PRODUCT INFORMATION PACKET

Model No: 286TTFC6081
Catalog No: E008
20 HP General Purpose Motor, 3 phase, 1200 RPM, 575 V, 286T Frame, TEFC
General Purpose Motors

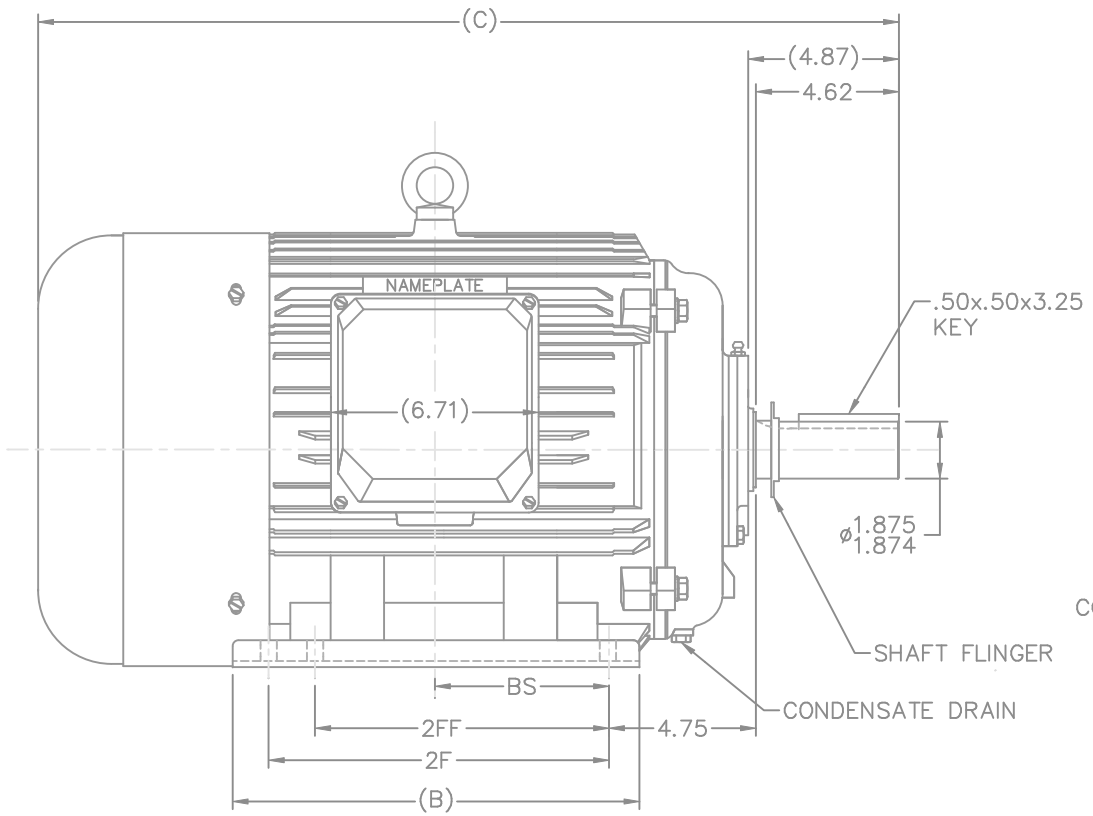
marathon® Motors

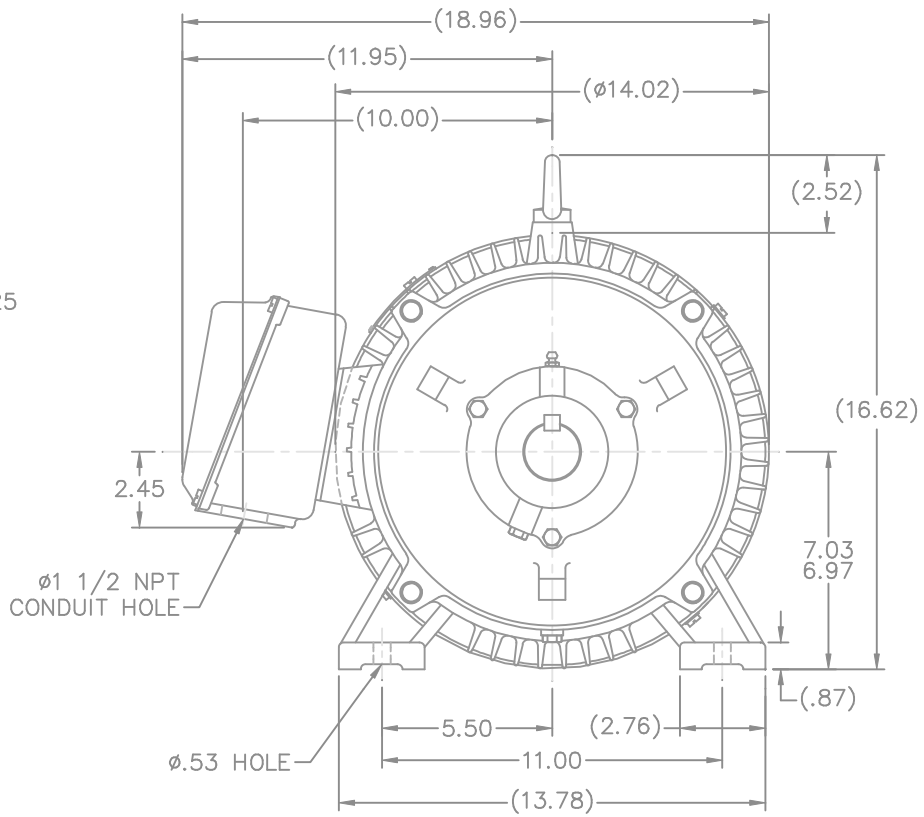
Nameplate Specifications

Output HP	**20 Hp**	Output KW	**14.9 kW**
Frequency	**60 Hz**	Voltage	**575 V**
Current	**21.0 A**	Speed	**1185 rpm**
Service Factor	**1.15**	Phase	**3**
Efficiency	**92.4 %**	Power Factor	**75**
Duty	**Continuous**	Insulation Class	**F**
Design Code	**N (IEC)**	KVA Code	**G**
Frame	**286T**	Enclosure	**Totally Enclosed Fan Cooled**
Thermal Protection	**No**	Ambient Temperature	**40 °C**
Drive End Bearing Size	**6309**	Opp Drive End Bearing Size	**6308**
UL	**Recognized**	CSA	**Y**
CE	**Y**	IP Code	**43**
Number of Speeds	**1**		

Technical Specifications

Electrical Type	**Squirrel Cage Inverter Rated**	Starting Method	**Line Or Inverter**
Poles	**6**	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**
Connection Drawing	**005190.01ME**	Outline Drawing	**16953960ME-286T**





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

NO.	REVISION	BY & DATE	CHK
1	NEW DRAWING	TJB 05-29-2003	ML

TOLERANCES UNLESS SPECIFIED

DEC.	INCHES
.X	±.1
.XX	±.03
.XXX	±.005
.XXXX	±.0005
ANG	±7'30"

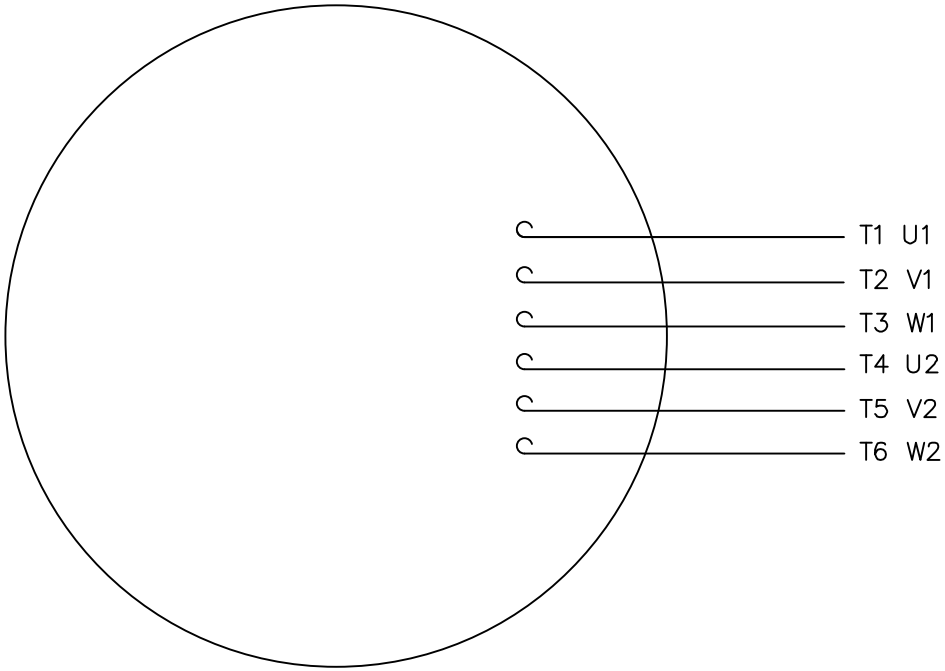
MARATHON ELECTRIC

TITLE OUTLINE - RIGID
280T FR. - TEFC

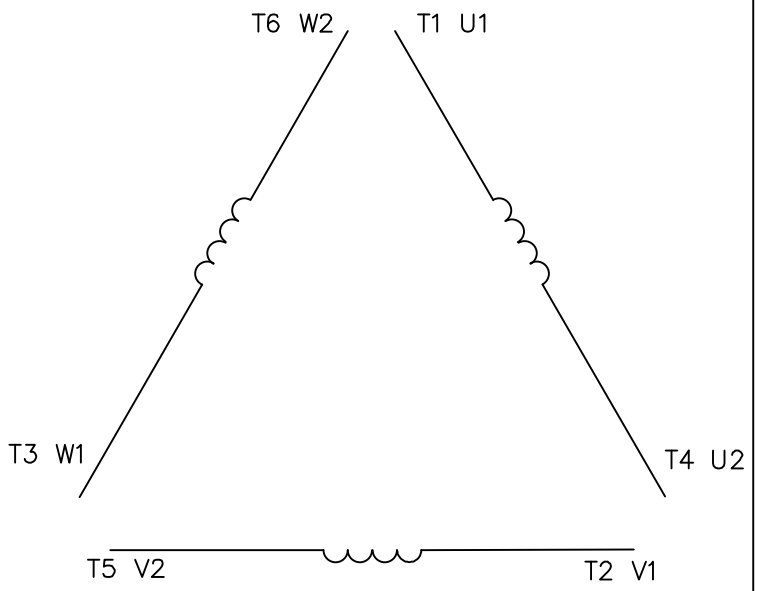
DRAWN TJB 05-29-2003
CHK ML 05-29-2003
APPD GK 05-29-2003
SCALE 1=4
REF
MAT'L.
FMF
FINISH
PREV

RFP
DIST WA
CAD FILE 16953960me

SIZE	DRAWING NO.	PAGE OF	REV.
B	169539-60ME		1



LINE LEADS



	L1	L2	L3	JOIN
START (WYE)	T1 U1	T2 V1	T3 U2	(T4,T5,T6) (U2,V2,W2)
RUN (DELTA)	(T1,T6) (U1,W2)	(T2,T4) (V1,U2)	(T3,T5) (W1,V2)	

NO.	REVISION	BY & DATE	CHK
03	ADDED IEC DESIGNATIONS	MOL 04/27/12	
02	REMOVED OBSOLETE STATUS	KJH 06/28/99	
01	REDRAWN ON CAD	DBT 05/30/97	

TOLERANCES UNLESS SPECIFIED

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

MARATHON ELECTRIC

DRAWN	PG 05/07/82
CHK	
APPD	TEM 05/07/82
SCALE	1=1
REF	
FMF	
PREV	

TITLE: EXTERNAL WIRING DIAGRAM
STAR START – DELTA RUN

MAT'L. Y–CONNECTED START – DELTA CONNECTED RUN

FINISH: SINGLE VOLTAGE

CAD FILE: 00519001ME

RFP

DIST

SIZE	DRAWING NO.	REV.
A	005190–01ME	03

CERTIFICATION DATA SHEET

Model#:	286TTFC6081 AA	**WINDING#:**	T14506013 FR 4
CONN. DIAGRAM:	005190.01ME	**ASSEMBLY:**	F1/F2 CAPABLE
OUTLINE:	16953960ME		

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
20	14.9	1200	1185	286T	TEFC	G	N (IEC)

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60	575	21	LINE OR INVERTER	CONTINUOUS	F2	1.15	40	3300

FULL LOAD EFF: 92.4	3/4 LOAD EFF: 91.7	1/2 LOAD EFF: 91	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 75	3/4 LOAD PF: 72.5	1/2 LOAD PF: 62.5	90.2	SQ CAGE INV RATED	9

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
88.8 LB-FT	120	144 LB-FT 162	226 LB-FT 254	50

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
55.5 dBA	65.5 dBA	6.64 LB-FT^2	6.6 LB-FT^2	15 SEC.	2	400 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 6309	BALL 6308	POLYREX EM	T	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON

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

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

* NOTES *

DATE: 06/27/2017 03:41:11 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

marathon® electric

286TTFC6081

Submittal

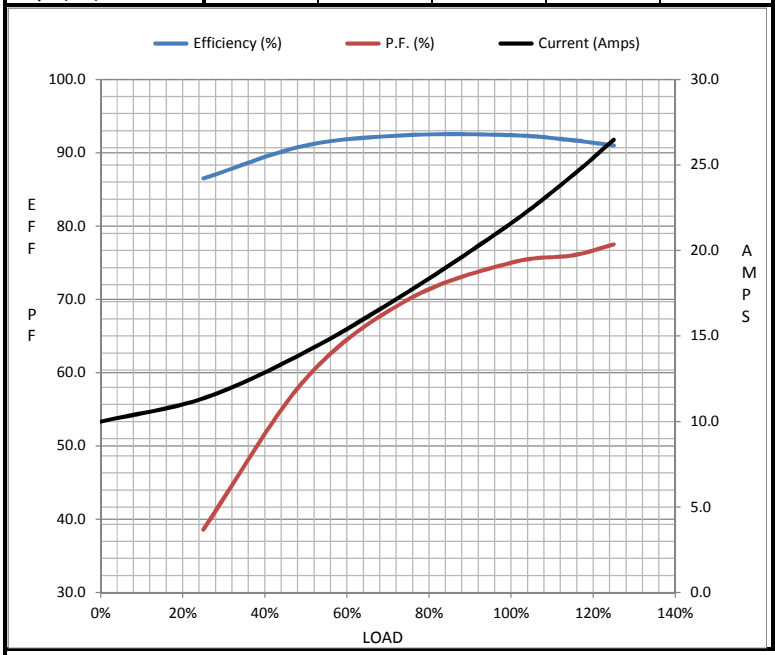
Data @ 575 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	10.0	11.4	14.1	17.6	21.6	24.4	26.5	116	
Torque (ft-lb)	0.00	22.0	45.0	67.0	88.0	103	112	142	
RPM	1200	1197	1192	1190	1185	1,180	1180	0	
Efficiency (%)		86.5	91.0	92.4	92.4	91.7	91.0		
P.F. (%)	5.1	38.6	59.2	70.0	75.0	76.0	77.5	0.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	850	1110	1185	1200
Current (Amps)	116	108	79.2	21.6	10.0
Torque (ft-lb)	142	123	230	88.0	0.00



Information Block

HP	20.0	
Sync. RPM	1200	
Frame	286	
Enclosure	TEFC	
Construction	TFC	
Voltage	575	V
Frequency	60	Hz
Design	B	
LR Code letter	G	
Service Factor	1.15	
Temp Rise @ FL	55	° C
Duty	CONT	
Ambient	40	° C
Elevation	1,000	feet
Rotor/Shaft wk²	6.6	Lb-Ft²
Ref Wdg	T14506013	FR
Sound Pressure @ 1M	56	dBA
VFD Rating	CONSTANT 20:1	
Outline Dwg	16953960ME	
Conn. Diag	005190.01ME	
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