marathon®

General Purpose Motors

Model No: 405TSTDCD6028
Catalog No: GT0288

General Purpose Motor, 125 & 100 HP, 3 Ph, 60 & 50 Hz, 460 & 380 V, 1800 RPM, 405TSC Frame, DP

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Product Information Packet: Model No: 405TSTDCD6028, Catalog No: GT0288 General Purpose Motor, 125 & 100 HP, 3 Ph, 60 & 50 Hz, 460 & 380 V, 1800 RPM, 405TSC Frame, DP

Nameplate Specifications

Phase	**3**	Output HP	**125 & 100 Hp**
Output KW	**93.0 & 75.0 kW**	Voltage	**460 & 380 V**
Speed	**1785 & 1485 r/min**	Synchronous RPM	**1800 & 1500 r/min**
Service Factor	**1.15 & 1.15**	Frame	**405TSC**
Enclosure	**Drip Proof**	Thermal Protection	**No Protection**
Efficiency	**95.4 & 95 %**	Ambient Temperature	**40 °C**
Frequency	**60 & 50 Hz**	Current	**142 & 138 A**
Power Factor	**86**	Duty	**Continuous**
Insulation Class	**F**	Design Code	**B**
KVA Code	**G**	Drive End Bearing Size	**6316**
Opp Drive End Bearing Size	**6315**	UL	**Recognized**
CSA	**Y**	CE	**Y**
IP Code	**22**	Number of Speeds	**1**

Technical Specifications

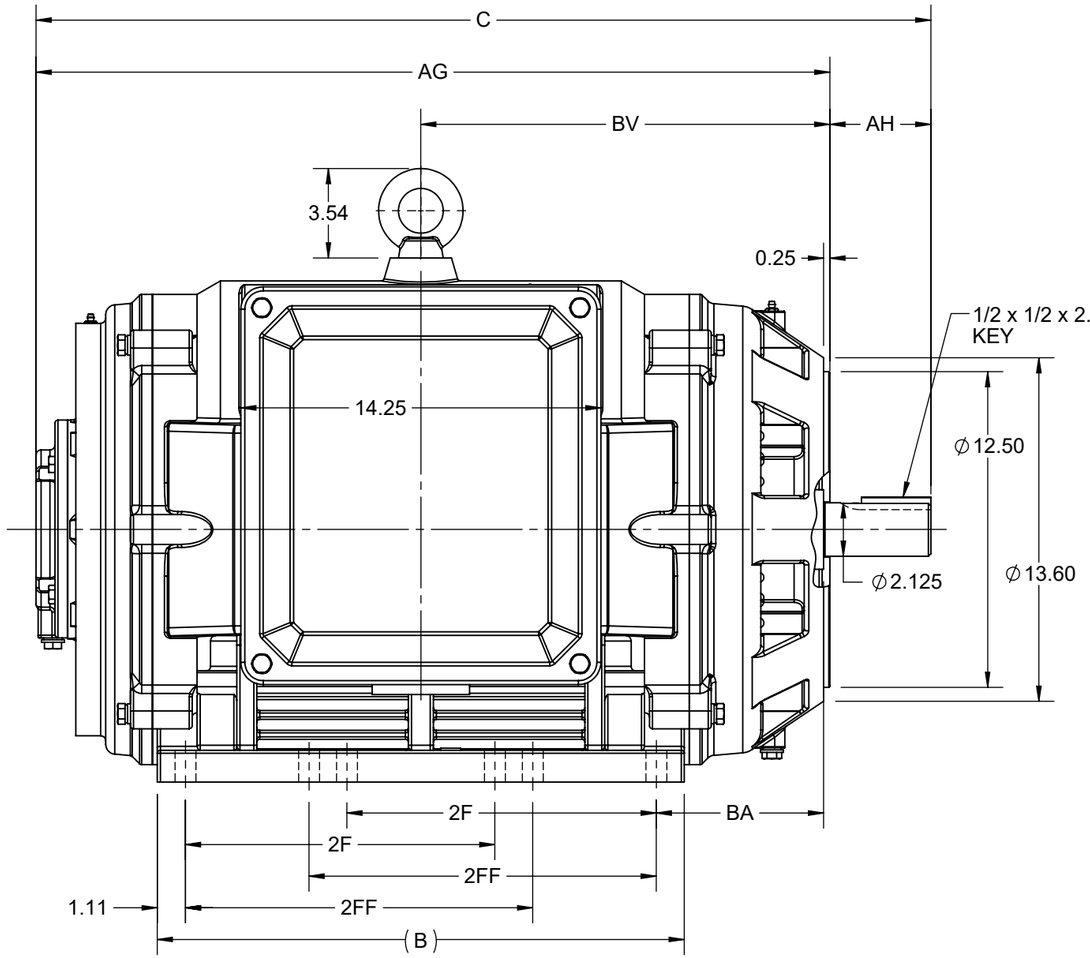
Electrical Type	**Squirrel Cage Inverter Rated**	Starting Method	**Part Wdg Start Or Inverter**
Poles	**4**	Rotation	**Reversible**
Resistance Main	**.044 O**	Mounting	**Rigid Base**
Motor Orientation	**Horizontal**	Drive End Bearing	**Ball**
Opp Drive End Bearing	**Ball**	Frame Material	**Cast Iron**
Shaft Type	**TS**	Shaft Diameter	**2.125 in**
Assembly/Box Mounting	**F1/F2 Capable**	Inverter Load	**Variable 10:1**

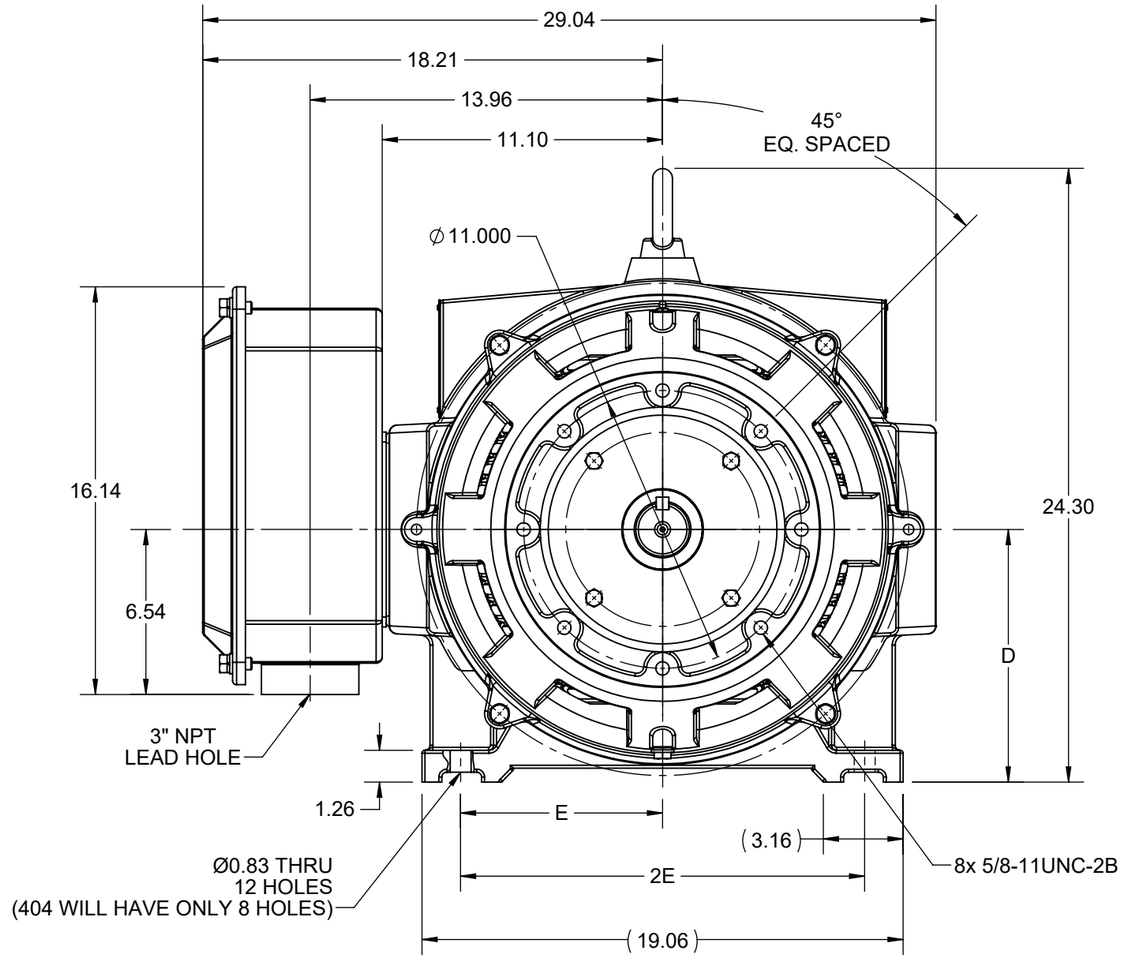
Drawings

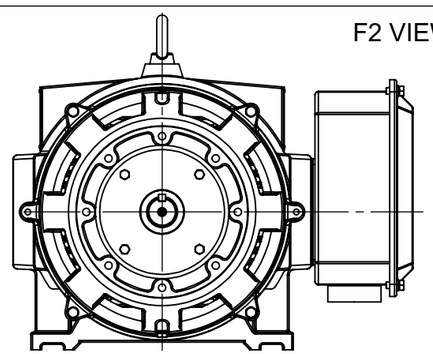
Connection Drawing	**EE7341C**	Outline Drawing	**SS620753-200**

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DASH NO.	B	C	D	E	2E	2F	2FF	AG	AH	BA	BV	MOUNTING	FRAME
100	19.29	33.85	10.00	8.00	16.00	---	12.25	29.86	4.00	6.62	15.41	F1 OR F2	404TSC
200	20.87	35.43				12.25	13.75	31.43			16.20		404/405TSC







DRAWING REVISION	REVISION BY	REV DATE/© DATE
D	SB	08/01/2025
REQUEST NUMBER	APPROVED BY	DATE
CR-0023600	SBD	08/01/2025

REQUEST NUMBER DESCRIPTION
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DATE	21/07/2016
APPROVED BY	
DATE	
REFERENCE	
THIRD ANGLE PROJECTION	

marathon™

DESCRIPTION
OUTLINE
404/405TSC FR NEMA ODP CAST IRON

MATERIAL	PROCESS/FINISH

SIZE	DRAWING NUMBER	SHEET
B	SS620753	1 OF 1

Uncontrolled Copy

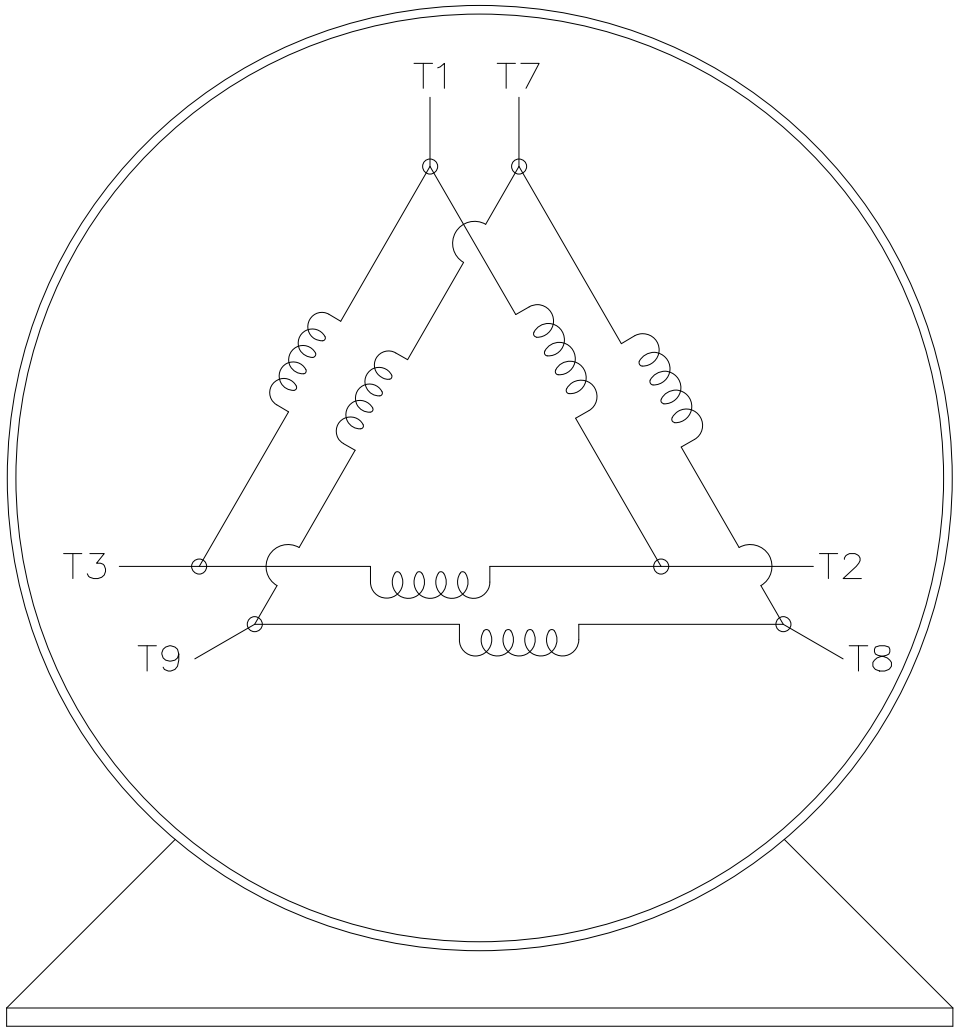
THREE PHASE – PART WINDING START
DELTA – 6 LEADS

START

CONNECT T1 TO LINE 1
CONNECT T2 TO LINE 2
CONNECT T3 TO LINE 3
T7–T8–T9 OPEN

RUN

CONNECT T1&T7 TO LINE 1
CONNECT T2&T8 TO LINE 2
CONNECT T3&T9 TO LINE 3



VIEW OF TERMINAL END

IF MOTOR HAS 2 T'S

START

CONNECT T1,T1 TO LINE 1
CONNECT T2,T2 TO LINE 2
CONNECT T3,T3 TO LINE 3
T7,T7–T8,T8–T9,T9 OPEN

RUN

CONNECT T1,T1&T7,T7 TO LINE 1
CONNECT T2,T2&T8,T8 TO LINE 2
CONNECT T3,T3&T9,T9 TO LINE 3

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CR-0023654	SBD	08/01/2025

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DATE	03/09/1998
APPROVED BY	GK
DATE	03/23/1998
REFERENCE	
THIRD ANGLE PROJECTION	

marathon™

DESCRIPTION
CONN DIAGRAM-EXTERNAL
3Ø – 6 LEADS

MATERIAL	PROCESS/FINISH

SIZE	DRAWING NUMBER	SHEET
A	EE7341C	1 OF 1

Data Sheet

Date: 6/15/2022
Customer:
Attention:
Submitted by: CHANDANA DESU

marathon® Motors

405TSTDCD6028

Submittal

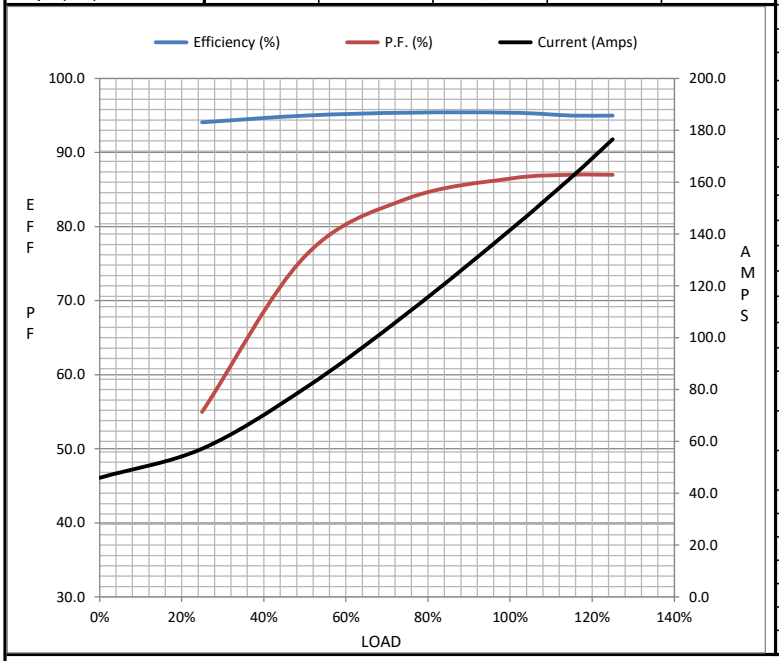
Data @ 460 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	46.0	57.2	80.5	110	142	162	177	907	
Torque (ft-lb)	0.00	91.5	183	275	368	423	460	790	
RPM	1800	1796	1794	1790	1785	1,782	1780	0	
Efficiency (%)		94.1	95.0	95.4	95.4	95.0	95.0		
P.F. (%)	4.5	55.0	76.0	83.8	86.5	87.0	87.0	33.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1720	1785	1800
Current (Amps)	907	720	505	142	46.0
Torque (ft-lb)	790	590	1,050	368	0.00



Information Block

HP	125.0	
Sync. RPM	1800	
Frame	405	
Enclosure	DP	
Construction	TDC	
Voltage	460#380	V
Frequency	60	Hz
Design	B	
LR Code letter	G	
Service Factor	1.15	
Temp Rise @ FL	35	° C
Duty	CONT	
Ambient	40	° C
Elevation	3,300	feet
Rotor/Shaft wk²	35.0	Lb-Ft²
Ref Wdg	HA32504009 NONE	
Sound Pressure @ 1M	78	dBA
VFD Rating	VARIABLE 10:1	
Outline Dwg	SS620753-200	
Conn. Diag	EE7341C	

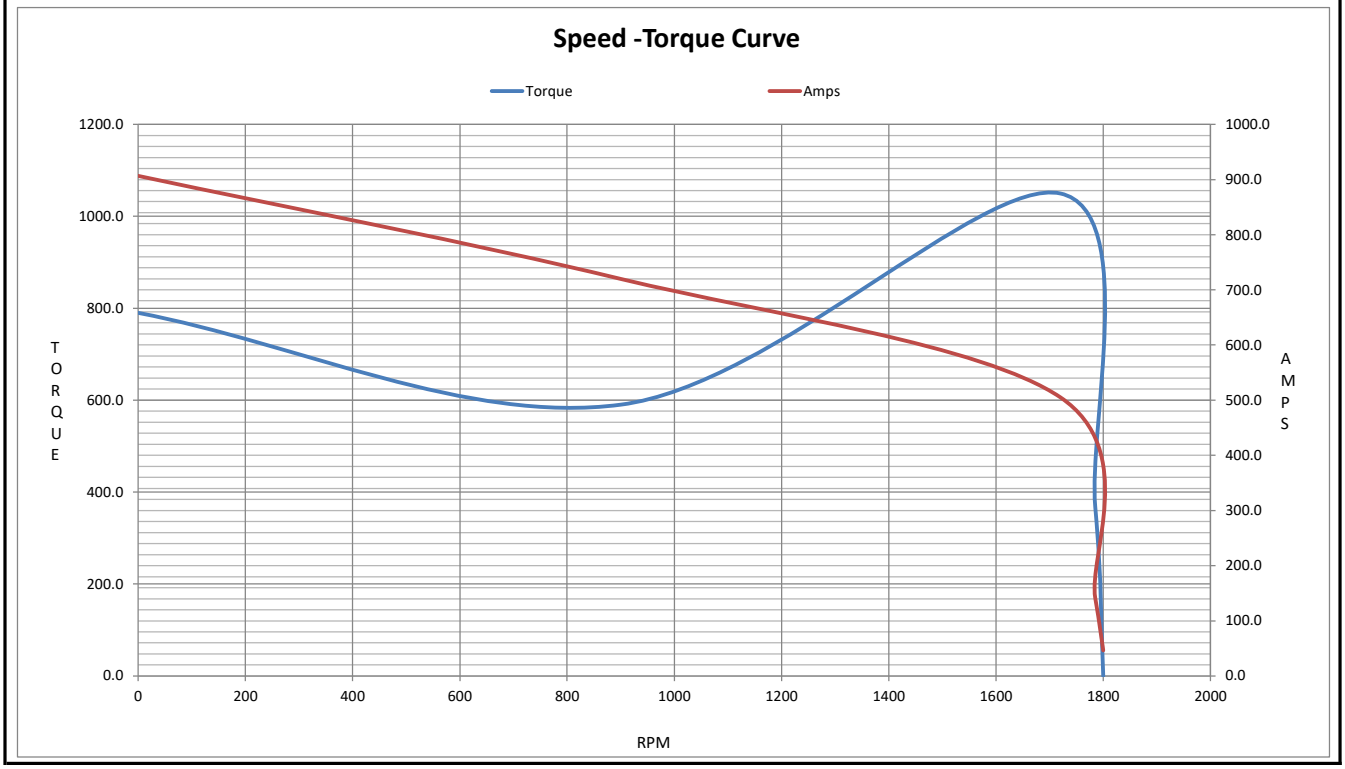
Additional Specifications:

0

0

EQUIV CKT (OHMS / PHASE)

R1	R2	X1	X2	Xm
0.0250	0.0170	0.1480	0.2720	5.6750



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

marathon® Motors

DATA VOLTS: 460

CERTIFICATION DATA SHEET

CUSTOMER:
ORDER #:
CONN. DIAGRAM: EE7341C
OUTLINE: SS620753-200
WINDING: HA32504009 NONE 1
SPEED:

CUSTOMER P.O. #:
REFERENCE MODEL #: 405TSTDCD6028
CAT #: GT0288
CUSTOMER PART #:
MOUNTING: F1/F2 CAPABLE

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
125	93	1800	1785	405TSC	DP	TDC	G	B

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB	ELEV.
3	60/50	460#380	142&138	PWS OR INVERTER	CONT	F	1.15	40	3300

F.L. EFF	95.4	3/4 LD EFF	95.4	1/2 LD EFF	95.0	GTD EFF	ELECT. TYPE
F.L. PF	86.5	3/4 LD PF	83.8	1/2 LD PF	76.0	95.0	SQ CAGE INV RATED

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (° C)	
368 LB-FT	907	790 LB-FT 215%	1,050 LB-FT 285%	35	

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK²	MAX. LOAD WK²	SAFE STALL TIME	STARTS/HOUR	APROX. MOTOR WGT
78 dBA	87 dBA	35.0 LB-FT²	650 LB-FT²	20 SEC.	2	1300 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	YES	NONE	BLUE (ENAMEL)

BEARINGS DE	BEARINGS ODE	GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
BALL	BALL	POLYREX EM	TS	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON
6316	6315						

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
0.025	0.017	0.148	0.272	5.675	0.150	ODE

* NOTES *

INVERTER TORQUE: VARIABLE 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 - LI,ME-INS,CONST UL REC

PREPARED BY: CHANDANA DESU
DATE: 6/15/2022

FORM: 3531 REV_4 2/27/06