marathon®

General Purpose Motors

Model No: 256TTFL16002
Catalog No: E2123

General Purpose Motor, 20 & 20 HP, 3 Ph, 60 & 50 Hz, 230/460 & 190/380 V, 3600 RPM, 256T Frame, TEFC

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Product Information Packet: Model No: 256TTFL16002, Catalog No: E2123 General Purpose Motor, 20 & 20 HP, 3 Ph, 60 & 50 Hz, 230/460 & 190/380 V, 3600 RPM, 256T Frame, TEFC

Nameplate Specifications

Phase	**3**	Output HP	**20 & 20 Hp**
Output KW	**14.9 & 14.9 kW**	Voltage	**230/460 & 190/380 V**
Speed	**3537 & 2925 r/min**	Synchronous RPM	**3600 & 3000 r/min**
Service Factor	**1.15 & 1.15**	Frame	**256T**
Enclosure	**Totally Enclosed Fan Cooled**	Thermal Protection	**No Protection**
Efficiency	**92.4 & 91.7 %**	Ambient Temperature	**40 °C**
Frequency	**60 & 50 Hz**	Current	**47/23.4 & 56/28 A**
Power Factor	**86**	Duty	**Continuous**
Insulation Class	**F**	Design Code	**B**
KVA Code	**G**	Drive End Bearing Size	**6309**
Opp Drive End Bearing Size	**6208**	UL	**Recognized**
CSA	**Y**	CE	**Y**
IP Code	**43**	Number of Speeds	**1**

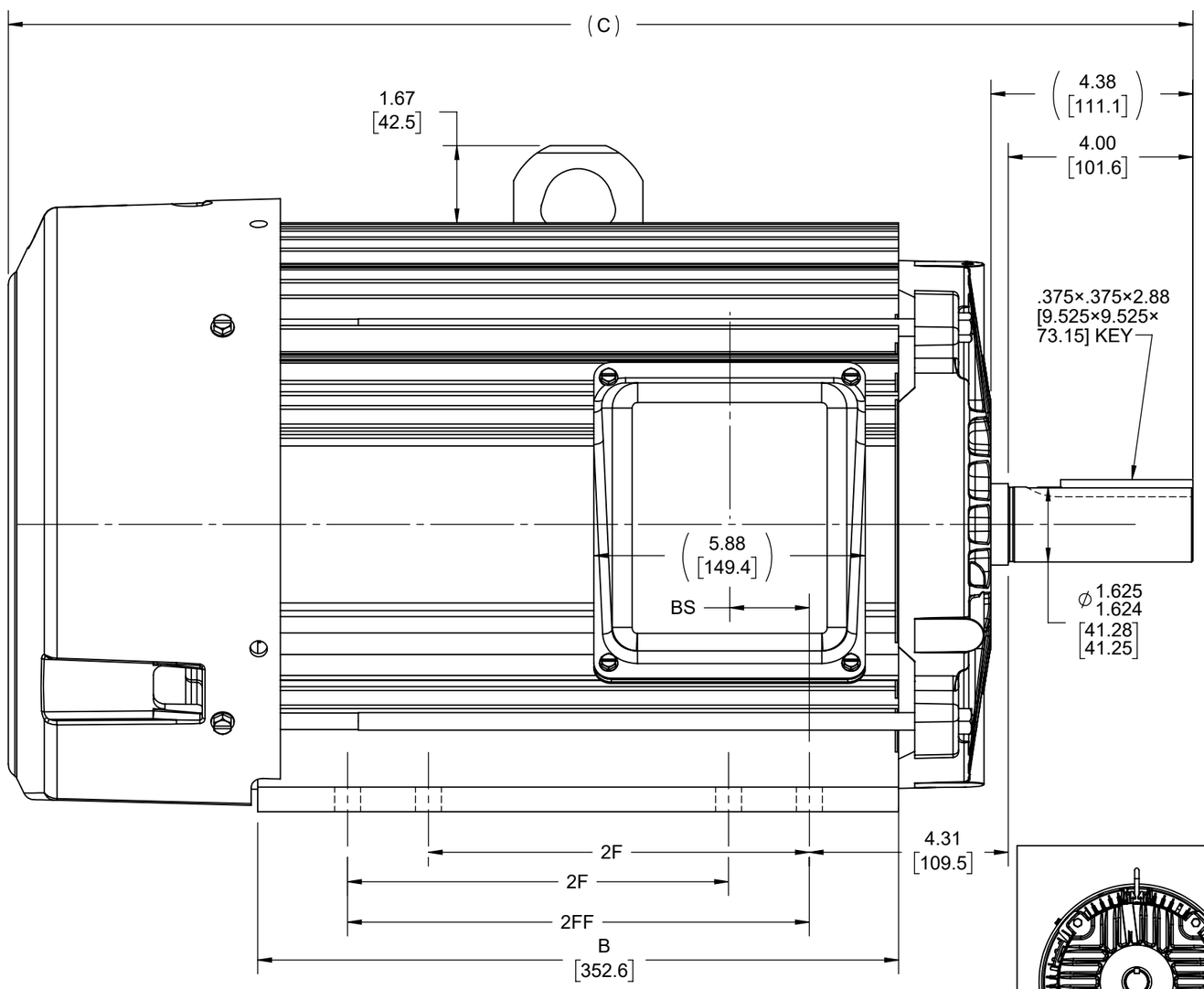
Technical Specifications

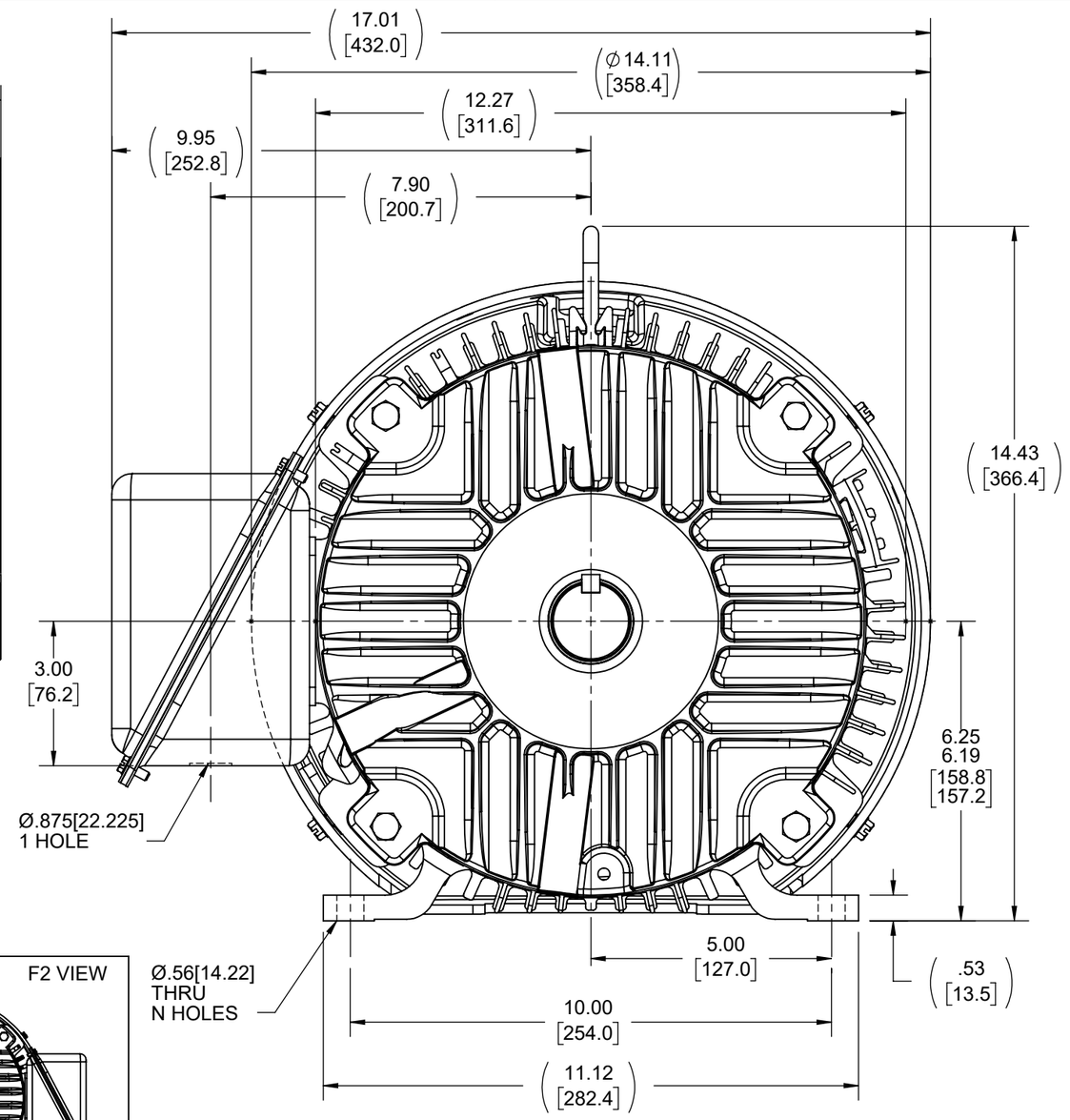
Electrical Type	**Squirrel Cage Inverter Rated**	Starting Method	**Line Or Inverter**
Poles	**2**	Rotation	**Reversible**
Resistance Main	**.394 O**	Mounting	**Rigid Base**
Motor Orientation	**Horizontal**	Drive End Bearing	**Ball**
Opp Drive End Bearing	**Ball**	Frame Material	**Aluminum**
Shaft Type	**T**	Overall Length	**25.26 in**
Frame Length	**13.75 in**	Shaft Diameter	**1 5/8 in**
Shaft Extension	**4.38 in**	Assembly/Box Mounting	**F1/F2 Capable**
Inverter Load	**Constant 10:1**		

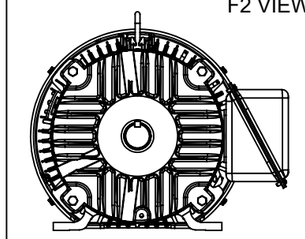
Drawings

Connection Drawing	**A-EE7308**	Outline Drawing	**B-SS321100-1375**

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NOTES:
1. CONDUIT BOX CAN BE ROTATED IN 90° STEPS.
2. NAMEPLATES TO BE READ FROM CONDUIT BOX SIDE OF MOTOR.

DASH	FRAME	C	B	2F	2FF	BS	N
1200	254T	23.78 [603.90]	12.13 [308.10]	8.25 [209.55]	------	1.73 [43.94]	4
1375	254/6T	25.66 [651.65]	13.88 [352.55]	8.25 [209.55]	10.00 [254.00]	1.73 [43.94]	8

DRAWING REVISION	REVISION BY	REV DATE/© DATE
E	SB	07/23/2025
REQUEST NUMBER	APPROVED BY	DATE
CR-0023556	SBD	07/23/2025

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	RJW
DATE	02-01-2005
APPROVED BY	BW
DATE	02-01-2005
REFERENCE	

marathon™

DESCRIPTION
OUTLINE
250T FR.-ALUM. FR.-TEFC

MATERIAL | PROCESS/FINISH

THIRD ANGLE PROJECTION

SIZE	DRAWING NUMBER	SHEET
B	SS321100	1 OF 1

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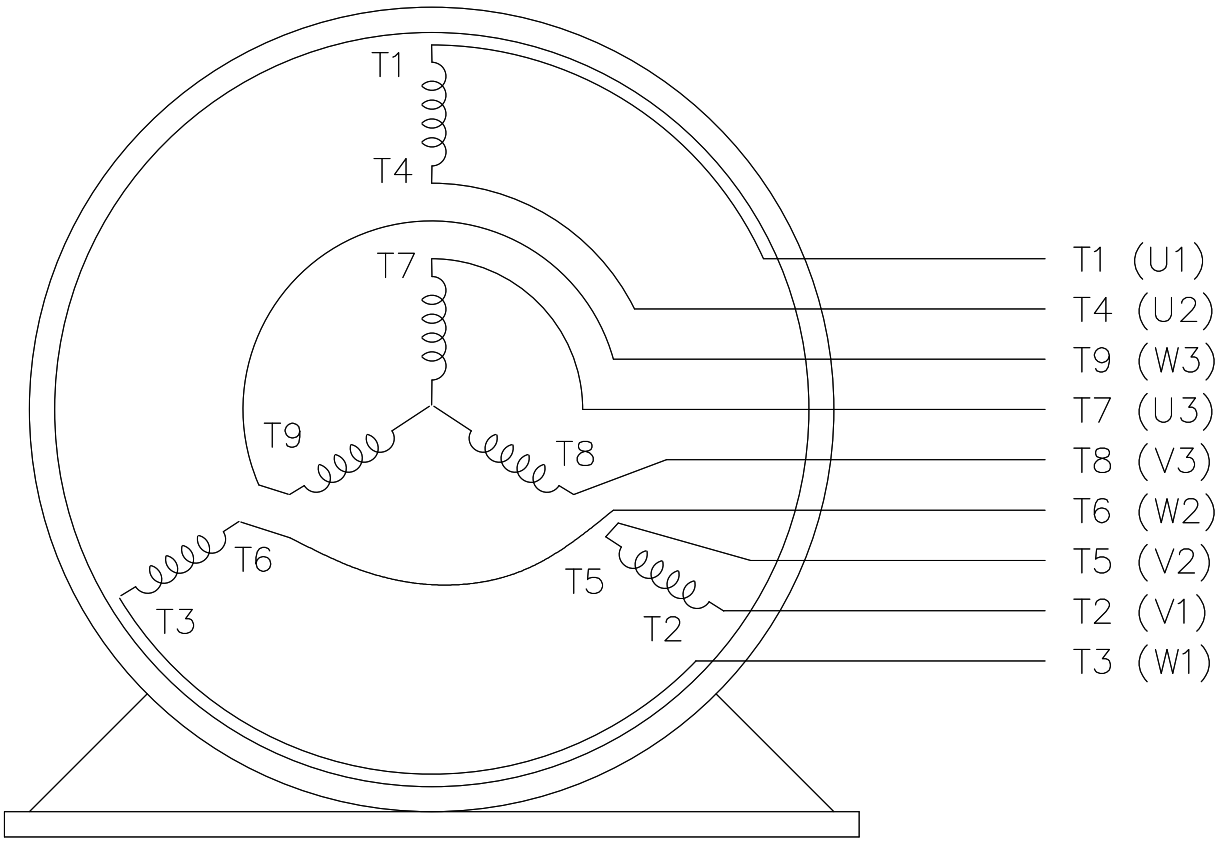
THREE PHASE
DUAL VOLTAGE MOTOR

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

DRAWN BY	RM
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

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Data Sheet

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

marathon® electric

256TTFL16002

Submittal

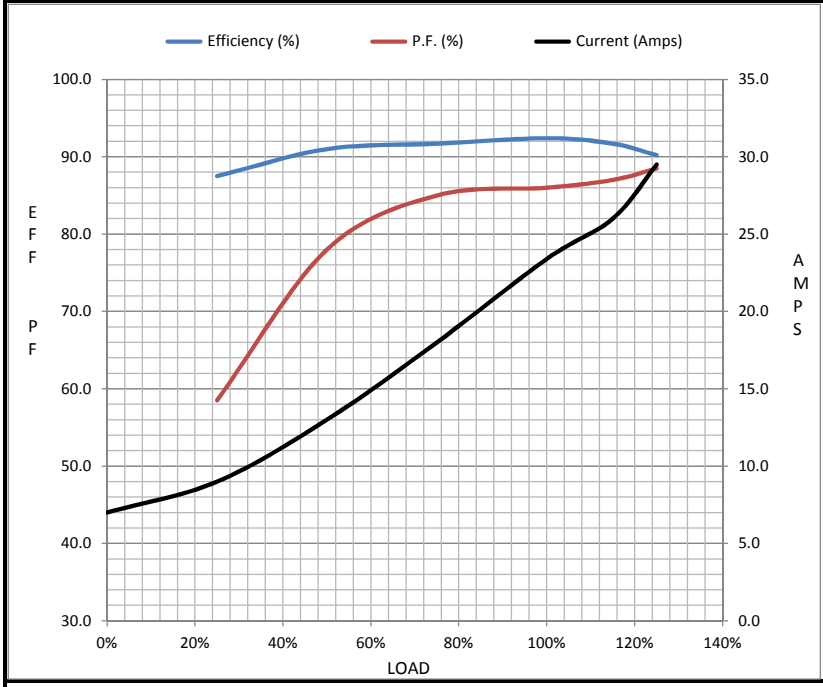
Data @ 460 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	7.0	9.0	13.0	18.0	23.4	26.0	29.5	145	
Torque (ft-lb)	0.00	7.5	15.0	22.0	29.7	31.0	37.5	55.0	
RPM	3600	3585	3570	3555	3537	3,525	3515	0	
Efficiency (%)		87.5	91.0	91.7	92.4	91.7	90.2		
P.F. (%)	10.5	58.5	78.0	85.0	86.0	87.0	88.5	37.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	1800	3155	3537	3600
Current (Amps)	145	131	100	23.4	7.0
Torque (ft-lb)	55.0	50.0	84.0	29.7	0.00



Information Block

HP	20.0
Sync. RPM	3600
Frame	256
Enclosure	TEFC
Construction	TFY
Voltage	230/460#190/38(V
Frequency	60 Hz
Design	B
LR Code letter	G
Service Factor	1.15
Temp Rise @ FL	55 ° C
Duty	CONT
Ambient	40 ° C
Elevation	1,000 feet
Rotor/Shaft wk²	1.30 Lb-Ft²
Ref Wdg	K256288 R8
Sound Pressure @ 1M	72 dBA
VFD Rating	CONSTANT 10:1
Outline Dwg	B-SS321100-1375
Conn. Diag	A-EE7308

Additional Specifications:

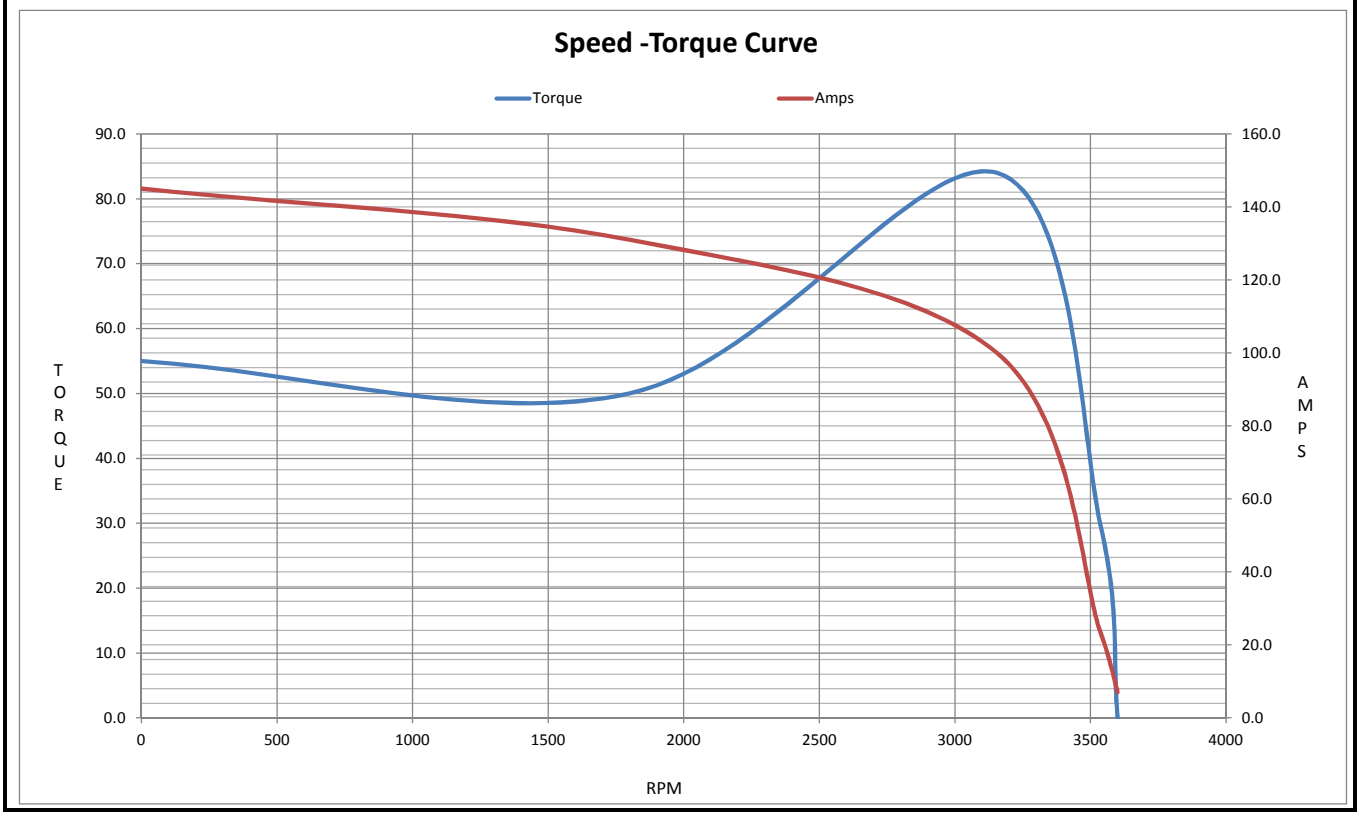
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365THFS8036

EQUIV CKT (OHMS / PHASE)

R1	R2	X1	X2	Xm
0.2530	0.2230	1.0790	1.1190	37.7720

Speed -Torque Curve



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CERTIFICATION DATA SHEET

Model#:	256TTFL16002 AN	**WINDING#:**	K256288 R8 10
CONN. DIAGRAM:	A-EE7308	**ASSEMBLY:**	F1/F2 CAPABLE
OUTLINE:	B-SS321100-1375		

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
20&20	14.9&14.9	3600	3537&2925	256T	TEFC	G	B

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60/50	230/460#190/380	47/23.4&56/28	LINE OR INVERTER	CONTINUOUS	F3	1.15/1.15	40	3300

FULL LOAD EFF: 92.4&91.7	3/4 LOAD EFF: 91.7	1/2 LOAD EFF: 91	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 86&88	**3/4 LOAD PF: 85**	**1/2 LOAD PF: 78**	91.7	SQ CAGE INV RATED	14 / 7

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
29.7 LB-FT	290 / 145	55 LB-FT 185	84 LB-FT 283	55

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
72 dBA	82 dBA	1.3 LB-FT^2	26 LB-FT^2	20 SEC.	2	360 LBS.

*** SUPPLEMENTAL INFORMATION ***

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

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	OPE						
BALL 6309	BALL 6208	POLYREX EM	T	NONE	NONE	1045 HOT ROLLED (C-204)	ALUMINUM

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 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

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