PRODUCT INFORMATION PACKET

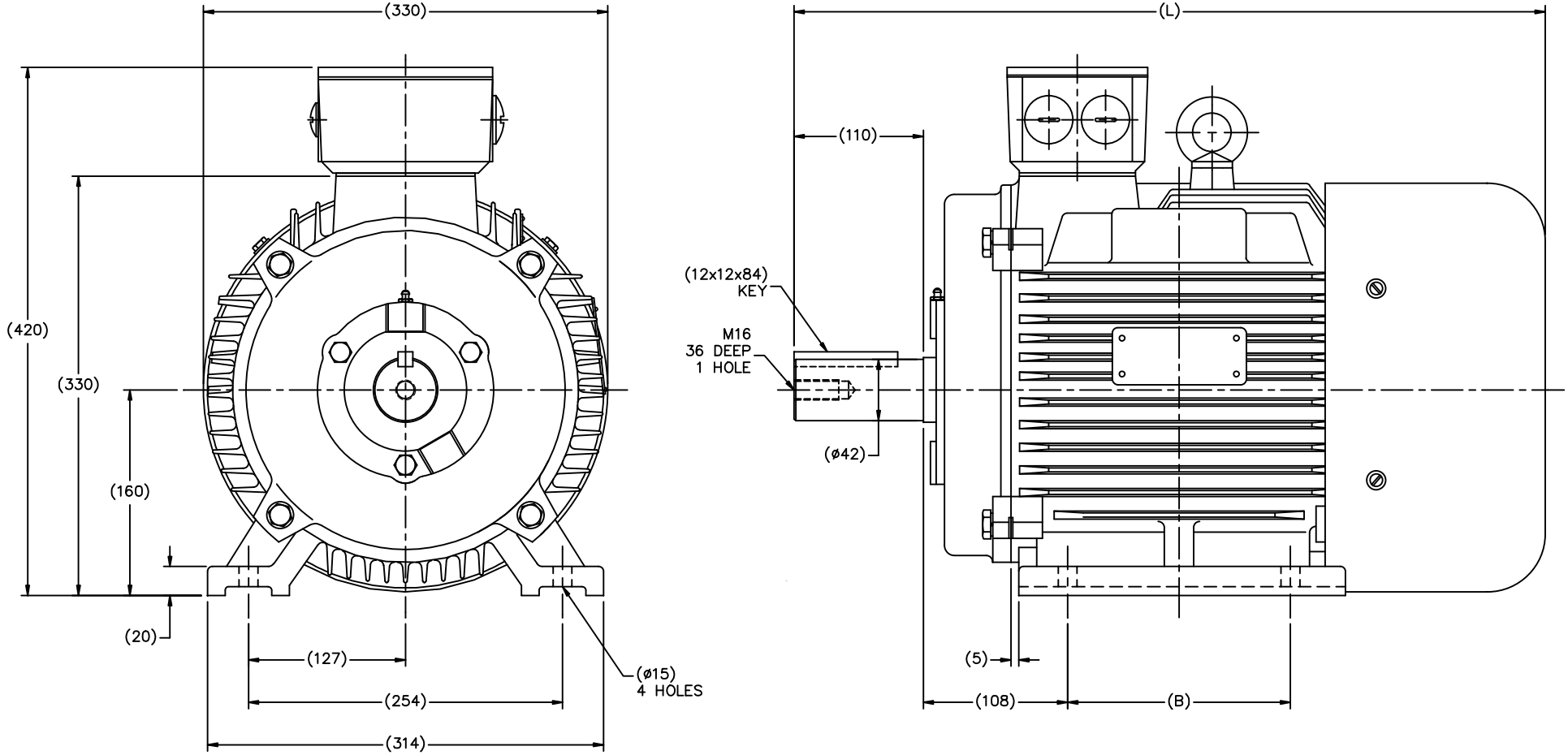
Model No: 160MTFC6536
Catalog No: R334A
15 HP General Purpose, 3 phase, 1800 RPM, 230/460 V, 160M Frame, TEFC
Cast Iron Motors

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
Number of Speeds	1		

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	Inverter Load	CONSTANT 10:1
Connection Drawing	004172.01ME	Outline Drawing	B-SS622239



FRAME	PART #	L	B
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

(MAY NOT BE DRAWN TO SCALE)

(DIMENSIONS ARE IN MILLIMETERS)

NO.	REVISION	BY & DATE	CHK

TOLERANCES UNLESS SPECIFIED

DEC.	METRIC
.X	±2.5
.XX	±.76
.XXX	±.127
.XXXX	±.0127
ANG	±7'30"

REGAL-BELOIT CORPORATION

DRAWN MSG 11–17–2010
CHK MJS 11–18–2010
APPD SB 11–18–2010
SCALE 5=16
REF
FMF HEBEI
PREV

TITLE OUTLINE – IEC PREMIUM DF160–R (II)

MAT'L.

FINISH

RFP 11–18–2010

CAD FILE ss622239

DIST

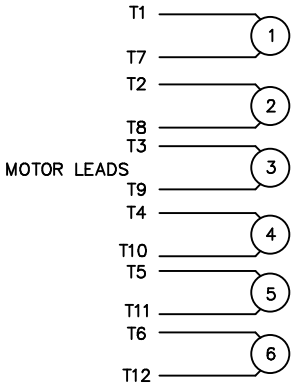
SIZE B

DRAWING NO. SS622239 PAGE OF

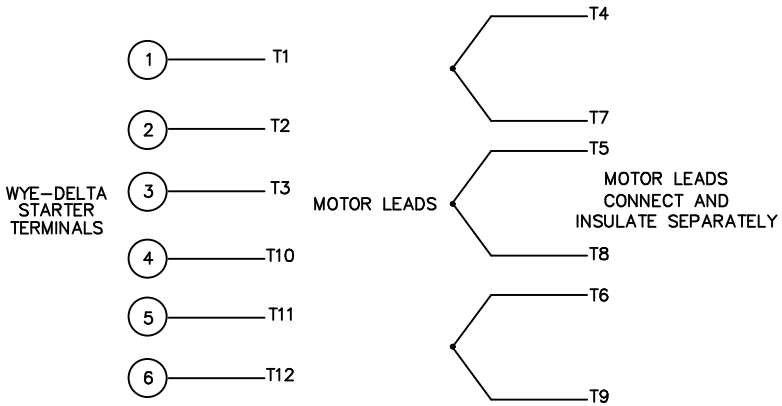
REV.

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

LOW VOLTAGE CONNECTION

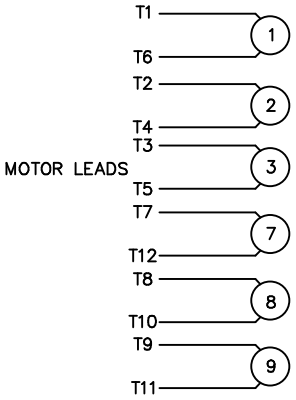


HIGH VOLTAGE CONNECTION



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

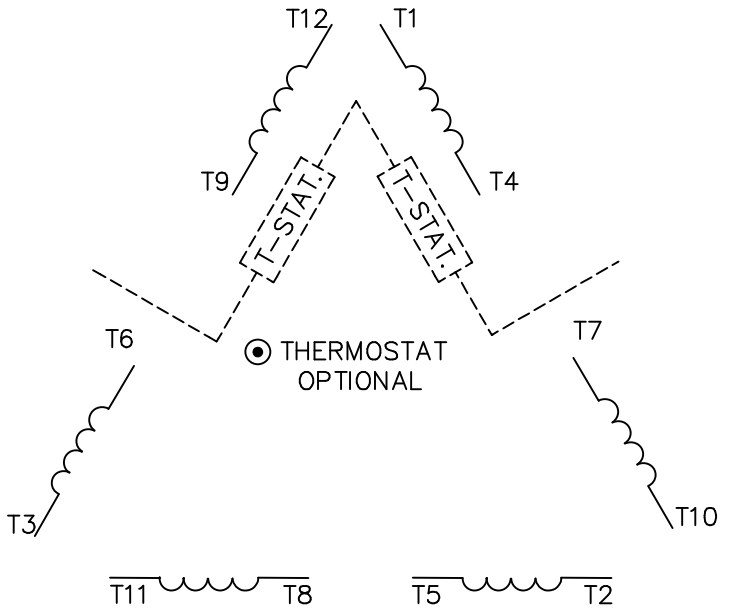
PART WINDING START USABLE ON 4 & 6 POLE MOTORS
LOW VOLTAGE CONNECTION ONLY



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.

LINE LEADS



ROTATION CAN BE REVERSED BY INTERCHANGING ANY TWO LINE LEADS

⦿ RED LEADS OR P1, P2, FOR N/C THERMOSTAT

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	

NO.	REVISION	BY & DATE	CHK
03	REV'D LOW VOLTAGE CONN. LEADS PER ELEC.	BJB 06/07/00	
02	ADDED T–STAT. NOTES PER ELECTRICAL	KMM 06/02/98	
01	REDRAWN TO CAD	DBT 06/02/97	

TOLERANCES UNLESS SPECIFIED

DEC.	INCHES
.X	±.1
.XX	±.01
.XXX	±.005
.XXXX	±.0005
ANG	±1/2°

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	
MAT'L.	
FINISH	
PREV	
RFP	
DIST	
CAD FILE	00417201ME
SIZE	A
DRAWING NO.	004172–01ME
REV.	03

6/28/2007 3:22:24 PM -

P.O. BOX 8003
WAUSAU, WI 54401-8003
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	TFC	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	ELECT. TYPE
F.L. PF	84.0	3/4 LD PF	78.0	1/2 LD PF	67.5	0.0	SQ CAGE INV RATED

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 WK²	MAX. LOAD WK²	SAFE STALL TIME	STARTS/HOUR	MOTOR WGT
999 dBA	1008 dBA	2.09 LB-FT²	2.1 LB-FT²	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 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
6309	6209						

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

*
NOTES
*

INVERTER TORQUE: CONSTANT 10:1
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

160MTFC6536

Submittal

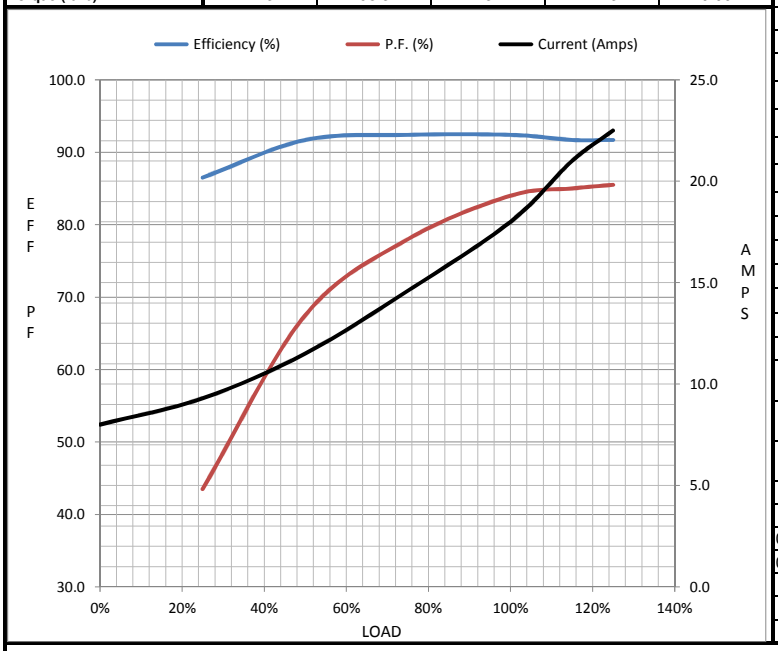
Data @ 460 V

Motor Load Data

Load	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

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	467	1620	1765	1800
Current (Amps)	140	130	79.5	18.0	8.0
Torque (ft-lb)	126	98.5	154	44.6	0.00



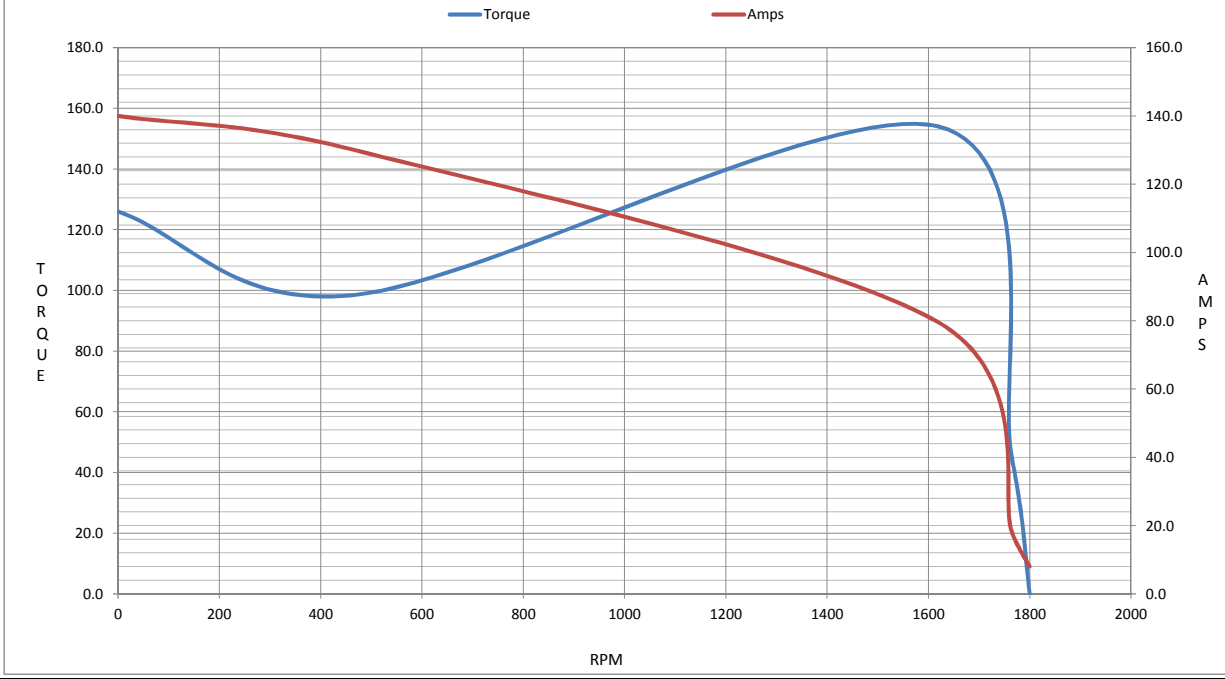
Information Block

HP	15.0
Sync. RPM	1800
Frame	254
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	45 °C
Duty	CONT
Ambient	40 °C
Elevation	1,000 feet
Rotor/Shaft wk²	2.09 Lb-Ft²
Ref Wdg	T12904005 NONE
Sound Pressure @ 1M	999 dBA
VFD Rating	CONSTANT 10:1
Outline Dwg	B-SS622239
Conn. Diag	004172.01ME
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
Customer:
Attention:
Submitted by: EARL BABBITTS

REF: 160MTFC6536

marathon electric

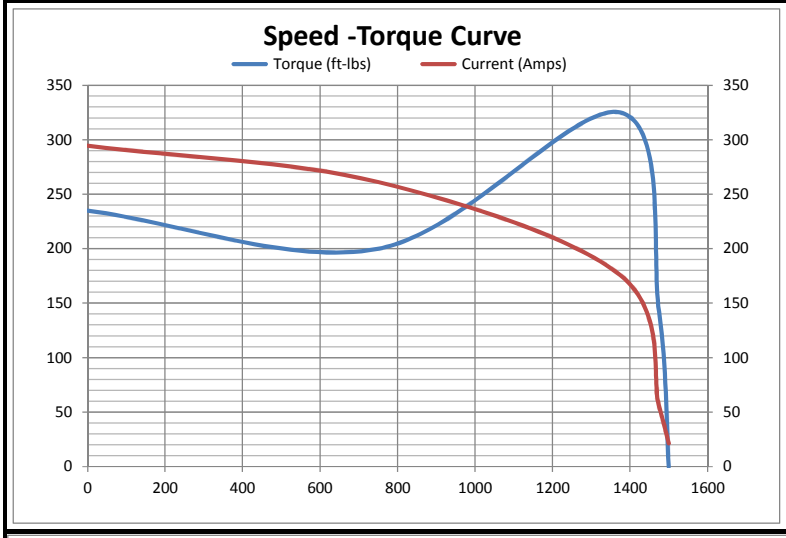
Torque Capability Curve

Data @ 460 Volts

		Min CT RPM	Base RPM	CHP	RPM	Max CHP RPM	Max	RPM	Peak
HP	0.00	0.00	15	15		15	125		
Voltage (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	150		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	TFC	
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	
0		
0