

**BALDOR • RELIANCE**

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# Customer information packet

## CEM31104

.33HP, 1725RPM, 3PH, 60HZ, 56C, 3416M, 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	.330 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	.700 A @ 460.0 V 1.400 A @ 230.0 V 1.700 A @ 208.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	73.4 %
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	0.7 a

## Part detail

Revision	G
Type	AC
Mech. spec.	34F010
Base	
Status	PRD/A
Elec. spec.	34WGS936
Layout	34LYF010
Eff. date	10-29-2024
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>	N
<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>	3416M
<b>Mounting Arrangement</b>	F1
<b>Number of Poles</b>	4
<b>Overall Length</b>	10.10 IN
<b>Power Factor</b>	66
<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>	1.35
<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>	CEM31104								
<b>SPEC.</b>	34F010S936G1								
<b>HP</b>	.33								
<b>VOLTS</b>	230/460								
<b>AMP</b>	1.4/.7								
<b>RPM</b>	1725								
<b>FRAME</b>	56C		<b>HZ</b>	60		<b>PH</b>	3		
<b>SER.F.</b>	1.35	<b>CODE</b>	N	<b>DES</b>	B	<b>CL</b>	B		
<b>F.L. AVG. EFF.</b>	73.4	<b>PF</b>	66						
<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 1.6/.8								

## Parts list

Part number	Description	Quantity
SA288042	SA 34F010S936G1	1.000 ea
RA274243	RA 34F010S936G1	1.000 ea
NS2512A01	INSULATOR, CONDUIT BOX X	1.000 ea
34CB3002A	CB CAST W/.88 DIA HOLE	1.000 ea
51XB1016A07	10-16 X 7/16 HXWSSLD SERTYB	2.000 ea
11XW1032G06	10-32 X .38, TAPTITE II, HEX WSHR SLTD U	1.000 ea
34EP3210A01SP	FR ENDPLATE, MACH	1.000 ea
HW5100A03	WAVY WASHER (W1543-017)	1.000 ea
34EP3401A01SP	PU ENDPLATE, MACH	1.000 ea
34AD2000	BAFFLE PLATE, STAMPED	1.000 ea
60XW0632A06	6-32 X 3/8 TORX HEAD SCREW TAPTITE II	4.000 ea
51XN1032A20	10-32 X 1 1/4 HX WS SL SR	2.000 ea
34CB4517	CB LID 4 MTG HOLES .22 DIA STAMPED, FOR	1.000 ea
51XW0832A07	8-32 X .44, TAPTITE II, HEX WSHR SLTD SE	4.000 ea
HW2501D13	KEY, 3/16 SQ X 1.375	1.000 ea
HA7000A04	KEY RETAINER 0.625 DIA SHAFTS	1.000 ea
MG1050Y01	CELEROL BALDOR GOLD *** NLA IN 5 GALLON	0.014 ga
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 ea
HA3100A12	THRUBOLT 10-32 X 7.375	4.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
LC0005	CONN.DIA.,TY M,9-LD,DUAL VOLT,REVERSING	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500bx)4/22	1.000 ea
NP3155L	ALUM SUPER-E UL CC "SEMS"	1.000 ea
34PA1002	PKG GRP, PRINT PK1001A01	1.000 ea

**AC Induction Motor Performance Data**

Record # 47464

Typical performance - not guaranteed values

Winding: 34WGS936-R002		Type: 3416M	Enclosure: OPEN
<b>Nameplate Data</b>		<b>460 V, 60 Hz: High Voltage Connection</b>	
Rated Output (HP)	.33	Full Load Torque	1.007 LB-FT
Volts	230/460	Start Configuration	direct on line
Full Load Amps	1.4/.7	Breakdown Torque	4.56 LB-FT
R.P.M.	1725	Pull-up Torque	3.18 LB-FT
Hz	60 Phase 3	Locked-rotor Torque	3.82 LB-FT
NEMA Design Code	B KVA Code N	Starting Current	4.74 A
Service Factor (S.F.)	1.35	No-load Current	0.445 A
NEMA Nom. Eff.	73.4 Power Factor 66	Line-line Res. @ 25°C	43.915 Ω
Rating - Duty	40C AMB-CONT	Temp. Rise @ Rated Load	18°C
S.F. Amps	1.6/.8	Temp. Rise @ S.F. Load	24°C
		Locked-rotor Power Factor	58
		Rotor inertia	0.0381 LB-FT <sup>2</sup>

**Load Characteristics 460 V, 60 Hz, 0.33 HP**

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	30	45	57	66	73	78	75
Efficiency	55.9	69.8	74.8	76.7	76.9	76.2	76.6
Speed	1785.9	1772.3	1758.5	1743.2	1726.8	1709.1	1720
Line amperes	0.458	0.497	0.55	0.617	0.696	0.787	0.732

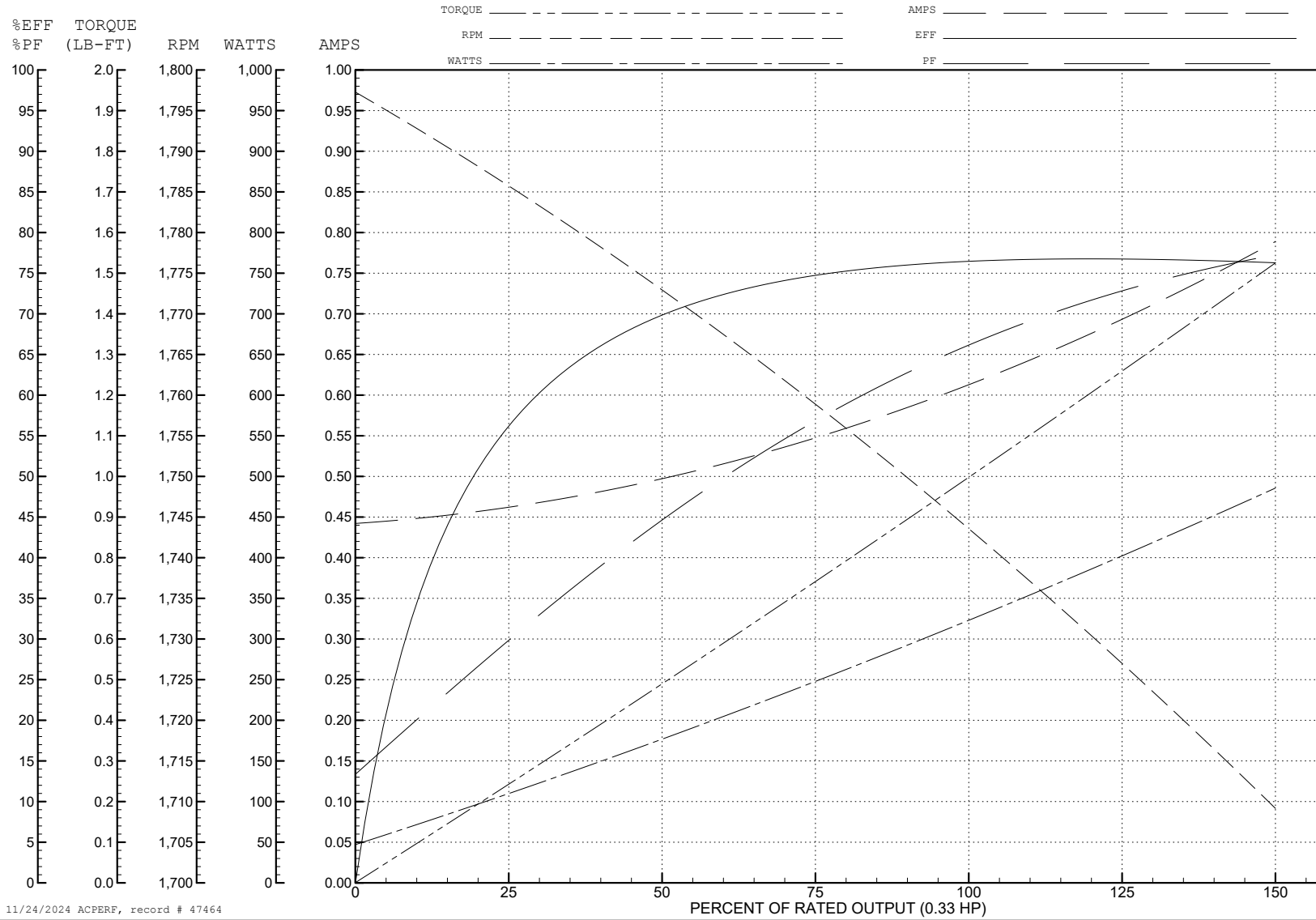
ABB Motors and Mechanical Inc.

WINDING # 34WGS936

0.33 HP 3 PH 60 HZ 1725 RPM 460 V 3416M

Typical performance - not guaranteed values.

TORQUES (LB-FT): PO=4.56 PU=3.18 LR=3.82 LRA=4.74



11/24/2024 ACPERF, record # 47464

**AC Induction Motor Performance Data**

Record # 49379

Typical performance - not guaranteed values

Winding: 34WGS936-R002		Type: 3416M	Enclosure: OPEN
<b>Nameplate Data</b>		<b>230 V, 60 Hz: Low Voltage Connection</b>	
Rated Output (HP)	.33	Full Load Torque	1.01 LB-FT
Volts	230/460	Start Configuration	direct on line
Full Load Amps	1.4/.7	Breakdown Torque	4.56 LB-FT
R.P.M.	1725	Pull-up Torque	3.18 LB-FT
Hz	60 Phase 3	Locked-rotor Torque	3.82 LB-FT
NEMA Design Code	B KVA Code N	Starting Current	9.48 A
Service Factor (S.F.)	1.35	No-load Current	0.89 A
NEMA Nom. Eff.	73.4 Power Factor 66	Line-line Res. @ 25°C	10.5 Ω
Rating - Duty	40C AMB-CONT	Temp. Rise @ Rated Load	18°C
S.F. Amps	1.6/.8	Temp. Rise @ S.F. Load	23°C
		Locked-rotor Power Factor	58.4
		Rotor inertia	0.0381 LB-FT <sup>2</sup>

**Load Characteristics 230 V, 60 Hz, 0.33 HP**

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	30	45	57	66	73	78	75
Efficiency	55.8	69.9	74.8	77	76.7	76.4	76.6
Speed	1786	1772	1759	1743	1727	1709	1720
Line amperes	0.915	0.993	1.1	1.23	1.39	1.57	1.46



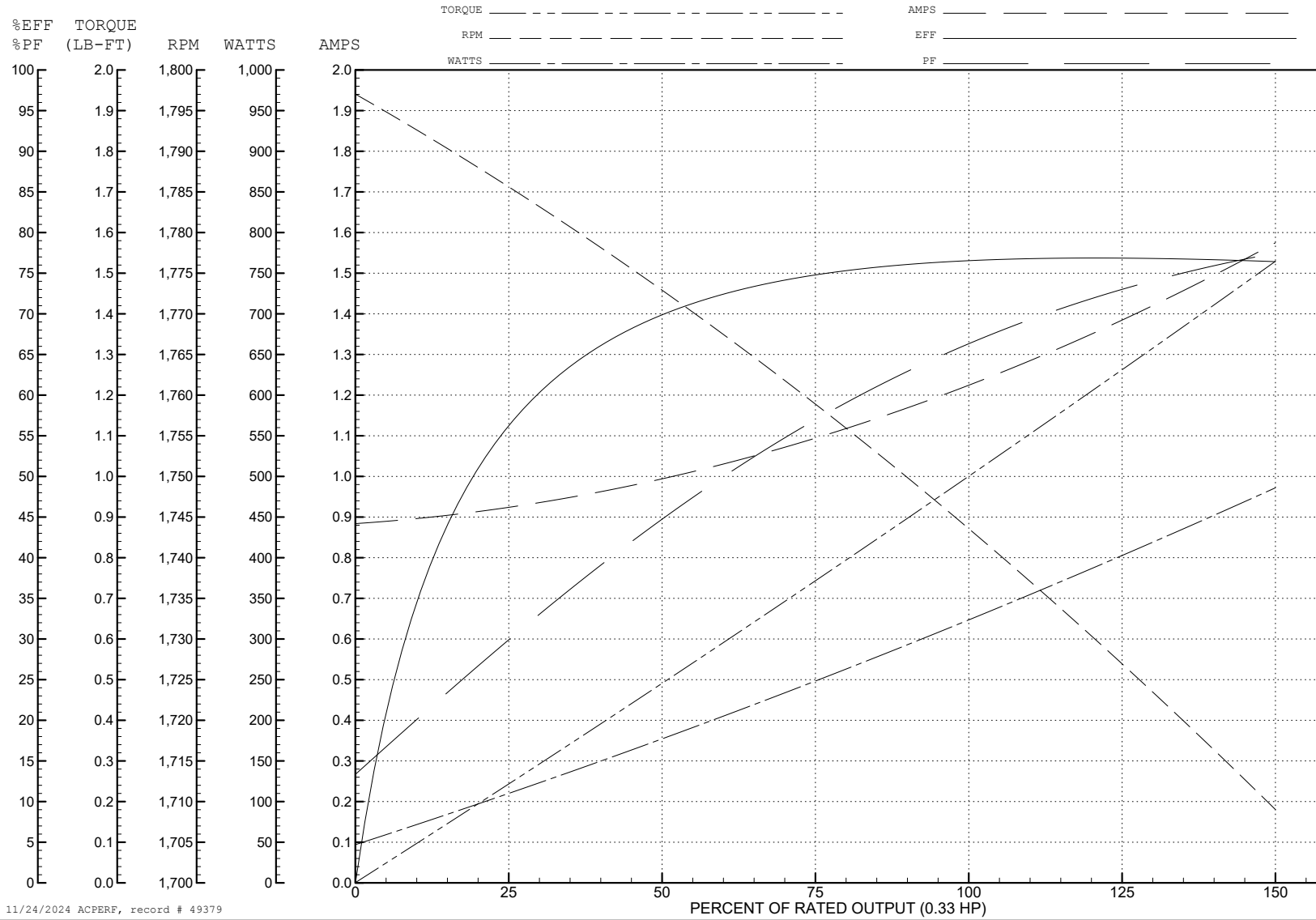
ABB Motors and Mechanical Inc.

WINDING # 34WGS936

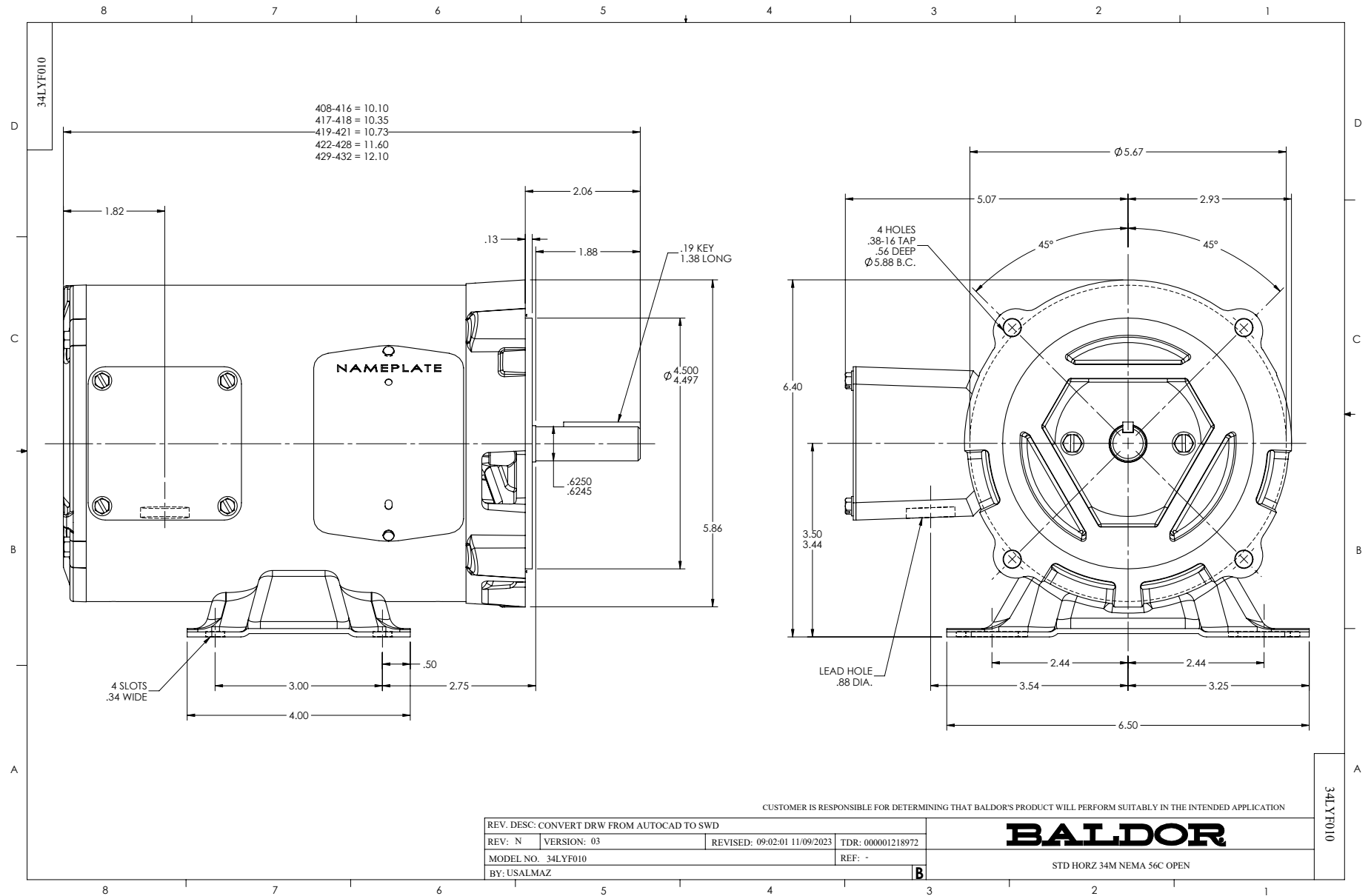
0.33 HP 3 PH 60 HZ 1725 RPM 230 V 3416M

Typical performance - not guaranteed values.

TORQUES (LB-FT): PO=4.56 PU=3.18 LR=3.82 LRA=9.48



11/24/2024 ACPERF, record # 49379



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