

PRODUCT INFORMATION PACKET

marathon[®]
Motors

Model No: 5011LSTFS16031
Catalog No: E364
500,1800,TEFC,5011LS,3/60/460
Severe Duty



Regal and Marathon are trademarks of Regal Beloit Corporation or one of its affiliated companies.
©2018 Regal Beloit Corporation, All Rights Reserved. MC017097E

REGAL[®]



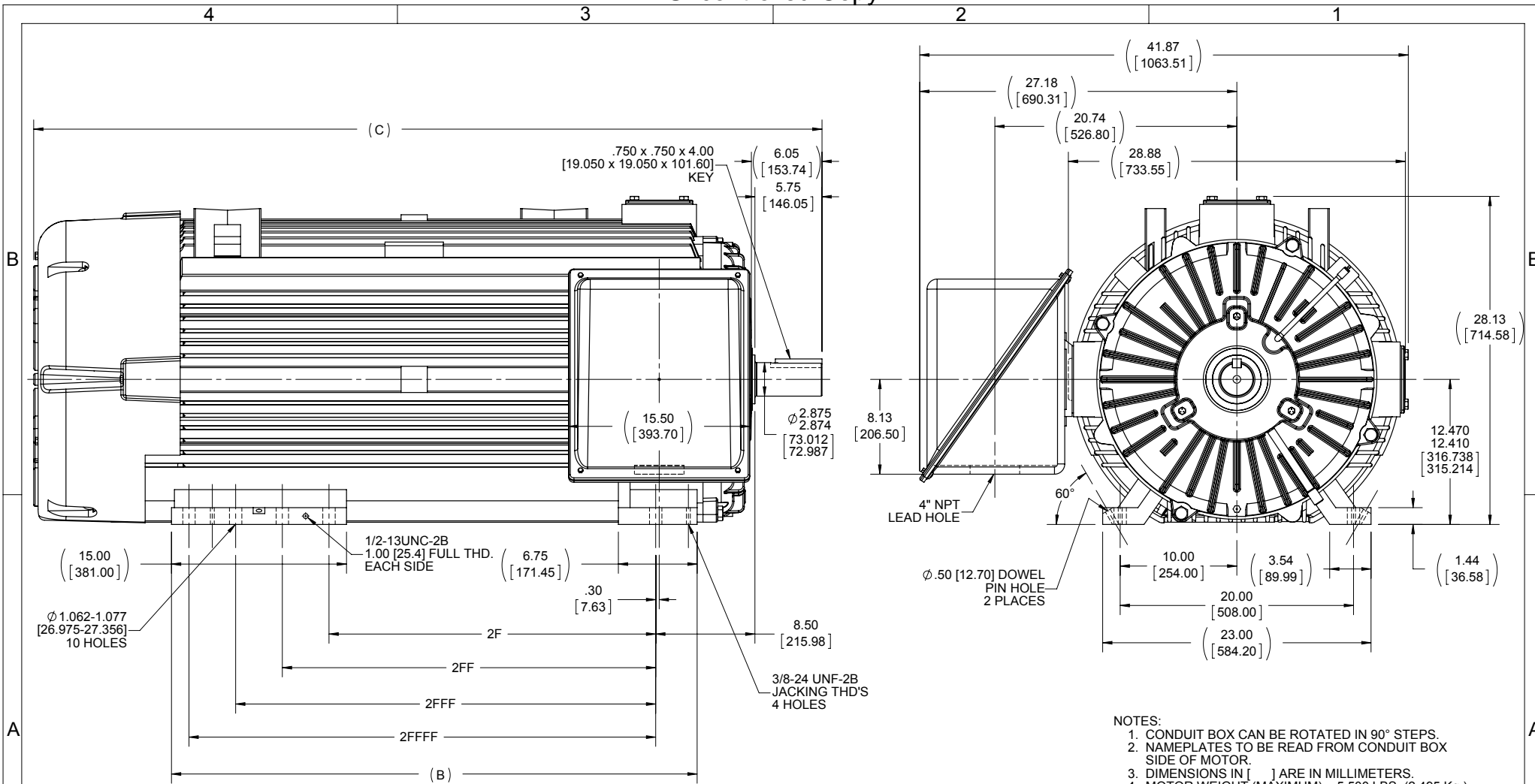
Nameplate Specifications

Output HP	500 Hp	Output KW	370.0 kW
Frequency	60 Hz	Voltage	460 V
Current	555.0 A	Speed	1788 rpm
Service Factor	1.15	Phase	3
Efficiency	96.2 %	Duty	Continuous
Insulation Class	F	Design Code	B
KVA Code	G	Frame	5011LS
Enclosure	Totally Enclosed Fan Cooled	Overload Protector	No
Ambient Temperature	40 °C	Drive End Bearing Size	6322
Opp Drive End Bearing Size	6318	UL	No
CSA	Y	CE	Y
IP Code	43		

Technical Specifications

Electrical Type	Squirrel Cage Induction Run	Starting Method	Across The Line
Poles	4	Rotation	Reversible
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	49.50 in
Shaft Diameter	2.625 in	Shaft Extension	6.05 in
Assembly/Box Mounting	F1/F2 Capable		
Outline Drawing	B-SS518503-4950	Connection Diagram	A-EE7300U

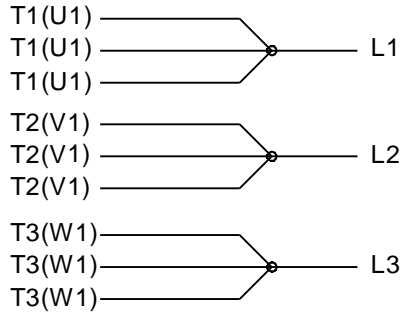
This is an uncontrolled document once printed or downloaded and is subject to change without notice. Date Created: 06/29/2018



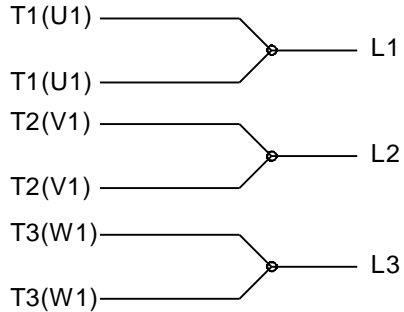
- NOTES:
1. CONDUIT BOX CAN BE ROTATED IN 90° STEPS.
 2. NAMEPLATES TO BE READ FROM CONDUIT BOX SIDE OF MOTOR.
 3. DIMENSIONS IN [] ARE IN MILLIMETERS.
 4. MOTOR WEIGHT (MAXIMUM) = 5,500 LBS. (2,495 Kg)

DASH	FRAME	B	C	2F	2FF	2FFF	2FFFF	DRAWING REVISION	REVISION BY	DATE	TOLERANCES UNLESS OTHERWISE SPECIFIED:	DRAWN BY	REGAL™	Regal Beloit America, Inc.
4950	5009LS	45.05 [1144.27]	67.56 [1716.02]	28.00 [711.20]	---	---	---	C	JJB	09-11-2014	DEC. INCH mm ANGLE .X ±0.1 [±2.5] ±7° 30'	KL	REGAL™	Regal Beloit America, Inc.
4950	5010LS	45.05 [1144.27]	67.56 [1716.02]	---	32.00 [812.80]	---	---	ECO-0059657	TDB	09-11-2014	.XX ±0.03 [±0.76] .XXX ±0.005 [±0.127] .XXXX ±0.0005 [±0.0127]	JES	REGAL™	Regal Beloit America, Inc.
4950	5011LS	45.05 [1144.27]	67.56 [1716.02]	---	---	36.00 [914.40]	---	UPDATED TO CURRENT STANDARDS COPYRIGHT REGAL BELOIT AMERICA, INC. ALL RIGHTS RESERVED. PROPRIETARY AND CONFIDENTIAL INFORMATION - THIS DOCUMENT IS THE PROPERTY OF REGAL BELOIT AMERICA, INC. (OWNER) AND CONTAINS OWNER'S PROPRIETARY INFORMATION. ANY PERSON, CORPORATION OR OTHER FIRM RECEIVING IT IS DEEMED, BY RECEIVING IT, TO AGREE THAT IT, AND/OR ANY PART OF IT, SHALL NOT BE DISCLOSED TO ANY PERSON, CORPORATION OR OTHER ENTITY, DUPLICATED, AND/OR USED, EXCEPT AS EXPRESSLY APPROVED IN WRITING IN ADVANCE BY OWNER. THIS DOCUMENT SHALL BE RETURNED TO OWNER UPON REQUEST. IT MAY BE SUBJECT TO CERTAIN RESTRICTIONS UNDER APPLICABLE EXPORT CONTROL LAWS AND REGULATIONS.			KL	REGAL™	Regal Beloit America, Inc.	
4950	5012LS	45.05 [1144.27]	67.56 [1716.02]	---	---	---	40.00 [1016.00]				KL	REGAL™	Regal Beloit America, Inc.	

IF MOTOR HAS 9 LEADS

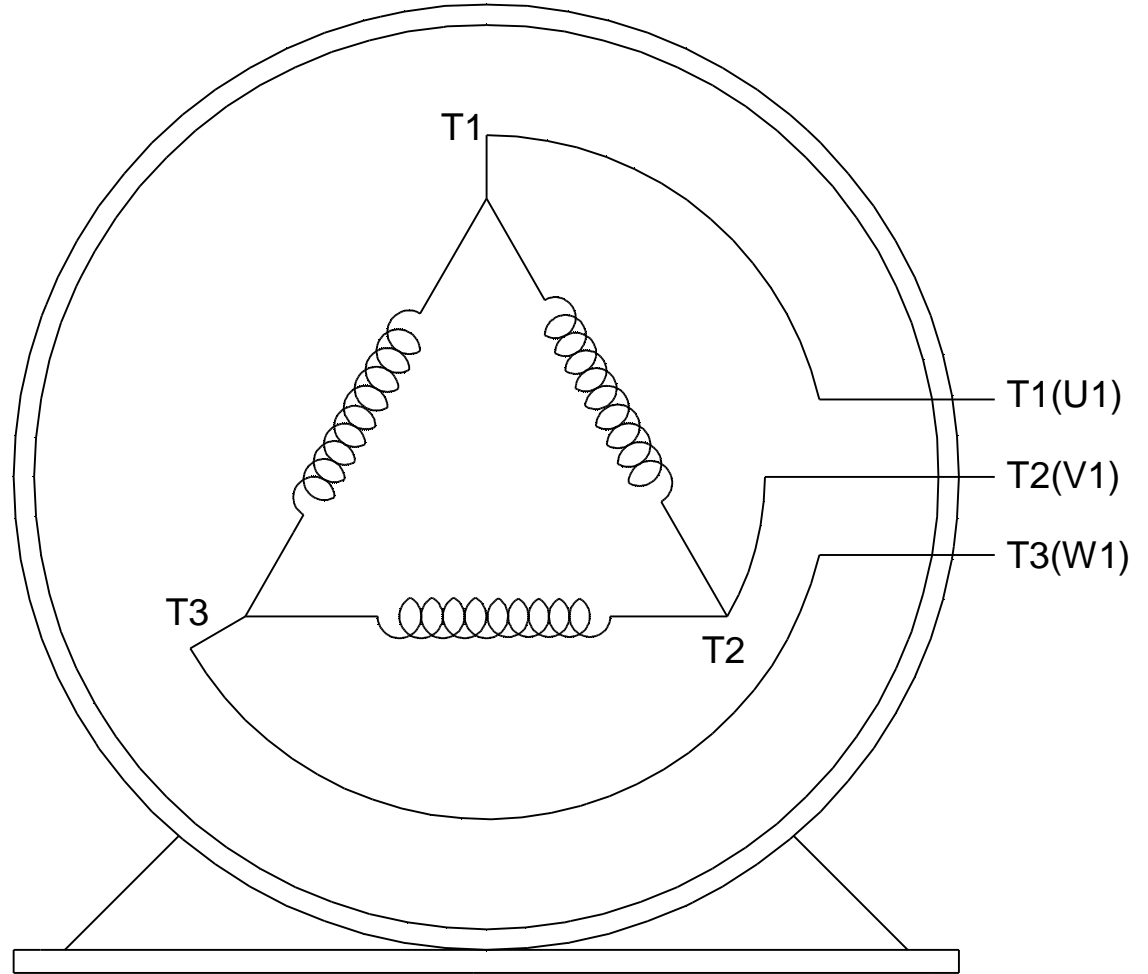


IF MOTOR HAS 6 LEADS



A-9806 DECAL IF CALLED FOR

IF MOTOR HAS 12 LEADS



VIEW OF TERMINAL END

DRAWING REVISION L	REVISION BY AJW	DATE 05-04-2015	TOLERANCES UNLESS OTHERWISE SPECIFIED:	DRAWN BY DRS	Regal Beloit America, Inc.																					
ECO ECO-0077067	APPROVED BY EWH	DATE 05-05-2015	<table style="font-size: small; border-collapse: collapse;"> <tr> <td><u>DEC.</u></td> <td><u>INCH</u></td> <td><u>mm</u></td> <td><u>ANGLE</u></td> </tr> <tr> <td>.X</td> <td>±0.1</td> <td>[±2.5]</td> <td>±7° 30"</td> </tr> <tr> <td>.XX</td> <td>±0.02</td> <td>[±0.51]</td> <td></td> </tr> <tr> <td>.XXX</td> <td>±0.005</td> <td>[±0.127]</td> <td></td> </tr> <tr> <td>.XXXX</td> <td>±0.0005</td> <td>[±0.0127]</td> <td></td> </tr> </table>	<u>DEC.</u>			<u>INCH</u>	<u>mm</u>	<u>ANGLE</u>	.X	±0.1	[±2.5]	±7° 30"	.XX	±0.02	[±0.51]		.XXX	±0.005	[±0.127]		.XXXX	±0.0005	[±0.0127]		DATE 09-27-1996
<u>DEC.</u>	<u>INCH</u>	<u>mm</u>	<u>ANGLE</u>																							
.X	±0.1	[±2.5]	±7° 30"																							
.XX	±0.02	[±0.51]																								
.XXX	±0.005	[±0.127]																								
.XXXX	±0.0005	[±0.0127]																								
ECO DESCRIPTION UPDATED TO SOLIDWORKS <small>COPYRIGHT REGAL BELOIT AMERICA, INC. ALL RIGHTS RESERVED. PROPRIETARY AND CONFIDENTIAL INFORMATION - THIS DOCUMENT IS THE PROPERTY OF REGAL BELOIT AMERICA, INC. ("OWNER") AND CONTAINS OWNER'S PROPRIETARY INFORMATION. ANY PERSON, CORPORATION OR OTHER FIRM RECEIVING IT IS DEEMED, BY RECEIVING IT, TO AGREE THAT IT, AND/OR ANY PART OF IT, SHALL NOT BE DISCLOSED TO ANY PERSON, CORPORATION OR OTHER ENTITY, DUPLICATED, AND/OR USED, EXCEPT AS EXPRESSLY APPROVED IN WRITING IN ADVANCE BY OWNER. THIS DOCUMENT SHALL BE RETURNED TO OWNER UPON REQUEST. IT MAY BE SUBJECT TO CERTAIN RESTRICTIONS UNDER APPLICABLE EXPORT CONTROL LAWS AND REGULATIONS.</small>			APPROVED BY GK	DESCRIPTION	PROCESS/FINISH																					
			REMOVE BURRS & BREAK SHARP EDGES: .003/.015 [.076/.381] X 45° CORNER FILLETS: R.02 [.51] MACHINED SURFACES: 200 $\sqrt{\text{INCH}}$ 5.1 $\sqrt{\text{mm}}$ mm SHOWN IN [BRACKETS]			DATE 09-30-1996	EE7300U																			
REFERENCE	MATERIAL	SIZE A				DRAWING NUMBER			SHEET 1 OF 1																	
			THIRD ANGLE PROJECTION																							

CERTIFICATION DATA SHEET

Model#: 5011LSTFS16031 AN **WINDING#:** T511428 NONE 1
CONN. DIAGRAM: A-EE7300U **ASSEMBLY:** F1/F2 CAPABLE
OUTLINE: B-SS518503-4950

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
500	370	1800	1788	5011LS	TEFC	G	B

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60	460	555	ACROSS THE LINE	CONTINUOUS	F1	1.15	40	3300

FULL LOAD EFF: 96.2	3/4 LOAD EFF: 96.2	1/2 LOAD EFF: 95.4	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 88	3/4 LOAD PF: 85.5	1/2 LOAD PF: 79	95.8	SQ CAGE IND RUN	155

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
1469 LB-FT	3625	2650 LB-FT 180	4100 LB-FT 279	75

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
85 dBA	95 dBA	220 LB-FT^2	- LB-FT^2	25 SEC.	1	5500 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 (EPOXY)

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	OPE						
BALL	BALL	POLYREX EM	LS	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON
6322	6318						

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

*
N
O
T
E
S
*

INVERTER TORQUE: NONE
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

DATE: 06/28/2017 05:29:00 AM
 FORM 3531 REV.3 02/07/99
 ** Subject to change without notice.

Data Sheet

Date: 29-06-2017
 Customer: _____
 Attention: _____
 Submitted by: FAREEDA DUDEKULA



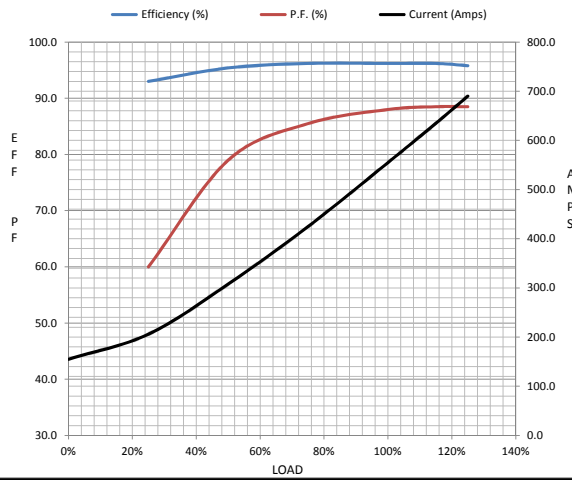
5011LSTFS16031

Submittal

Data @ 460 V

Motor Load Data									
Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	155	206	308	425	555	635	690	3,625	
Torque (ft-lb)	0.00	366	732	1,100	1,469	1,692	1,840	2,650	
RPM	1800	1796	1794	1790	1788	1,785	1782	0	
Efficiency (%)		93.0	95.4	96.2	96.2	96.2	95.8		
P.F. (%)	4.0	60.0	79.0	85.5	88.0	88.5	88.5	26.0	

Motor Speed Data						Information Block	
	LR	Pull-Up	BD	Rated	Idle		
Speed (RPM)	0	900	1725	1788	1800	HP	500.0
Current (Amps)	3,625	3,300	2,250	555	155	Sync. RPM	1800
Torque (ft-lb)	2,650	2,300	4,100	1,469	0.00	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	75 ° C
						Duty	CONT
						Ambient	40 ° C
						Elevation	1,000 feet
						Rotor/Shaft wk²	220 Lb-Ft²
						Ref Wdg	T511428 NONE
						Sound Pressure @ 1M	85 dBA
						VFD Rating	NONE
						Outline Dwg	B-SS518503-4950
						Conn. Diag	A-EE7300U



HP	500.0			
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	75 ° C			
Duty	CONT			
Ambient	40 ° C			
Elevation	1,000 feet			
Rotor/Shaft wk²	220 Lb-Ft²			
Ref Wdg	T511428 NONE			
Sound Pressure @ 1M	85 dBA			
VFD Rating	NONE			
Outline Dwg	B-SS518503-4950			
Conn. Diag	A-EE7300U			
Additional Specifications:				
0				
365THFS8036				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.0040	0.0030	0.0350	0.0700	1.6920

