

PRODUCT INFORMATION PACKET

marathon®
Motors

Model No: 286TTFC6027

Catalog No: E983B

XRI® General Purpose General Purpose Motor, 30 & 25 HP, 3 Ph, 60 & 50 Hz, 208-230/460 & 190/380 V,
1800 & 1500 RPM, 286T Frame, TEFC



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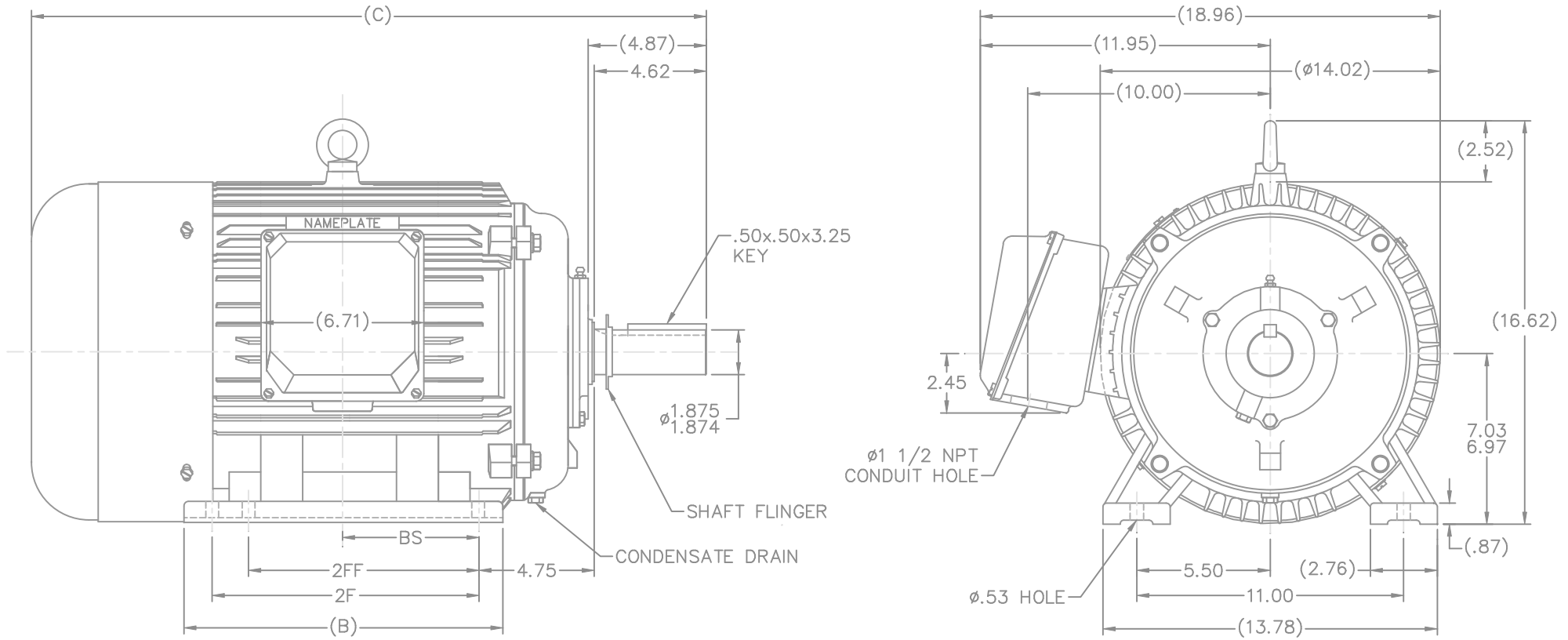
RegalRexnord

Nameplate Specifications


Phase	3	Output HP	30 & 25 Hp
Output KW	22.4 & 18.7 kW	Voltage	208-230/460 & 190/380 V
Speed	1780 & 1480 rpm	Service Factor	1.15 & 1.15
Frame	286T	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No Protection	Efficiency	94.1 & 93 %
Ambient Temperature	40 °C	Frequency	60 & 50 Hz
Current	77-70/35 & 71/35.5 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	6309
UL	Recognized	CSA	Y
CE	Y	IP Code	43
Number of Speeds	1		

Technical Specifications

Electrical Type	Squirrel Cage Induction Run	Starting Method	Across The Line
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	T	Overall Length	27.83 in
Shaft Diameter	1.875 in	Shaft Extension	4.87 in
Assembly/Box Mounting	F1/F2 Capable		
Outline Drawing	16953960ME-286T	Connection Drawing	00417203ME



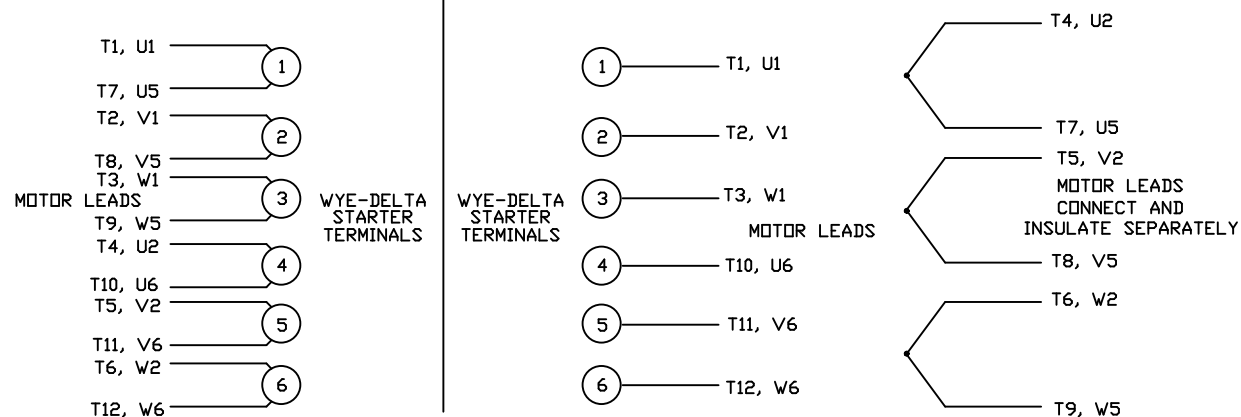
NOTE: 286T HAS 6 MTG. HOLES,
USING 284T AND 286T LOCATIONS

USING 284T AND 286T LOCATIONS											TOLERANCES UNLESS SPECIFIED				DRAWN TJB 05-29-2003							
											DEC.		INCHES		CHK ML 05-29-2003							
											.X		±.1		APPD GK 05-29-2003							
											.XX		±.03		SCALE 1=4							
											.XXX		±.005		TITLE OUTLINE - RIGID 280T FR. - TEFC							
											.XXXX		±.0005		MAT'L							
											CHK		ANG ±7'30"		FINISH							
											RFP				CAD FILE 16953960me							
											DIST		WA		B 169539-60ME							
DASH	FRAME	C	B	BS	2F	2FF	1	NEW DRAWING		TJB 05-29-2003	ML	XXXX	±.0005									
1248	284T	26.26	11.61	4.90	--	9.50	NO.	REVISION		BY & DATE	CHK	ANG	±7'30"									
1398	286T	27.83	13.11	5.68	11.00	9.50	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										SIZE	DRAWING NO.	PAGE	OF	REV.	
																	B	169539-60ME	1			

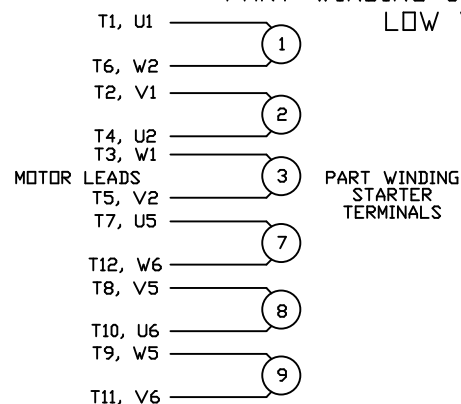
WYE - DELTA STARTING USEABLE ON 2,4 AND 6 POLE MOTORS.

LOW VOLTAGE CONNECTION

HIGH VOLTAGE CONNECTION



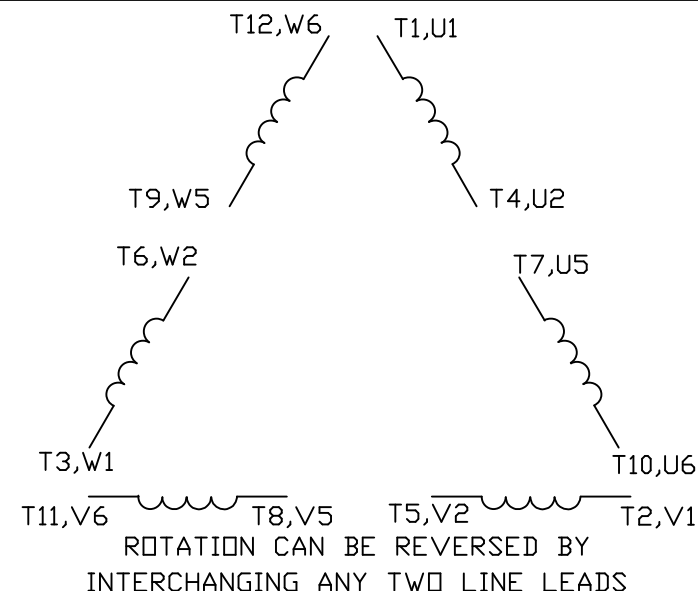
REFER TO THE WYE-DELTA STARTER CONNECTION INSTRUCTIONS FOR PROPER CONNECTION OF POWER LINES TO STARTER.

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.

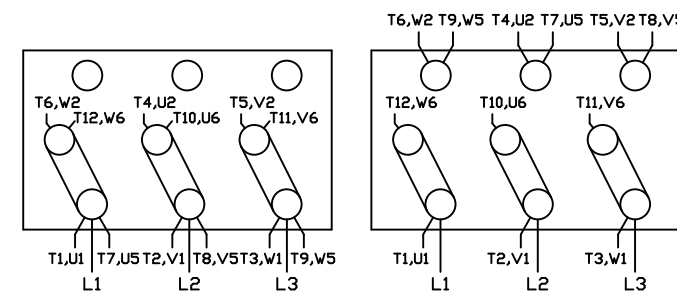
LINE LEADS



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

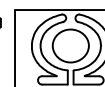
.X ±.1

.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

A

DRAWING NO.

004172-03ME

REV.

CERTIFICATION DATA SHEET

Model#: 286TTFC6027 AA

WINDING#: T14504006 NONE 3

CONN. DIAGRAM: 00417203ME

ASSEMBLY: F1/F2 CAPABLE

OUTLINE: 169539.60ME

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
30&25	22.4&18.7	1800	1780&1480	286T	TEFC	H	B

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60/50	208- 230/460#190/ 380	77- 70/35&71/35.5	ACROSS THE LINE	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&85.5	3/4 LOAD PF: 81.4	1/2 LOAD PF: 71.7	93	SQ CAGE IND RUN	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	45

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	DRIP COVER	SCREENS	PAINT
STANDARD	STANDARD	RIGID	HORIZONTAL	FALSE	NONE	FALSE	NONE	BLUE (ENAMEL)

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	OPE						
BALL	BALL	POLYREX EM	T	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON
6311	6309						

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

* N O T E S *	INVERTER TORQUE: NONE
	INV. HP SPEED RANGE: NONE
	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 03:38:05 AM
FORM 3531 REV.3 02/07/99

** Subject to change without notice.

Data Sheet

Date: 6/19/2017

Customer: _____

Attention: _____

Submitted by: FAREEDA DUDEKULA



286TTC6027

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																																	
<div><div><div>— Efficiency (%)</div><div>— P.F. (%)</div><div>— Current (Amps)</div></div><table><caption>Efficiency, P.F., and Current vs Load</caption><thead><tr><th>Load (%)</th><th>Efficiency (%)</th><th>P.F. (%)</th><th>Current (Amps)</th></tr></thead><tbody><tr><td>0</td><td></td><td></td><td>14.5</td></tr><tr><td>25</td><td>88</td><td>18</td><td>18</td></tr><tr><td>50</td><td>93</td><td>35</td><td>25</td></tr><tr><td>75</td><td>93.5</td><td>42</td><td>32</td></tr><tr><td>100</td><td>94</td><td>45</td><td>38</td></tr><tr><td>125</td><td>93.5</td><td>48</td><td>48</td></tr></tbody></table></div>						Load (%)	Efficiency (%)	P.F. (%)	Current (Amps)	0			14.5	25	88	18	18	50	93	35	25	75	93.5	42	32	100	94	45	38	125	93.5	48	48					
						Load (%)	Efficiency (%)	P.F. (%)	Current (Amps)																													
						0			14.5																													
						25	88	18	18																													
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						75	93.5	42	32																													
						100	94	45	38																													
						125	93.5	48	48																													
						HP		30.0																														
						Sync. RPM		1800																														
						Frame		286																														
						Enclosure		TEFC																														
						Construction		TFC																														
						Voltage		3-230/460#190/°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 wk ²		4.7 Lb-Ft ²																														
Ref Wdg		T14504006 NONE																																				
Sound Pressure @ 1M		75 dBA																																				
VFD Rating		NONE																																				
Outline Dwg		169539.60ME																																				
Conn. Diag		4172.03																																				
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

