marathon®

Explosion Proof Motors

Model No: 444TTGN16580
Catalog No: E580A

Explosion Proof Motor, 100 & 75 HP, 3 Ph, 60 & 50 Hz, 230/460 & 190/380 V, 1200 RPM, 444T Frame, EPFC

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Product Information Packet: Model No: 444TTGN16580, Catalog No: E580A Explosion Proof Motor, 100 & 75 HP, 3 Ph, 60 & 50 Hz, 230/460 & 190/380 V, 1200 RPM, 444T Frame, EPFC

Nameplate Specifications

Phase	**3**	Output HP	**100 & 75 Hp**
Output KW	**75.0 & 56.0 kW**	Voltage	**230/460 & 190/380 V**
Speed	**1188 & 990 r/min**	Synchronous RPM	**1200 & 1000 r/min**
Service Factor	**1.15 & 1.15**	Frame	**444T**
Enclosure	**Explosion Proof Fan cooled**	Thermal Protection	**Thermostat**
Efficiency	**95 & 94.5 %**	Ambient Temperature	**40 °C**
Frequency	**60 & 50 Hz**	Current	**248/124 & 230/115 A**
Power Factor	**80**	Duty	**Continuous**
Insulation Class	**F**	Design Code	**B**
KVA Code	**G**	Drive End Bearing Size	**6318**
Opp Drive End Bearing Size	**6316**	UL	**UL Listed; also, UL Certified for Canada**
CSA	**N**	CE	**N**
IP Code	**54**	Number of Speeds	**1**
Hazardous Location	**DIV 1 EXP PROOF CL I GR CD CL II GR FG T3C**		

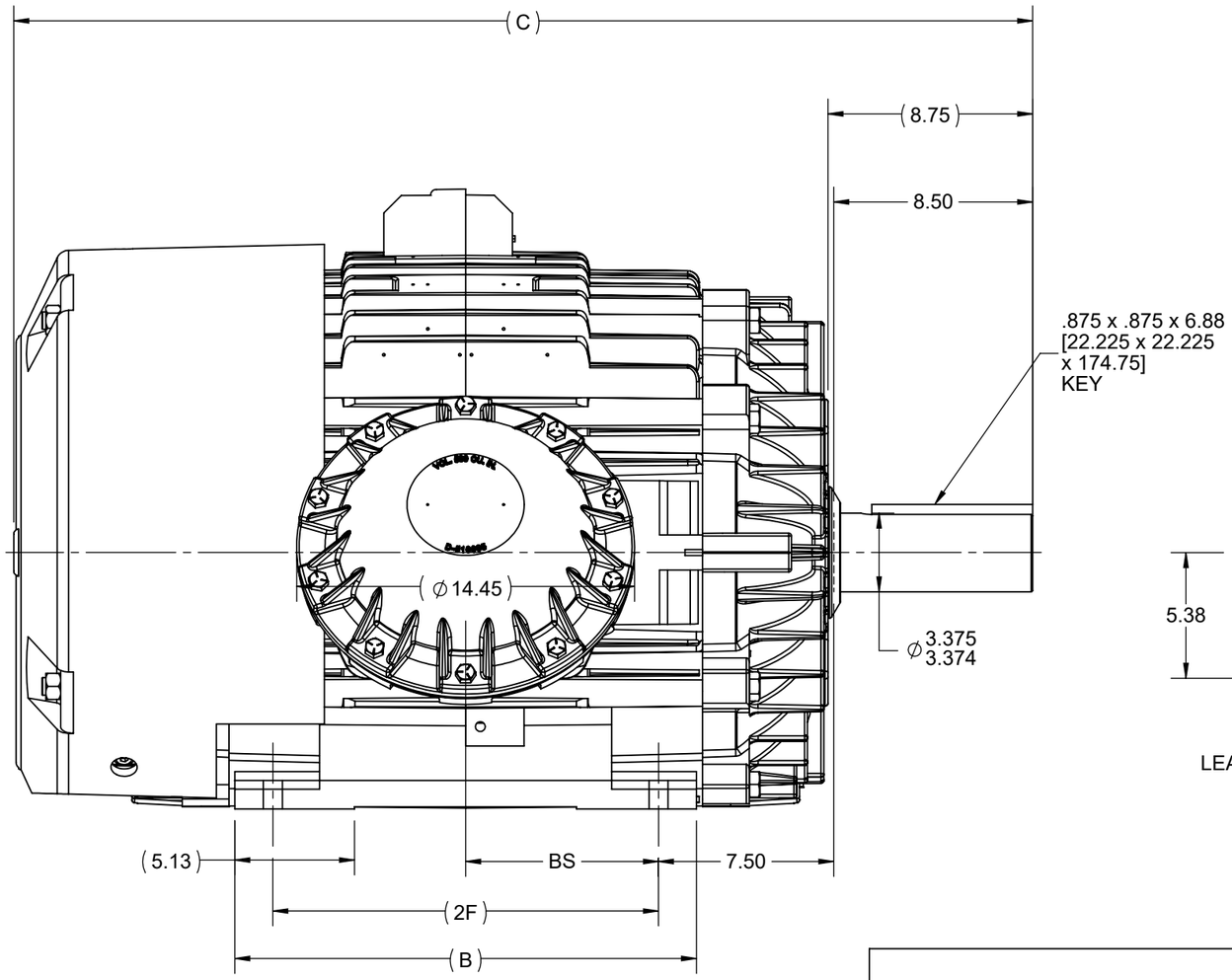
Technical Specifications

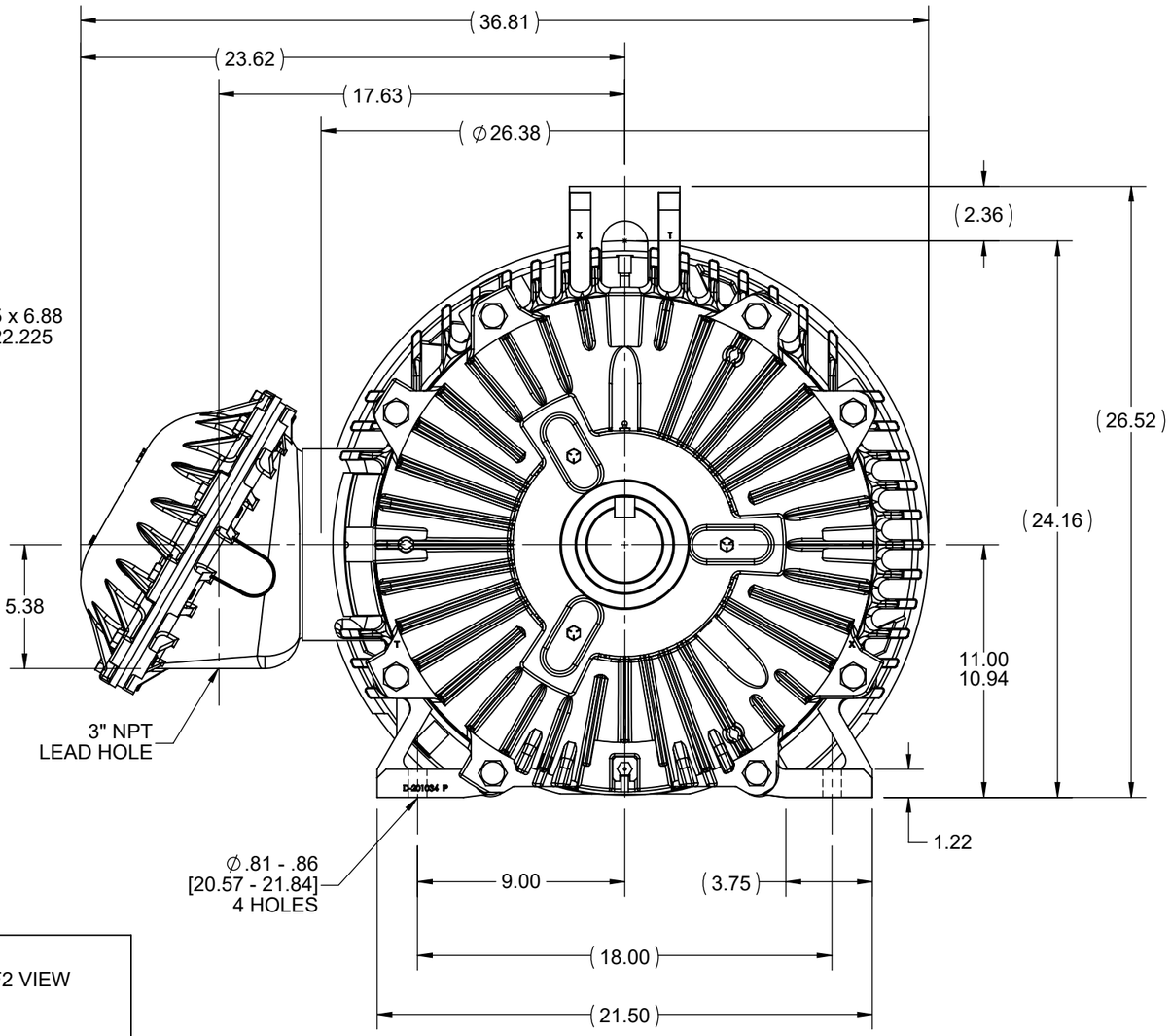
Electrical Type	**Squirrel Cage Inverter Rated**	Starting Method	**Line Or Inverter**
Poles	**6**	Rotation	**Reversible**
Resistance Main	**.048 O**	Mounting	**Rigid Base**
Motor Orientation	**Horizontal**	Drive End Bearing	**Ball**
Opp Drive End Bearing	**Ball**	Frame Material	**Cast Iron**
Shaft Type	**T**	Overall Length	**41.35 in**
Frame Length	**18.25 in**	Shaft Diameter	**3 3/8 in**
Shaft Extension	**8.75 in**	Assembly/Box Mounting	**F1 Only**
Inverter Load	**Constant 2:1/Variable 10:1**		

Drawings

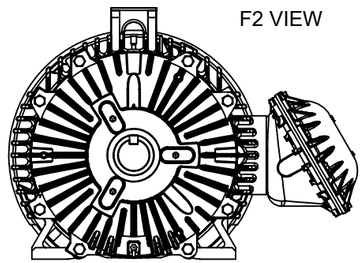
Connection Drawing	**A-EE7308AD**	Outline Drawing	**B-SS515577-1825**

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NOTES:
1. NAMEPLATES TO BE READ FROM CONDUIT BOX SIDE OF MOTOR.



DASH	FRAME	B	C	2F	BS
1825	444T	17.75	41.59	14.50	7.25
2025	445T	19.75	43.59	16.50	8.25

DRAWING REVISION	REVISION BY	REV DATE/© DATE
F	SB	08/29/2025
REQUEST NUMBER	APPROVED BY	DATE
CR-0023556	SBD	08/29/2025

REQUEST NUMBER DESCRIPTION
DRAWING TITLE BLOCK UPDATED

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TOLERANCES (EXCEPT AS NOTED):

DEC.	INCH	mm	ANGLE
.X	±0.1	[±3]	±7' 30"
.XX	±0.03	[±0.8]	
.XXX	±0.005	[±0.13]	
.XXXX	±0.0005	[±0.013]	

REMOVE BURRS & BREAK SHARP EDGES: .003/.015 [.08/.38] X 45°
CORNER FILLETS: R.02 [.5]
MACHINED SURFACES: 200/ 5.1/ INCH mm
mm DIMENSIONS IN [BRACKETS] ARE FOR REFERENCE ONLY

DRAWN BY	SMC
DATE	04-15-1996
APPROVED BY	JPN
DATE	04-19-1996
REFERENCE	
THIRD ANGLE PROJECTION	

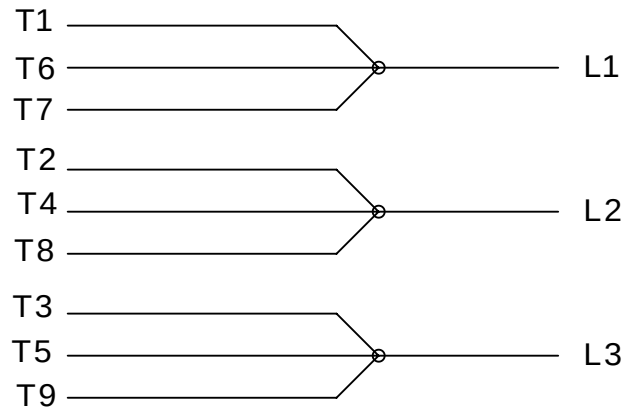
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DESCRIPTION
OUTLINE
444/445T FR. - EXPLOSION PROOF

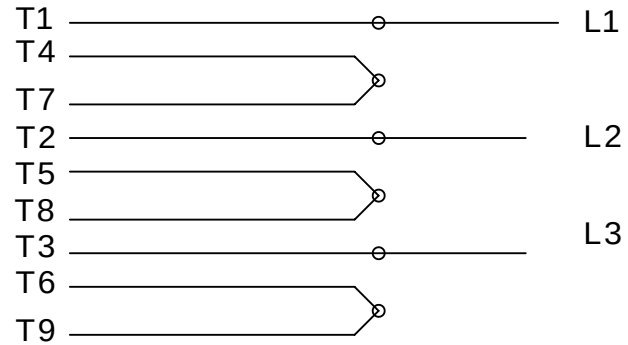
MATERIAL | PROCESS/FINISH

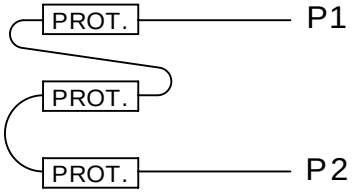
SIZE B | DRAWING NUMBER SS515577 | SHEET 1 OF 1

LOW VOLTAGE

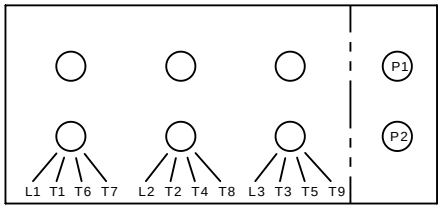


HIGH VOLTAGE

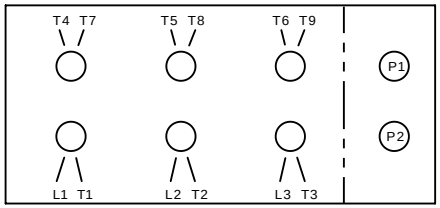


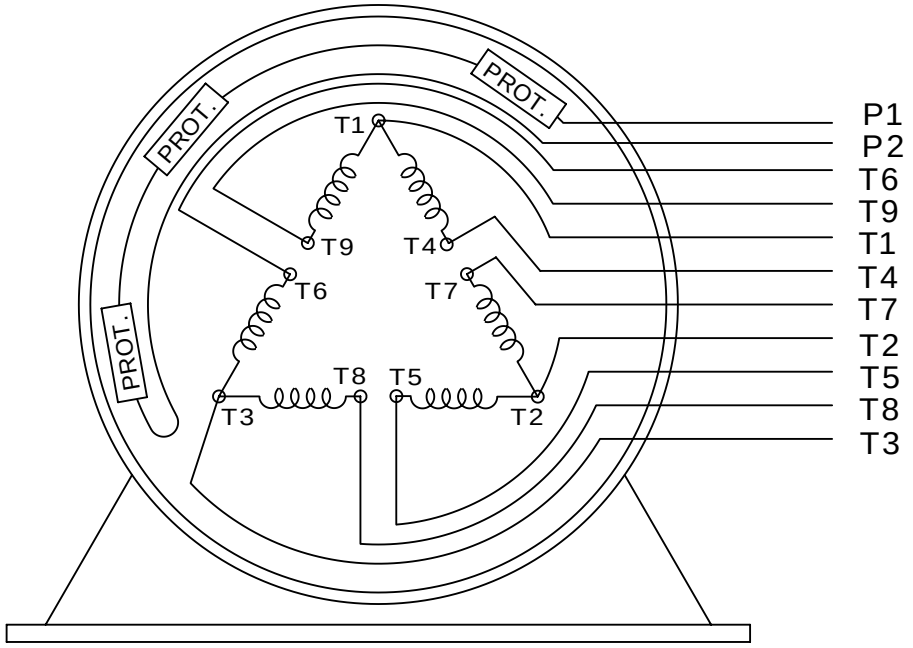


LOW VOLTAGE



HIGH VOLTAGE





VIEW OF TERMINAL END

WHEN MORE THAN ONE PROT. IS USED; PROT. ARE CONNECTED IN SERIES

DRAWING REVISION M	REVISION BY SB	REV DATE/© DATE 06/03/2026	PRIMARY DIMENSIONS ARE INCH mm DIMENSIONS IN [BRACKETS] ARE FOR REFERENCE ONLY	DRAWN BY MJD	marathon™
REQUEST NUMBER CR-0026504	APPROVED BY RMS	DATE 06/03/2026		DATE 12-19-1997	
REQUEST NUMBER DESCRIPTION DRAWING TITLE BLOCK UPDATED				APPROVED BY GK	DESCRIPTION CONN DIAGRAM-EXTERNAL
				DATE 01-07-1998	
				REFERENCE	MATERIAL / PROCESS/FINISH
				THIRD ANGLE PROJECTION	SIZE A / DRAWING NUMBER ee7308ad / SHEET 1 OF 1

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Data Sheet

Date: 16-06-2017
Customer:
Attention:
Submitted by: FAREEDA DUDEKULA

marathon® electric

444TTGN16580

Submittal

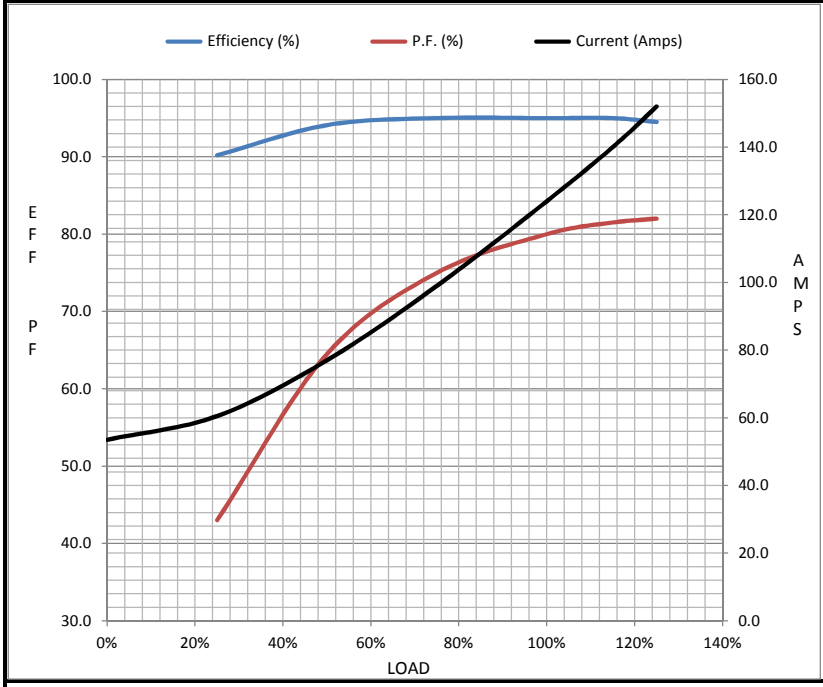
Data @ 460 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	53.5	60.5	77.0	99.0	124	140	152	725	
Torque (ft-lb)	0.00	110	220	331	442	509	554	750	
RPM	1200	1198	1195	1192	1188	1,186	1184	0	
Efficiency (%)		90.2	94.1	95.0	95.0	95.0	94.5		
P.F. (%)	4.0	43.0	64.5	75.0	80.0	81.5	82.0	28.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	600	1150	1188	1200
Current (Amps)	725	650	425	124	53.5
Torque (ft-lb)	750	600	1,100	442	0.00



Information Block

HP	100.0
Sync. RPM	1200
Frame	444
Enclosure	TEFC
Construction	TFN
Voltage	230/460#190/38(V
Frequency	60 Hz
Design	B
LR Code letter	G
Service Factor	1.15
Temp Rise @ FL	70 ° C
Duty	CONT
Ambient	40 ° C
Elevation	1,000 feet
Rotor/Shaft wk²	55.0 Lb-Ft²
Ref Wdg	T444689 NONE
Sound Pressure @ 1M	72 dBA
VFD Rating	VARIABLE 10:1
Outline Dwg	B-SS515577-1825
Conn. Diag	A-EE7308AD

Additional Specifications:

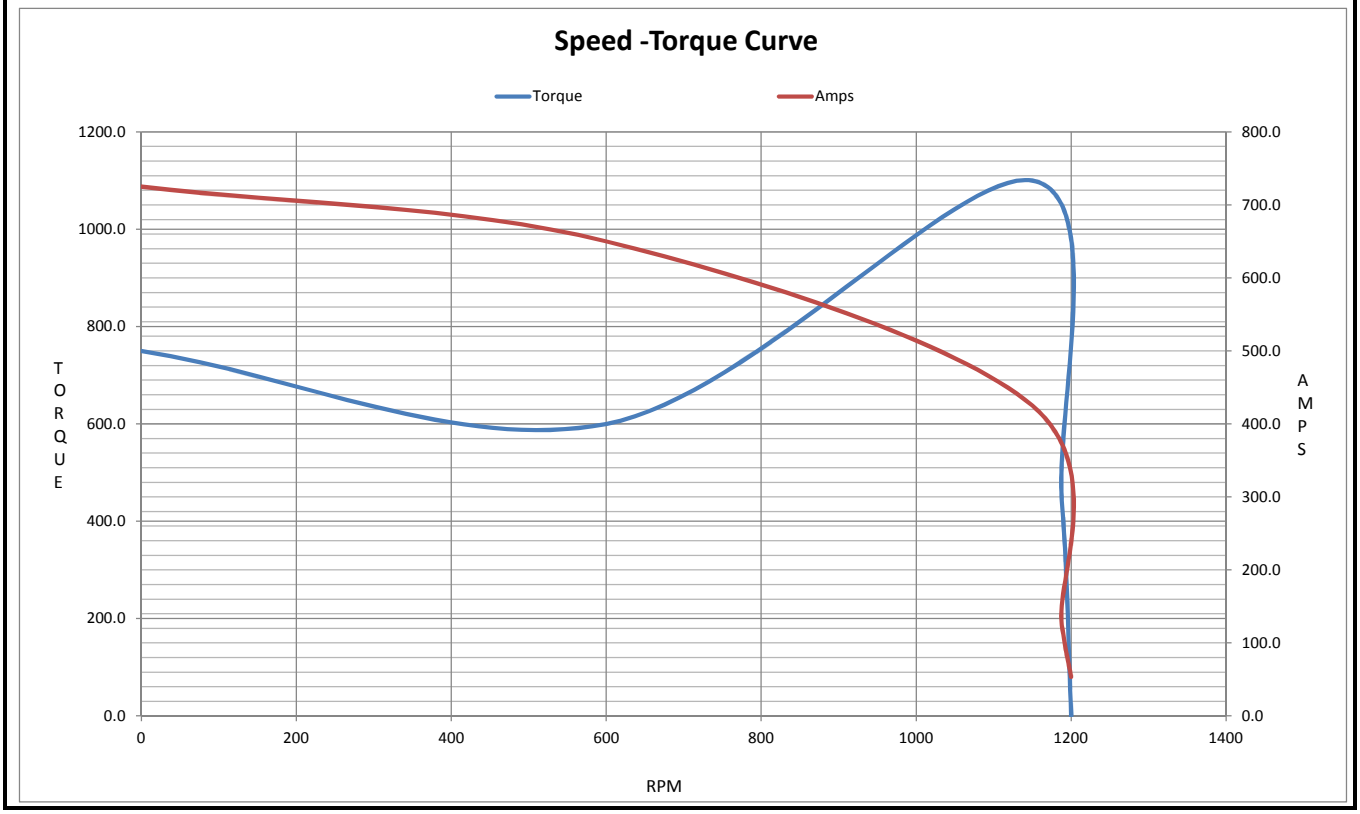
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365THFS8036

EQUIV CKT (OHMS / PHASE)

R1	R2	X1	X2	Xm
0.0340	0.0220	0.2350	0.2780	4.8420

Speed -Torque Curve



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CERTIFICATION DATA SHEET

Model#:	444TTGN16580 AA	**WINDING#:**	T444689 NONE 1
CONN. DIAGRAM:	A-EE7308AD	**ASSEMBLY:**	F1 ONLY
OUTLINE:	B-SS515577-1825		

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
100&75	75&56	1200	1188&990	444T	EPFC	G	B

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60/50	230/460#190/380	248/124&230/115	LINE OR INVERTER	CONTINUOUS	F1	1.15/1.15	40	3300

FULL LOAD EFF: 95&94.5	3/4 LOAD EFF: 95	1/2 LOAD EFF: 94.1	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 80&79	3/4 LOAD PF: 75	1/2 LOAD PF: 64.5	94.5	SQ CAGE INV RATED	107 / 53.5

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
442 LB-FT	1450 / 725	750 LB-FT 170	1100 LB-FT 249	70

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
72 dBA	82 dBA	55 LB-FT^2	1400 LB-FT^2	25 SEC.	2	1850 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	EXP PROOF CL I GR C&D CL II GR F&G T3C	FALSE	NONE	BLUE (EPOXY)

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	OPE						
BALL 6318	BALL 6316	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			
TSTATS (N/C)	NOT	NONE	NONE	NONE	FALSE	NONE VOLTS

If Inverter equals NONE, contact factory for further information

INVERTER TORQUE: VARIABLE 10:1
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

* NOTES *

DATE: 06/21/2017 04:39:43 AM
FORM 3531 REV.3 02/07/99
** Subject to change without notice.