

PRODUCT INFORMATION PACKET

marathon®
Motors

Model No: 160LTFC6513

Catalog No: R339A

Globetrotter® IEC Cast Iron Motor, 25 & 20 HP, 3 Ph, 60 & 50 Hz, 230/460 & 200/400 V,
3600 & 3000 RPM, 160L Frame, TEFC



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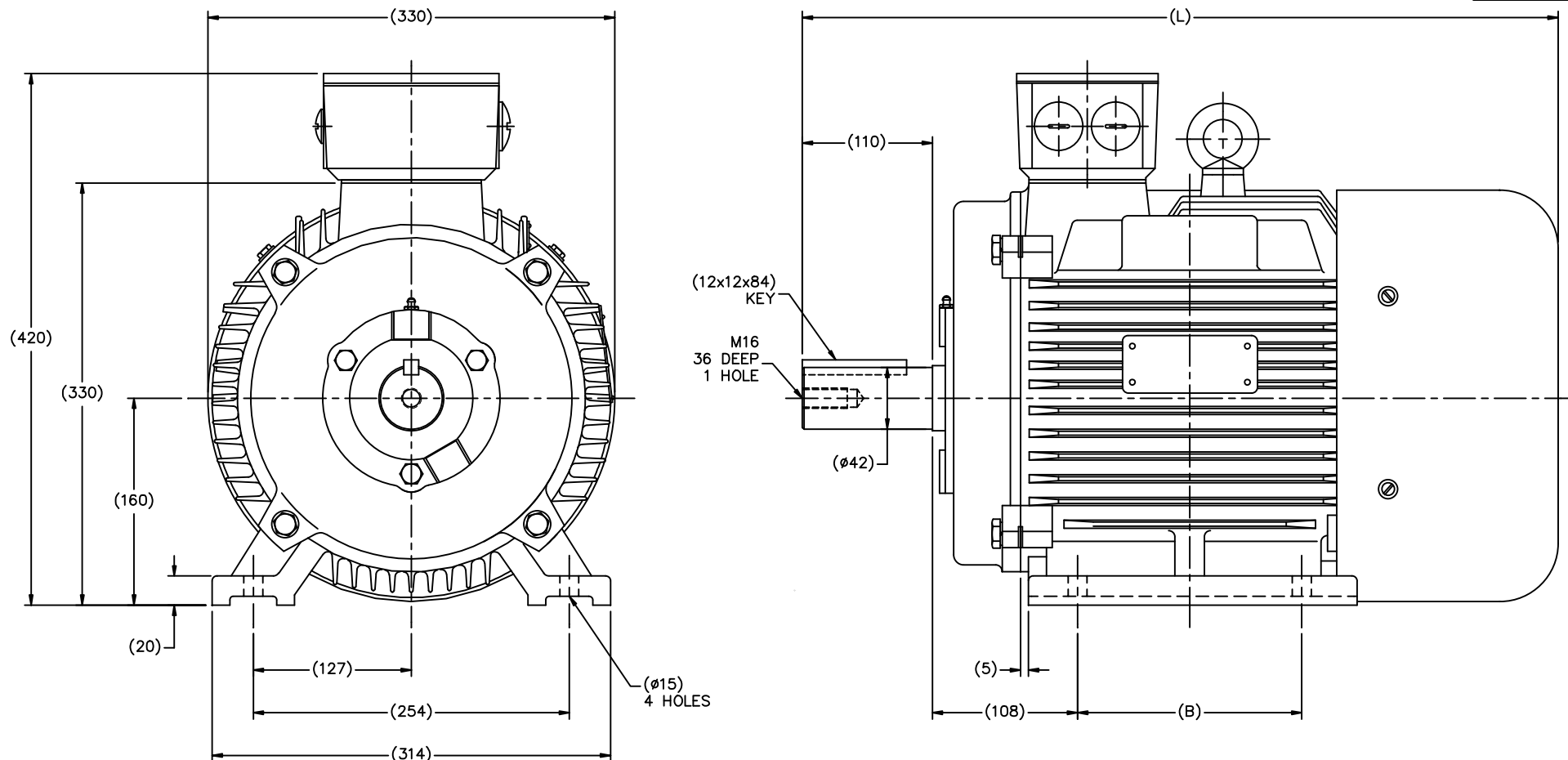
RegalRexnord

Nameplate Specifications

Phase	3	Output HP	25 & 20 Hp
Output KW	18.7 & 14.9 kW	Voltage	230/460 & 200/400 V
Speed	3530 & 2930 rpm	Service Factor	1.15 & 1.15
Frame	160L	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No Protection	Efficiency	91.7 & 90.3 %
Ambient Temperature	40 °C	Frequency	60 & 50 Hz
Current	58/29 & 55/27.5 A	Power Factor	87.5
Duty	Continuous	Insulation Class	F
Design Code	B	KVA Code	G
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	2	Rotation	Reversible
Resistance Main	.2933 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	25.39 in
Shaft Diameter	1.666 in	Shaft Extension	4.33 in
Assembly/Box Mounting	F3	Inverter Load	CONSTANT 2:1
Outline Drawing	SS622239	Connection Drawing	004172.03



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

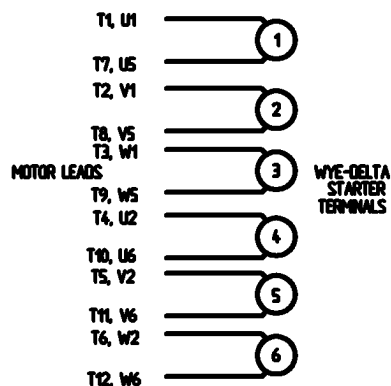
(MAY NOT BE DRAWN TO SCALE)

(DIMENSIONS ARE IN MILLIMETERS)

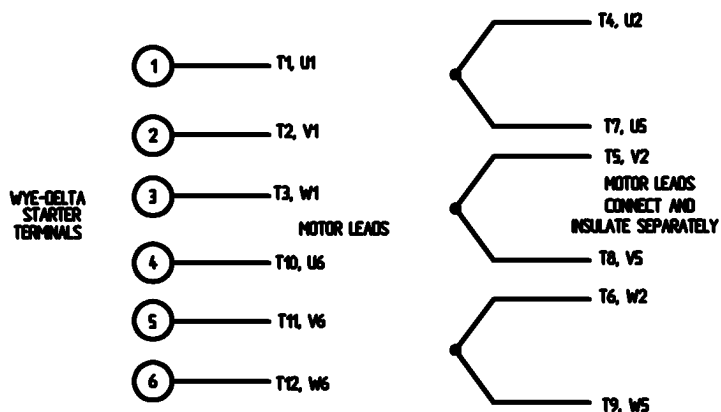
TOLERANCES UNLESS SPECIFIED				DRAWN MSG 11-17-2010			
		DEC.	METRIC	CHK		MJS 11-18-2010	
		.X	±2.5	APPD		SB 11-18-2010	
		.XX	±.76	SCALE		5=16	
		.XXX	±.127	REF		HEBEI	
		.XXX	±.0127	MAT'L		PREV	
		ANG	±7°30"	FINISH		REV.	
NO.		REVISION	BY & DATE	RFP		11-18-2010	
		THIS DRAWING IN DESIGN AND DETAIL 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		ss622239	
				SIZE		DRAWING NO. PAGE OF	
				B		SS622239	

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

LOW VOLTAGE CONNECTION

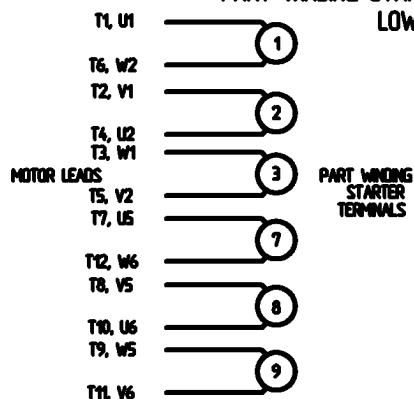


HIGH VOLTAGE CONNECTION



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

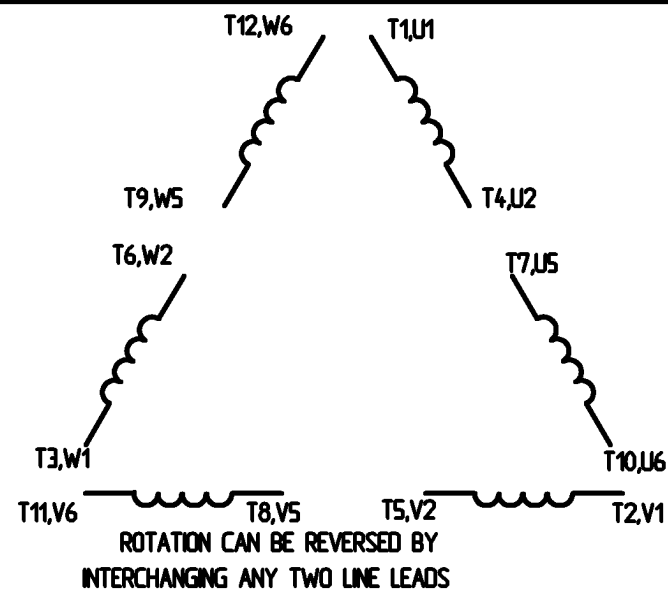
PART WINDING START USABLE ON 4 & 6 POLE MOTORS LOW VOLTAGE CONNECTION ONLY



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.

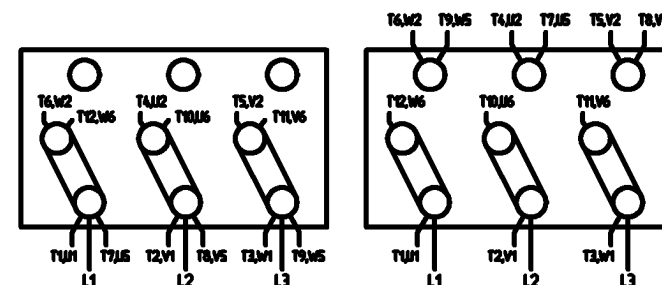
LINE LEADS



12 LEAD DELTA CONNECTION ACROSS THE LINE START (FOR Y START DELTA RUN, REMOVE THE JUMPERS)

LOW VOLTAGE
(MUST BE REWIRED AS SHOWN)

HIGH VOLTAGE
(FACTORY WIRED FOR HIGH VOLTAGE AS SHOWN)



				TOLERANCES UNLESS SPECIFIED		LEESON ELECTRIC MOTORS GEARMOTORS AND DRIVES	DRAWN C/W 08/28/02	
				DEC.	INCHES		CHK	
				X	± .1		APPO	
				XX	± .01		SCALE	1:1
				XXX	± .005		REF	
				XXXX	± .0005	MAT'L	FMF	
NO.	REVISION	BY & DATE	CHK	ANG	± 1/2°	FINISH	PREV	
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				DST				A
								DRAWING NO.
								004172-03
								REV.

ERROR: syntaxerror
OFFENDING COMMAND: --nostringval--

STACK:

/CB
-dictionary-
/Pscript_WinNT_Compat
-dictionary-



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

DATA VOLTS: 460

CERTIFICATION DATA SHEET

CUSTOMER: _____
ORDER #: _____
CONN. DIAGRAM: 004172.03
OUTLINE: SS622239
WINDING: T12902028 NONE 3
SPEED: _____

CUSTOMER P.O. #: _____
REFERENCE MODEL #: 160LTFC6513
CAT #: R339A
CUSTOMER PART #: _____
MOUNTING: F3

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
25	18.7	3600	3530	160L	TEFC	TFC	G	N

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB	ELEV.
3	60/50	230/460#200/400	58/29&55/27.5	PWS & YDRUN OR INV	CONT	F	1.15	40	3300

F.L. EFF	91.7	3/4 LD EFF	92.4	1/2 LD EFF	91.7	GTD EFF		ELECT. TYPE	
F.L. PF	87.5	3/4 LD PF	86.5	1/2 LD PF	81.5	90.2		SQ CAGE INV RATED	

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (°C)	
37.0 LB-FT	163	73.0 LB-FT 197%	90.0 LB-FT 243%	65	

@ 3 FT.	POWER	ROTOR WK²	MAX. LOAD WK²	SAFE STALL TIME	STARTS/HOUR	MOTOR WGT
69 dBA	78 dBA	0.00 LB-FT²	0 LB-FT²	15 SEC.	2	305 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	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

* N O T E S *		INVERTER TORQUE: CONSTANT 2:1 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 UL: NONE
		HZ:

FORM: 3531 REV_4 2/27/06

Data Sheet

Date: 5/5/2017

Customer: _____

Attention: _____

Submitted by: EARL BABBITTS



160LTC6513

Submittal

Data @ 460 V

Motor Load Data

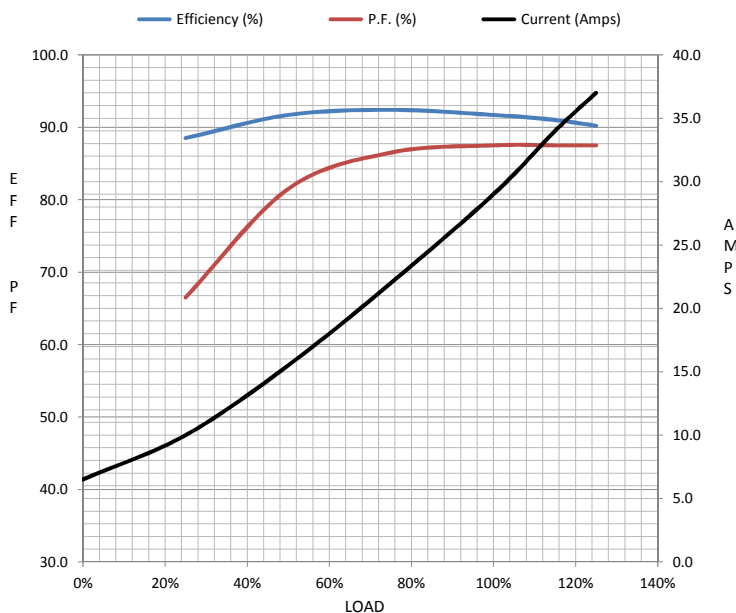
Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	6.5	10.0	15.5	22.0	29.0	34.0	37.0	163	
Torque (ft-lb)	0.00	9.2	18.5	27.8	37.0	43.0	47.0	73.0	
RPM	3600	3585	3570	3550	3530	3,520	3510	0	
Efficiency (%)		88.5	91.7	92.4	91.7	91.0	90.2		
P.F. (%)	9.5	66.5	81.5	86.5	87.5	87.5	87.5	41.5	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	1000	3315	3530	3600
Current (Amps)	163	162	99.5	29.0	6.5
Torque (ft-lb)	73.0	66.5	90.0	37.0	0.00

Information Block

HP	25.0			
Sync. RPM	3600			
Frame	160			
Enclosure	TEFC			
Construction	TFC			
Voltage	30/460#200/40 V			
Frequency	60 Hz			
Design	B			
LR Code letter	G			
Service Factor	1.15			
Temp Rise @ FL	65 ° C			
Duty	CONT			
Ambient	40 ° C			
Elevation	1,000 feet			
Rotor/Shaft wk²	0.00 Lb-Ft²			
Ref Wdg	T12902028 NONE			
Sound Pressure @ 1M	69 dBA			
VFD Rating	CONSTANT 2:1			
Outline Dwg	SS622239			
Conn. Diag	004172.03			
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

