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# Customer information packet

## VEM31109

.5HP, 1140RPM, 3PH, 60HZ, 56C, 3428M, OPEN, F1

Class - None

Division - Not Applicable

## 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	1200 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ 460.0 V @ 60 HZ
Agency Approvals	CURUSEEV
Ambient Temperature	40 °C
Auxillary Box	No Auxillary Box
Auxillary Box Lead Termination	None
Base Indicator	No Mounting
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Current @ Voltage	1.000 A @ 460.0 V 2.000 A @ 230.0 V 2.300 A @ 208.0 V
Design Code	B
Drip Cover	Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	75.3 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Face Code	Drip Cover Mounting
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	1.0 a

## Part detail

Revision	H
Type	AC
Mech. spec.	34-274
Base	
Status	PRD/A
Elec. spec.	34WGS940
Layout	34LY0274
Eff. date	10-29-2024
CD Diagram	CD0005
Poles	06
Leads	9#18
Proprietary	False
Created date	10-08-2014

Insulation Class	B
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	9 @ 18 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3428M
Mounting Arrangement	F1
Number of Poles	6
Overall Length	13.35 IN
Power Factor	65
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	1140 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**

<b>NP3155L</b>									
<b>CAT.NO.</b>	VEM31109								
<b>SPEC.</b>	34-0274S940G1								
<b>HP</b>	.5								
<b>VOLTS</b>	230/460								
<b>AMP</b>	2/1								
<b>RPM</b>	1140								
<b>FRAME</b>	56C		<b>HZ</b>	60		<b>PH</b>	3		
<b>SER.F.</b>	1.25	<b>CODE</b>	K	<b>DES</b>	B	<b>CL</b>	B		
<b>F.L. AVG. EFF.</b>	75.3	<b>PF</b>	65						
<b>RATING</b>	40C AMB-CONT								
<b>CC</b>									
<b>DE</b>	6203		<b>ODE</b>	6203					
<b>ENCL</b>	OPEN	<b>SN</b>							
	SFA 2.2/1.1								

## AC Induction Motor Performance Data

Record # 47462

Typical performance - not guaranteed values

Winding: 34WGS940-R002		Type: 3428M	Enclosure: OPEN		
<b>Nameplate Data</b>			<b>460 V, 60 Hz: High Voltage Connection</b>		
Rated Output (HP)	.5	Full Load Torque	2.36 LB-FT		
Volts	230/460	Start Configuration	direct on line		
Full Load Amps	2/1	Breakdown Torque	7.06 LB-FT		
R.P.M.	1140	Pull-up Torque	5.55 LB-FT		
Hz	60 Phase	3	Locked-rotor Torque	6.2 LB-FT	
NEMA Design Code	B	KVA Code	K	Starting Current	4.7 A
Service Factor (S.F.)	1.25	No-load Current	0.68 A		
NEMA Nom. Eff.	75.3	Power Factor	65	Line-line Res. @ 25°C	32.597 Ω
Rating - Duty	40C	AMB-CONT	Temp. Rise @ Rated Load	49°C	
S.F. Amps	2.2/1.1	Temp. Rise @ S.F. Load	66°C		
		Locked-rotor Power Factor	56		
		Rotor inertia	0.0665 LB-FT <sup>2</sup>		

## Load Characteristics 460 V, 60 Hz, 0.5 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	27	43	54	63	70	75	70
Efficiency	62.5	73.6	76.7	76.9	75.5	73.1	75.5
Speed	1184.7	1169.4	1153.2	1135.4	1114.5	1089.3	1114
Line amperes	0.707	0.771	0.863	0.978	1.13	1.3	1.13

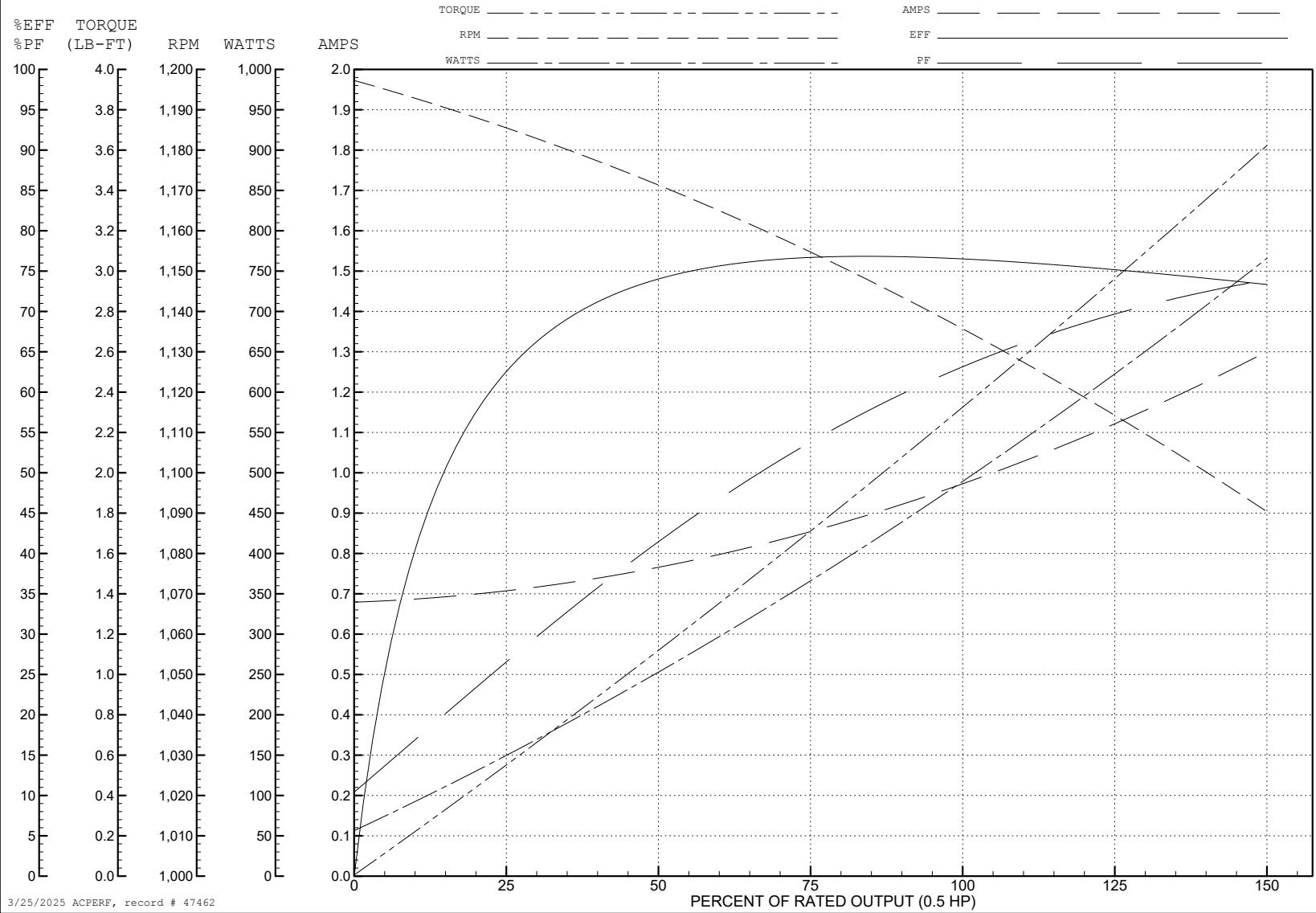
ABB Motors and Mechanical Inc.

WINDING # 34WGS940

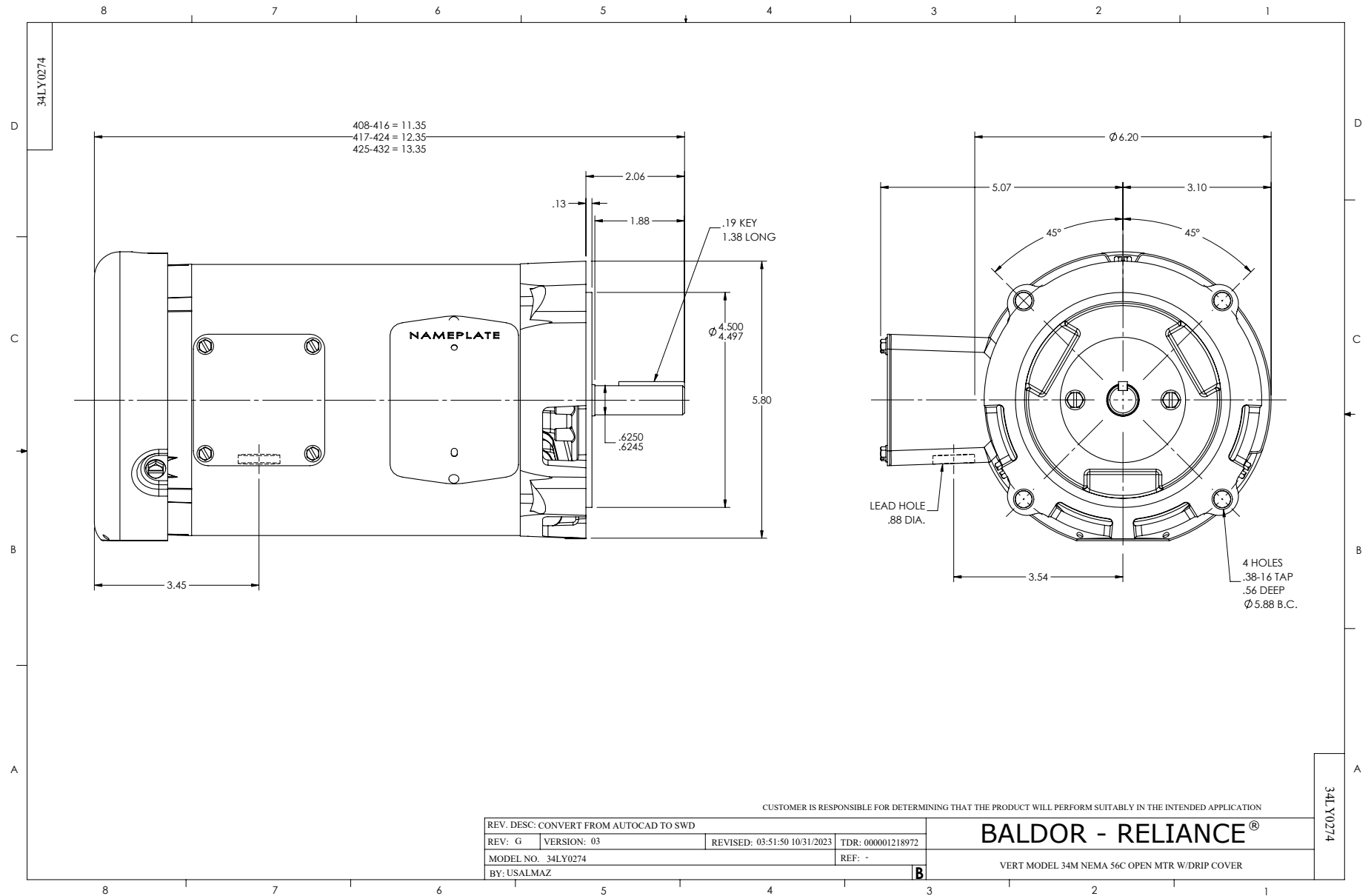
0.5 HP 3 PH 60 HZ 1140 RPM 460 V 3428M

Typical performance - not guaranteed values.

TORQUES (LB-FT): PO=7.06 PU=5.55 LR=6.2 LRA=4.7



3/25/2025 ACPERF, record # 47462



CD0005



LOW VOLTAGE  
(2Y)



LINE

HIGH VOLTAGE  
(1Y)



LINE

**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			
REV. LTR: E	BY: JLP	REVISED: 01/19/99 10:15	TDR: 0171435
S00000		FILE: AAA00005140	MDL: -
		MTL: -	

**BALDOR ELECTRIC Co.**

3PH, DV, 9 LEADS