ABB BALDOR RELIANCE

Customer information packet

VEM31108

.5HP, 1725RPM, 3PH, 60HZ, 56C, 3424M, OPEN, F1
Class - None
Division - Not Applicable

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Specifications

Enclosure	OPEN
Frame	56C
Frame Material	Steel
Frequency	60.00 Hz
Haz Area Class and Group	None
Haz Area Division	Not Applicable
Motor Letter Type	Three Phase
Output @ Frequency	.500 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	460.0 V @ 60 HZ
	208.0 V @ 60 HZ
	230.0 V @ 60 HZ
Agency Approvals	CURUSEEV
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	.800 A @ 460.0 V
	1.600 A @ 230.0 V
	1.700 A @ 208.0 V
Design Code	B
Drip Cover	Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	78.2 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Face Code	Drip Cover Mounting
Front Shaft Indicator	None
Heater Indicator	No Heater

Part Detail

Revision	L
Type	AC
Mech. spec.	34F012
Base	
Status	PRD/A
Elec. spec.	34WGX110
Layout	34LYF012
Eff. date	01-07-2026
CD Diagram	CD0005
Poles	04
Leads	9#18
Proprietary	False
Created date	10-02-2014

High Voltage Full Load Amps	0.8 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	9 @ 18 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3424M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	12.72 IN
Power Factor	78
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	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	None

Winding Thermal 2	None

Nameplate

NP3155L									
CAT.NO.	VEM31108								
SPEC.	34F012X110G1								
HP	.5								
VOLTS	208-230/460								
AMP	1.7-1.6/.8								
RPM	1725								
FRAME	56C		**HZ**	60			**PH**	3	
SER.F.	1.25	**CODE**	J	**DES**	B	**CL**	B		
F.L. AVG. EFF.	78.2	**PF**	78						
RATING	40C AMB-CONT								
CC									
DE	6203		**ODE**	6203					
ENCL	OPEN	**SN**							
	SFA 2.1-2/1								

AC Induction Motor Performance Data
Record # 74151
Typical performance - not guaranteed values

Winding: 34WGX110-R012	**Type:** 3424M	**Enclosure:** OPEN

Nameplate Data				**460 V, 60 Hz: High Voltage Connection**	
Rated Output (HP)			.5	**Full Load Torque**	1.57 LB-FT
Volts			208-230/460	**Start Configuration**	direct on line
Full Load Amps			1.7-1.6/.8	**Breakdown Torque**	5.24 LB-FT
R.P.M.			1725	**Pull-up Torque**	3.8 LB-FT
Hz	60	**Phase**	3	**Locked-rotor Torque**	5.12 LB-FT
NEMA Design Code	B	**KVA Code**	J	**Starting Current**	6.16 A
Service Factor (S.F.)			1.25	**No-load Current**	0.474 A
NEMA Nom. Eff.	78.2	**Power Factor**	78	**Line-line Res. @ 25ºC**	29.1 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	25°C
S.F. Amps			2.1-2/1	**Temp. Rise @ S.F. Load**	31°C
				Locked-rotor Power Factor	52.9
				Rotor inertia	0.0572 LB-FT2

Load Characteristics 460 V, 60 Hz, 0.5 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	37	55	68	76	80	83	80
Efficiency	67.5	76.4	78.6	78.5	77	75	77
Speed	1783	1766	1750	1730	1707	1683	1707
Line amperes	0.509	0.586	0.687	0.815	0.971	1.14	0.971

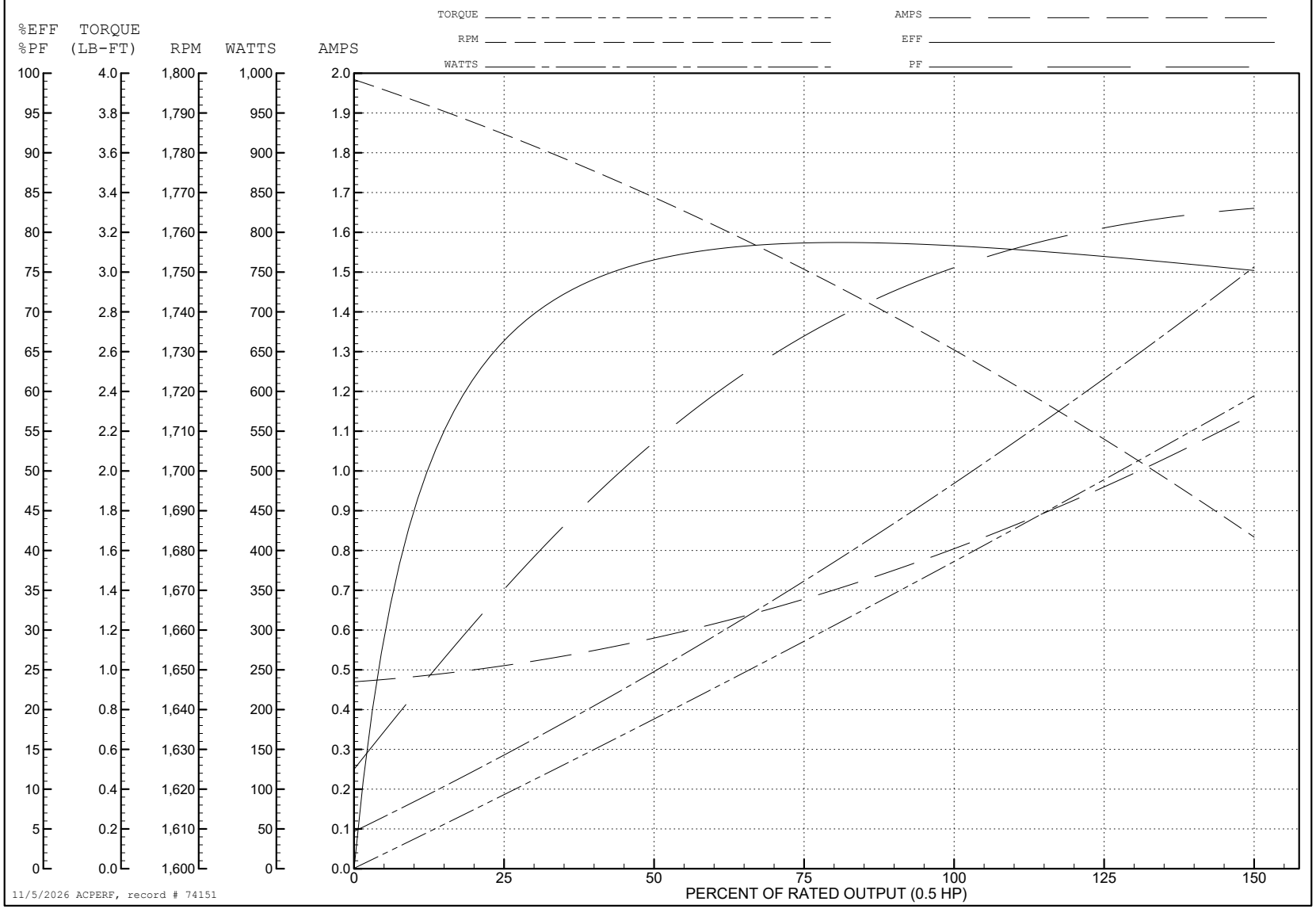
ABB Motors and Mechanical Inc.

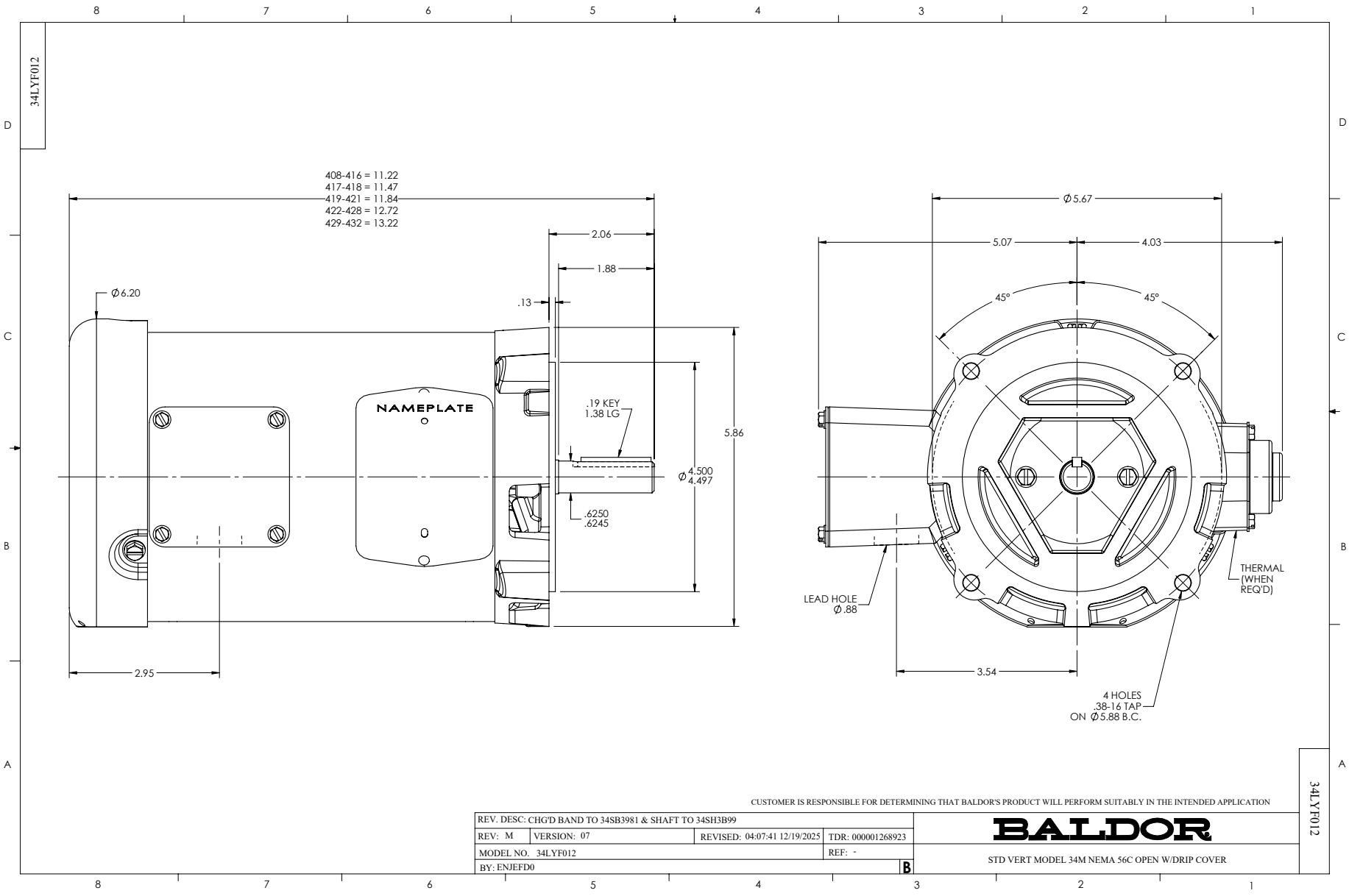
WINDING # 34WGX110

0.5 HP 3 PH 60 HZ 1725 RPM 460 V 3424M

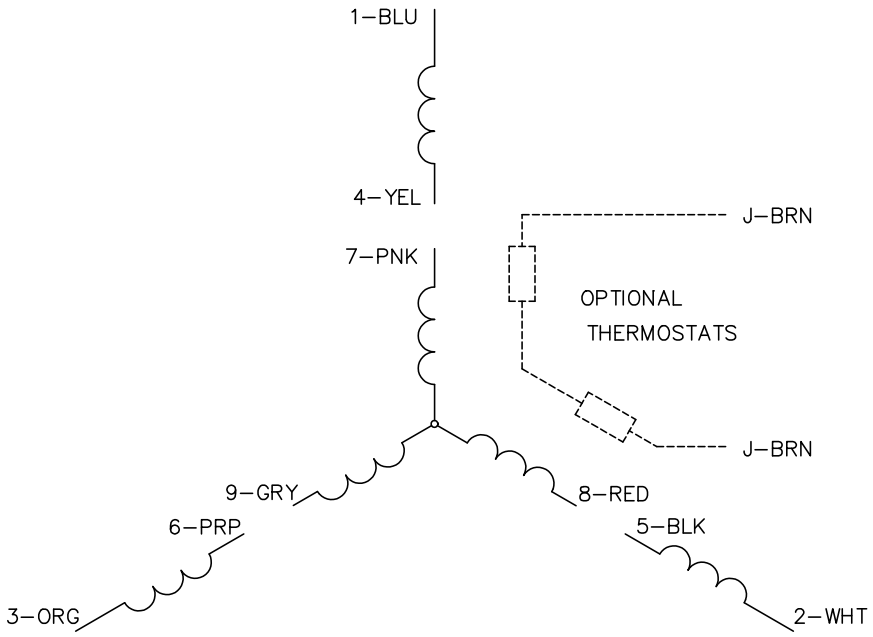
Typical performance - not guaranteed values.

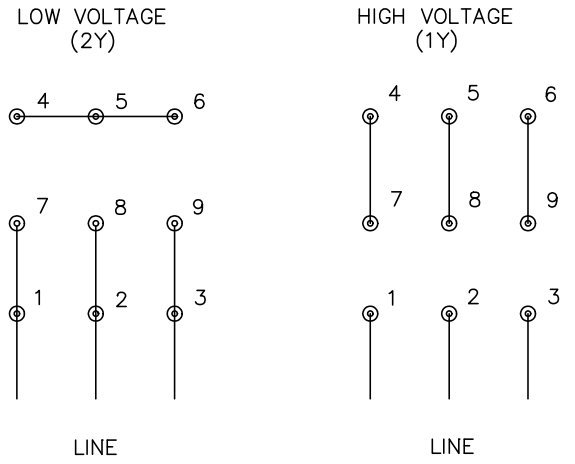
TORQUES(LB-FT): PO=5.24 PU=3.8 LR=5.12 LRA=6.16




34LYF012
408-416 = 11.22
417-418 = 11.47
419-421 = 11.84
422-428 = 12.72
429-432 = 13.22
2.06
1.88
.13
Ø6.20
NAMEPLATE
.19 KEY
1.38 LG
5.86
Ø 4.500
4.497
.6250
.6245
2.95
Ø5.67
5.07
4.03
45°
45°
LEAD HOLE
Ø.88
THERMAL
(WHEN
REQ'D)
3.54
4 HOLES
.38-16 TAP
ON Ø5.88 B.C.
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: CHG'D BAND TO 34SB3981 & SHAFT TO 34SH3B99
REV: M
VERSION: 07
REVISED: 04:07:41 12/19/2025
TDR: 000001268923
MODEL NO. 34LYF012
REF: -
BY: ENJEFD0
B
BALDOR
STD VERT MODEL 34M NEMA 56C OPEN W/DRIP COVER
34LYF012

CD0005





NOTES:

1. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
2. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
3. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY BE A MULTIPLE OF THOSE SHOWN ABOVE.
4. LEAD COLORS ARE OPTIONAL. LEADS MUST ALWAYS BE NUMBERED AS SHOWN.

CD0005

REV. DESC: REVISE TO SHOW OPTIONAL COLORS			BALDOR ELECTRIC Co.
REV. LTR: E	BY: JLP	REVISED: 01/19/99 10:15	TDR: 0171435
CD0005		FILE: AAA00005140	MDL: –
		MTL: –	3PH, DV, 9 LEADS