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									

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

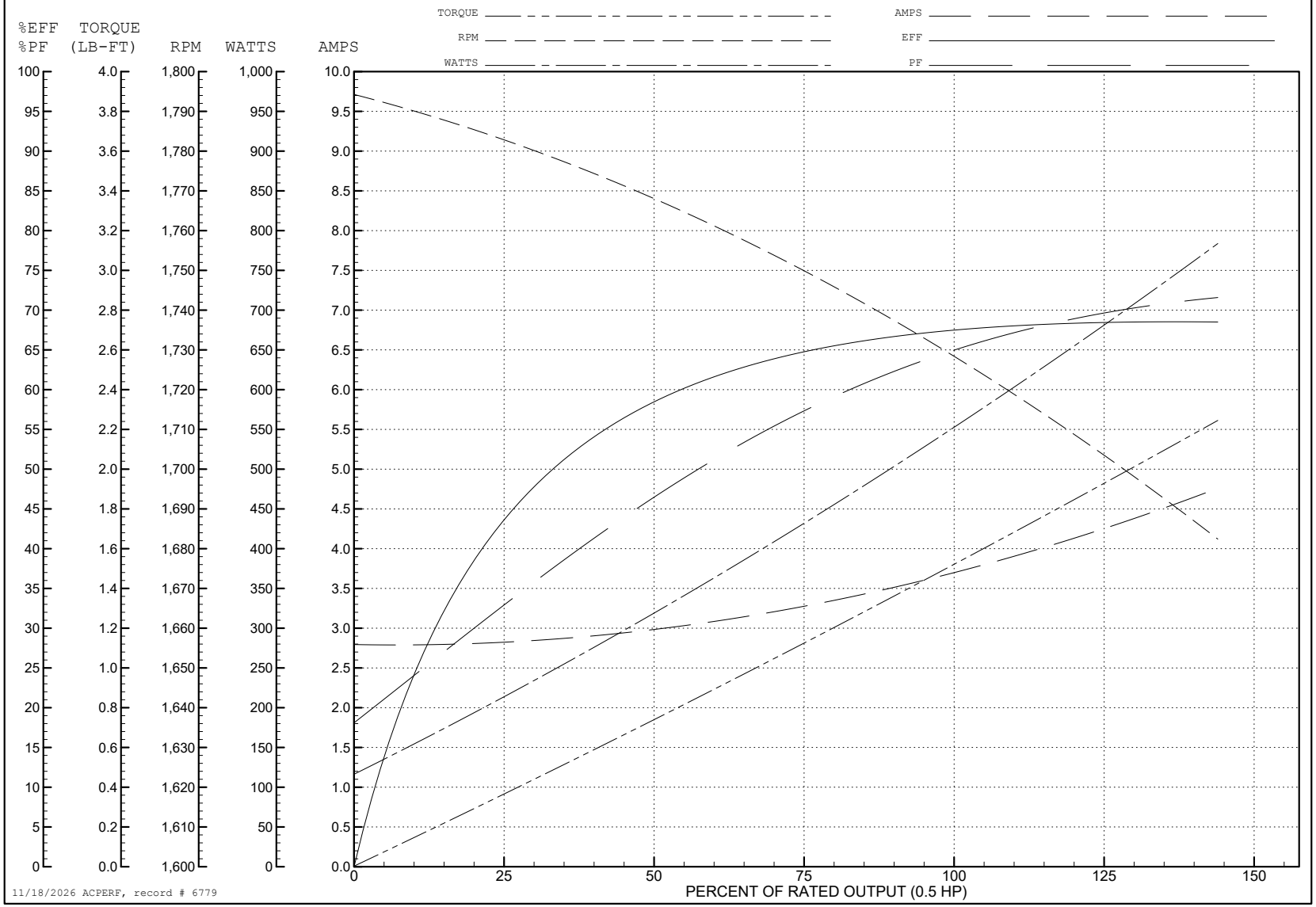
ABB Motors and Mechanical Inc.

WINDING # 34WG5593

0.5 HP 1 PH 60 HZ 1725 RPM 230 V 3421L

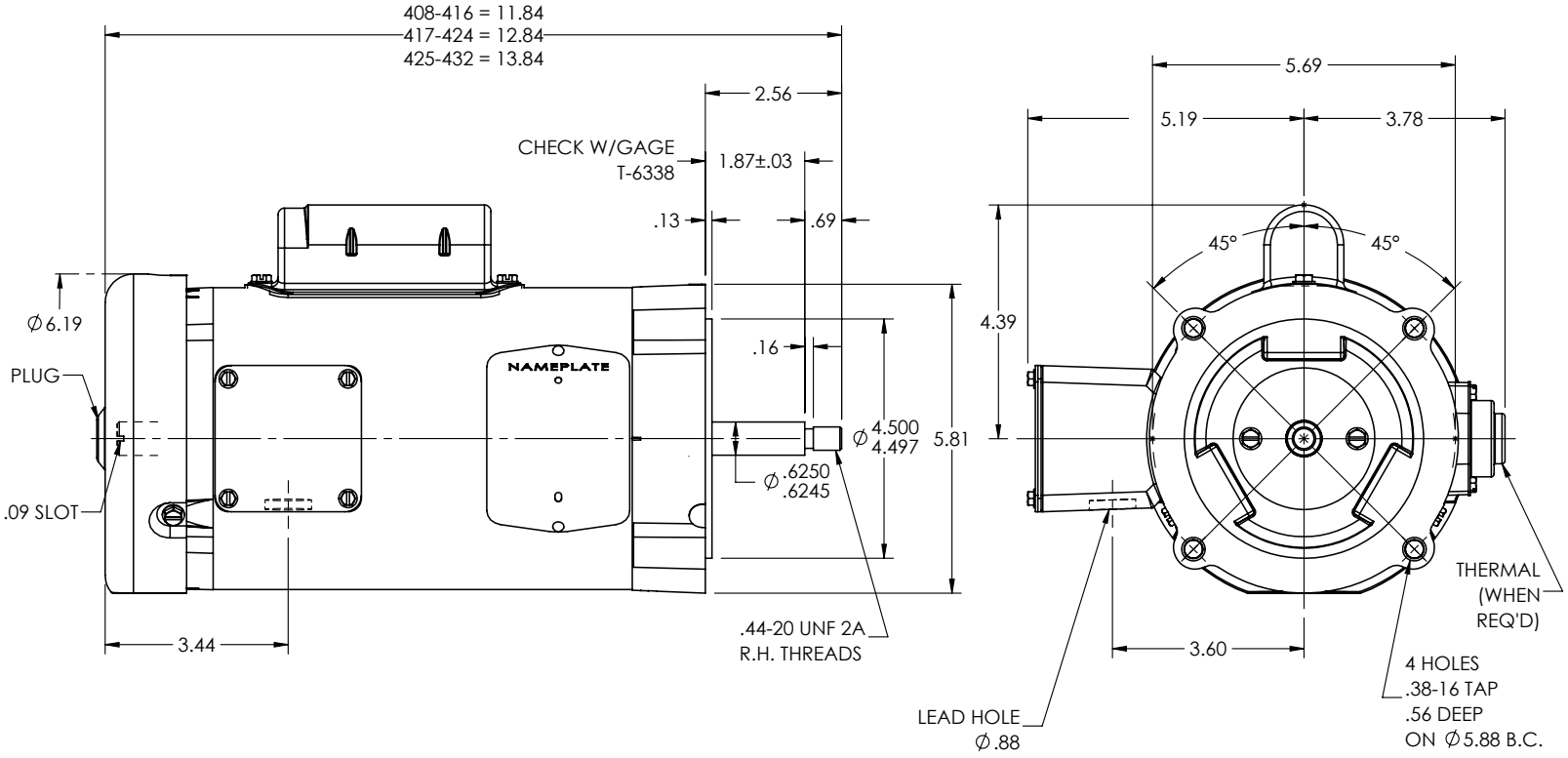
Typical performance - not guaranteed values.

TORQUES(LB-FT): PO=4.13 PU=3.6 LR=4.65 LRA=16.5



11/18/2026 ACPERF, record # 6779

34LY3099



34LY3099

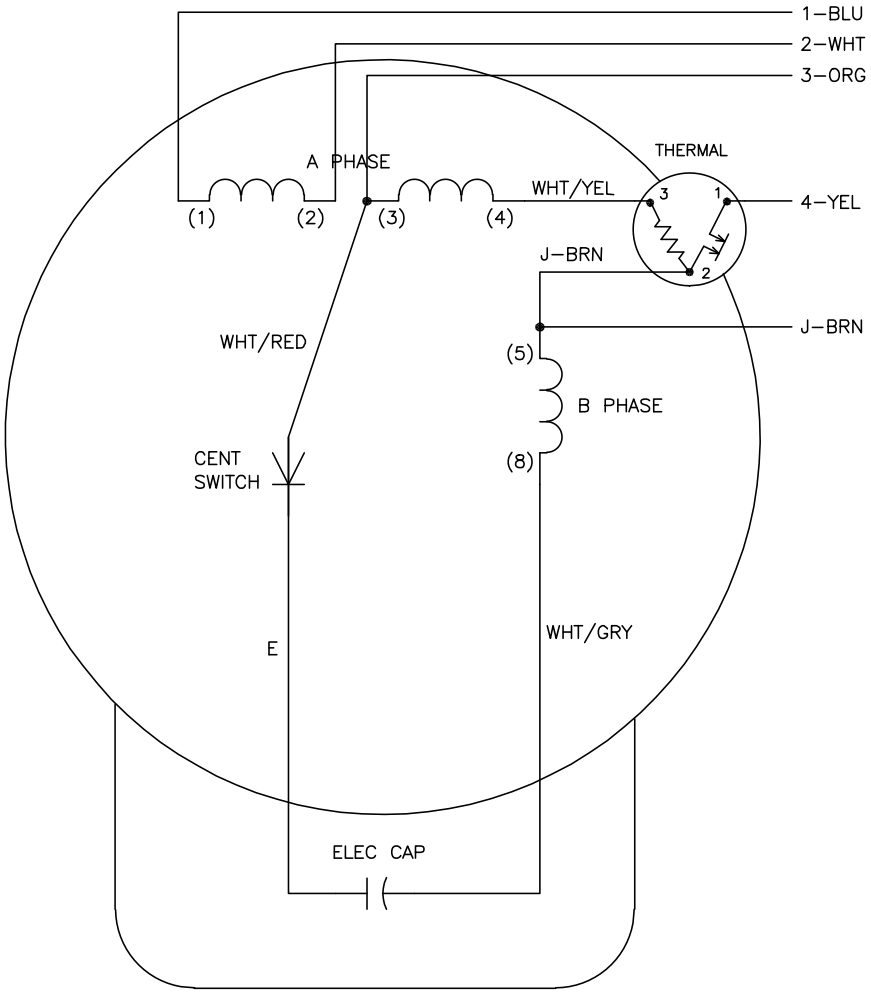
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION

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

SH 1 of 1