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# Customer information packet

## CEM31108

.5HP, 1725RPM, 3PH, 60HZ, 56C, 3424M, 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	1800 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	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Current @ Voltage	.800 A @ 460.0 V 1.600 A @ 230.0 V 2.100 A @ 208.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	78.2 %
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	0.8 a

## Part detail

Revision	M
Type	AC
Mech. spec.	34F010
Base	
Status	PRD/A
Elec. spec.	34WGX110
Layout	34LYF010
Eff. date	02-12-2025
CD Diagram	CD0005
Poles	04
Leads	9#18
Proprietary	False
Created date	10-03-2014

<b>Insulation Class</b>	B
<b>Inverter Code</b>	Not Inverter
<b>KVA Code</b>	J
<b>Lifting Lugs</b>	No Lifting Lugs
<b>Locked Bearing Indicator</b>	Locked Bearing
<b>Motor Lead Exit</b>	Ko Box
<b>Motor Lead Quantity/Wire Size</b>	9 @ 18 AWG
<b>Motor Lead Termination</b>	Flying Leads
<b>Motor Standards</b>	NEMA
<b>Motor Type</b>	3424M
<b>Mounting Arrangement</b>	F1
<b>Number of Poles</b>	4
<b>Overall Length</b>	11.60 IN
<b>Power Factor</b>	78
<b>Product Family</b>	General Purpose
<b>Pulley End Bearing Type</b>	Ball
<b>Pulley Face Code</b>	C-Face
<b>Pulley Shaft Indicator</b>	Standard
<b>Rodent Screen</b>	None
<b>RoHS Status</b>	ROHS COMPLIANT
<b>Service Factor</b>	1.25
<b>Shaft Diameter</b>	0.625 IN
<b>Shaft Extension Location</b>	Pulley End
<b>Shaft Ground Indicator</b>	No Shaft Grounding
<b>Shaft Rotation</b>	Reversible
<b>Shaft Slinger Indicator</b>	No Slinger
<b>Speed</b>	1725 rpm
<b>Speed Code</b>	Single Speed
<b>Starting Method</b>	Direct on line
<b>Thermal Device - Bearing</b>	None
<b>Thermal Device - Winding</b>	None
<b>Vibration Sensor Indicator</b>	No Vibration Sensor
<b>Winding Thermal 1</b>	None
<b>Winding Thermal 2</b>	None

**Nameplate**

<b>NP3155L</b>									
<b>CAT.NO.</b>	CEM31108								
<b>SPEC.</b>	34F010X110G1								
<b>HP</b>	.5								
<b>VOLTS</b>	230/460								
<b>AMP</b>	1.6/.8								
<b>RPM</b>	1725								
<b>FRAME</b>	56C		<b>HZ</b>	60		<b>PH</b>	3		
<b>SER.F.</b>	1.25	<b>CODE</b>	J	<b>DES</b>	B	<b>CL</b>	B		
<b>F.L. AVG. EFF.</b>	78.2	<b>PF</b>	78						
<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 2/1								

**AC Induction Motor Performance Data**

Record # 47467

Typical performance - not guaranteed values

<b>Winding:</b> 34WGX110-R011		<b>Type:</b> 3424M		<b>Enclosure:</b> OPEN	
<b>Nameplate Data</b>			<b>460 V, 60 Hz: High Voltage Connection</b>		
<b>Rated Output (HP)</b>	.5	<b>Full Load Torque</b>	1.57 LB-FT		
<b>Volts</b>	230/460	<b>Start Configuration</b>	direct on line		
<b>Full Load Amps</b>	1.6/.8	<b>Breakdown Torque</b>	5.24 LB-FT		
<b>R.P.M.</b>	1725	<b>Pull-up Torque</b>	3.8 LB-FT		
<b>Hz</b>	60 <b>Phase</b>	3	<b>Locked-rotor Torque</b>	5.12 LB-FT	
<b>NEMA Design Code</b>	B	<b>KVA Code</b>	J	<b>Starting Current</b>	6.16 A
<b>Service Factor (S.F.)</b>	1.25		<b>No-load Current</b>	0.474 A	
<b>NEMA Nom. Eff.</b>	78.2	<b>Power Factor</b>	78	<b>Line-line Res. @ 25°C</b>	30.994 Ω
<b>Rating - Duty</b>	40C AMB-CONT		<b>Temp. Rise @ Rated Load</b>	25°C	
<b>S.F. Amps</b>	2/1		<b>Temp. Rise @ S.F. Load</b>	34°C	
			<b>Locked-rotor Power Factor</b>	53	
			<b>Rotor inertia</b>	0.0572 LB-FT <sup>2</sup>	

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

<b>% of Rated Load</b>	<b>25</b>	<b>50</b>	<b>75</b>	<b>100</b>	<b>125</b>	<b>150</b>	<b>S.F.</b>
<b>Power Factor</b>	38	55	68	76	80	83	80
<b>Efficiency</b>	67.3	76.6	78.9	78.7	77.2	74.9	77.2
<b>Speed</b>	1782.6	1766.4	1749.5	1729.5	1707.4	1683.2	1707
<b>Line amperes</b>	0.509	0.586	0.687	0.815	0.971	1.14	0.971

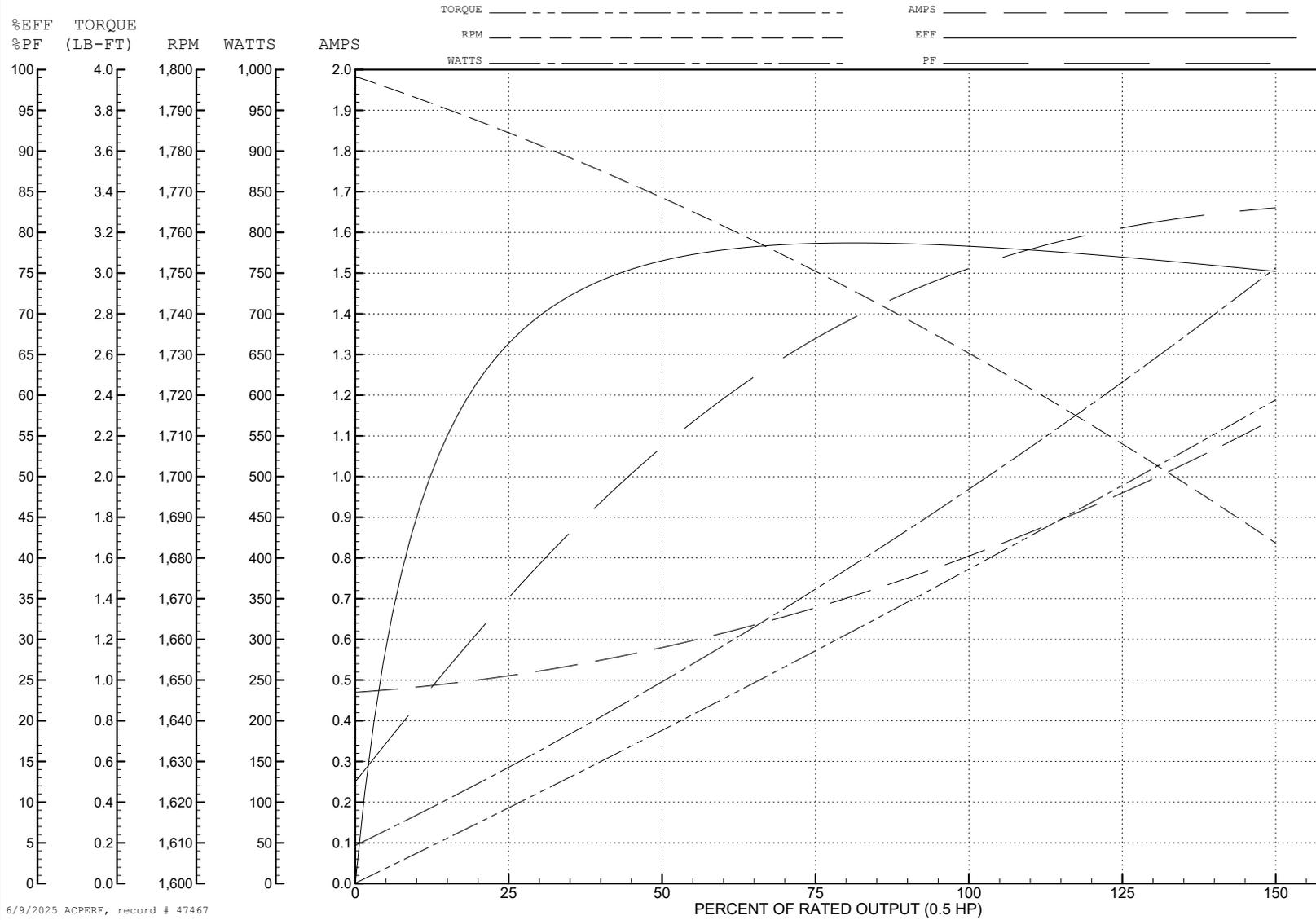
ABB Motors and Mechanical Inc.

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



6/9/2025 ACPERP, record # 47467

**AC Induction Motor Performance Data**

Record # 49381

Typical performance - not guaranteed values

Winding: 34WGX110-R011		Type: 3424M	Enclosure: OPEN		
<b>Nameplate Data</b>			<b>230 V, 60 Hz: Low Voltage Connection</b>		
Rated Output (HP)	.5	Full Load Torque	1.57 LB-FT		
Volts	230/460	Start Configuration	direct on line		
Full Load Amps	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	12.3 A
Service Factor (S.F.)	1.25	No-load Current	0.948 A		
NEMA Nom. Eff.	78.2	Power Factor	78	Line-line Res. @ 25°C	7.28 Ω
Rating - Duty	40C	AMB-CONT	Temp. Rise @ Rated Load		25°C
S.F. Amps	2/1	Temp. Rise @ S.F. Load		31°C	
			Locked-rotor Power Factor	52.9	
			Rotor inertia	0.0572 LB-FT <sup>2</sup>	

**Load Characteristics 230 V, 60 Hz, 0.5 HP**

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	37	56	68	76	80	83	80
Efficiency	67.5	76.4	78.6	78.6	77.1	75.1	77.1
Speed	1783	1766	1750	1730	1707	1683	1707
Line amperes	1.02	1.17	1.37	1.63	1.94	2.28	1.94

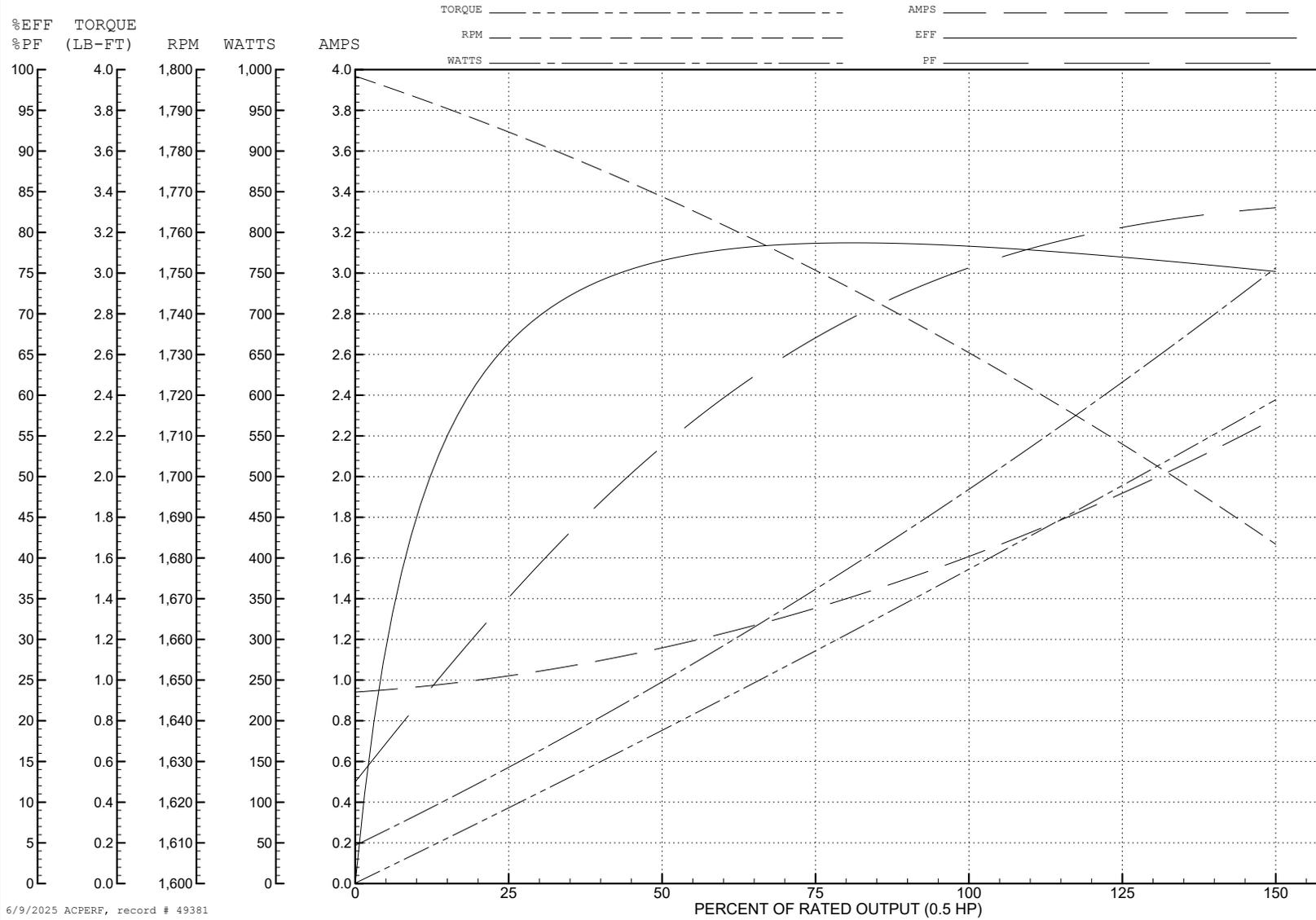
ABB Motors and Mechanical Inc.

WINDING # 34WGX110

0.5 HP 3 PH 60 HZ 1725 RPM 230 V 3424M

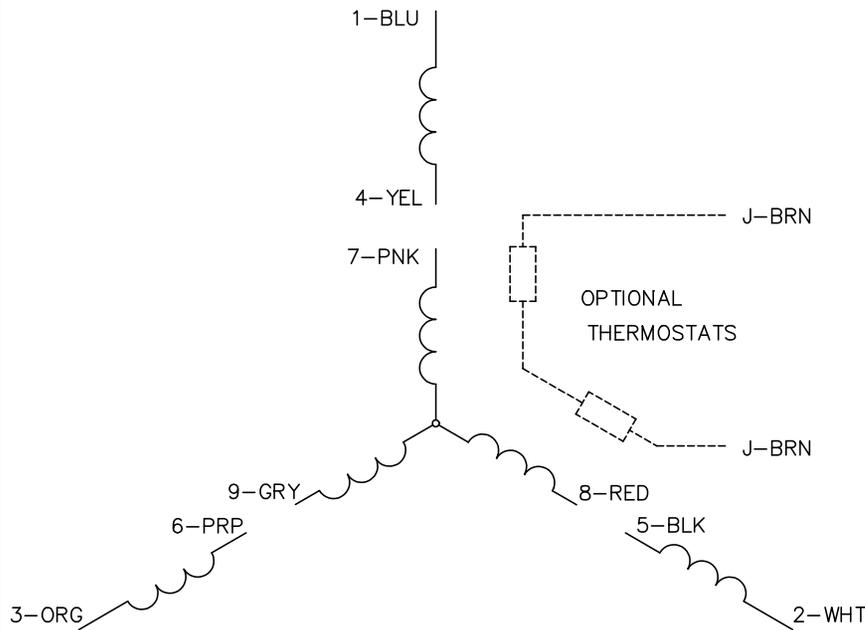
Typical performance - not guaranteed values.

TORQUES (LB-FT): PO=5.24 PU=3.8 LR=5.12 LRA=12.3

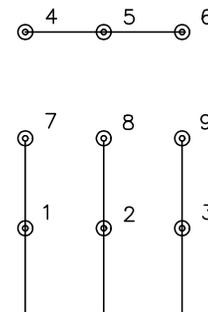




CD0005

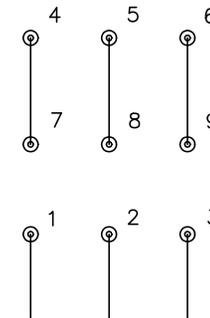


LOW VOLTAGE  
(2Y)



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.

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

CD0005