PRODUCT INFORMATION PACKET

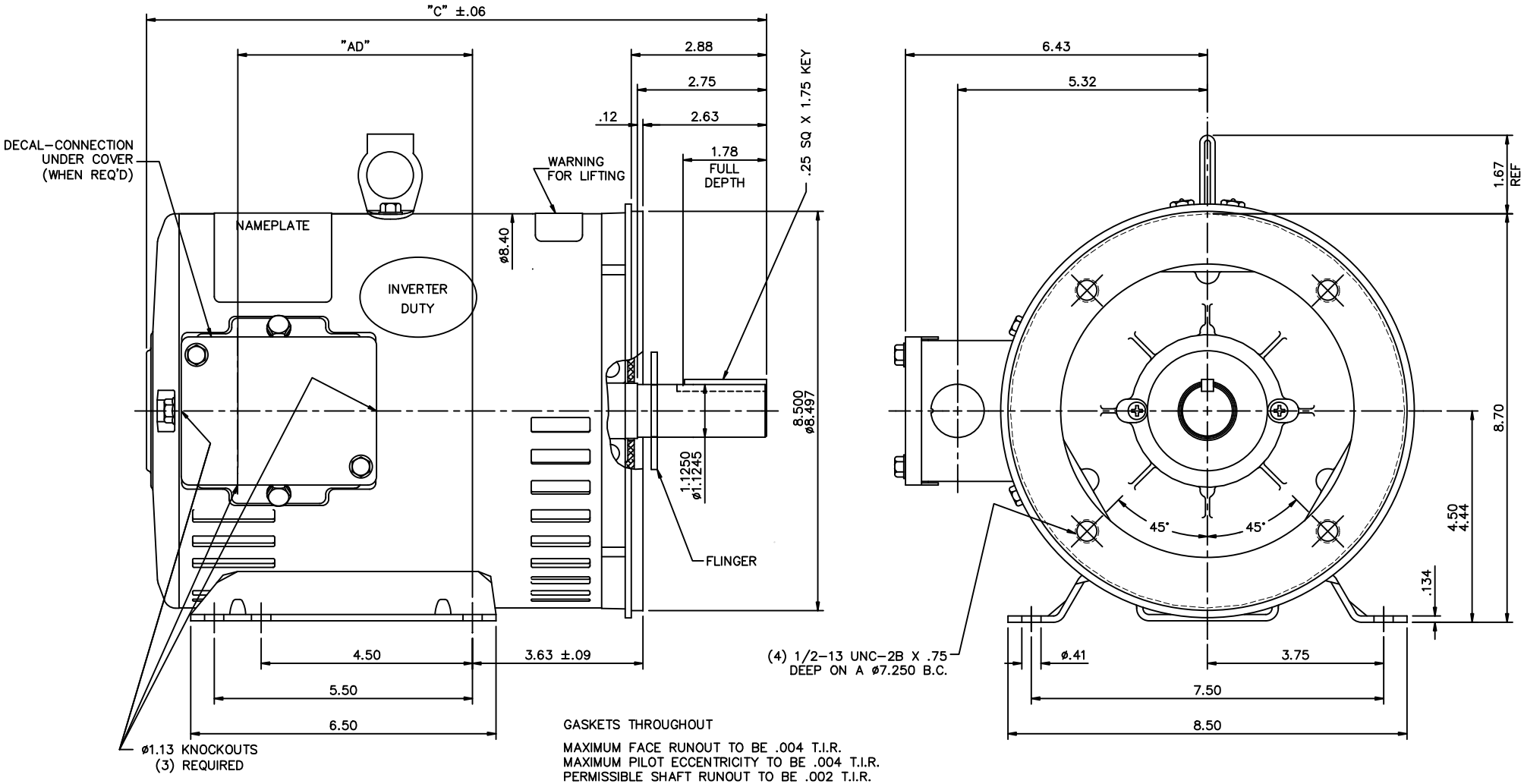
Model No: 182TTDW16059
Catalog No: U410A
XRI® General Purpose General Purpose Motor, 3 & 2 HP, 3 Ph, 60 & 50 Hz, 230/460 & 190/380 V, 1800 & 1500 RPM, 182TC Frame, DP

Nameplate Specifications

Phase	3	Output HP	3 & 2 Hp
Output KW	2.2 & 1.5 kW	Voltage	230/460 & 190/380 V
Speed	1760 & 1475 rpm	Service Factor	1.15 & 1.15
Frame	182TC	Enclosure	Drip Proof
Thermal Protection	No Protection	Efficiency	89.5 & 87.1 %
Ambient Temperature	40 °C	Frequency	60 & 50 Hz
Current	8/4 & 7/3.5 A	Power Factor	79.3
Duty	Continuous	Insulation Class	F
Design Code	B	KVA Code	K
Drive End Bearing Size	6206	Opp Drive End Bearing Size	6205
UL	Recognized	CSA	Y
CE	Y	IP Code	22
Number of Speeds	1		

Technical Specifications

Electrical Type	Squirrel Cage Inverter Rated	Starting Method	Line Or Inverter
Poles	4	Rotation	Reversible
Resistance Main	3.89 Ohms	Mounting	Rigid Base
Motor Orientation	Horizontal	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Rolled Steel
Shaft Type	T	Overall Length	13.20 in
Frame Length	9.00 in	Shaft Diameter	1.125 in
Shaft Extension	2.75 in	Assembly/Box Mounting	F1 ONLY
Inverter Load	CONSTANT 10:1		
Outline Drawing	035592-900	Connection Drawing	005010-01ME



GASKETS THROUGHOUT

MAXIMUM FACE RUNOUT TO BE .004 T.I.R.
MAXIMUM PILOT ECCENTRICITY TO BE .004 T.I.R.
PERMISSIBLE SHAFT RUNOUT TO BE .002 T.I.R.

DASH	"C"	"AD"
800	12.20	4.00
850	12.70	4.50
900	13.20	5.00
950	13.70	5.50
1000	14.20	6.00
1050	14.70	6.50
1100	15.20	7.00
1150	15.70	7.50

NO.	REVISION	BY & DATE	CHK
01	CE DECAL REMOVED & CONDUIT BOX UPDATED	JD 04/05/2011	ANG

TOLERANCES UNLESS SPECIFIED

DEC.	INCHES
.X	±.1
.XX	±.03
.XXX	±.005
.XXXX	±.0005
ANG	±1/2°

MARATHON ELECTRIC

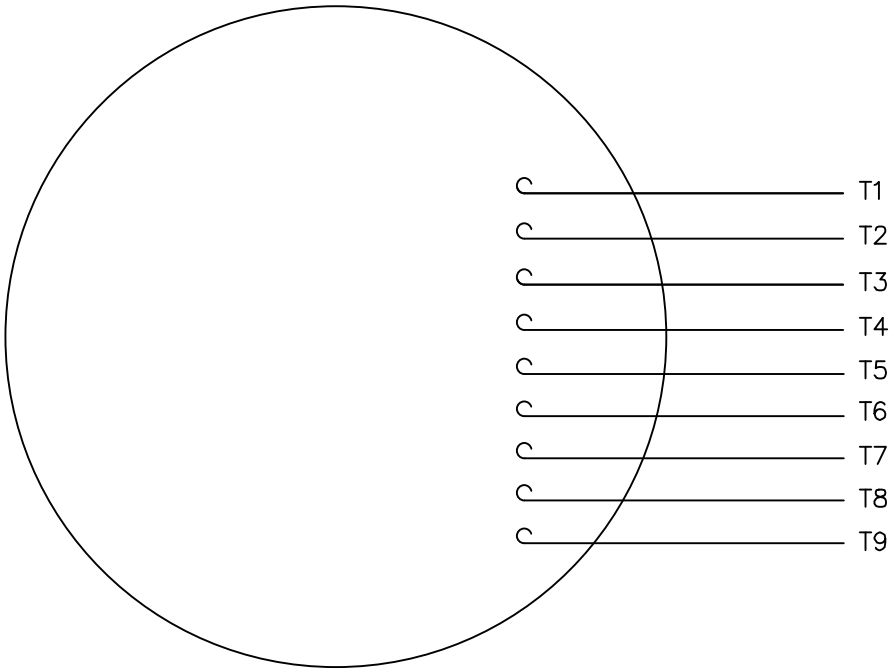
TITLE: OUTLINE – 180TC FRAME
DRIP PROOF – RIGID "C"

MAT'L.
FINISH
CAD FILE 035592
RFP
DIST NLV

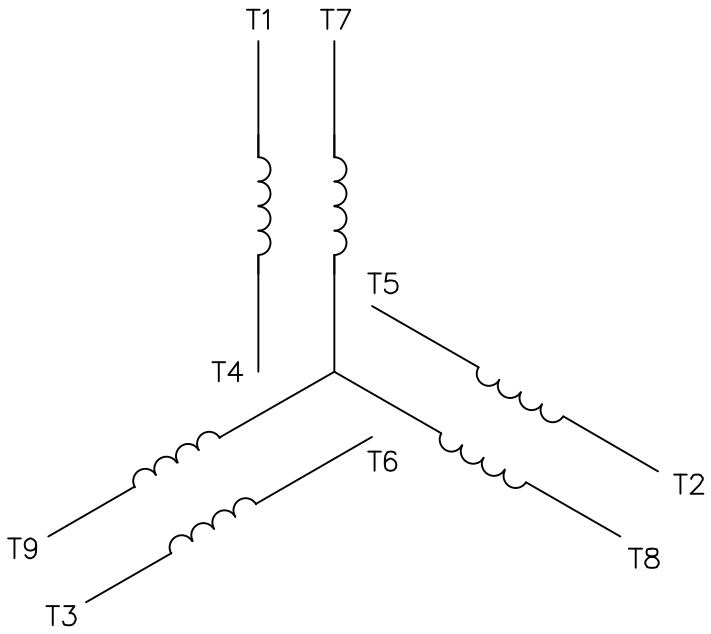
DRAWN KVN 11/16/2007
CHK
APPD
SCALE 1=2
REF 035544
FMF 182TTDW8207
PREV

SIZE B | DRAWING NO. 035592 | REV. 01

VIEW FROM OUTSIDE OF MOTOR AT SWITCH END.



LINE LEADS



VOLTAGE	L1	L2	L3	JOIN & INSULATE
HIGH	T1	T2	T3	(T4,T7) (T5,T8) (T6,T9)
LOW	T1,T7	T2,T8	T3,T9	T4,T5,T6

NO.	REVISION	BY & DATE	CHK

TOLERANCES UNLESS SPECIFIED

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

MARATHON ELECTRIC

TITLE: EXTERNAL WIRING DIAGRAM
3 PHASE W/O PROTECTOR

MAT'L. DECAL – 004014

FINISH

DRAWN RDW 04/12/02
CHK
APPD
SCALE 1=1
REF FIG.2–51
FMF
PREV

RFP 04/12/02
DIST

CAD FILE 00501001ME

SIZE	DRAWING NO.	REV.
A	005010–01ME	

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

DATA VOLTS: 460

CERTIFICATION DATA SHEET

CUSTOMER:
ORDER #:
CONN. DIAGRAM: 005010-01ME
OUTLINE: 035592-900
WINDING: T84173 DR 3
SPEED:

CUSTOMER P.O. #:
REFERENCE MODEL #: 182TTDW16059
CAT #: #VALUE!
CUSTOMER PART #:
MOUNTING: F1 ONLY

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
3	2.2	1800	1760	182TC	DP	TDW	K	B

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB	ELEV.
3	60/50	230/460#190/380	8/4&7/3.5	LINE OR INVERTER	CONT	F	1.15	40	3300

F.L. EFF	89.5	3/4 LD EFF	89.5	1/2 LD EFF	88.2	GTD EFF	ELECT. TYPE
F.L. PF	79.3	3/4 LD PF	73.2	1/2 LD PF	61.1	88.5	SQ CAGE INV RATED

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (°C)	
8.9 LB-FT	34.2	22.0 LB-FT 247%	35.8 LB-FT 402%	31	

@ 3 FT.	POWER	ROTOR WK²	MAX. LOAD WK²	SAFE STALL TIME	STARTS/HOUR	MOTOR WGT
51 dBA	60 dBA	0.36 LB-FT²	55 LB-FT²	15 SEC.	2	0 LB.

*** SUPPLEMENTAL INFORMATION ***

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	MOTOR ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
C-FACE	STANDARD	RIGID	HORIZONTAL	NO	NONE	NO	NONE	BLUE (ENAMEL)

BEARINGS DE	BEARINGS ODE	GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
BALL 6206	BALL 6205	POLYREX EM	T	NONE	NONE	AISI 1045 (C-240)	ROLLED STEEL

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	0.150	ODE

*
NOTES
*

INVERTER TORQUE: CONSTANT 10:1
INV. HP SPEED RANGE: NONE

ENCODER: NONE
NONE
NONE NONE PPR

BRAKE: NONE
NONE NONE
FT-LB: NA
VOLTAGE: NONE HZ:
UL: V-INS, CONST UL REC

PREPARED BY: FAREEDA DUDEKULA
DATE: 9/11/2018

FORM: 3531 REV_4 2/27/06

Data Sheet

Date: 12/3/2018
Customer:
Attention:
Submitted by: FAREEDA DUDEKULA

marathon® electric

182TTDW16059

Submittal

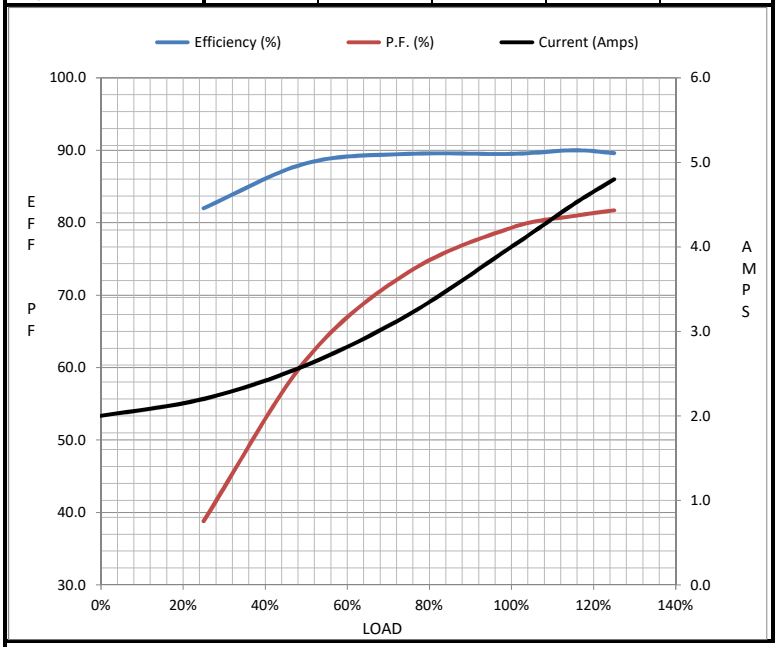
Data @ 460 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	2.00	2.20	2.60	3.2	4.0	4.5	4.8	34.2	
Torque (ft-lb)	0.00	2.19	4.4	6.6	8.9	10.3	11.2	22.0	
RPM	1800	1790	1779	1767	1760	1,752	1745	0	
Efficiency (%)		82.0	88.2	89.5	89.5	90.0	89.6		
P.F. (%)	6.9	38.8	61.1	73.2	79.3	80.9	81.7	50.5	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	330	1500	1760	1800
Current (Amps)	34.2	33.5	22.0	4.0	2.00
Torque (ft-lb)	22.0	14.8	35.8	8.9	0.00



Information Block

HP	3.0	
Sync. RPM	1800	
Frame	182	
Enclosure	DP	
Construction	TDR	
Voltage	230/460#190/380	V
Frequency	60	Hz
Design	B	
LR Code letter	K	
Service Factor	1.15	
Temp Rise @ FL	31	° C
Duty	CONT	
Ambient	40	° C
Elevation	1,000	feet
Rotor/Shaft wk²	0.36	Lb-Ft²
Ref Wdg	T84173 DR	
Sound Pressure @ 1M	51	dBA
VFD Rating	CONSTANT 10:1	
Outline Dwg	035592-900	
Conn. Diag	005010-01ME	
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