ABB BALDOR RELIANCE

Customer information packet

JL3504A

.5HP, 1725RPM, 1PH, 60HZ, 56J, 3421L, TEFC, F1
Class - None
Division - Not Applicable

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Specifications

Enclosure	TEFC
Frame	56J
Frame Material	Steel
Frequency	60.00 Hz
Haz Area Class and Group	None
Haz Area Division	Not Applicable
Motor Letter Type	Cap Start, Induction Run
Output @ Frequency	.500 HP @ 60 HZ
Phase	1
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	115.0 V @ 60 HZ
	230.0 V @ 60 HZ
Agency Approvals	UR
	CSA
Ambient Temperature	40 °C
Auxiliary Box	NO AUXILLARY BOX
Auxiliary Box Lead Termination	None
Base Indicator	No Mounting
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Current @ Voltage	3.700 A @ 230.0 V
	4.300 A @ 208.0 V
	7.400 A @ 115.0 V
Design Code	N
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	68.0 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None
Heater Indicator	No Heater

Part Detail

Revision	AB
Type	AC
Mech. spec.	34-3099
Base	
Status	PRD/A
Elec. spec.	34WG5593
Layout	34LY3099
Eff. date	11-06-2024
CD Diagram	CD0094
Poles	04
Leads	4#18,1#16 #4TH Y
Proprietary	False
Created date	01-01-0001

High Voltage Full Load Amps	3.7 a
Insulation Class	B
Inverter Code	Not Inverter
KVA Code	J
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	4 @ 18 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3421L
Mounting Arrangement	F1
Number of Poles	4
Overall Length	12.85 IN
Power Factor	66
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	C-Face
Pulley Shaft Indicator	Ext Thread
Rodent Screen	None
RoHS Status	ROHS COMPLIANT
Service Factor	1.25
Shaft Diameter	0.625 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Fixed Opposite Standard
Shaft Slinger Indicator	No Slinger
Speed	1725 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	None
Vibration Sensor Indicator	No Vibration Sensor
Winding Thermal 1	Automatic Thermal Overload

Winding Thermal 1 Location	SB

Nameplate

NP1257L										
CAT.NO.	JL3504A									
SPEC.	34-3099-5593									
HP	.5									
VOLTS	115/230									
AMP	7.4/3.7									
RPM	1725									
FRAME	56J		**HZ**	60		**PH**	1			
SER.F.	1.25	**CODE**	J	**DES**	N	**CL**	B			
NEMA-NOM-EFF	68	**PF**	66							
RATING	40C AMB-CONT									
CC										
DE	6203	**ODE**	6203							
ENCL	TEFC	**SN**								
	SFA 8.2/4.1									

Parts List

Part number	Description	Quantity
SA018264	SA 34-3099-5593	1.000 ea
RA014417	RA 34-3099-5593	1.000 ea
EC1270A02SP	ELEC CAP, 270-324 MFD, 125V, 1.48D X 3.	1.000 ea
NS2512A01	INSULATOR, CONDUIT BOX X	1.000 ea
34CB3002A	CB CAST W/.88 DIA HOLE	1.000 ea
34GS1029A01	GASKET, CONDUIT BOX	1.000 ea
51XB1016A07	10-16 X 7/16 HXWSSLD SERTYB	2.000 ea
11XW1032G06	10-32 X .38, TAPTITE II, HEX WSHR SLTD U	1.000 ea
51XW0832A07	8-32 X .44, TAPTITE II, HEX WSHR SLTD SE	2.000 ea
34EP3102A01SP	FR ENDPLATE, MACH	1.000 ea
34CB4800SP	CAPACITOR COVER, STAMPED PRIMED	1.000 ea
34GS3000SP	GASKET, CAPACITOR BOX	1.000 ea
51XB1016A05	10-16X5/16HX WA SL SR TYB (F/S)	2.000 ea
HW5100A03	WAVY WASHER (W1543-017)	1.000 ea
34EP3300A24SP	PU ENDPLATE, MACH	1.000 ea
51XN1032A20	10-32 X 1 1/4 HX WS SL SR	2.000 ea
34FN3002A01SP	EXTERNAL FAN, PLASTIC, .637/.639 HUB W/	1.000 ea
34FH4002A03SP	IEC FH NO GREASER W/.88 DIA SHAFT HOLE,	1.000 ea
51XW1032A06	10-32 X .38, TAPTITE II, HEX WSHR SLTD S	3.000 ea
WD4100A81	CAPLUG BPF-7/8, FOR .86-.88 HOLE	1.000 ea
34CB4517	CB LID 4 MTG HOLES .22 DIA STAMPED, FOR	1.000 ea
34GS1031A01	GASKET, FLAT CONDUIT BOX LID (LEXIDE)	1.000 ea
51XW0832A07	8-32 X .44, TAPTITE II, HEX WSHR SLTD SE	4.000 ea
RM1010A01	35-968-1 VINYL CLS	1.000 ea
MG1050G01	CELEROL MEDIUM CHARCOAL METALLIC GRAY	0.014 ga
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 ea
SP5051B59	MDL 34 TORQ STAT SW,TYPE L	1.000 ea
HA3100A15	THRUBOLT 10-32 X 8.375	4.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea
LB1118	LABEL,WARNING (ROLL LABEL)	1.000 ea
LC0031	CONNECTION LABEL	1.000 ea

NP1257L	ALUM UL CC THERMAL REV MTG	1.000 ea
35PA1066	PKG GRP, PRINT PK1008A07	1.000 ea
PK3083	STYROFOAM PACKING CRADLE	1.000 ea
PK3088	MICROFOAM, 8"X"8 PERF. SHEETS	1.000 ea

Accessories

Part number	Description	Multiplier
34-171	C FACE KIT	A8

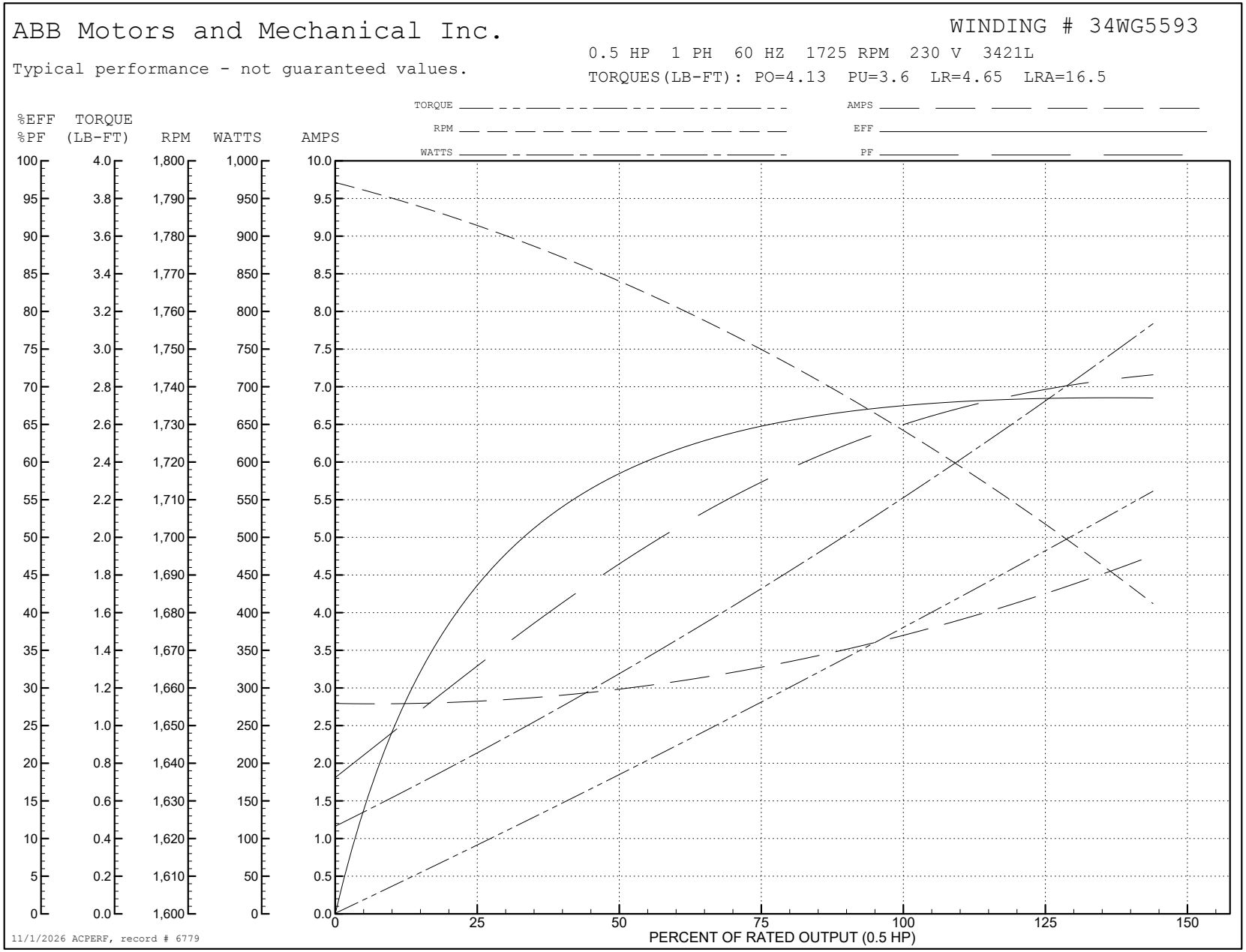
AC Induction Motor Performance Data
Record # 6779
Typical performance - not guaranteed values

Winding: 34WG5593-R001	**Type:** 3421L	**Enclosure:** TEFC

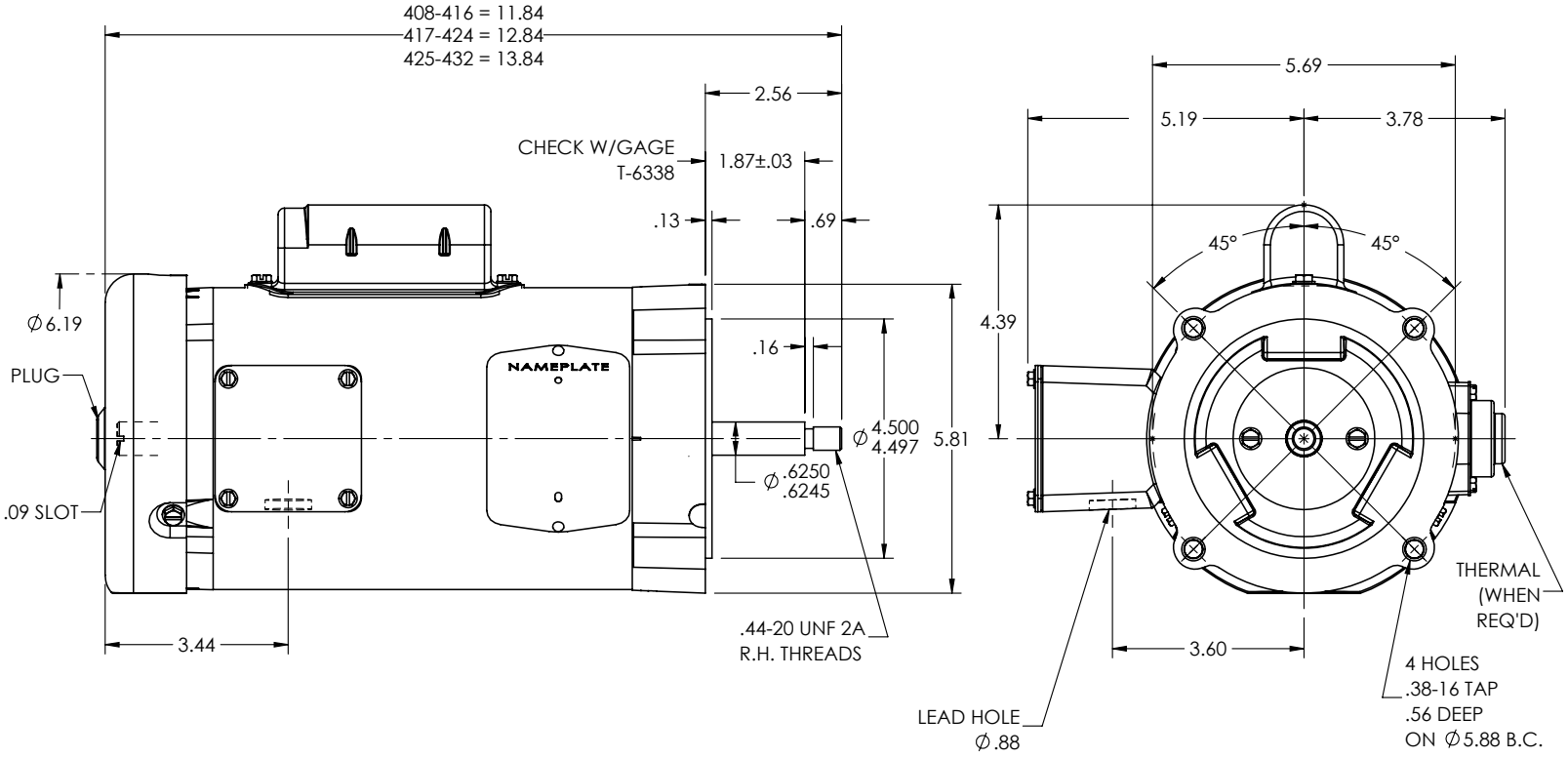
Nameplate Data				**230 V, 60 Hz: High Voltage Connection**	
Rated Output (HP)			.5	**Full Load Torque**	1.5 LB-FT
Volts			115/230	**Start Configuration**	direct on line
Full Load Amps			7.4/3.7	**Breakdown Torque**	4.13 LB-FT
R.P.M.			1725	**Pull-up Torque**	3.6 LB-FT
Hz	60	**Phase**	1	**Locked-rotor Torque**	4.65 LB-FT
NEMA Design Code	N	**KVA Code**	J	**Starting Current**	16.5 A
Service Factor (S.F.)			1.25	**No-load Current**	2.8 A
NEMA Nom. Eff.	68	**Power Factor**	66	**Line-line Res. @ 25ºC**	4.44 Ω A Ph 3.19 Ω B Ph
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	63°C
S.F. Amps			8.2/4.1	**Temp. Rise @ S.F. Load**	77°C

Load Characteristics 230 V, 60 Hz, 0.5 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	32	46	59	66	72	80	72
Efficiency	42	58	65	68	69	68	69
Speed	1783	1765	1750	1730	1710	1680	1710
Line amperes	2.8	3	3.3	3.7	4.1	4.8	4.1


ABB Motors and Mechanical Inc.
WINDING # 34WG5593
0.5 HP 1 PH 60 HZ 1725 RPM 230 V 3421L
Typical performance - not guaranteed values.
TORQUES(LB-FT): PO=4.13 PU=3.6 LR=4.65 LRA=16.5
TORQUE
RPM
WATTS
AMPS
EFF
PF
%EFF %PF
TORQUE (LB-FT)
RPM
WATTS
AMPS
PERCENT OF RATED OUTPUT (0.5 HP)
11/1/2026 ACPERF, record # 6779

34LY3099



34LY3099

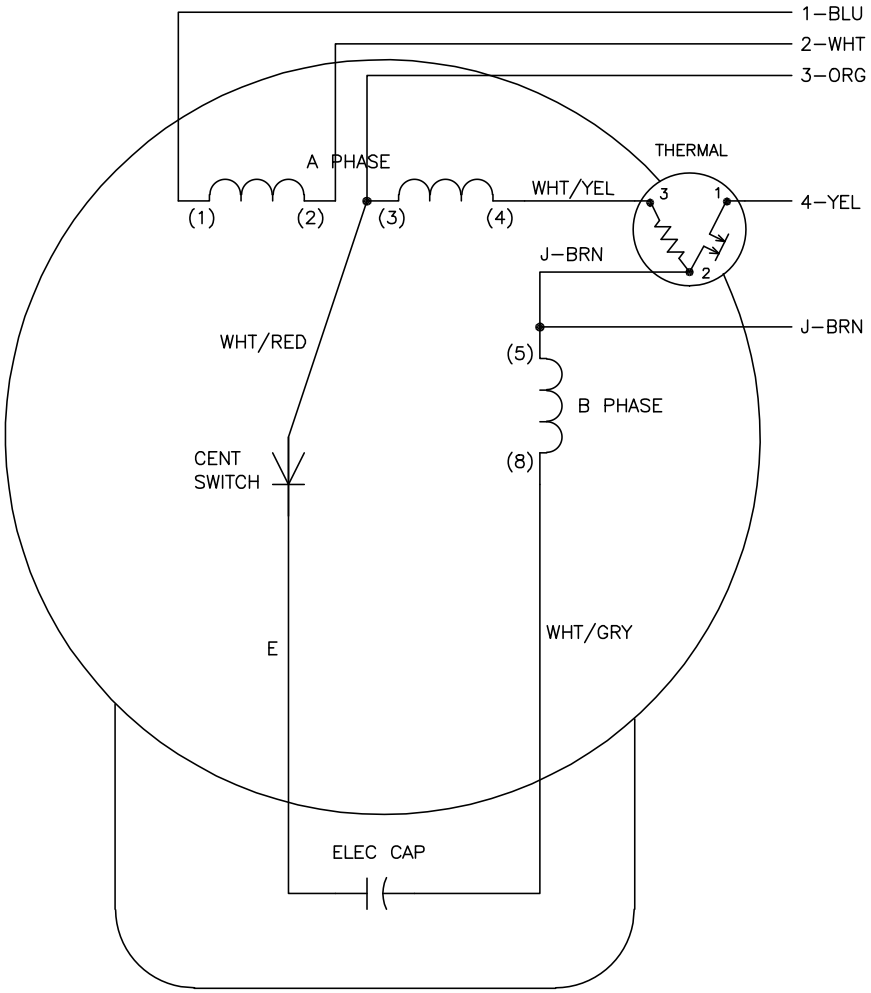
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION

REV. DESC: LOAD TO SOLIDWORKS - REV 3			
REV: F	VERSION: 03	REVISED: 10:52:05 12/14/2022	TDR: 000001201165
34LY3099	MODEL NO. 34LY3099		REF: -
	BY: ENFRAJ0		

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STD VERT 34L NEMA 56J TEFC

CD0094



	LINE A	LINE B	JOIN	JOIN
HIGH	1	4	2,3	J
LOW	1,3	4	2,J	–

NOTES:

1. CONNECTIONS ARE SHOWN FOR CCW ROTATION FACING END OPPOSITE SHAFT EXTENSION (STD). FOR CW ROTATION, INTERCHANGE 5 AND 8 INTERNALLY.
2. MULTIPLE CAPACITORS ARE CONNECTED IN PARALLEL UNLESS OTHERWISE SPECIFIED.
3. LEAD COLORS ARE OPTIONAL. LEADS MUST ALWAYS BE NUMBERED AS SHOWN.

CD0094

REV. DESC: ADD B PH AMPS THRU HTR HVC TO DESCRIPTION		
REV. LTR: F	VERSION: 02	TDR: 000001258306
FILE: \AAA\00007\476	REVISED: 03:40:33 06/18/2025	BY: ENBRIR0
MTL: –		

BALDOR - RELIANCE®

TYPE L, DV, FIX, THERMAL, B PH AMPS THRU HTR HVC, 5 LEAD

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