marathon®

General Purpose Motors

Model No: 405TSTDS16005
Catalog No: U455A

General Purpose Motor, 150 & 125 HP, 3 Ph, 60 & 50 Hz, 460 & 380 V, 3600 RPM, 405TSC Frame, DP

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Product Information Packet: Model No: 405TSTDS16005, Catalog No: U455A General Purpose Motor, 150 & 125 HP, 3 Ph, 60 & 50 Hz, 460 & 380 V, 3600 RPM, 405TSC Frame, DP

Nameplate Specifications

Phase	**3**	Output HP	**150 & 125 Hp**
Output KW	**112.0 & 93.0 kW**	Voltage	**460 & 380 V**
Speed	**3565 & 2965 r/min**	Synchronous RPM	**3600 & 3000 r/min**
Service Factor	**1.15 & 1.15**	Frame	**405TSC**
Enclosure	**Drip Proof**	Thermal Protection	**No Protection**
Efficiency	**95 & 94.1 %**	Ambient Temperature	**40 °C**
Frequency	**60 & 50 Hz**	Current	**165 & 167 A**
Power Factor	**89.5**	Duty	**Continuous**
Insulation Class	**F**	Design Code	**B**
KVA Code	**F**	Drive End Bearing Size	**6313**
Opp Drive End Bearing Size	**6313**	UL	**Recognized**
CSA	**Y**	CE	**Y**
IP Code	**12**	Number of Speeds	**1**

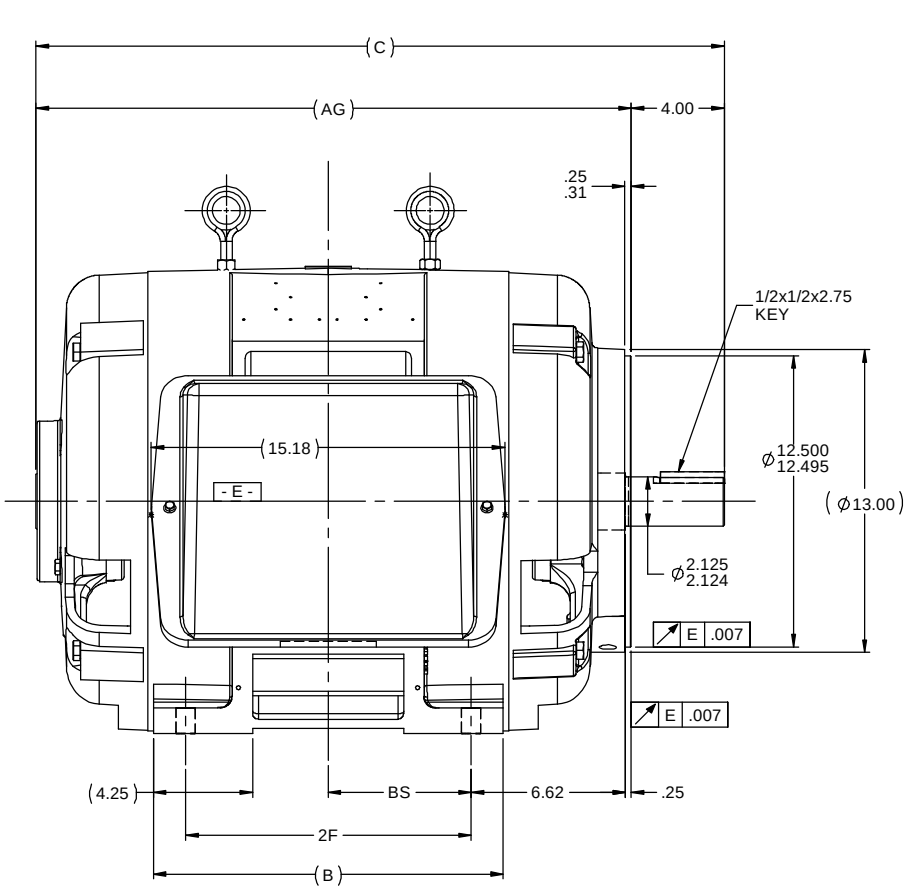
Technical Specifications

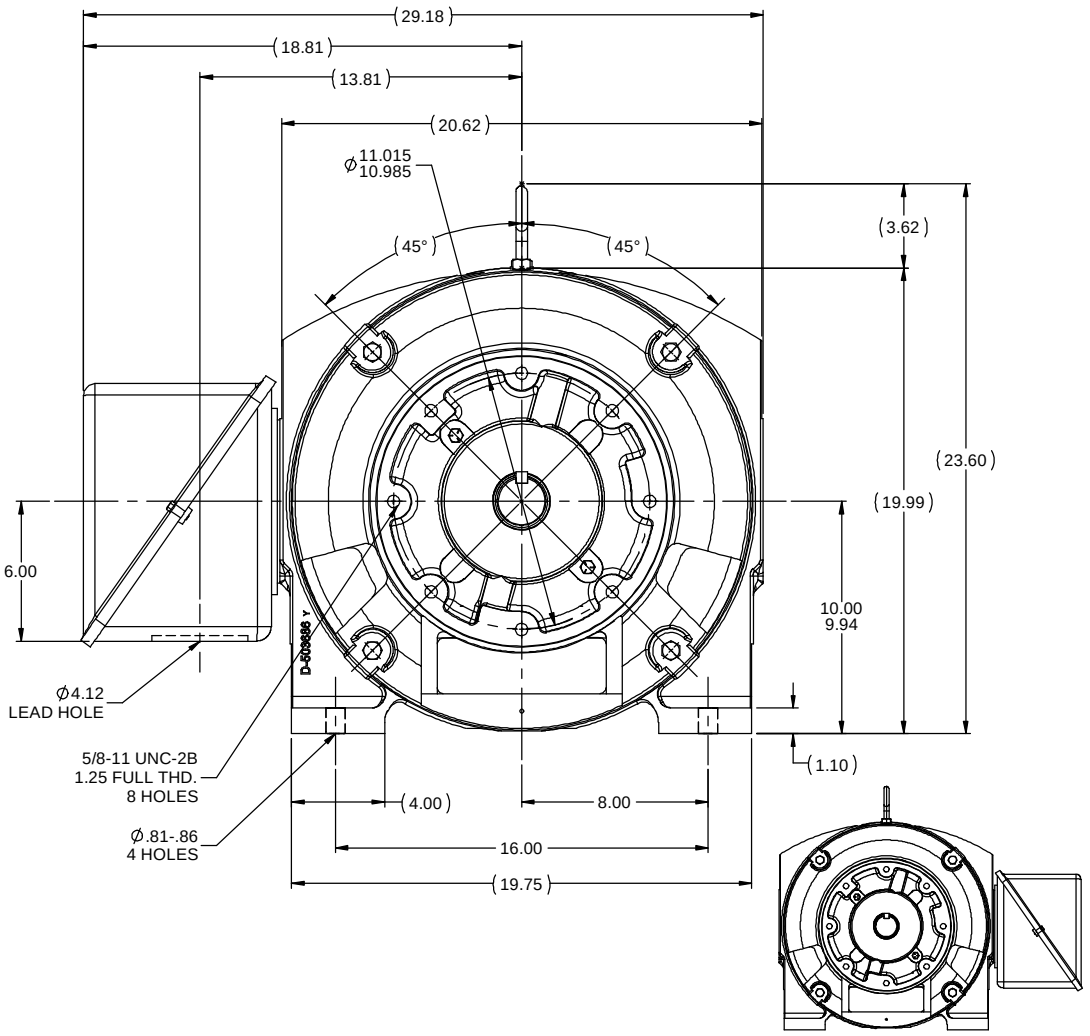
Electrical Type	**Squirrel Cage Induction Run**	Starting Method	**Part Wdg Start & Wye Start Delta Run**
Poles	**2**	Rotation	**Reversible**
Resistance Main	**.0395 O**	Mounting	**Rigid Base**
Motor Orientation	**Horizontal**	Drive End Bearing	**Ball**
Opp Drive End Bearing	**Ball**	Frame Material	**Cast Iron**
Shaft Type	**TS**	Overall Length	**31.0 in**
Frame Length	**17.0 in**	Shaft Diameter	**2 1/8 in**
Shaft Extension	**4 in**	Assembly/Box Mounting	**F1/F2 Capable**

Drawings

Connection Drawing	**A-EE7300BH**	Outline Drawing	**B-SS510954-1700**

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F2 VIEW

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

DASH	FRAME	B	C	2F	AG	BS
1550	404TSC	15.00	29.50	12.25	25.50	6.12
1700	405TSC	16.50	31.00	13.75	27.00	6.88

NO	REVISION	BY & DATE	CHK
07	ADDED F2 VIEW PER MU108019, REDRAWN IN SOLIDWORKS	JG 07/16/2012	DJK
06	REDRAWN IN AUTOCAD	TAT 06/29/2004	ML
05	REPLACED ONE EYEBOLT FOR TWO CN28063	BJW 2/10/2000	
04	UPDATED C'BOX GEOMETRY CN28063	TRB 02/10/2000	
03	REDRAWN IN AUTOCAD	TLB 02/29/1988	

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

THIRD ANGLE PROJECTION

RFP
PREV
NETWORK FILE NAME SS510954

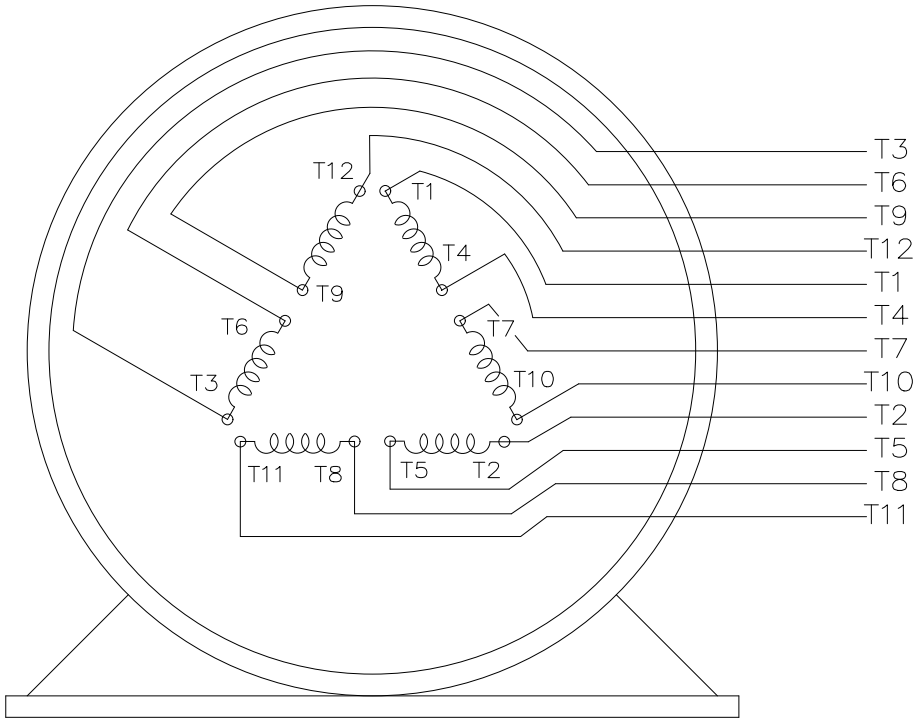
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TITLE OUTLINE
400TSC FR. - DR. PR. - (STD) - C'FACE
MAT'L
FINISH

DRAWN TLB 02/29/1988
CHK FG 02/29/1988
APPR GK 02/29/1988
SCALE 3:16
REF
FMF
PAGE OF

SIZE B
DRAWING NO SS510954
REV 07

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VIEW OF TERMINAL END

T12(W4)
T1(U1)
T6(W2)
T7(U3)
LINE 1

T2(V1)
T4(U2)
T8(V3)
T10(U4)
LINE 2

T3(W1)
T5(V2)
T9(W3)
T11(V4)
LINE 3

DRAWING REVISION: E	REVISION BY: SB	REV DATE/ © DATE: 08/04/2025
REQUEST NUMBER: CR-0023654	APPROVED BY: SBD	DATE: 08/04/2025
REQUEST NUMBER DESCRIPTION: DRAWING TITLE BLOCK UPDATED		

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PRIMARY DIMENSIONS ARE INCH
mm DIMENSIONS IN [BRACKETS]
ARE FOR REFERENCE ONLY

DRAWN BY: RJW	marathon™	
DATE: 02/11/2005		
APPROVED BY: GK	DESCRIPTION: CONNECTION DIAGRAM 12 LEAD - SINGLE VOLTAGE	
DATE: 02/11/2005		
REFERENCE	MATERIAL	PROCESS/FINISH
THIRD ANGLE PROJECTION	SIZE: A / DRAWING NUMBER: EE7300BH	SHEET: 1 OF 1

Data Sheet

Date: 6/20/2017
Customer:
Attention:
Submitted by: FAREEDA DUDEKULA

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405TSTDS16005

Submittal

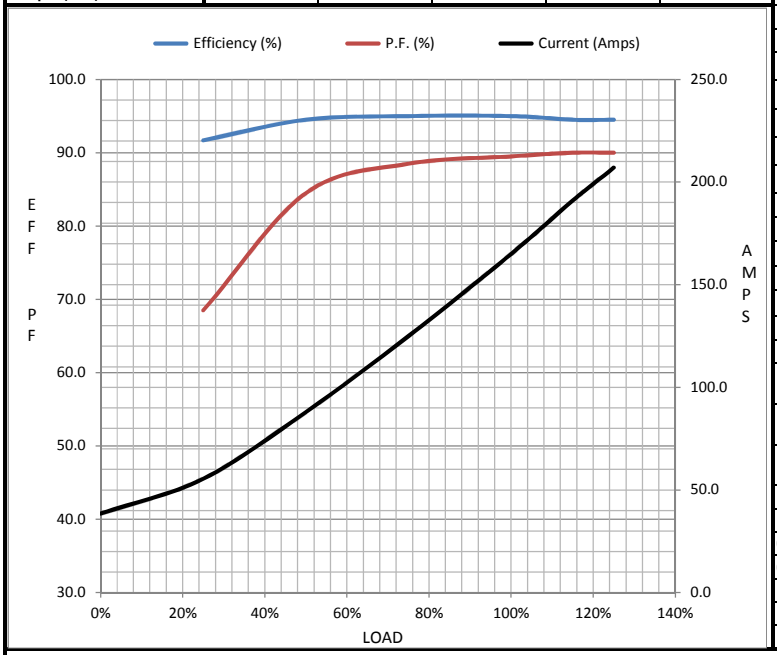
Data @ 460 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	38.5	55.5	88.0	125	165	191	207	1,020	
Torque (ft-lb)	0.00	55.0	110	165	221	255	276	290	
RPM	3600	3592	3585	3575	3565	3,560	3555	0	
Efficiency (%)		91.7	94.5	95.0	95.0	94.5	94.5		
P.F. (%)	7.5	68.5	84.5	88.5	89.5	90.0	90.0	31.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	1800	3400	3565	3600
Current (Amps)	1,020	915	610	165	38.5
Torque (ft-lb)	290	240	560	221	0.00



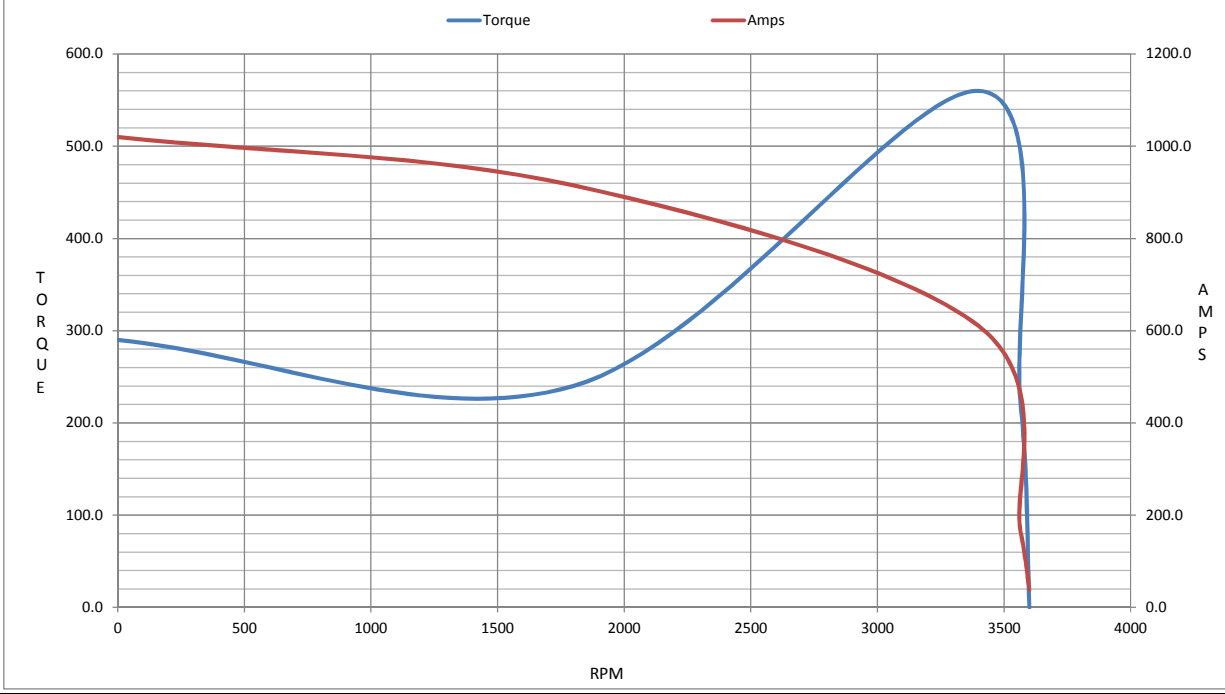
Information Block

HP	150.0
Sync. RPM	3600
Frame	405
Enclosure	DP
Construction	TDS
Voltage	460#380 V
Frequency	60 Hz
Design	B
LR Code letter	F
Service Factor	1.15
Temp Rise @ FL	45 ° C
Duty	CONT
Ambient	40 ° C
Elevation	1,000 feet
Rotor/Shaft wk²	16.5 Lb-Ft²
Ref Wdg	T405241 NONE
Sound Pressure @ 1M	82 dBA
VFD Rating	NONE
Outline Dwg	B-SS510954-1700
Conn. Diag	A-EE7300BH
Additional Specifications:	
0	
0	

EQUIV CKT (OHMS / PHASE)

R1	R2	X1	X2	Xm
0.0220	0.0130	0.1870	0.1440	6.0900

Speed -Torque Curve



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CERTIFICATION DATA SHEET

Model#:	405TSTDS16005 AN	**WINDING#:**	T405241 NONE 2
CONN. DIAGRAM:	A-EE7300BH	**ASSEMBLY:**	F1/F2 CAPABLE
OUTLINE:	B-SS510954-1700		

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
150&125	112&93	3600	3565&2965	405TSC	DP	F	B

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60/50	460#380	165&167	PWS & YDRUN	CONTINUOUS	B1	1.15/1.15	40	3300

FULL LOAD EFF: 95&94.1	3/4 LOAD EFF: 95	1/2 LOAD EFF: 94.5	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 89.5&90	3/4 LOAD PF: 88.5	1/2 LOAD PF: 84.5	94.5	SQ CAGE IND RUN	38.5

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
221 LB-FT	1020	290 LB-FT 130	560 LB-FT 253	40

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
82 dBA	92 dBA	16.5 LB-FT^2	140 LB-FT^2	10 SEC.	2	1100 LBS.

*** SUPPLEMENTAL INFORMATION ***

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
C-FACE	STANDARD	RIGID	HORIZONTAL	FALSE	NONE	FALSE	NONE	BLUE (ENAMEL)

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	OPE						
BALL 6313	BALL 6313	POLYREX EM	TS	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: NONE
INV. HP SPEED RANGE: NONE

ENCODER: NONE
NONE NONE
NONE NONE PPR

BRAKE: NONE NONE
NONE P/N NONE
NONE NONE
- FT-LB NONE V NONE Hz

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