marathon®

Severe Duty Motors

Model No: 5011LSTFS16033
Catalog No: E366

Severe Duty Motor, 600 HP, 3 Ph, 60 Hz, 460 V, 1800 RPM, 5011LS Frame, TEFC

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Product Information Packet: Model No: 5011LSTFS16033, Catalog No: E366 Severe Duty Motor, 600 HP, 3 Ph, 60 Hz, 460 V, 1800 RPM, 5011LS Frame, TEFC

Nameplate Specifications

Phase	**3**	Output HP	**600 Hp**
Output KW	**450.0 kW**	Voltage	**460 V**
Speed	**1785 r/min**	Synchronous RPM	**1800 r/min**
Service Factor	**1.15**	Frame	**5011LS**
Enclosure	**Totally Enclosed Fan Cooled**	Thermal Protection	**No Protection**
Efficiency	**96.2 %**	Ambient Temperature	**40 °C**
Frequency	**60 Hz**	Current	**655.0 A**
Power Factor	**89**	Duty	**Continuous**
Insulation Class	**H**	Design Code	**B**
KVA Code	**G**	Drive End Bearing Size	**6322**
Opp Drive End Bearing Size	**6318**	UL	**No**
CSA	**Y**	CE	**Y**
IP Code	**55**	Number of Speeds	**1**

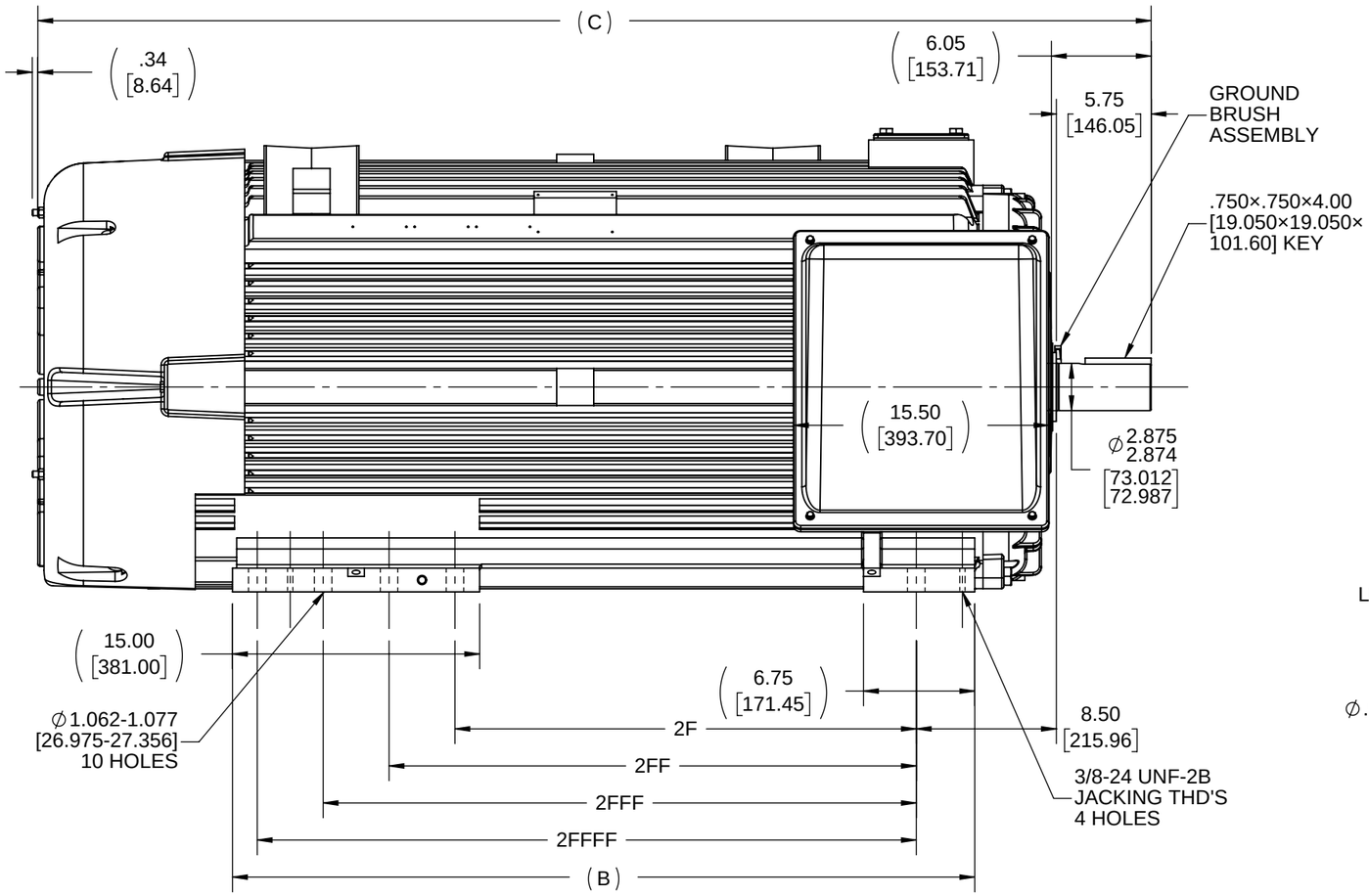
Technical Specifications

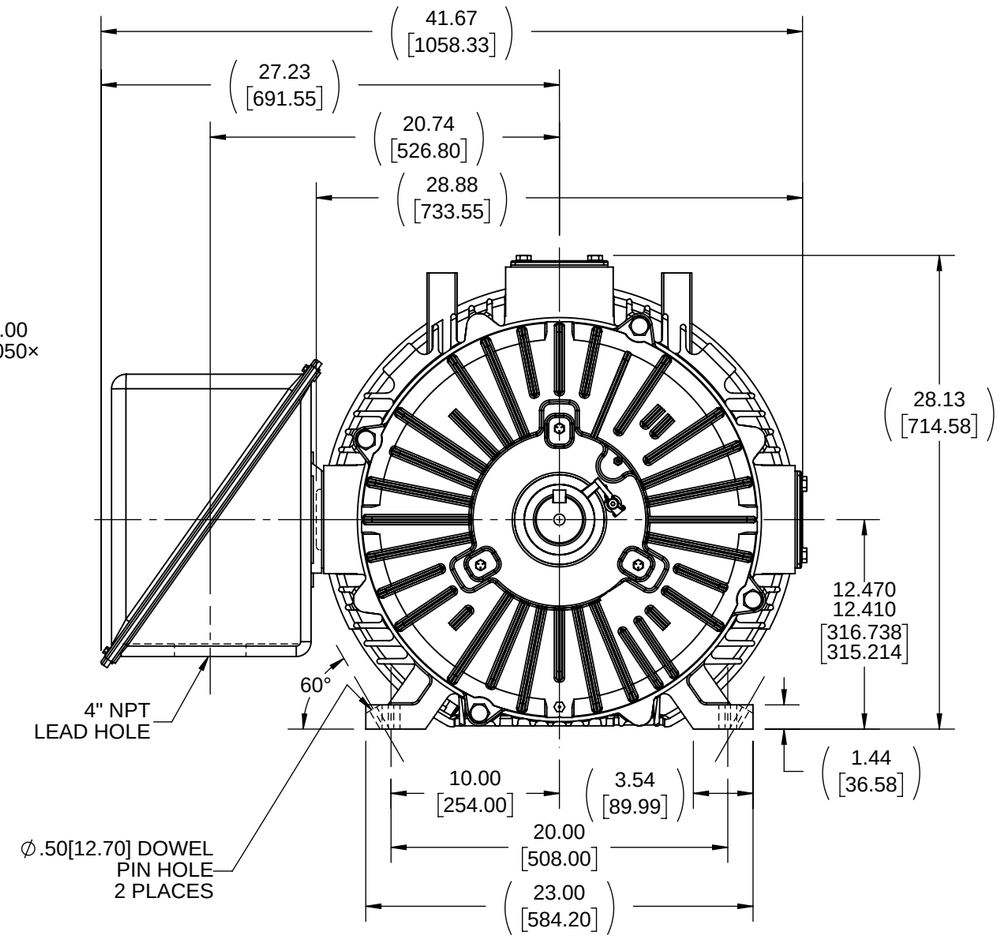
Electrical Type	**Squirrel Cage Inverter Rated**	Starting Method	**Line Or Inverter**
Poles	**4**	Rotation	**Reversible**
Resistance Main	**.004 O**	Mounting	**Rigid Base**
Motor Orientation	**Horizontal**	Drive End Bearing	**Ball**
Opp Drive End Bearing	**Ball**	Frame Material	**Cast Iron**
Shaft Type	**LS**	Overall Length	**67.56 in**
Frame Length	**49.5 in**	Shaft Diameter	**2 5/8 in**
Shaft Extension	**5.75 in**	Assembly/Box Mounting	**F1/F2 Capable**
Inverter Load	**Variable 10:1**		

Drawings

Connection Drawing	**A-EE7300U**	Outline Drawing	**B-SS550798-4950**

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

DASH	FRAME	B	C	2F	2FF	2FFF	2FFFF
4950	5009LS	45.05 [1144.27]	67.56 [1716.02]	28.00 [711.20]			
4950	5010LS	45.05 [1144.27]	67.56 [1716.02]		32.00 [812.80]		
4950	5011LS	45.05 [1144.27]	67.56 [1716.02]			36.00 [914.40]	
4950	5012LS	45.05 [1144.27]	67.56 [1716.02]				40.00 [1016.00]

DRAWING REVISION	REVISION BY	REV DATE/© DATE
D	SB	07/30/2026
REQUEST NUMBER	APPROVED BY	DATE
CR-0027174	RMS	07/30/2026

REQUEST NUMBER DESCRIPTION
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TOLERANCES (EXCEPT AS NOTED):

DEC.	INCH	mm	ANGLE
.X	±0.1	[±3]	±0.5°
.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: 125 INCH / 3.2 mm
mm DIMENSIONS IN [BRACKETS] ARE FOR REFERENCE ONLY

DRAWN BY	KL
DATE	03-30-2005
APPROVED BY	JES
DATE	03-30-2005
REFERENCE	
THIRD ANGLE PROJECTION	

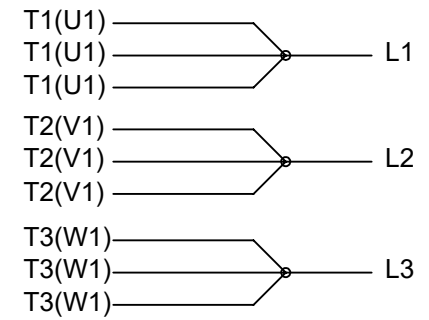
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DESCRIPTION
OUTLINE
5009-12LS-TEFC - F1/F2/F3 MT.

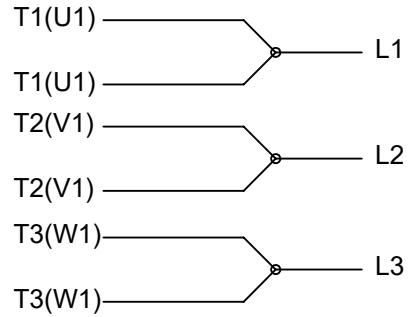
MATERIAL	PROCESS/FINISH

SIZE	DRAWING NUMBER	SHEET
B	SS550798	1 OF 1

IF MOTOR HAS 9 LEADS

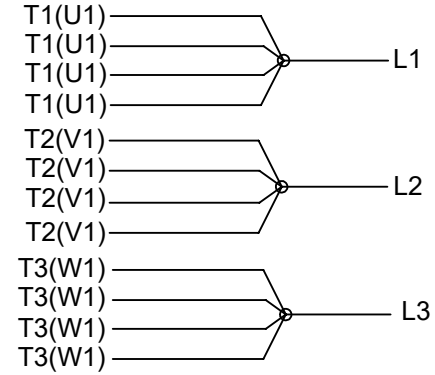


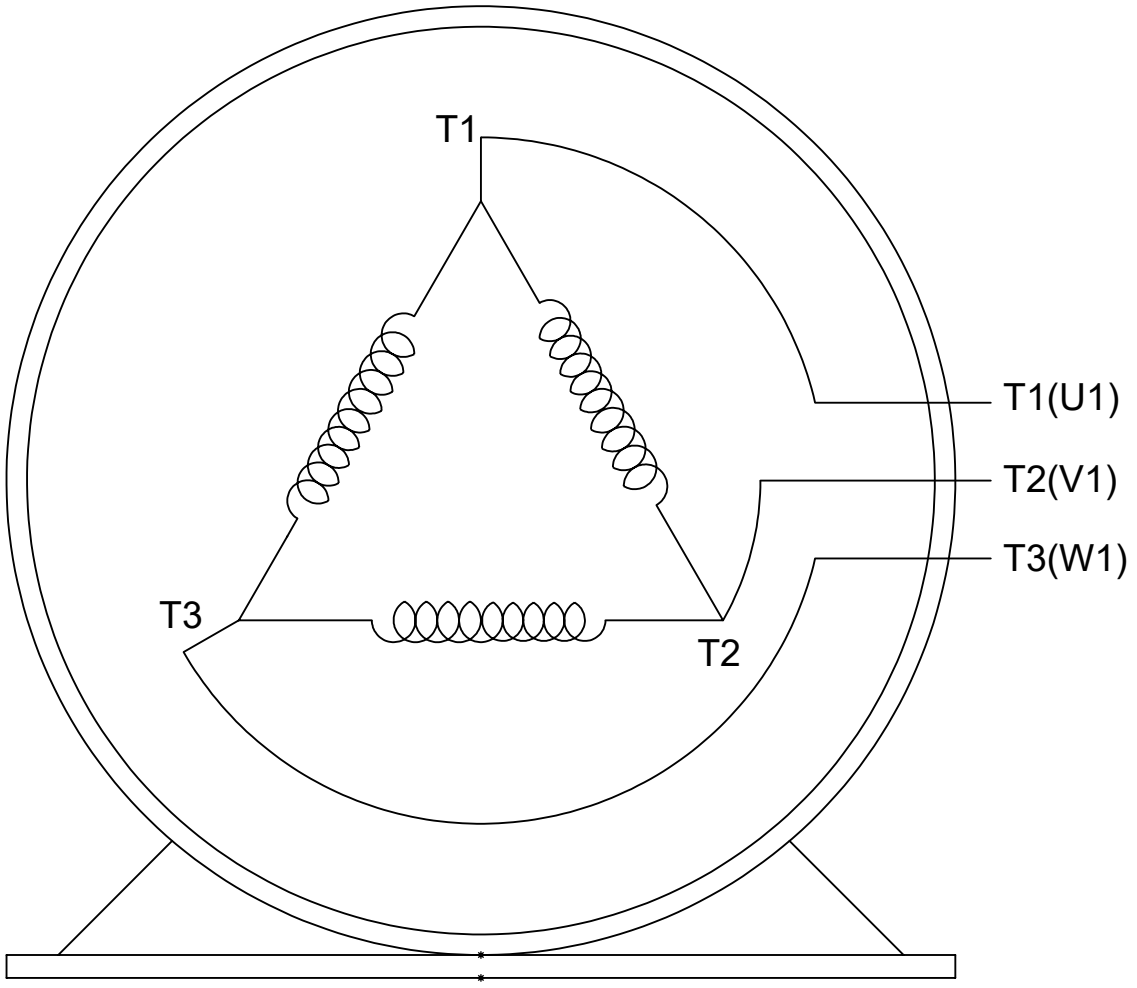
IF MOTOR HAS 6 LEADS



A-9806 DECAL IF CALLED FOR

IF MOTOR HAS 12 LEADS





VIEW OF TERMINAL END

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

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

DRAWN BY	DRS
DATE	09-27-1996
APPROVED BY	GK
DATE	09-30-1996
REFERENCE	
THIRD ANGLE PROJECTION	

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DESCRIPTION
CONN DIAGRAM-EXTERNAL
3Ø SINGLE VOLTAGE

MATERIAL	PROCESS/FINISH

SIZE	DRAWING NUMBER	SHEET
A	EE7300U	1 OF 1

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Data Sheet

Date: 15-06-2017
Customer:
Attention:
Submitted by: FAREEDA DUDEKULA

marathon® electric

5011LSTFS16033

Submittal

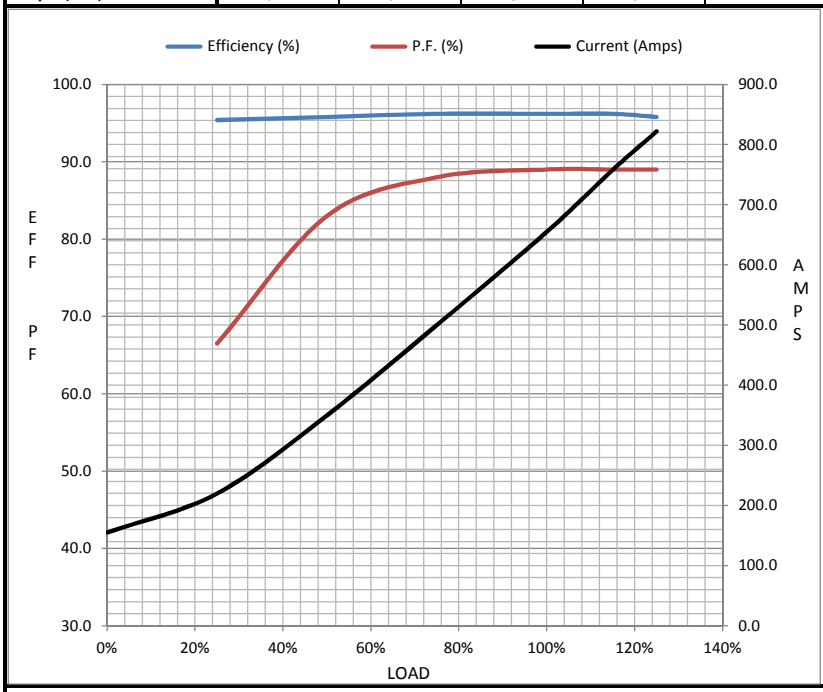
Data @ 460 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	155	220	350	500	655	758	822	4,200	
Torque (ft-lb)	0.00	439	880	1,320	1,765	2,032	2,205	2,725	
RPM	1800	1796	1792	1790	1785	1,782	1780	0	
Efficiency (%)		95.4	95.8	96.2	96.2	96.2	95.8		
P.F. (%)	3.5	66.5	83.0	88.0	89.0	89.0	89.0	27.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1725	1785	1800
Current (Amps)	4,200	3,800	2,500	655	155
Torque (ft-lb)	2,725	2,500	4,400	1,765	0.00



Information Block

HP	600.0
Sync. RPM	1800
Frame	5011
Enclosure	TEFC
Construction	TFN
Voltage	460 V
Frequency	60 Hz
Design	A
LR Code letter	G
Service Factor	1.15
Temp Rise @ FL	85 ° C
Duty	CONT
Ambient	40 ° C
Elevation	1,000 feet
Rotor/Shaft wk²	218 Lb-Ft²
Ref Wdg	T511422 NONE
Sound Pressure @ 1M	85 dBA
VFD Rating	VARIABLE 10:1
Outline Dwg	B-SS550798-4950
Conn. Diag	A-EE7300U

Additional Specifications:

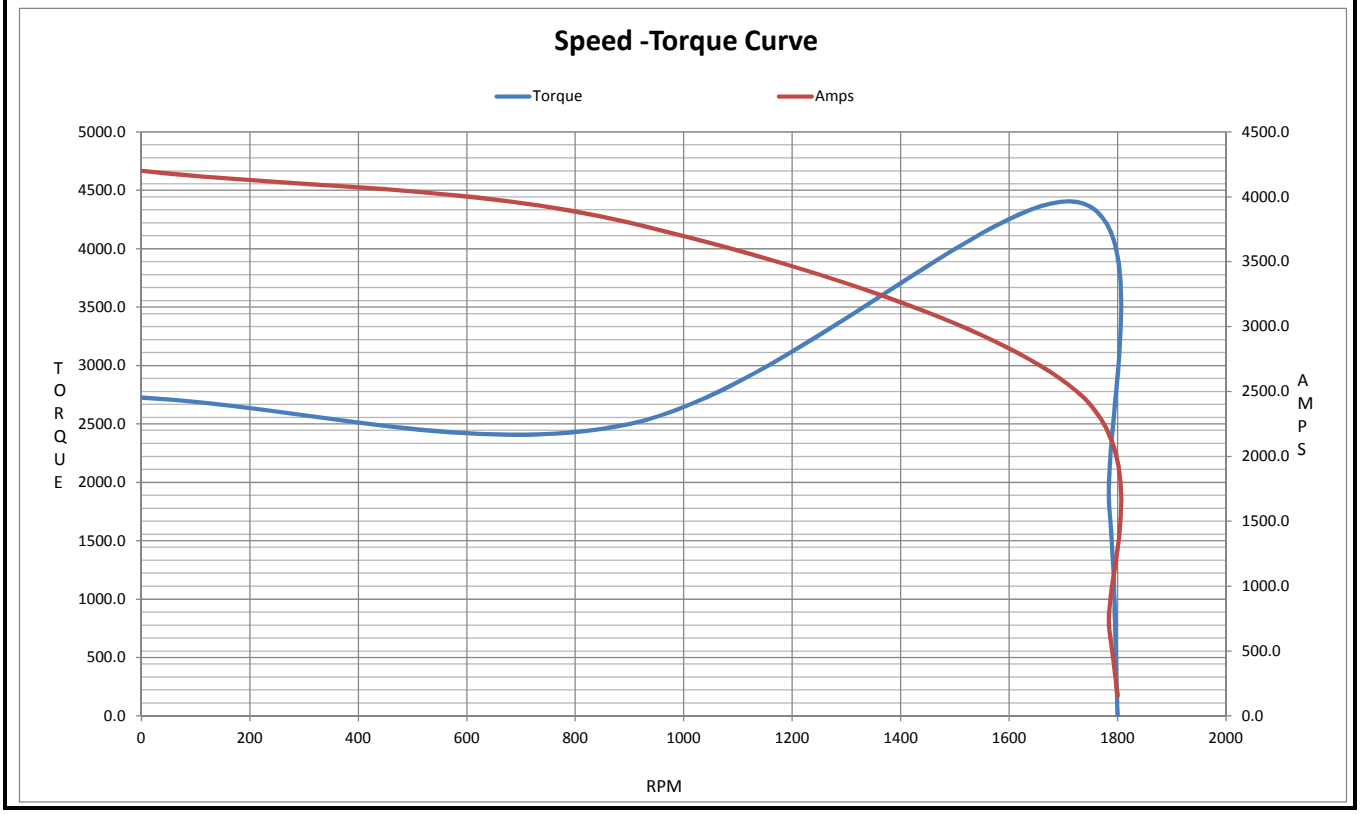
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365THFS8036

EQUIV CKT (OHMS / PHASE)

R1	R2	X1	X2	Xm
0.0030	0.0030	0.0370	0.0640	1.6570

Speed -Torque Curve



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CERTIFICATION DATA SHEET

Model#:	5011LSTFS16033 AR	**WINDING#:**	T511422 NONE 1
CONN. DIAGRAM:	A-EE7300U	**ASSEMBLY:**	F1/F2 CAPABLE
OUTLINE:	B-SS550798-4950		

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
600	450	1800	1785	5011LS	TEFC	G	B

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60	460	655	LINE OR INVERTER	CONTINUOUS	H1	1.15	40	3300

FULL LOAD EFF: 96.2	3/4 LOAD EFF: 96.2	1/2 LOAD EFF: 95.8	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 89	3/4 LOAD PF: 88	1/2 LOAD PF: 83	95.8	SQ CAGE INV RATED	155

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
1765 LB-FT	4200	2725 LB-FT 154	4400 LB-FT 249	85

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
85 dBA	95 dBA	218 LB-FT^2	3000 LB-FT^2	25 SEC.	1	5425 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	NONE	FALSE	NONE	BLUE (EPOXY)

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	OPE						
BALL 6322	BALL 6318	POLYREX EM	LS	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: VARIABLE 10:1
INV. HP SPEED RANGE: NONE

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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DATE: 06/28/2017 05:29:53 AM
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