
Min CT RPM						
Base RPM	15	15	15	15	15	15
CHP RPM						
Max CHP RPM						
Max RPM						
Peak RPM						
Volts (volts)	-	0	460	460	460	460
Frequency (HZ)	0	0	60	90	91	89
RPM	0	0	1,765	2,700	2,700	2,682
Current (Amps)	18.0	18.0	18.0	18.0	18.0	158
Rated Tq (ft-lb)	44.6	44.6	44.6	29.2	29.2	245
Peak Tq (ft-lb)	142	142	142	58.0	58.0	58.8

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	15.0
Sync. RPM	1,800
Frame	254
Enclosure	TEFC
Construction	TEFC
Voltage	230/460#200/400
Frequency	60 Hz
Duty	CONT
Design	A
LR Code letter	H
Poles	4
Temp Rise @ FL	45 °C
Ambient	40 °C
Elevation	1,000 feet
Ref Wdg	T12904005
R #	NONE
dBa @ 1M	999
VFD rating	CONSTANT 10:1
OUTLINE:	B-SS622239
CONN DIAG:	004172.01ME

