

PRODUCT INFORMATION PACKET

marathon®
Motors

Model No: 180LTFC6538

Catalog No: R343A

Globetrotter® IEC Cast Iron Motor, 30 & 25 HP, 3 Ph, 60 & 50 Hz, 230/460 & 200/400 V,
1800 & 1500 RPM, 180L Frame, TEFC



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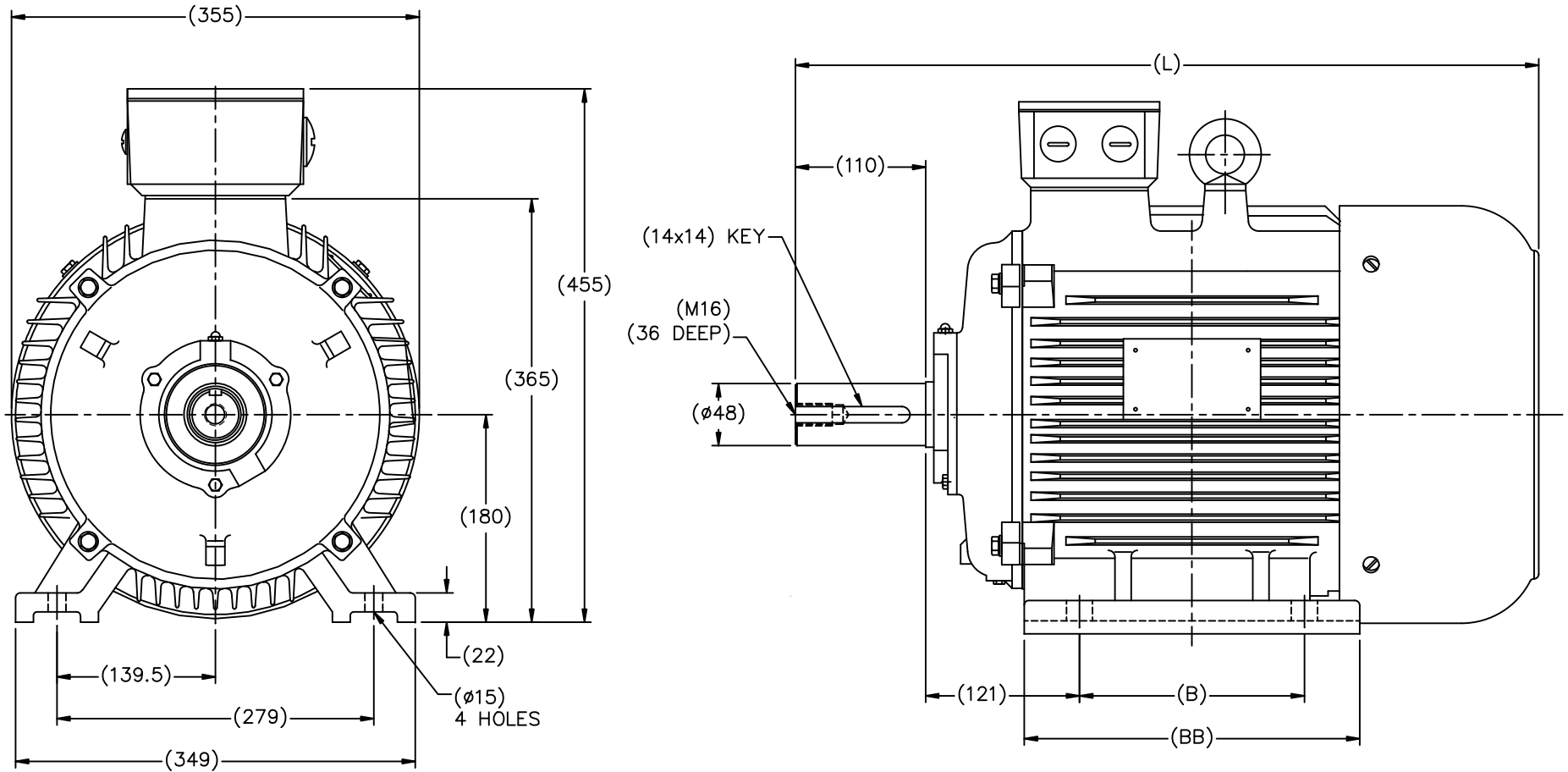
RegalRexnord

Nameplate Specifications

Phase	3	Output HP	30 & 25 Hp
Output KW	22.4 & 18.7 kW	Voltage	230/460 & 200/400 V
Speed	1770 & 1480 rpm	Service Factor	1.15 & 1.15
Frame	180L	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No Protection	Efficiency	94.1 & 93 %
Ambient Temperature	40 °C	Frequency	60 & 50 Hz
Current	70/35 & 69/34.5 A	Power Factor	85
Duty	Continuous	Insulation Class	F
Design Code	B	KVA Code	H
Drive End Bearing Size	6311	Opp Drive End Bearing Size	6211
UL	No	CSA	N
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	.052 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	26.77 in
Shaft Diameter	1.888 in	Shaft Extension	4.31 in
Assembly/Box Mounting	F3	Inverter Load	CONSTANT 20:1
Outline Drawing	B-SS622257	Connection Drawing	004172.03ME



(MAY NOT BE DRAWN TO SCALE)

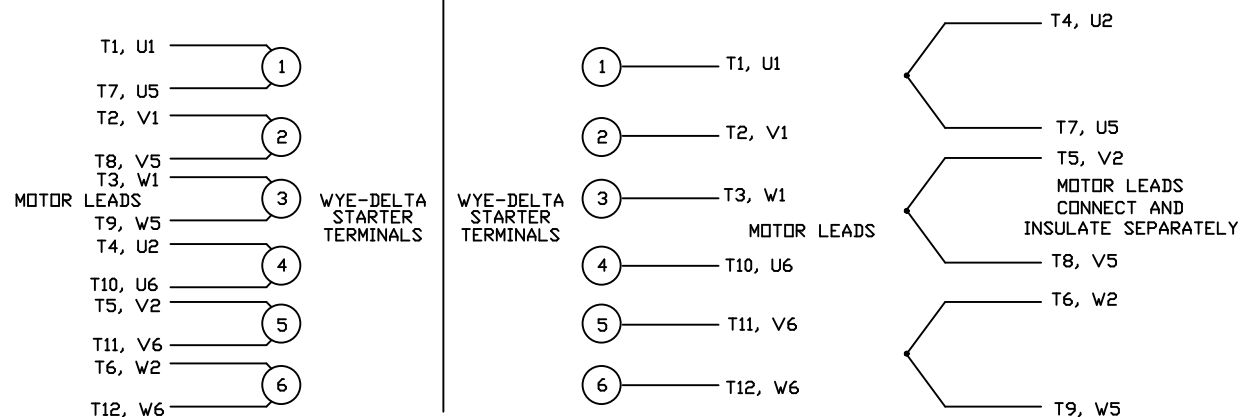
(DIMENSIONS ARE IN MILLIMETERS)

											TOLERANCES UNLESS SPECIFIED		 REGAL-BELOIT CORPORATION	DRAWN HLB 12-06-2010									
											DEC.	METRIC		CHK	DJK	12-17-2010							
											.X	±2.5		APPD	SB	12-13-2010							
											.XX	±.76		TITLE OUTLINE									
											.XXX	±.127		DF180M,L-4,6									
											.XXX	±.0127	MAT'L	FMF	HEBEI								
						NO.	REVISION			BY & DATE	CHK	ANG	±7°30"	FINISH		PREV							
						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						RFP	12-22-2010	CAD FILE	SS622257	SIZE	DRAWING NO.	PAGE	OF	REV.			
												DIST				B	SS622257						
Cat.No		FRAME	B	BB	L																		
193324.60	193322.60	DF180M	241	311	680																		
193325.60	193320.60	DF180L	279	349	718																		

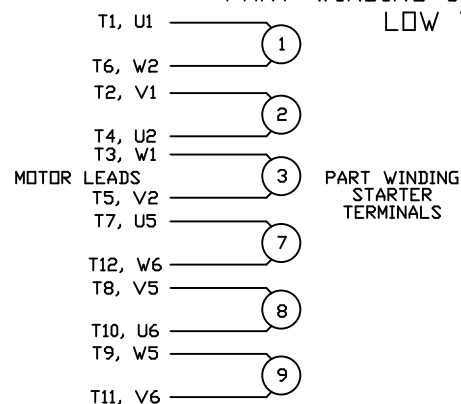
WYE - DELTA STARTING USEABLE ON 2,4 AND 6 POLE MOTORS.

LOW VOLTAGE CONNECTION

HIGH VOLTAGE CONNECTION



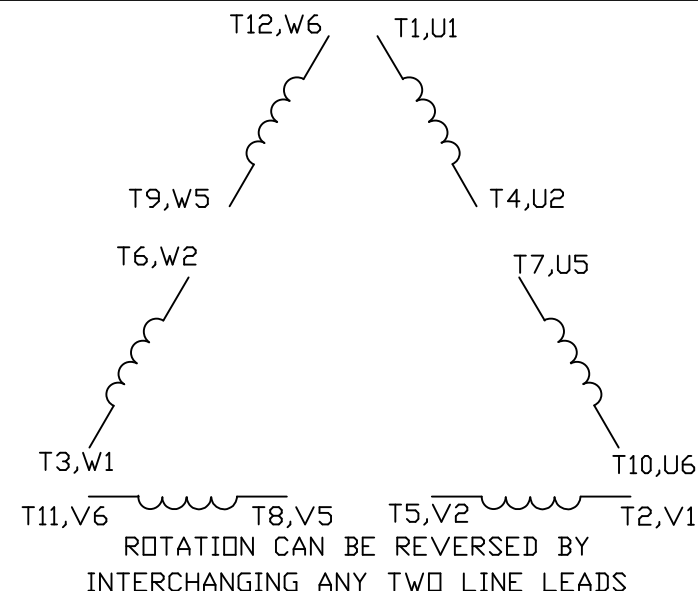
REFER TO THE WYE-DELTA STARTER CONNECTION INSTRUCTIONS FOR PROPER CONNECTION OF POWER LINES TO STARTER.

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.

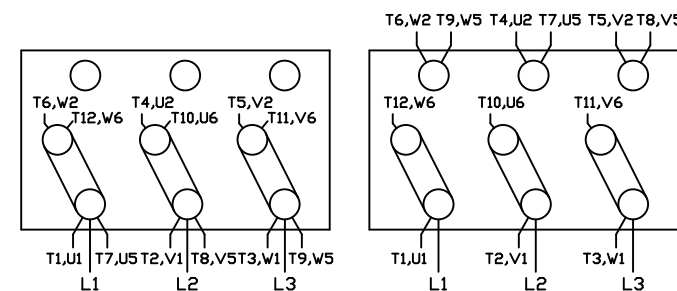
LINE LEADS



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

DEC. INCHES

.X ±.1

.XX ±.01

.XXX ±.005

.XXXX ±.0005

ANG ±1/2°



**MARATHON
ELECTRIC**

TITLE DELTA - WYE CONNECTION DIAGRAM
IEC CAST IRON MOTORS

MAT'L.

FINISH

DRAWN CJW 08/28/02

CHK

APPD

SCALE 1=1

REF

FMF

PREV

NO. REVISION BY & DATE

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RFP

DIST

CAD FILE 00417203ME

SIZE

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DRAWING NO.

004172-03ME

REV.

CERTIFICATION DATA SHEET

Model#: 180LTFC6538 AA
 CONN. DIAGRAM: 004172.03ME
 OUTLINE: B-SS622257

WINDING#: T14504006 NONE 1
 ASSEMBLY: F3

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
30&25	22.4&18.7	1800	1770&1480	180L	TEFC	H	B

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60/50	230/460#200/ 400	70/35&69/34.5	PWS & YDRUN OR INV	CONTINUOU S	F2	1.15/1.15	40	3300

FULL LOAD EFF: 94.1&93	3/4 LOAD EFF: 93.6	1/2 LOAD EFF: 93	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 85&83	3/4 LOAD PF: 81.4	1/2 LOAD PF: 71.7	93	SQ CAGE INV RATED	29 / 14.5

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
89 LB-FT	480 / 240	172 LB-FT 193	247 LB-FT 278	46

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
75 dBA	85 dBA	4.7 LB-FT^2	- LB-FT^2	20 SEC.	2	432 LBS.

*** SUPPLEMENTAL INFORMATION ***

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	D RIP COVER	SCREENS	PAINT
STANDARD	STANDARD	RIGID	HORIZONTAL	PREMIUM SEVERE DUTY	NONE	FALSE	NONE	BLUE (ENAMEL)

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	OPE						
BALL	BALL	POLYREX EM	STANDARD IEC	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON
6311	6211						

THERMO-PROTECTORS				THERMISTORS	CONTROL	SPACE /n HEATERS
THERMOSTATS	PROTECTORS	WDG RTDs	BRG RTDs			
NONE	NOT	NONE	NONE	NONE	FALSE	NONE VOLTS

If Inverter equals NONE, contact factory for further
information

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N
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INVERTER TORQUE: CONSTANT 20:1 INV. HP SPEED RANGE: 1.5 X BASE SPEED
ENCODER: NONE NONE NONE NONE NONE PPR
BRAKE: NONE NONE NONE P/N NONE NONE NONE NONE FT-LB NONE V NONE Hz

DATE: 06/27/2017 01:01:22 AM
 FORM 3531 REV.3 02/07/99
 ** Subject to change without notice.

Data Sheet

Date: 20-06-2017

Customer:

Attention:

Submitted by: FAREEDA DUDEKULA

180LTC6538



Submittal

Data @ 460 V

Motor Load Data

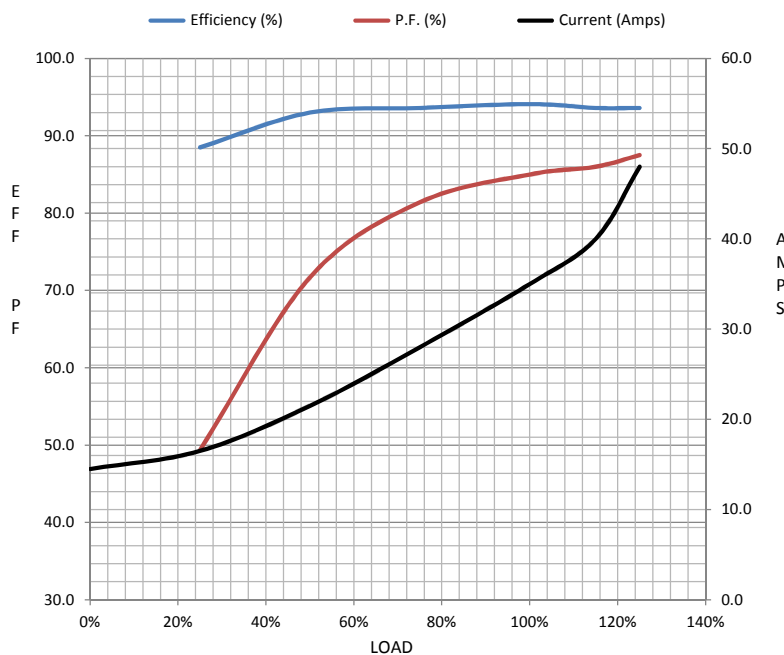
Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	14.5	16.5	21.5	28.0	35.0	40.0	48.0	240	
Torque (ft-lb)	0.00	21.9	44.1	66.4	89.0	103	112	172	
RPM	1800	1792	1783	1775	1770	1,767	1762	0	
Efficiency (%)		88.5	93.0	93.6	94.1	93.6	93.6		
P.F. (%)	5.7	49.4	71.7	81.4	85.0	86.0	87.5	0.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1700	1770	1800
Current (Amps)	240	215	150	35.0	14.5
Torque (ft-lb)	172	155	247	89.0	0.00

Information Block

HP	30.0			
Sync. RPM	1800			
Frame	286			
Enclosure	TEFC			
Construction	TFC			
Voltage	230/460#200/40(V			
Frequency	60 Hz			
Design	A			
LR Code letter	H			
Service Factor	1.15			
Temp Rise @ FL	46 ° C			
Duty	CONT			
Ambient	40 ° C			
Elevation	1,000 feet			
Rotor/Shaft wk²	4.7 Lb-Ft²			
Ref Wdg	T14504006 NONE			
Sound Pressure @ 1M	75 dBA			
VFD Rating	CONSTANT 20:1			
Outline Dwg	B-SS622257			
Conn. Diag	004172.03ME			
Additional Specifications:				
0				
365THFS8036				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.0000	0.0000	0.0000	0.0000	0.0000



Speed -Torque Curve

