

PRODUCT INFORMATION PACKET

marathon[®]
Motors

Model No: 286TTFC6027
Catalog No: E983B
30,1800,TEFC,286T,3/60/230/460
Totally Enclosed Fan Cooled (TEFC)



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REGAL[®]



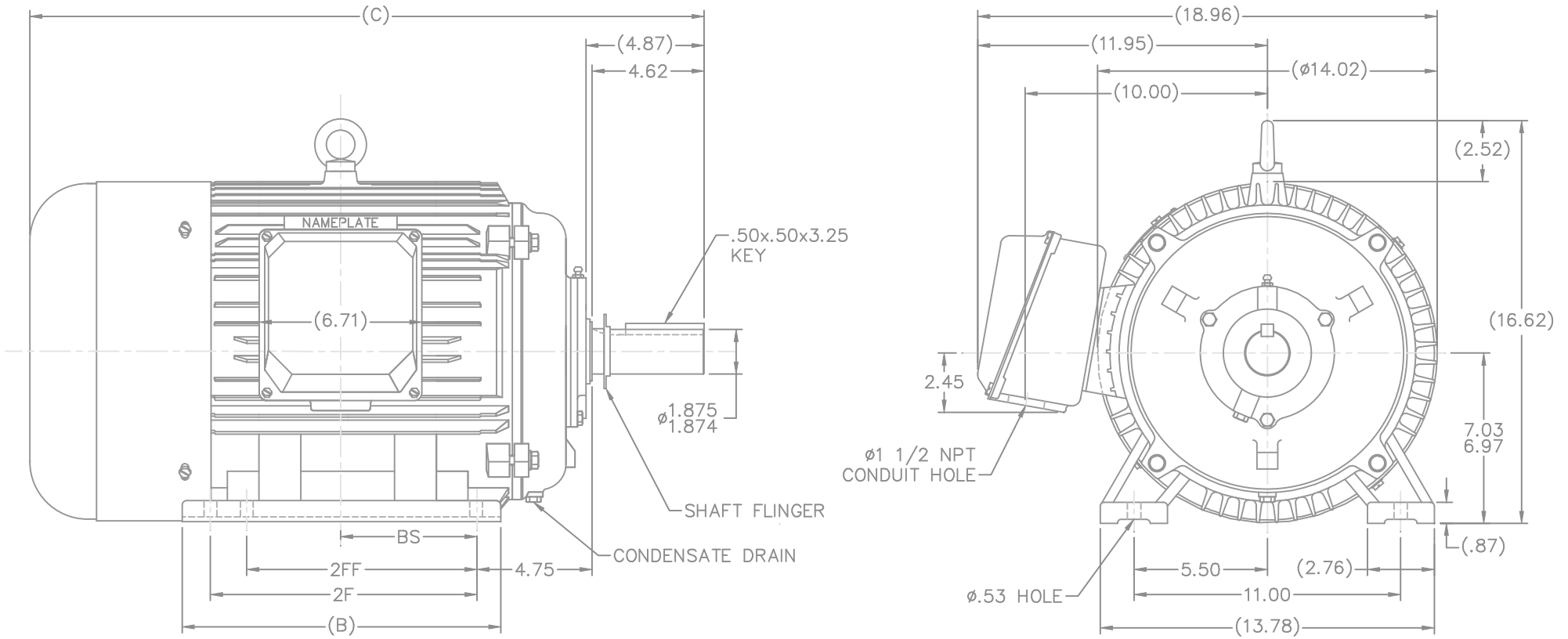
Nameplate Specifications

Output HP	30 Hp	Output KW	22.4 kW
Frequency	60 Hz	Voltage	208-230/460 V
Current	77.0-70.0/35.0 A	Speed	1780 rpm
Service Factor	1.15	Phase	3
Efficiency	94.1 %	Duty	Continuous
Insulation Class	F	Design Code	B
KVA Code	H	Frame	286T
Enclosure	Totally Enclosed Fan Cooled	Overload Protector	No
Ambient Temperature	40 °C	Drive End Bearing Size	6311
Opp Drive End Bearing Size	6309	UL	Recognized
CSA	Y	CE	Y
IP Code	43		

Technical Specifications

Electrical Type	Squirrel Cage Induction Run	Starting Method	Across The Line
Poles	4	Rotation	Reversible
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	169539.60ME	Connection Diagram	00417203ME

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

DASH	FRAME	C	B	BS	2F	2FF
1248	284T	26.26	11.61	4.90	--	9.50
1398	286T	27.83	13.11	5.68	11.00	9.50

		TOLERANCES UNLESS SPECIFIED		DRAWN	
		DEC.	INCHES	TJB 05-29-2003	
		.X	±.1	CHK	ML 05-29-2003
		.XX	±.03	APPD	GK 05-29-2003
		.XXX	±.005	SCALE	1=4
		.XXXX	±.0005	REF	
		CHK	ANG ±7'30"	FMF	
		RFP		PREV	
1 NEW DRAWING		TJB 05-29-2003		CAD FILE 16953960me	
NO. REVISION		BY & DATE		SIZE	DRAWING NO. PAGE OF REV.
				B	169539-60ME 1
<p>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</p>					



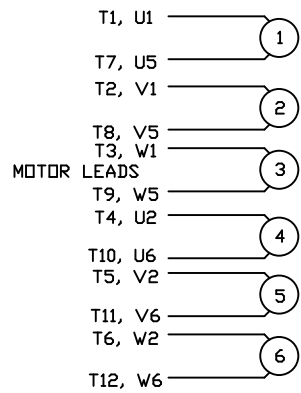
TITLE OUTLINE - RIGID
280T FR. - TEFC

MAT'L
FINISH

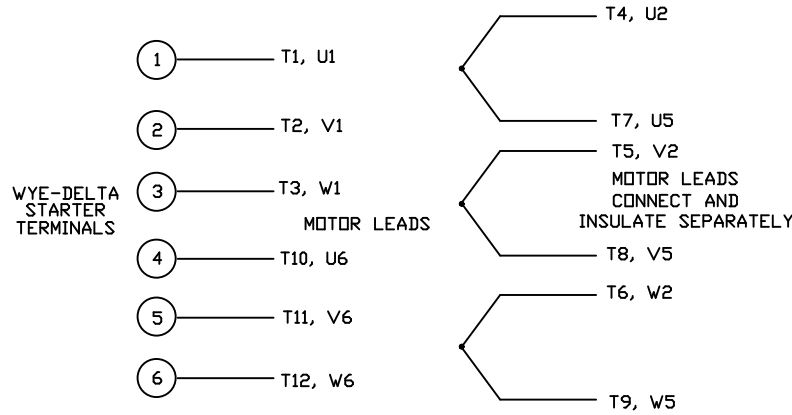
WYE - DELTA STARTING USEABLE ON 2,4 AND 6 POLE MOTORS.

LOW VOLTAGE CONNECTION

HIGH VOLTAGE CONNECTION



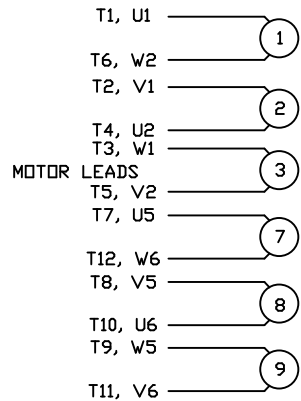
WYE-DELTA STARTER TERMINALS



MOTOR LEADS CONNECT AND INSULATE SEPARATELY

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

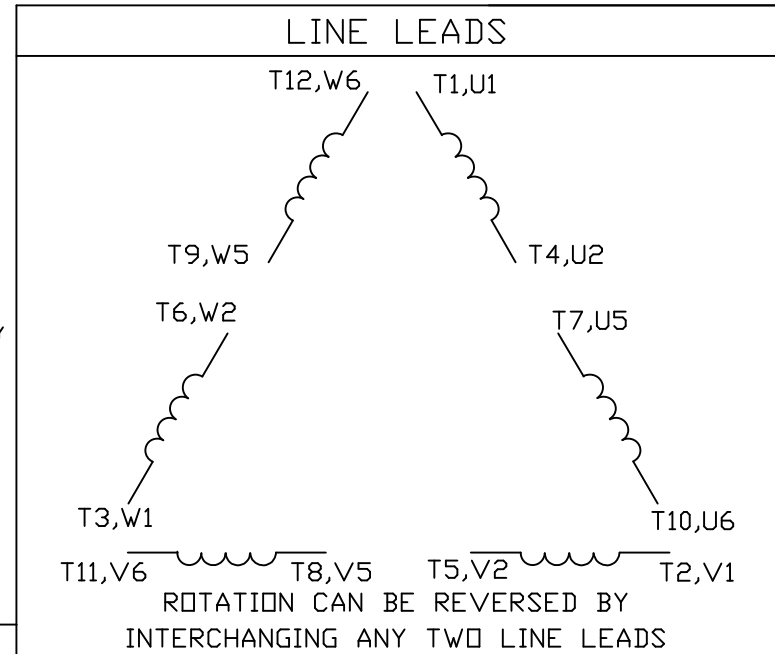
PART WINDING START USABLE ON 4 & 6 POLE MOTORS
LOW VOLTAGE CONNECTION ONLY



PART WINDING STARTER TERMINALS

REFER TO THE PART WINDING STARTER INSTRUCTIONS FOR PROPER CONNECTION OF POWER LINES TO STARTER.

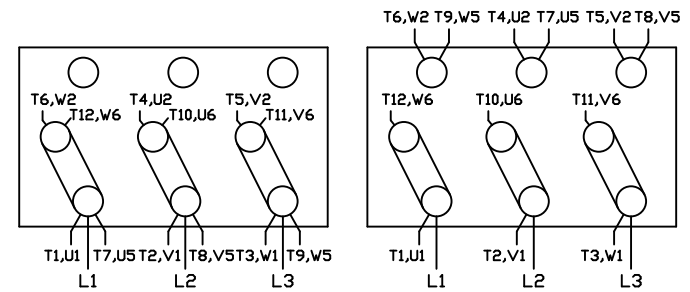
REFER TO THE CUTLER - HAMMER OR EQUIV. FOR PROPER SELECTION OF OVERLOAD HEATER COILS.



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*



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

CHK

RFP

DIST

CAD FILE 00417203ME

SIZE DRAWING NO.

A 004172-03ME

REV.

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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	POLYREX EM	T	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON
BALL	BALL						
6311	6309						

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

If Inverter equals NONE, contact factory for further information

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

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** Subject to change without notice.

Data Sheet

2861TEC6027



Submittal
Data @ 460 V

Date: 6/19/2017

Customer: _____
Attention: _____
Submitted by: FAREEDA DUDEKULA

Motor Load Data

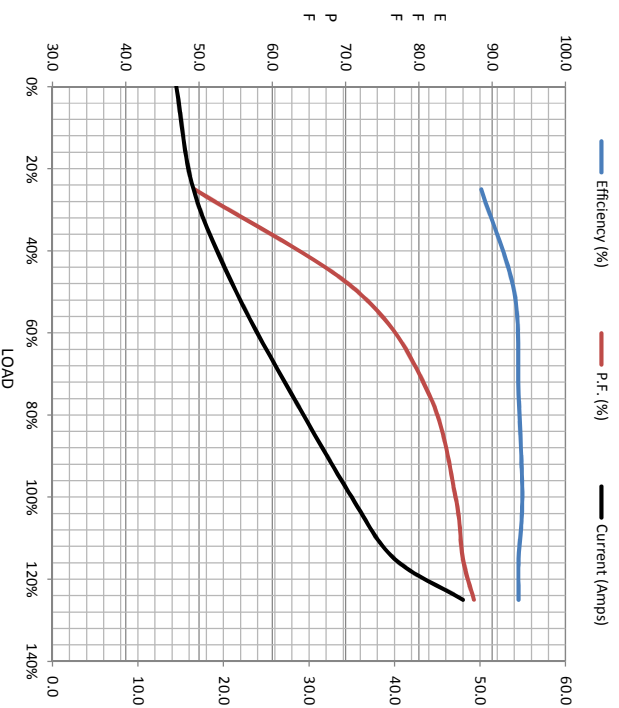
Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	14.5	16.5	21.5	28.0	35.0	40.0	48.0	240
Torque (ft-lb)	0.00	21.9	44.1	66.4	89.0	103	112	172
RPM	1800	1792	1783	1775	1770	1,767	1762	0
Efficiency (%)		88.5	93.0	93.6	94.1	93.6	93.6	
P.F. (%)	5.7	49.4	71.7	81.4	85.0	86.0	87.5	0.0

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	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 ^e	4.7 Lb-Ft
Ref Wdg	TI14504006 NONE
Sound Pressure @ 1M	75 dbA
VFD Rating	NONE
Outline Dwg	169539.60ME
Conn. Diag	4172.03
Additional Specifications:	
0	
EQUIV CKT (OHMS / PHASE)	
R1	R2
X1	X2
Xm	Xm



Speed - Torque Curve

