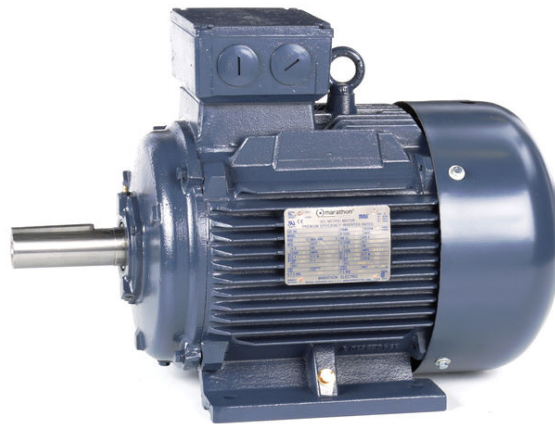


PRODUCT INFORMATION PACKET

Model No: 160MTFC6536
Catalog No: R334A
15,1800,TEFC,160M,3/60/230/460
TEFC



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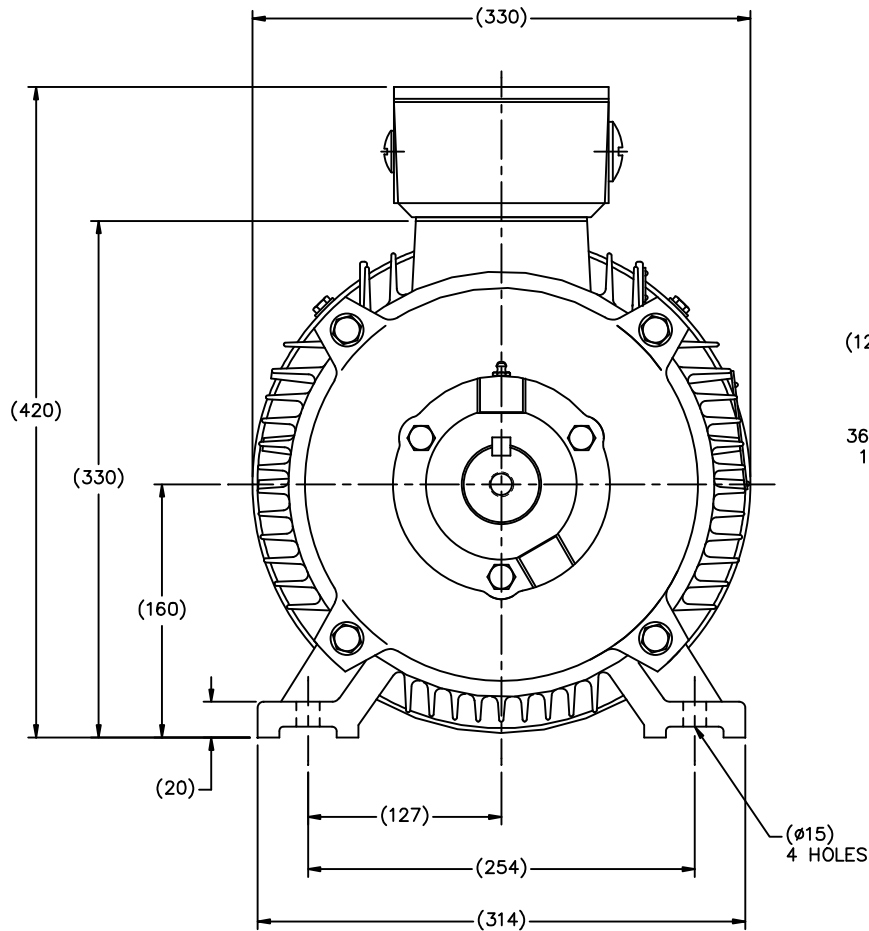
Nameplate Specifications

Output HP	15 Hp	Output KW	11.2 kW
Frequency	60 Hz	Voltage	230/460 V
Current	37/18.5 A	Speed	1775 rpm
Service Factor	1.15	Phase	3
Efficiency	92.4 %	Duty	CONTINUOUS
Insulation Class	F	Design Code	B
KVA Code	H	Frame	160M
Enclosure	TEFC	Overload Protector	NOT
Ambient Temperature	40 °C	Drive End Bearing Size	6309
Opp Drive End Bearing Size	6209	UL	No
CSA	Y	CE	Y
IP Code	55		

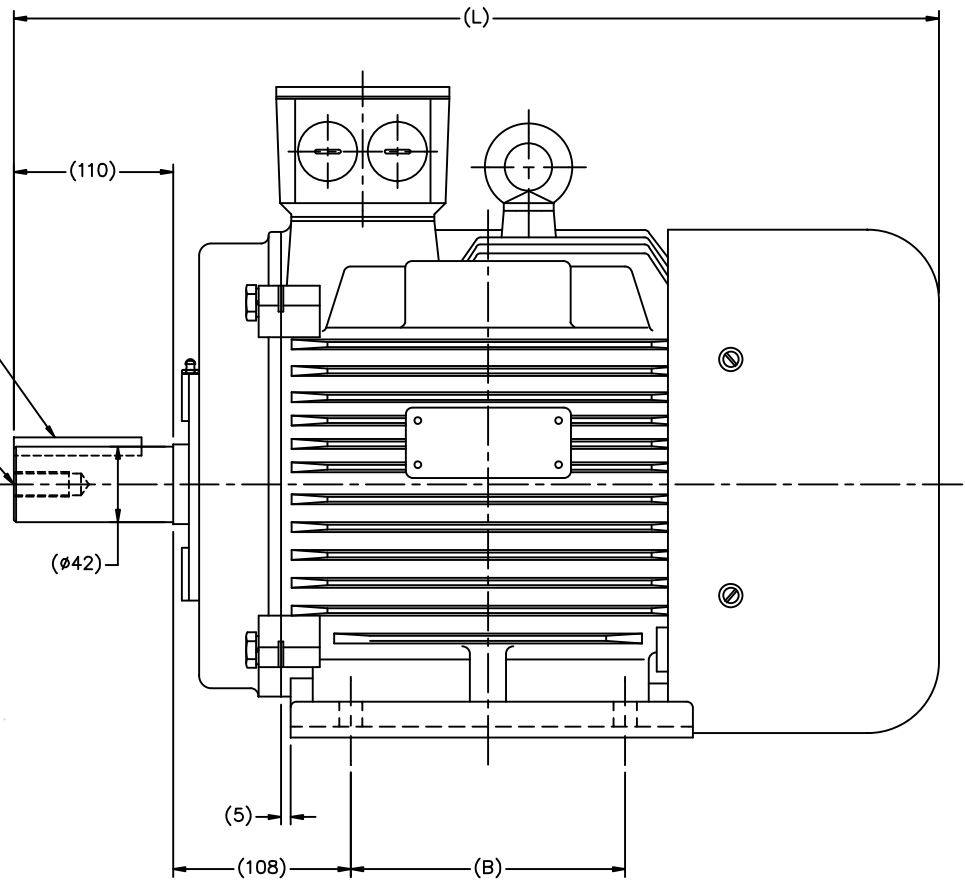
Technical Specifications

Electrical Type	SQ CAGE INV RATED	Starting Method	PWS & YDRUN OR INV
Poles	4	Rotation	REV
Mounting	RIGID	Motor Orientation	HORIZONTAL
Drive End Bearing	BALL	Opp Drive End Bearing	BALL
Frame Material	CAST IRON	Shaft Type	STANDARD IEC
Overall Length	23.62 in	Shaft Diameter	1.67 in
Shaft Extension	4.33 in	Assembly/Box Mounting	F3
Outline Drawing	B-SS622239	Connection Diagram	004172.01ME

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(12x12x84)
KEY
M16
36 DEEP
1 HOLE



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

(MAY NOT BE DRAWN TO SCALE)

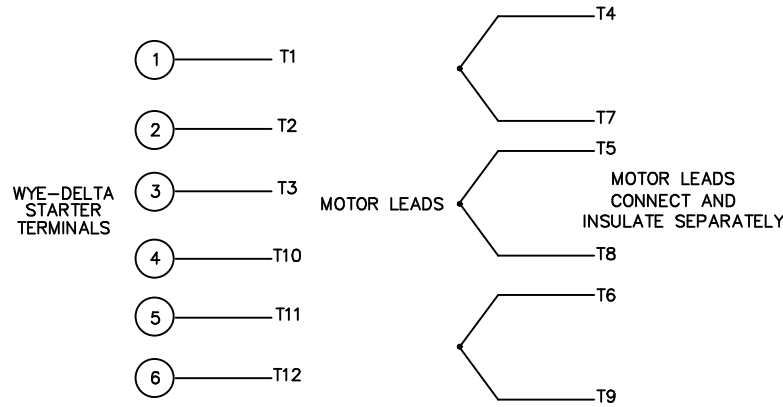
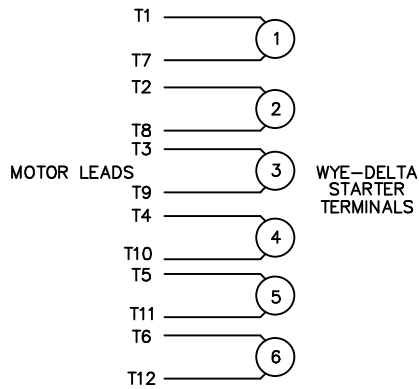
(DIMENSIONS ARE IN MILLIMETERS)

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

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

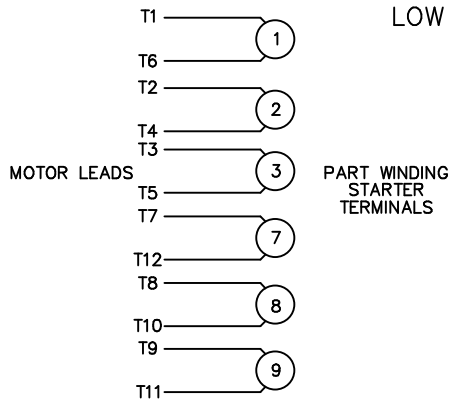
LOW VOLTAGE CONNECTION

HIGH VOLTAGE CONNECTION



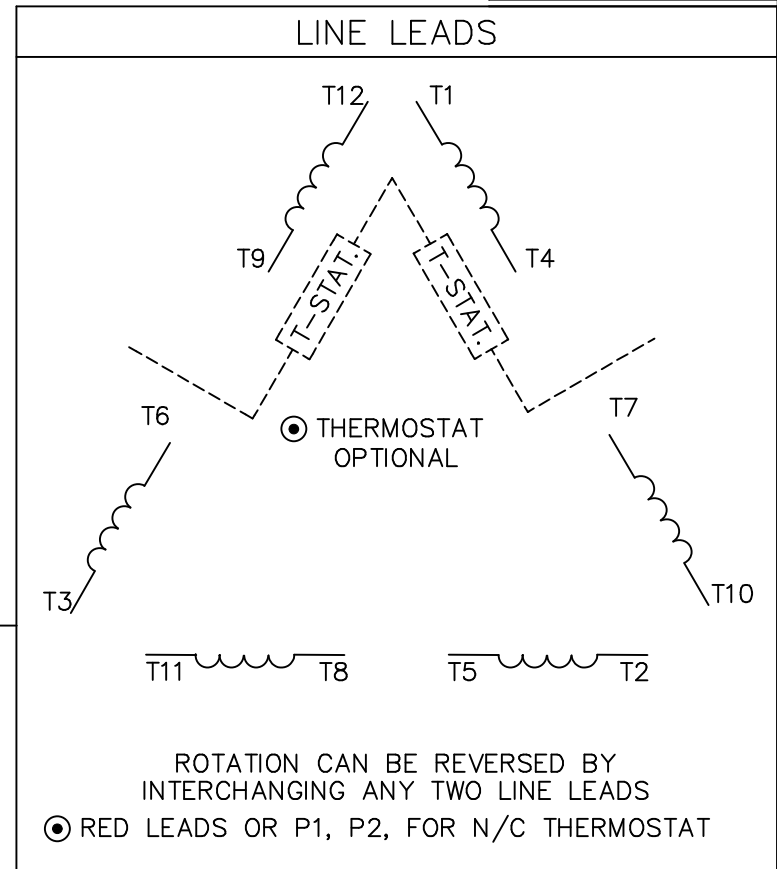
REFER TO THE WYE-DELTA STARTER CONNECTION INSTRUCTIONS FOR PROPER CONNECTION OF POWER LINES TO STARTER.

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		

MARATHON ELECTRIC

DRAWN WLW 09/08/77
 CHK RPB 09/12/77
 APPD JCW 09/12/77

TITLE DELTA - WYE CONNECTION DIAGRAM
 SCALE 1=1
 REF
 FMF
 PREV

CAD FILE 00417201ME
 SIZE A
 DRAWING NO. 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	67.5	ELECT. TYPE	SO CAGE INV RATED
F.L. PF	84.0	3/4 LD PF	78.0	1/2 LD PF	67.5	0.0			

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

@ 3 FT.	POWER	ROTOR WK ³	MAX. LOAD WK ²	SAFE STALL TIME	STARTS/HOUR	MOTOR WGT
999	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
0	0	0	0	0	0.080	ODE

* N O T E S		INVERTER TORQUE: CONSTANT 10:1 INV. HP SPEED RANGE: 1.5 X BASE SPEED
ENCODER: NONE		
BRAKE: NONE		
FT-LB: NONE		NA
VOLTAGE: NONE		NA
UL: NONE		

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

FORM: 3531 REV_4 2/27/06

Data Sheet



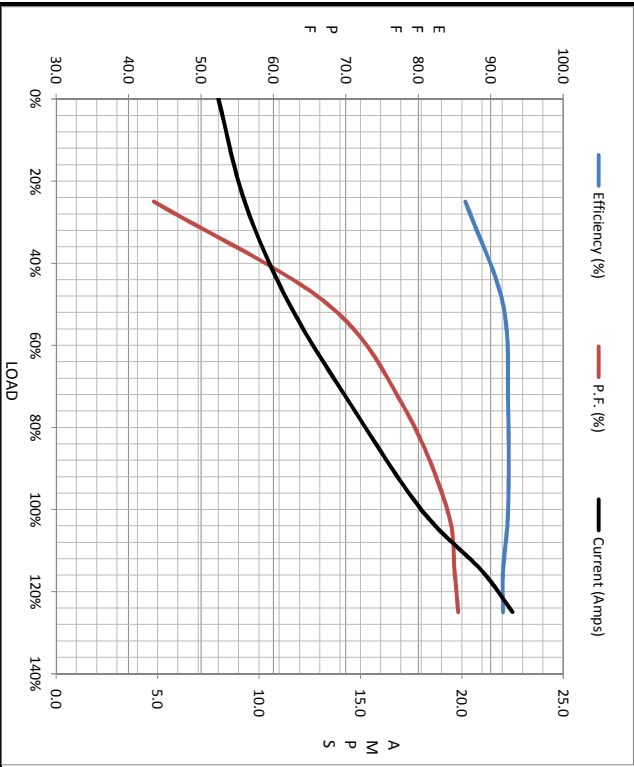
160MTFC6536

Submital
Data @ 460 V

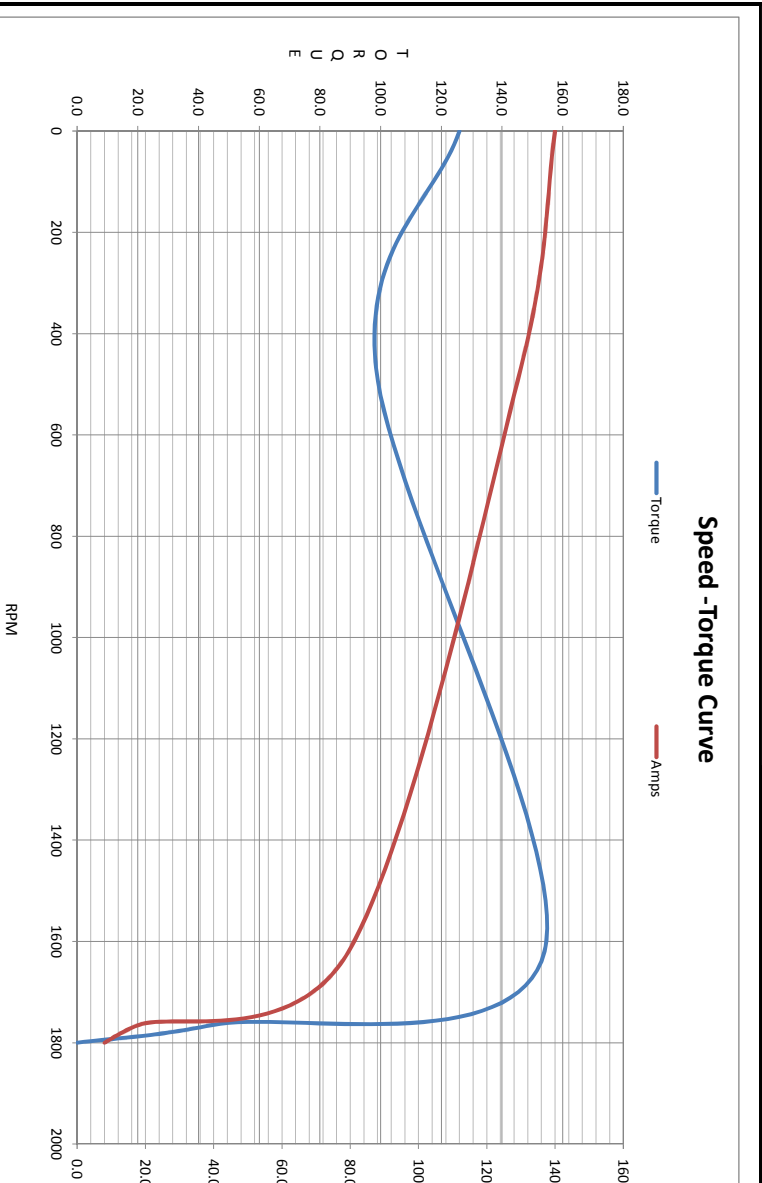
Date: 5/5/2017
Customer: EARL BABBITTS
Attention: EARL BABBITTS
Submitted by:

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	14.0		
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	15.0	254	TEFC	TFC	30/460#200/40 V	60	A	H	1.15	45	CONT	40 °C	1,000 feet	2.09 Lb-Ft ²	T12904005 NONE	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																				



	R1	R2	X1	X2	Xm
EQUIV CKT (OHMS / PHASE)	0.0000	0.0000	0.0000	0.0000	0.0000



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



Torque Capability Curve

REF: 160MTFC6536
 Data @ 460 Volts

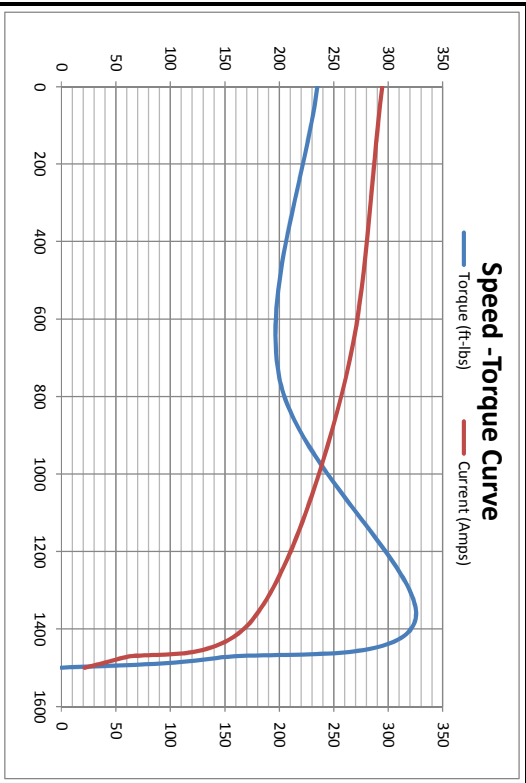
HP	0.00	0.00	15	15	15	125
Min CT RPM	0	0	60	90	91	89
Base RPM	0	0	1,765	2,700	2,700	2,682
CHP RPM	18.0	18.0	18.0	18.0	18.0	150
Max CHP RPM	44.6	44.6	44.6	29.2	29.2	245
Peak Tq (ft-lb)	142	142	142	58.0	58.0	58.8

Motor Speed Data

Locked Rotor	Pull-Up	Breakdown	Rated Load	Idle	HP
0	750	1375	1475	1500	15.0
295	261	176	55.1	21.4	1,800
Torque (ft-lbs)	235	325	142	0.00	254

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



Tq Capability Curve

