marathon®

Severe Duty Motors

Model No: 182TTTS6538
Catalog No: E470

Severe Duty Motor, 3 & 2 HP, 3 Ph, 60 & 50 Hz, 230/460 & 190/380 V, 1800 RPM, 182T Frame, TENV

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Product Information Packet: Model No: 182TTTS6538, Catalog No: E470 Severe Duty Motor, 3 & 2 HP, 3 Ph, 60 & 50 Hz, 230/460 & 190/380 V, 1800 RPM, 182T Frame, TENV

Nameplate Specifications

Phase	**3**	Output HP	**3 & 2 Hp**
Output KW	**2.2 & 1.5 kW**	Voltage	**230/460 & 190/380 V**
Speed	**1760 & 1470 r/min**	Synchronous RPM	**1800 & 1500 r/min**
Service Factor	**1.15 & 1.15**	Frame	**182T**
Enclosure	**Totally Enclosed Non Ventilated**	Thermal Protection	**No Protection**
Efficiency	**90.2 & 88.5 %**	Ambient Temperature	**40 °C**
Frequency	**60 & 50 Hz**	Current	**8/4 & 6.8/3.4 A**
Power Factor	**80**	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	**54**	Number of Speeds	**1**
Hazardous Location	**DIVISION 2 T2B**		

Technical Specifications

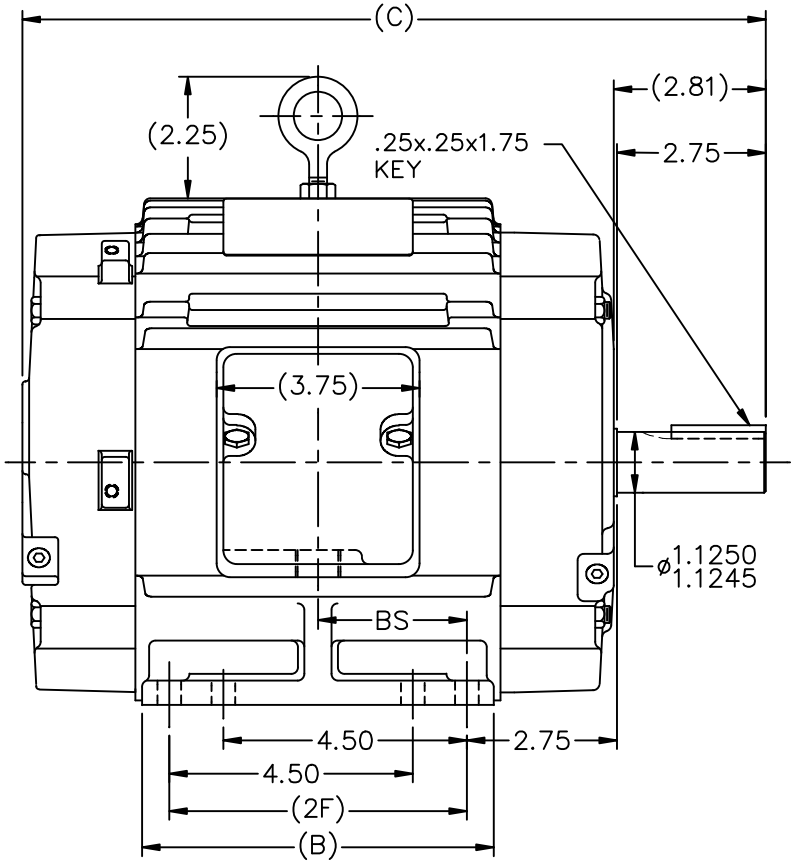
Electrical Type	**Squirrel Cage Inverter Rated**	Starting Method	**Line Or Inverter**
Poles	**4**	Rotation	**Reversible**
Resistance Main	**3.76 O**	Mounting	**Rigid Base**
Motor Orientation	**Horizontal**	Drive End Bearing	**Ball**
Opp Drive End Bearing	**Ball**	Frame Material	**Cast Iron**
Shaft Type	**T**	Overall Length	**12.74 in**
Frame Length	**5.75 in**	Shaft Diameter	**1 1/8 in**
Shaft Extension	**2.81 in**	Assembly/Box Mounting	**F1/F2 Capable**
Inverter Load	**Constant 20:1**		

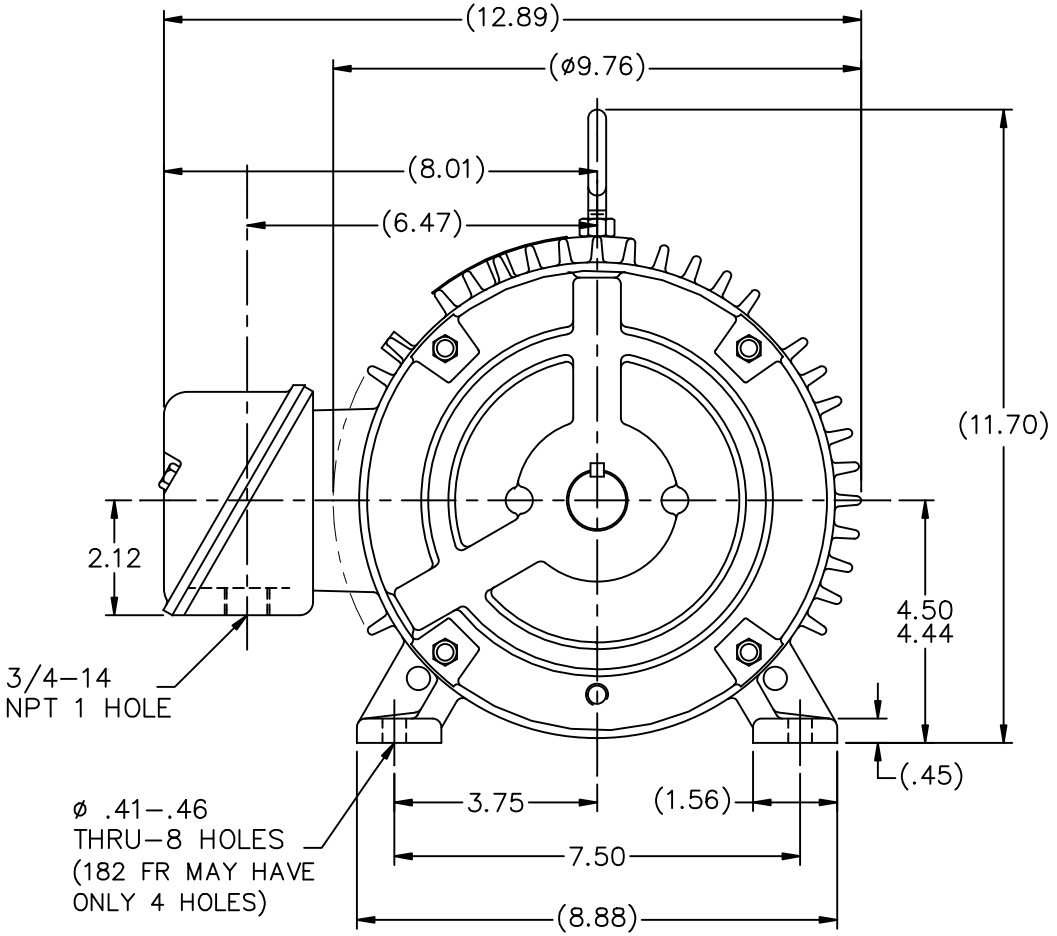
Drawings

Connection Drawing	**A-EE7308**	Outline Drawing	**SS67889-575**

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SS67889





DASH	FR.	C	B	2F	BS	MOUNTING
575	182T	12.74	5.50	4.50	2.25	F1 OR F2
675	182/4T	13.74	6.50	5.50	2.75	F1 OR F2
800	182/4T	14.99	7.75	5.50	3.38	F1 ONLY

NOTES:
1. CONDUIT BOX CAN BE ROTATED IN 90° STEPS.
2. CONDUIT BOX CAN BE MOUNTED ON OPPOSITE SIDE BY REMOVING BRACKETS AND TURNING FRAME 180°.
3. NAMEPLATE TO BE READ FROM CONDUIT BOX SIDE OF MOTOR.

01-17-2000

NO.	REVISION	BY & DATE	CHK
10	REVISED –575 MOUNTING MU98218	SJW 11/9/2010	
9	SHAFT EXT. WAS 2.72 NOW 2.75 CN46656	RJW 03-15-2007	ML
8	ADDED 2F DIMENSION TO DASH 575 CN 33528	TAT 04-01-2004	ML
7	SHOWED PROPER THREAD EXT. LOC. CN 29200–323	TJB 04-10-2000	
6	ADDED –675 W/ 182T FRAME & MTGS. CN 27400–320	CAE 01-17-2000	
5	ADDED FOUR MOUNTING HOLES IN BASE CN 26348	DRS 08-11-1998	

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

MARATHON ELECTRIC

TITLE OUTLINE
180 FR. – BB – TS – TENV

DRAWN	SMC 10–01–1992
CHK	MOL 10–01–1992
APPD	GK 10–01–1992
SCALE	9=32
REF	
FMF	
PREV	

MAT'L.
FINISH
CAD FILE ss67889
RFP
DIST LB

SIZE	DRAWING NO.	PAGE	OF	REV.
A	SS67889			10

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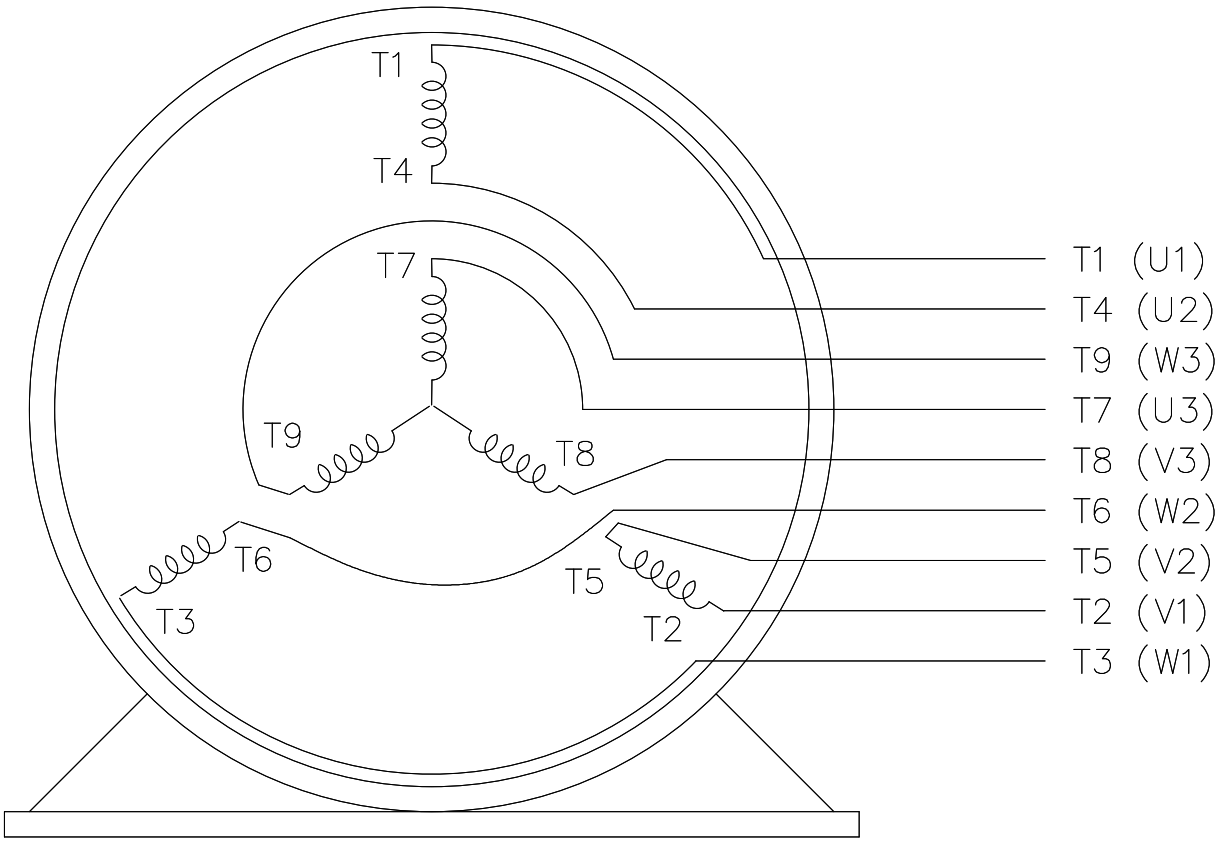
THREE PHASE
DUAL VOLTAGE MOTOR

HIGH VOLTAGE

(U1) T1 — L1
(V1) T2 — L2
(W1) T3 — L3
(U2) T4
(U3) T7
(V2) T5
(V3) T8
(W2) T6
(W3) T9

LOW VOLTAGE

(U1) T1
(U3) T7 — L1
(V1) T2
(V3) T8 — L2
(W1) T3
(W3) T9 — L3
(U2) T4
(V2) T5
(W2) T6



VIEW OF TERMINAL END

REF.
WINDING DIAGRAM

T8Y, T2Y, T2BL, T4BX, T2EC, T2G
T6BZ, T2B, T6BL, T4AV, T6B, T4B

OPTIONAL CORD CONNECTION

L1 — WHITE
L2 — RED
L3 — BLACK

DRAWING REVISION	REVISION BY	REV DATE/ © DATE
J	SB	08/01/2025
REQUEST NUMBER	APPROVED BY	DATE
CR-0023654	SBD	08/01/2025

REQUEST NUMBER DESCRIPTION
DRAWING TITLE BLOCK UPDATED

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DATE	11/20/1990
APPROVED BY	SAS
DATE	04/24/2003
REFERENCE	
THIRD ANGLE PROJECTION	

marathon™

DESCRIPTION
CONN DIAGRAM-EXTERNAL
3Ø - DUAL VOLTAGE MOTOR

MATERIAL	PROCESS/FINISH

SIZE	DRAWING NUMBER	SHEET
A	4 of 6 EE7308	1 OF 1

Data Sheet

Date: 6/29/2017
Customer:
Attention:
Submitted by: FAREEDA DUDEKULA

marathon electric

182TTTS6538

Submittal

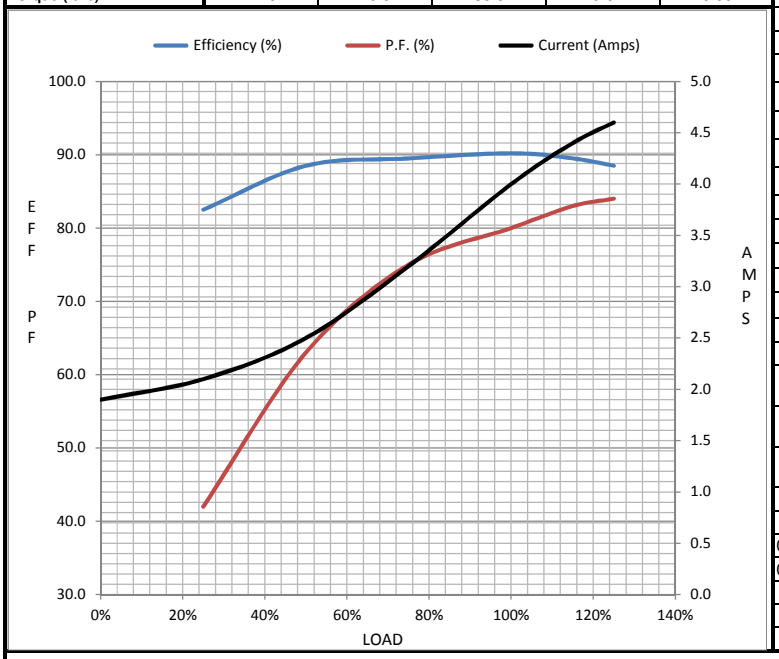
Data @ 460 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	1.90	2.10	2.50	3.2	4.0	4.4	4.6	32.0	
Torque (ft-lb)	0.00	2.20	4.4	6.7	9.0	10.4	11.2	22.5	
RPM	1800	1790	1780	1770	1760	1,755	1750	0	
Efficiency (%)		82.5	88.5	89.5	90.2	89.5	88.5		
P.F. (%)	6.5	42.0	63.0	75.0	80.0	83.0	84.0	47.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	750	1500	1760	1800
Current (Amps)	32.0	30.0	23.0	4.0	1.90
Torque (ft-lb)	22.5	20.0	35.0	9.0	0.00

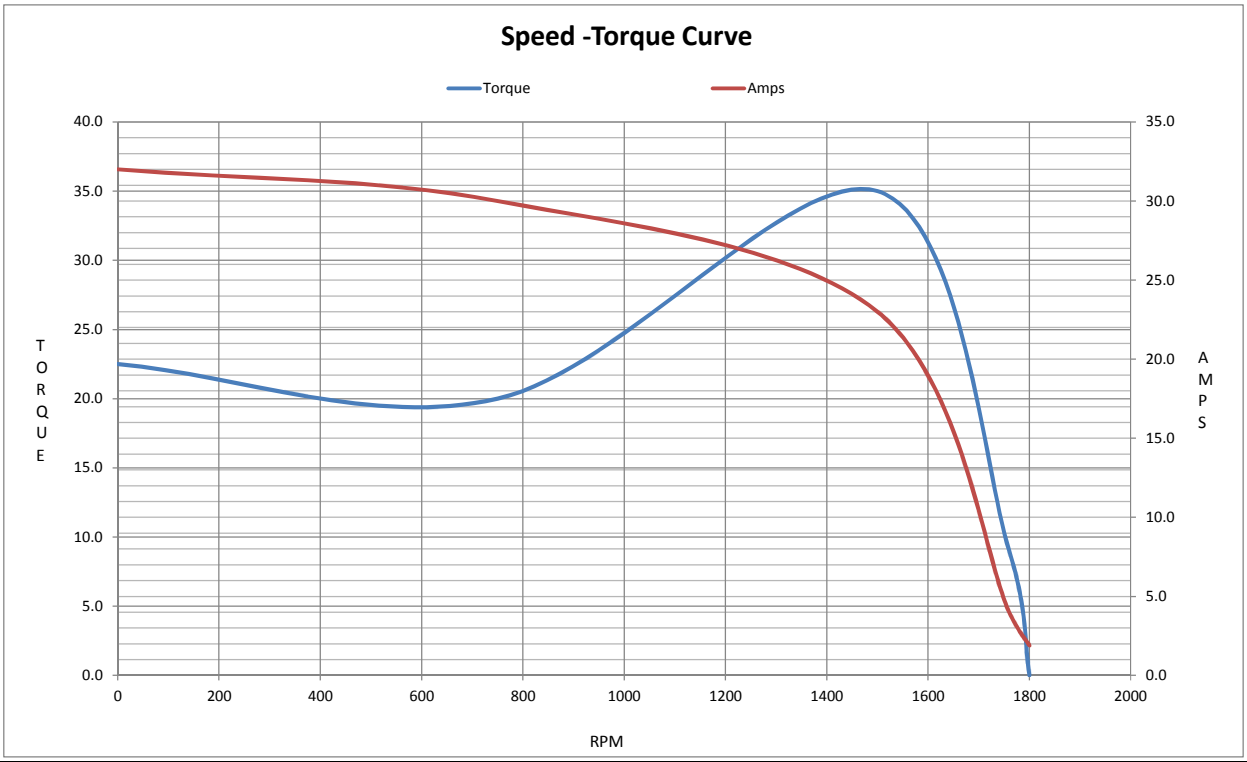


Information Block

HP	3.0
Sync. RPM	1800
Frame	182
Enclosure	TEFC
Construction	TFS
Voltage	230/460#190/380 V
Frequency	60 Hz
Design	B
LR Code letter	K
Service Factor	1.15
Temp Rise @ FL	60 ° C
Duty	CONT
Ambient	40 ° C
Elevation	1,000 feet
Rotor/Shaft wk²	0.40 Lb-Ft²
Ref Wdg	K1824116 NONE
Sound Pressure @ 1M	62 dBA
VFD Rating	CONSTANT 20:1
Outline Dwg	SS67889-575
Conn. Diag	A-EE7308
Additional Specifications:	
0	
0	

EQUIV CKT (OHMS / PHASE)

R1	R2	X1	X2	Xm
2.3530	1.6160	5.0840	7.9000	130.4100



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CERTIFICATION DATA SHEET

Model#:	182TTTS6538 BR	**WINDING#:**	K1824116 NONE 1
CONN. DIAGRAM:	A-EE7308	**ASSEMBLY:**	F1/F2 CAPABLE
OUTLINE:	SS67889-575		

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
3&2	2.24&1.49	1800	1760&1470	182T	TENV	K	B

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60/50	230/460#190/380	8/4&6.8/3.4	LINE OR INVERTER	CONTINUOUS	F3	1.15/1.15	40	3300

FULL LOAD EFF: 90.2&88.5	3/4 LOAD EFF: 89.5	1/2 LOAD EFF: 88.5	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 80&76	3/4 LOAD PF: 75	1/2 LOAD PF: 63	88.5	SQ CAGE INV RATED	3.8 / 1.9

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
9 LB-FT	64 / 32	22.5 LB-FT 250	35 LB-FT 389	60

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
62 dBA	72 dBA	0.4 LB-FT^2	40 LB-FT^2	25 SEC.	2	90 LBS.

*** SUPPLEMENTAL INFORMATION ***

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
STANDARD	STANDARD	RIGID	HORIZONTAL	PREMIUM SEVERE DUTY	DIVISION 2 T2B	FALSE	NONE	BLUE (EPOXY)

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	OPE						
BALL 6206	BALL 6205	POLYREX EM	T	NONE	NONE	1144 STRESSPROOF (C-223)	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
*

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