

**BALDOR • RELIANCE**

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# Customer information packet

## CM3538

.5HP, 1720RPM, 3PH, 60HZ, 56C, 3416M, TEFC, F1

Class - None

Division - Not Applicable

## 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	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	CSA UR
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 1.700 A @ 208.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	75.5 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	0.8 a

## Part detail

Revision	D
Type	AC
Mech. spec.	34A062
Base	
Status	PRD/A
Elec. spec.	34WGR706
Layout	34LYA062
Eff. date	12-30-2024
CD Diagram	CD0005
Poles	04
Leads	9#18
Proprietary	False
Created date	11-19-2020

<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 Quantity/Wire Size</b>	9 @ 18 AWG
<b>Motor Lead Termination</b>	None
<b>Motor Standards</b>	NEMA
<b>Motor Type</b>	3416M
<b>Mounting Arrangement</b>	F1
<b>Number of Poles</b>	4
<b>Overall Length</b>	11.35 IN
<b>Power Factor</b>	75
<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>Service Factor</b>	1.25
<b>Shaft Diameter</b>	0.625 IN
<b>Shaft Ground Indicator</b>	No Shaft Grounding
<b>Shaft Rotation</b>	Reversible
<b>Shaft Slinger Indicator</b>	No Slinger
<b>Speed</b>	1720 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>NP1256L</b>									
<b>CAT.NO.</b>	CM3538								
<b>SPEC.</b>	34A062R706								
<b>HP</b>	.5								
<b>VOLTS</b>	230/460								
<b>AMP</b>	1.6/.8								
<b>RPM</b>	1720								
<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>CLASS</b>	B		
<b>NEMA-NOM-EFF</b>	75.5	<b>PF</b>	75						
<b>RATING</b>	40C AMB-CONT								
<b>CC</b>									
<b>DE</b>	6203	<b>ODE</b>	6203						
<b>ENCL</b>	TEFC	<b>SN</b>							
	SFA 1.9/0.95								

**AC Induction Motor Performance Data**

Record # 110334

Typical performance - not guaranteed values

<b>Winding: 34WGR706-R002</b>		<b>Type: 3416M</b>		<b>Enclosure: TEFC</b>	
<b>Nameplate Data</b>			<b>460 V, 60 Hz: High Voltage Connection</b>		
<b>Rated Output (HP)</b>	.5	<b>Full Load Torque</b>	1.53 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>	5.15 LB-FT		
<b>R.P.M.</b>	1720	<b>Pull-up Torque</b>	2.87 LB-FT		
<b>Hz</b>	60 <b>Phase</b>	3	<b>Locked-rotor Torque</b>	3.94 LB-FT	
<b>NEMA Design Code</b>	<b>B KVA Code</b>	J	<b>Starting Current</b>	5 A	
<b>Service Factor (S.F.)</b>	1.25	<b>No-load Current</b>	0.577 A		
<b>NEMA Nom. Eff.</b>	75.5 <b>Power Factor</b>	75	<b>Line-line Res. @ 25°C</b>	48.9 Ω	
<b>Rating - Duty</b>	40C AMB-CONT	<b>Temp. Rise @ Rated Load</b>	50°C		
<b>S.F. Amps</b>	1.9/0.95	<b>Temp. Rise @ S.F. Load</b>	70°C		
		<b>Locked-rotor Power Factor</b>	66.6		
		<b>Rotor inertia</b>	0.0381 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>	34	53	66	75	81	84	81
<b>Efficiency</b>	58.6	70.6	74.6	75.5	74.8	72.9	74.8
<b>Speed</b>	1779	1761	1741	1718	1692	1662	1692
<b>Line amperes</b>	0.583	0.631	0.712	0.824	0.962	1.14	0.962

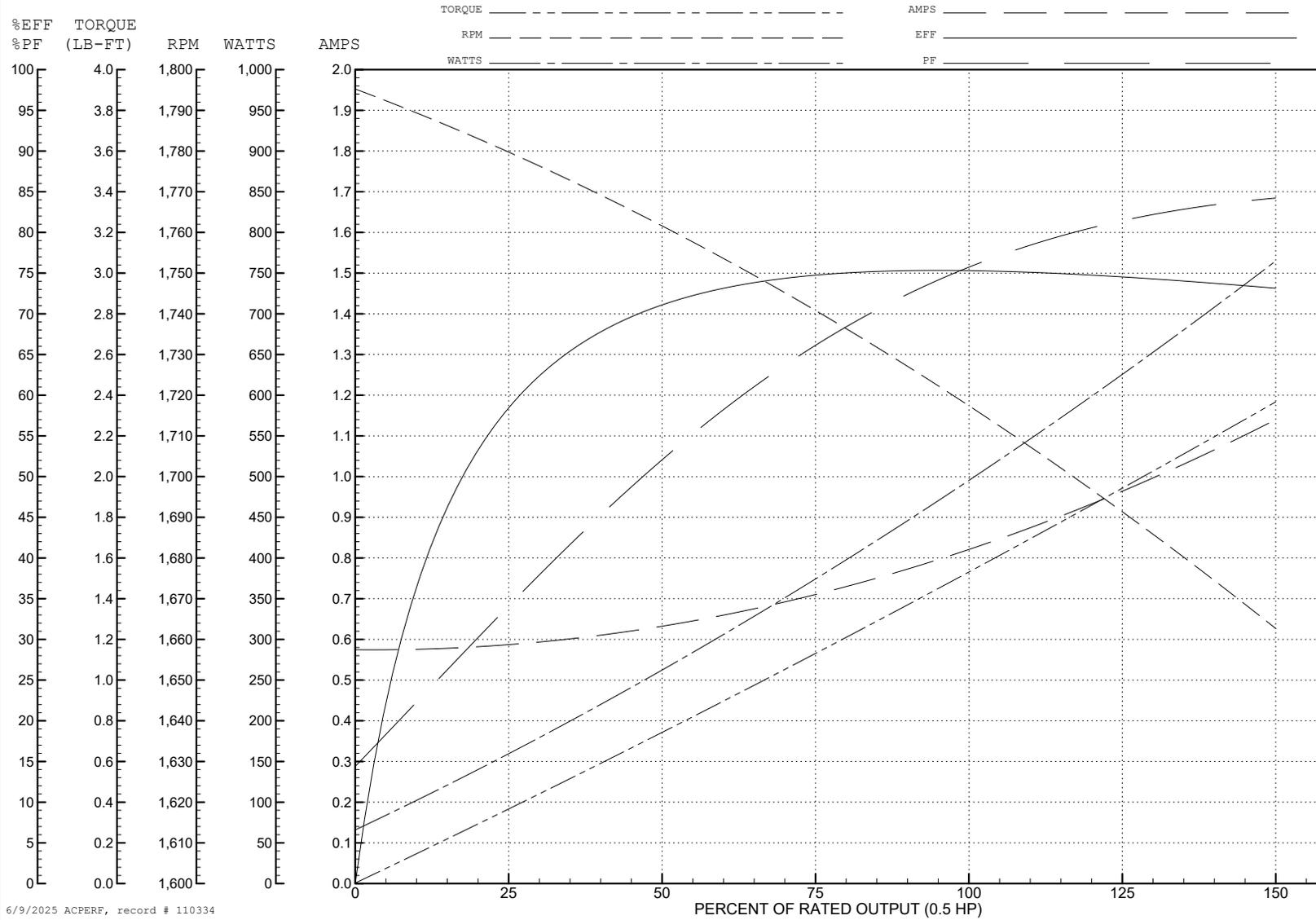
ABB Motors and Mechanical Inc.

WINDING # 34WGR706

Typical performance - not guaranteed values.

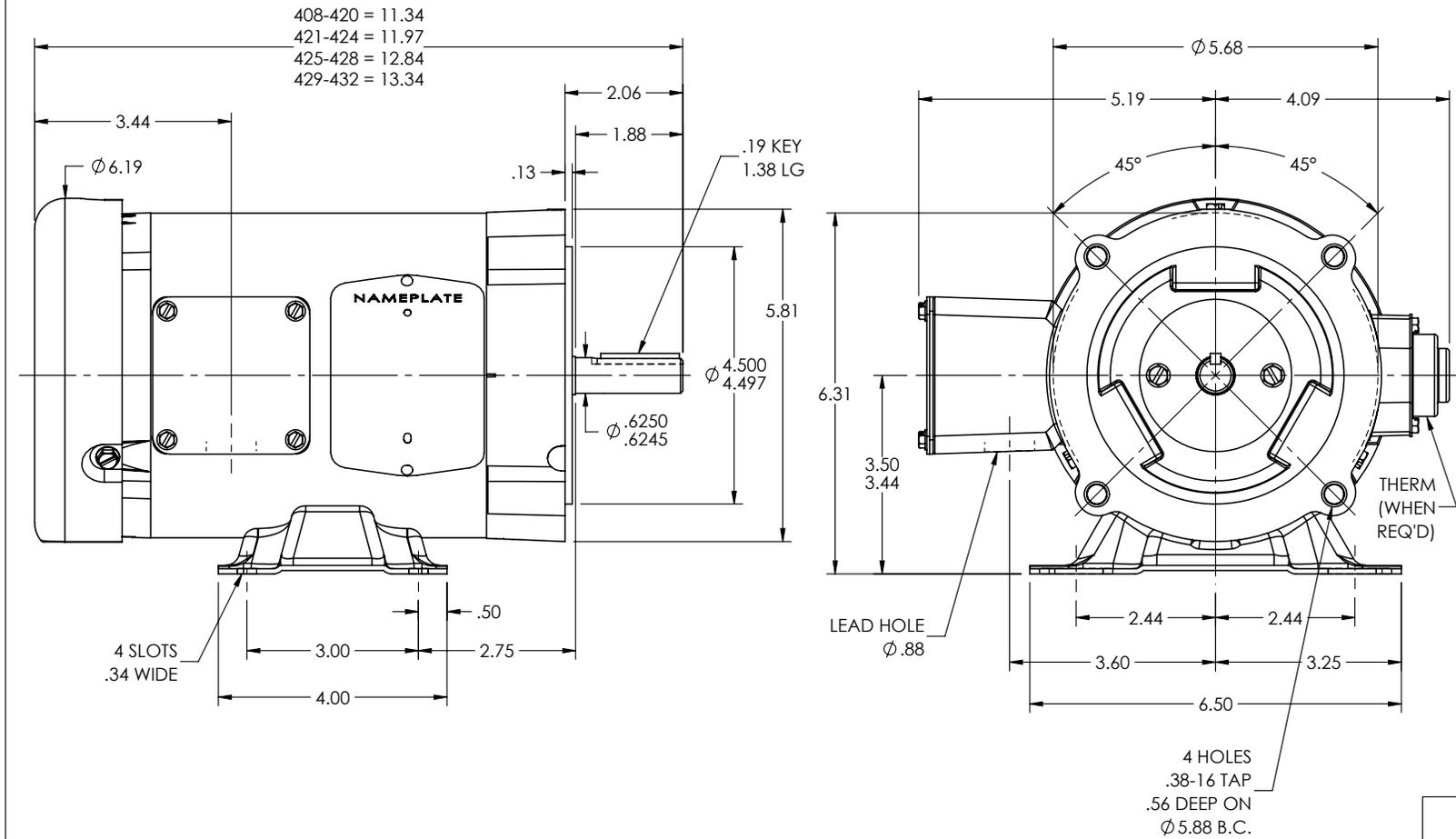
0.5 HP 3 PH 60 HZ 1720 RPM 460 V 3416M

TORQUES (LB-FT): PO=5.15 PU=2.87 LR=3.94 LRA=5



6/9/2025 ACPERF, record # 110334

34LYA062



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

REV. DESC: CLEAN UP DIMENSIONING			
REV: U	VERSION: 06	REVISED: 10:13:09 10/31/2024	TDR: 000001243684
34LYA062	MODEL NO. 34LYA062	REF: -	
	BY: ENJEFD0		

**BALDOR - RELIANCE®**

STD HORZ 34M NEMA 56C TEFC

34LYA062

CD0005

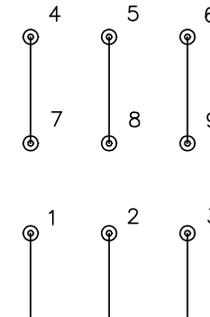


LOW VOLTAGE  
(2Y)



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