

**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
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
XP Class and Group	None
XP Division	Not Applicable
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	A
Type	AC
Mech. spec.	34A062
Base	
Status	PRD/A
Elec. spec.	34WGR706
Layout	34LYA062
Eff. date	02-18-2021
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>	L
<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>USABLE AT 208V</b>				1.7		
<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 # 85443

Typical performance - not guaranteed values

Winding: 34WGR706-R001		Type: 3416M	Enclosure: TEFC	
<b>Nameplate Data</b>			<b>460 V, 60 Hz: High Voltage Connection</b>	
Rated Output (HP)		0.5	Full Load Torque	1.53 LB-FT
Volts		230/460	Start Configuration	direct on line
Full Load Amps		1.6/0.8	Breakdown Torque	5.15 LB-FT
R.P.M.		1720	Pull-up Torque	2.87 LB-FT
Hz	60 Phase	3	Locked-rotor Torque	3.94 LB-FT
NEMA Design Code	B KVA Code	J	Starting Current	5 A
Service Factor (S.F.)		1.25	No-load Current	0.577 A
NEMA Nom. Eff.	75.5 Power Factor	75	Line-line Res. @ 25°C	48.9 Ω
Rating - Duty		40C AMB-CONT	Temp. Rise @ Rated Load	50°C
S.F. Amps		1.9/0.95	Temp. Rise @ S.F. Load	70°C
			Locked-rotor Power Factor	70.8
			Rotor inertia	0.0381 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	34	53	66	75	81	84	81
Efficiency	58.6	70.6	74.6	75.5	74.8	72.9	74.8
Speed	1779	1761	1741	1718	1692	1662	1692
Line amperes	0.583	0.631	0.712	0.824	0.962	1.14	0.962

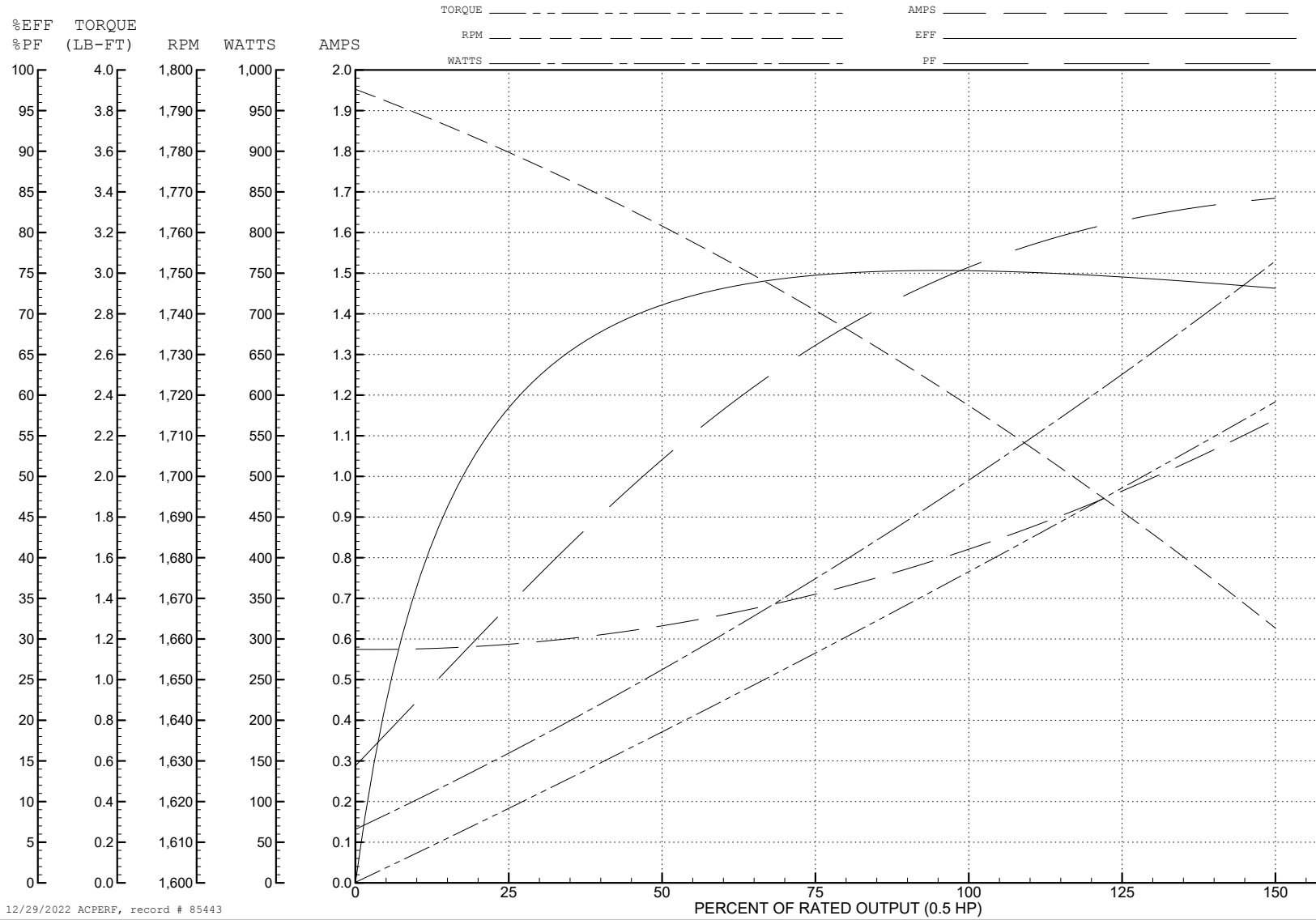
ABB Motors and Mechanical Inc.

WINDING # 34WGR706

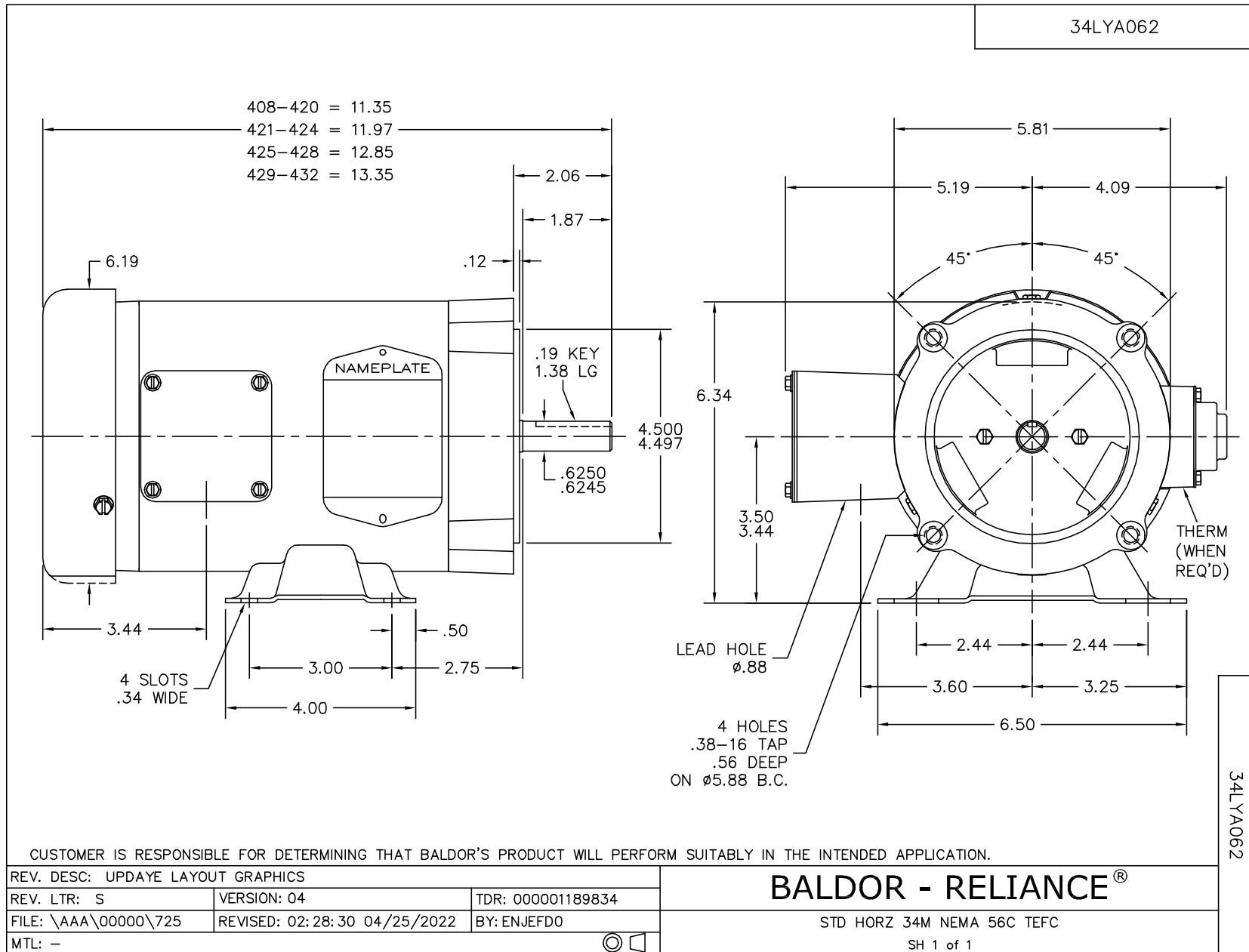
0.5 HP 3 PH 60 HZ 1720 RPM 460 V 3416M

Typical performance - not guaranteed values.

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



12/29/2022 ACPERF, record # 85443



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