Customer information packet

VL3509A

1HP, 3450RPM, 1PH, 60HZ, 56C, 3524L, TEFC, F1
Class - None
Division - Not Applicable

Copyright © All product information within this document is subject to ABB Motors and Mechanical Inc. copyright © protection, unless otherwise noted.
11/19/2026 12:11:58 AM

Specifications

Enclosure	TEFC
Frame	56C
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	1.000 HP @ 60 HZ
Phase	1
Synchronous Speed @ Frequency	3600 RPM @ 60 HZ
Voltage @ Frequency	115.0 V @ 60 HZ
	230.0 V @ 60 HZ
Agency Approvals	C UR US
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	12.000 A @ 115.0 V
	6.000 A @ 230.0 V
Design Code	N
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	66.0 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	6.0 a
Insulation Class	B

Part Detail

Revision	BQ
Type	AC
Mech. spec.	35C013
Base	
Status	PRD/A
Elec. spec.	35WG0498
Layout	35LYC013
Eff. date	01-12-2026
CD Diagram	CD0008
Poles	02
Leads	4#16 A&J,2#18 B PH,1#14 #4TH
Proprietary	False
Created date	06-21-2007

Inverter Code	Not Inverter
KVA Code	K
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	4 @ 16 AWG, A&J
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3524L
Mounting Arrangement	F1
Number of Poles	2
Overall Length	13.25 IN
Power Factor	81
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	C-Face
Pulley Shaft Indicator	Standard
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	Reversible
Shaft Slinger Indicator	No Slinger
Speed	3450 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	ES
Winding Thermal 2	None

Nameplate

NP1257L											
CAT.NO.	VL3509A										
SPEC.	35C13-498										
HP	1										
VOLTS	115/230										
AMP	12/6										
RPM	3450										
FRAME	56C		**HZ**	60		**PH**	1				
SER.F.	1.25	**CODE**	K	**DES**	N	**CL**	B				
NEMA-NOM-EFF	66	**PF**	81								
RATING	40C AMB-CONT										
CC											
DE	6205	**ODE**	6203								
ENCL	TEFC	**SN**									
	SFA 14.4/7.2										

AC Induction Motor Performance Data
Record # 8070
Typical performance - not guaranteed values

Winding: 35WG0498-R001	**Type:** 3524L	**Enclosure:** TEFC

Nameplate Data			**230 V, 60 Hz: High Voltage Connection**	
Rated Output (HP)		1	**Full Load Torque**	1.5 LB-FT
Volts		115/230	**Start Configuration**	direct on line
Full Load Amps		12/6	**Breakdown Torque**	4.1 LB-FT
R.P.M.		3450	**Pull-up Torque**	3.1 LB-FT
Hz	60 **Phase**	1	**Locked-rotor Torque**	5 LB-FT
NEMA Design Code	N **KVA Code**	K	**Starting Current**	38.5 A
Service Factor (S.F.)		1.25	**No-load Current**	2.95 A
NEMA Nom. Eff.	66 **Power Factor**	81	**Line-line Res. @ 25ºC**	2.46 Ω A Ph 1.75 Ω B Ph
Rating - Duty		40C AMB-CONT	**Temp. Rise @ Rated Load**	
S.F. Amps		14.4/7.2	**Temp. Rise @ S.F. Load**	

Load Characteristics 230 V, 60 Hz, 1 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	50	64	75	81	84	86	84
Efficiency	49	65	67	69	68	67.5	68
Speed	3570	3550	3530	3505	3472	3445	3472
Line amperes	3.2	3.7	4.5	5.5	6.75	7.7	6.75

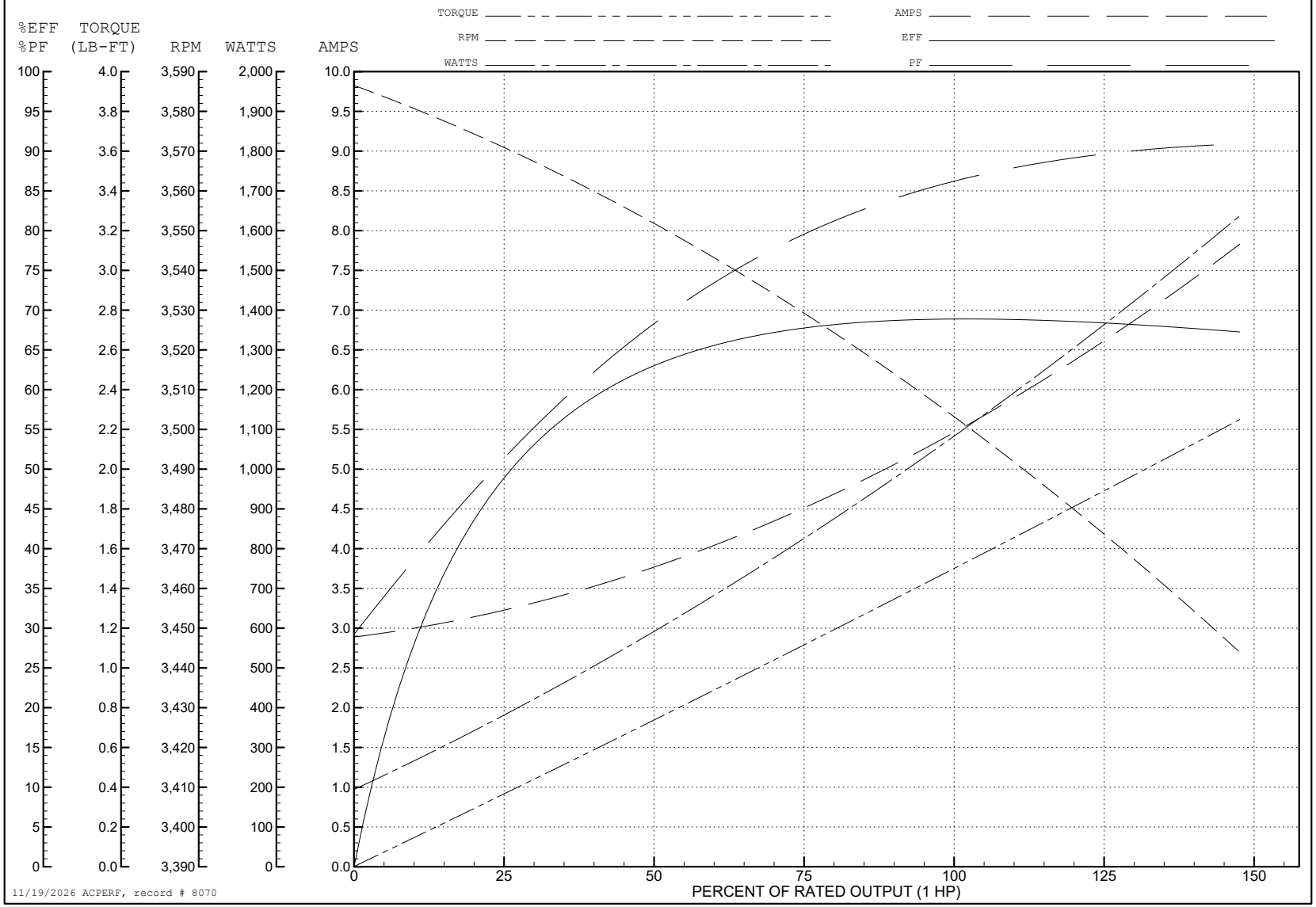
ABB Motors and Mechanical Inc.

WINDING # 35WG0498

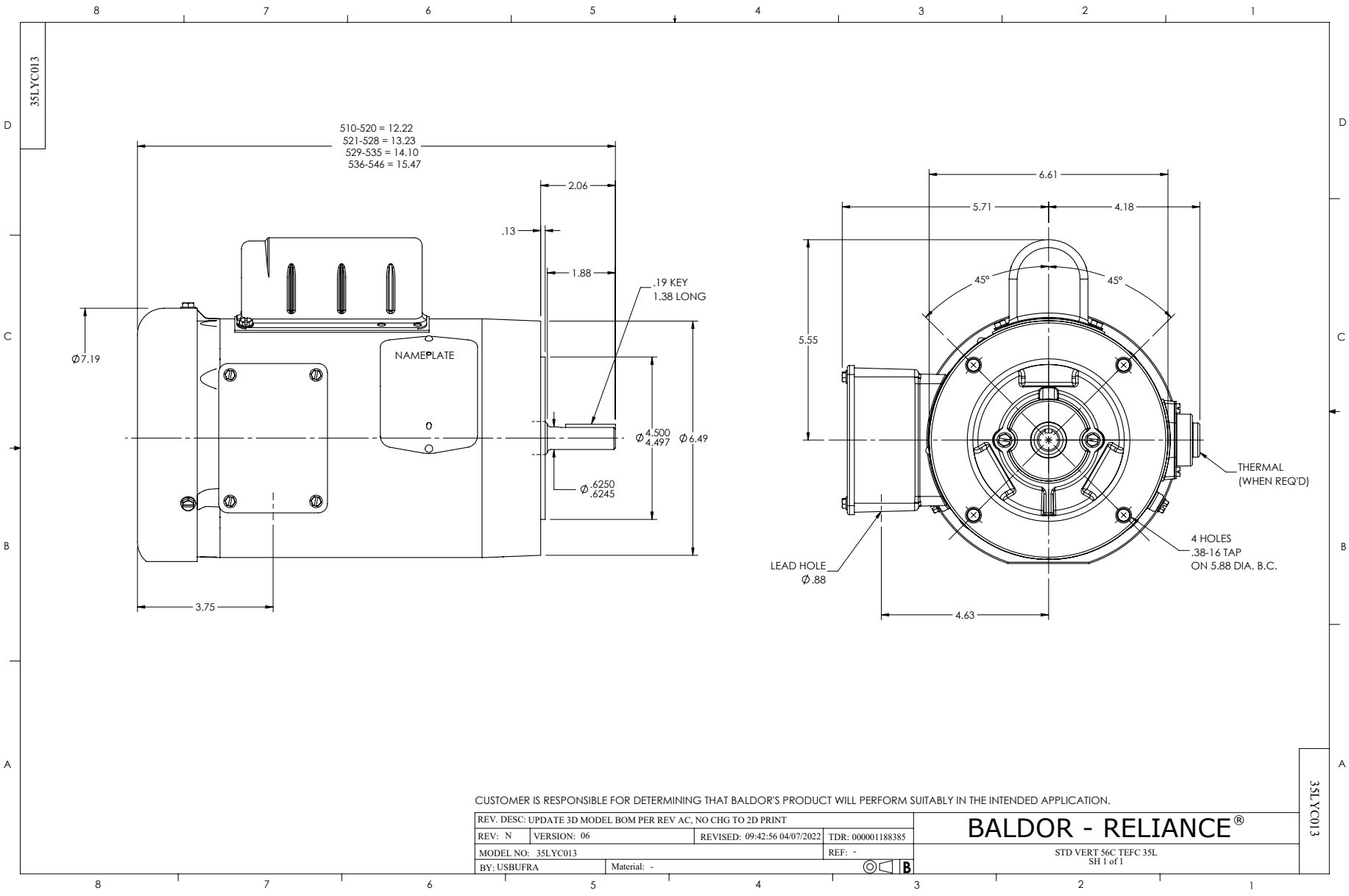
1 HP 1 PH 60 HZ 3450 RPM 230 V 3524L

Typical performance - not guaranteed values.

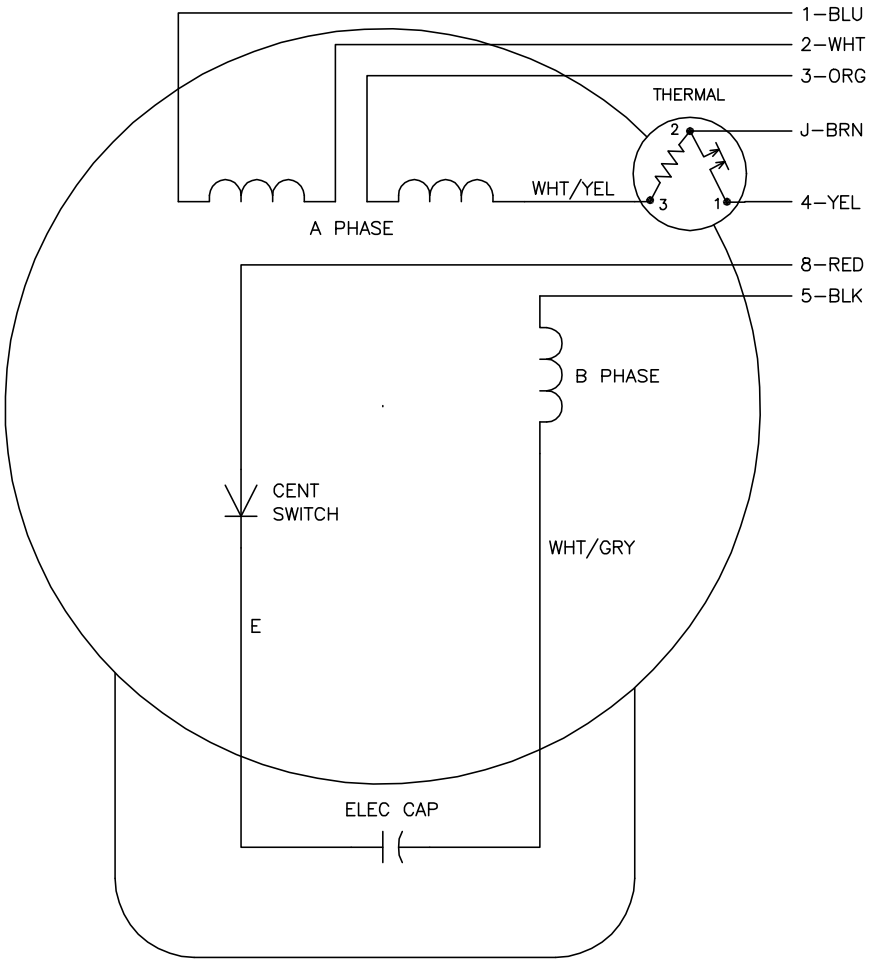
TORQUES(LB-FT): PO=4.1 PU=3.1 LR=5 LRA=38.5



11/19/2026 ACPERF, record # 8070


35LYC013
510-520 = 12.22
521-528 = 13.23
529-535 = 14.10
536-546 = 15.47
2.06
.13
1.88
.19 KEY
1.38 LONG
Ø7.19
NAMEPLATE
Ø4.500
4.497
Ø6.49
Ø.6250
.6245
3.75
6.61
5.71
4.18
45°
45°
5.55
THERMAL
(WHEN REQ'D)
4 HOLES
.38-16 TAP
ON 5.88 DIA. B.C.
LEAD HOLE
Ø.88
4.63
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION.
REV. DESC: UPDATE 3D MODEL BOM PER REV AC, NO CHG TO 2D PRINT
REV: N
VERSION: 06
REVISED: 09:42:56 04/07/2022
TDR: 000001188385
MODEL NO: 35LYC013
REF: -
BY: USBUFRA
Material: -
B
BALDOR - RELIANCE®
STD VERT 56C TEFC 35L
SH 1 of 1
35LYC013

CD0008



	LINE A	LINE B	JOIN	JOIN
HIGH STD	1	4	2,3,8	J,5
HIGH OPP	1	4	2,3,5	J,8
LOW STD	1,3,8	4	–	2,J,5
LOW OPP	1,3,5	4	–	2,J,8

NOTES:

1. STANDARD ROTATION IS CCW FACING END OPPOSITE SHAFT EXTENSION.
2. MULTIPLE CAPACITORS ARE CONNECTED IN PARALLEL UNLESS OTHERWISE SPECIFIED.
3. LEAD COLORS ARE OPTIONAL. LEADS MUST ALWAYS BE NUMBERED AS SHOWN.

CD0008

REV. DESC: REMOVE 2–TERMINAL THERMAL DETAIL, SEE CD0008A02			BALDOR ELECTRIC Co.
REV. LTR: F	VERSION: 01	TDR: 000000360649	
CD0008	FILE: \AAA\00007\408	REVISED: 10:56:54 04/18/2005	TYPE L, DV, REV, THERMAL, 7 LEADS
	MTL: –	BY: ENJOEP0	