

**BALDOR® • RELIANCE** 

**Product Information Packet**

**CEM31107**

**.5HP,3450RPM,3PH,60HZ,56C,3416M,OPEN,F1**

Part Detail							
Revision:	E	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Elec. Spec:	34WGS937	CD Diagram:	CD0005	Mfg Plant:	
Mech. Spec:	34F010	Layout:	34LYF010	Poles:	02	Created Date:	09-30-2014
Base:	RG	Eff. Date:	04-22-2021	Leads:	9#18		

Specs			
Catalog Number:	CEM31107	Inverter Code:	Not Inverter
Enclosure:	OPEN	KVA Code:	P
Frame:	56C	Lifting Lugs:	No Lifting Lugs
Frame Material:	Steel	Locked Bearing Indicator:	Locked Bearing
Output @ Frequency:	.500 HP @ 60 HZ	Motor Lead Quantity/Wire Size:	9 @ 18 AWG
Synchronous Speed @ Frequency:	3600 RPM @ 60 HZ	Motor Lead Exit:	Ko Box
Voltage @ Frequency:	230.0 V @ 60 HZ	Motor Lead Termination:	Flying Leads
	460.0 V @ 60 HZ	Motor Type:	3416M
XP Class and Group:	None	Mounting Arrangement:	F1
XP Division:	Not Applicable	Power Factor:	78
Agency Approvals:	C UR US ENERGY	Product Family:	General Purpose
Auxillary Box:	No Auxillary Box	Pulley End Bearing Type:	Ball
Auxillary Box Lead Termination:	None	Pulley Face Code:	C-Face
Base Indicator:	Rigid	Pulley Shaft Indicator:	Standard
Bearing Grease Type:	Polyrex EM (-20F +300F)	Rodent Screen:	None
Blower:	None	RoHS Status:	ROHS COMPLIANT
Current @ Voltage:	.800 A @ 460.0 V	Shaft Extension Location:	Pulley End
	1.600 A @ 230.0 V	Shaft Ground Indicator:	No Shaft Grounding

	1.900 A @ 208.0 V	<b>Shaft Rotation:</b>	Reversible
<b>Design Code:</b>	B	<b>Shaft Slinger Indicator:</b>	No Slinger
<b>Drip Cover:</b>	No Drip Cover	<b>Speed Code:</b>	Single Speed
<b>Duty Rating:</b>	CONT	<b>Motor Standards:</b>	NEMA
<b>Electrically Isolated Bearing:</b>	Not Electrically Isolated	<b>Starting Method:</b>	Direct on line
<b>Feedback Device:</b>	NO FEEDBACK	<b>Thermal Device - Bearing:</b>	None
<b>Front Face Code:</b>	Standard	<b>Thermal Device - Winding:</b>	None
<b>Front Shaft Indicator:</b>	None	<b>Vibration Sensor Indicator:</b>	No Vibration Sensor
<b>Heater Indicator:</b>	No Heater	<b>Winding Thermal 1:</b>	None
<b>Insulation Class:</b>	B	<b>Winding Thermal 2:</b>	None

Nameplate NP3155L													
CAT.NO.	CEM31107												
SPEC.	34F010S937G1												
HP	.5												
VOLTS	230/460												
AMP	1.6/8												
RPM	3450												
FRAME	56C					HZ	60			PH	3		
SER.F.	1.25					CODE	P		DES	B		CL	B
F.L. AVG. EFF.	73.4					PF	78						
RATING	40C AMB-CONT												
CC										USABLE AT 208V	1.9		
DE	6203					ODE	6203						
ENCL	OPEN					SN							
	SFA 1.8/9												

Parts List		
Part Number	Description	Quantity
SA287921	SA 34F010S937G1	1.000 EA
RA274124	RA 34F010S937G1	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
MG1000Y03	MUNSELL 2.53Y 6.70/ 4.60, GLOSS 20,	0.014 GA
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 EA
HA3100A12	THRUBOLT 10-32 X 7.375	4.000 EA
MN416A01	TAG-INSTAL-MAINT no wire (2100/bx) 4/22	1.000 EA
LC0005E01	CONN.DIA./WARNING LABEL (LC0005/LB1119N)	1.000 EA
NP3155L	ALUM SUPER-E UL CSA CC "SEMS"	1.000 EA
35PA1066	PKG GRP, PRINT PK1008A06	1.000 EA

**AC Induction Motor Performance Data**

Record # 47468

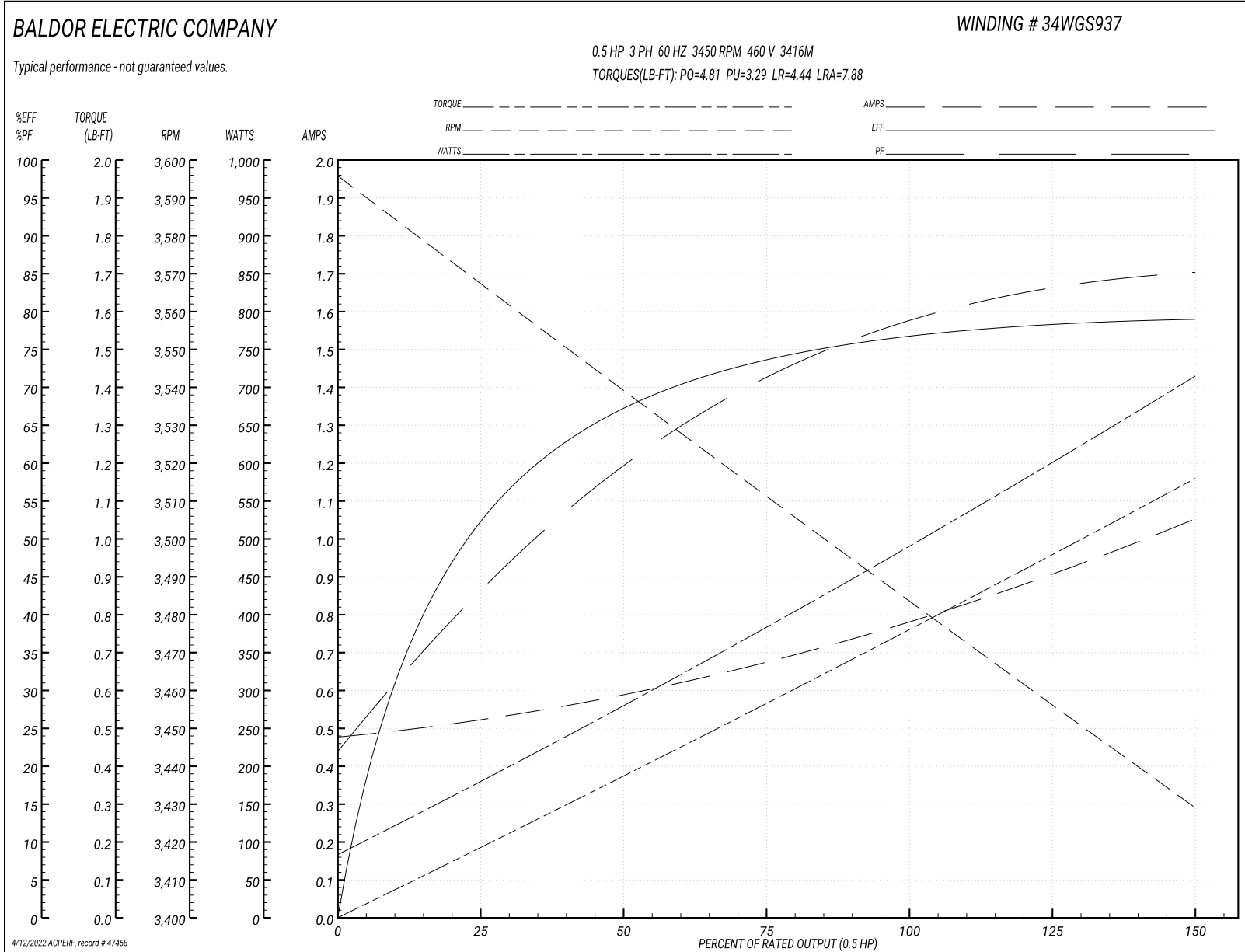
Typical performance - not guaranteed values

Winding: 34WGS937-R002		Type: 3416M	Enclosure: OPEN	
<b>Nameplate Data</b>			<b>460 V, 60 Hz: High Voltage Connection</b>	
Rated Output (HP)	.5	Full Load Torque	0.767 LB-FT	
Volts	230/460	Start Configuration	direct on line	
Full Load Amps	1.6/.8	Breakdown Torque	4.81 LB-FT	
R.P.M.	3450	Pull-up Torque	3.29 LB-FT	
Hz	60 Phase	Locked-rotor Torque	4.44 LB-FT	
NEMA Design Code	B KVA Code	Starting Current	7.88 A	
Service Factor (S.F.)	1.25	No-load Current	0.48 A	
NEMA Nom. Eff.	73.4 Power Factor	Line-line Res. @ 25°C	22.08 Ω	
Rating - Duty	40C AMB-CONT	Temp. Rise @ Rated Load	15°C	
S.F. Amps	1.8/.9	Temp. Rise @ S.F. Load	17°C	
		Locked-rotor Power Factor	66	
		Rotor inertia	0.0148 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	45	61	72	78	83	86	83
Efficiency	54	67.8	73.9	76.9	78.3	78.8	78.3
Speed	3560	3537.1	3511.5	3484.8	3456.5	3427.6	3456
Line amperes	0.524	0.591	0.676	0.79	0.911	1.05	0.911

Performance Graph at 460V, 60Hz, 0.5HP Typical performance - Not guaranteed values



**AC Induction Motor Performance Data**

Record # 49386

Typical performance - not guaranteed values

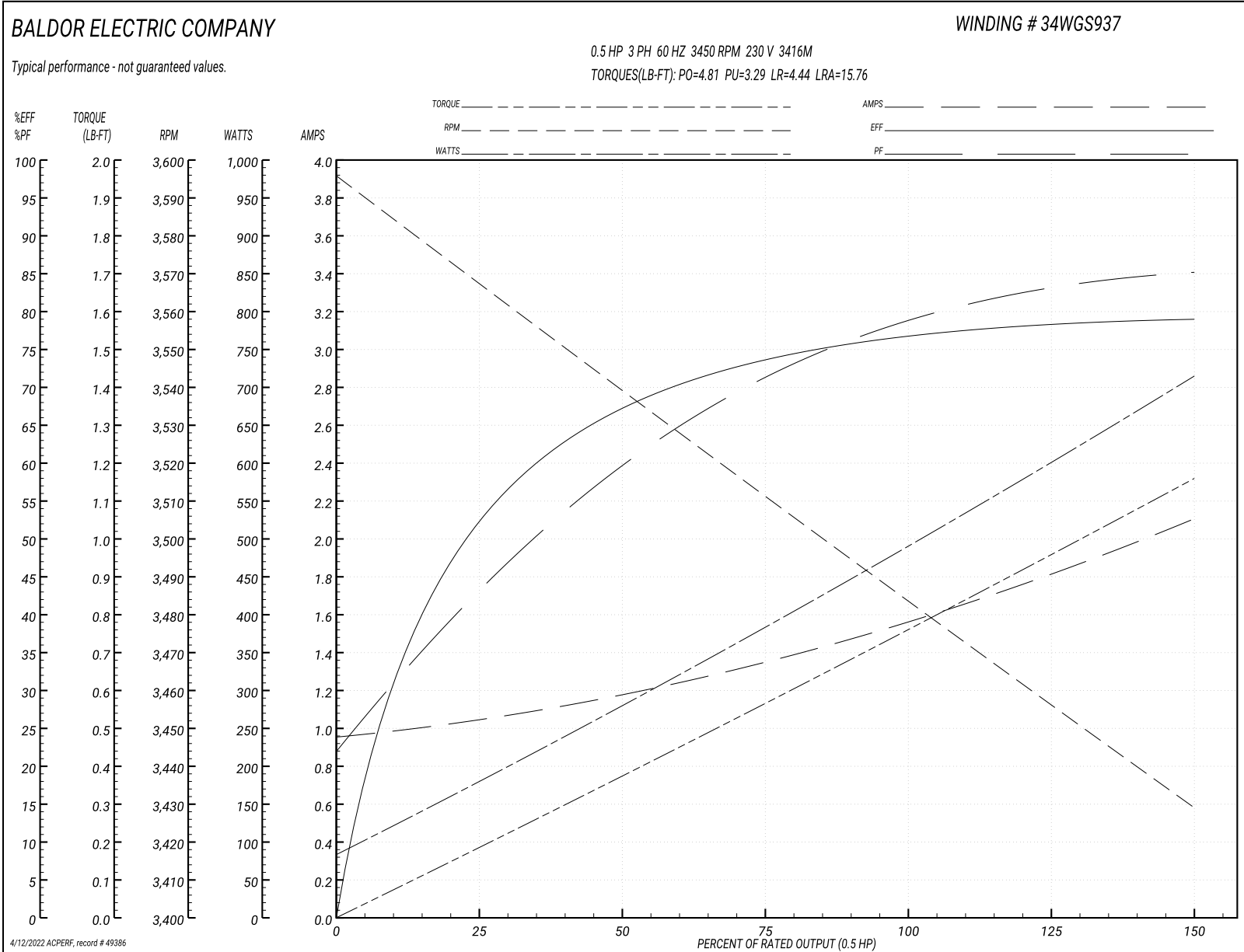
<b>Winding: 34WGS937-R002</b>		<b>Type: 3416M</b>		<b>Enclosure: OPEN</b>	
<b>Nameplate Data</b>			<b>230 V, 60 Hz: High Voltage Connection</b>		
<b>Rated Output (HP)</b>	.5	<b>Full Load Torque</b>	0.767 LB-FT		
<b>Volts</b>	230/460	<b>Start Configuration</b>	direct on line		
<b>Full Load Amps</b>	1.6/.8	<b>Breakdown Torque</b>	4.81 LB-FT		
<b>R.P.M.</b>	3450	<b>Pull-up Torque</b>	3.29 LB-FT		
<b>Hz</b>	60 Phase	<b>Locked-rotor Torque</b>	4.44 LB-FT		
<b>NEMA Design Code</b>	B	<b>KVA Code</b>	P	<b>Starting Current</b>	15.76 A
<b>Service Factor (S.F.)</b>	1.25	<b>No-load Current</b>	0.96 A		
<b>NEMA Nom. Eff.</b>	73.4	<b>Power Factor</b>	78	<b>Line-line Res. @ 25°C</b>	5.52 Ω
<b>Rating - Duty</b>	40C AMB-CONT		<b>Temp. Rise @ Rated Load</b>	15°C	
<b>S.F. Amps</b>	1.8/.9	<b>Temp. Rise @ S.F. Load</b>	17°C		
		<b>Locked-rotor Power Factor</b>	66		
		<b>Rotor inertia</b>	0.0148 LB-FT <sup>2</sup>		

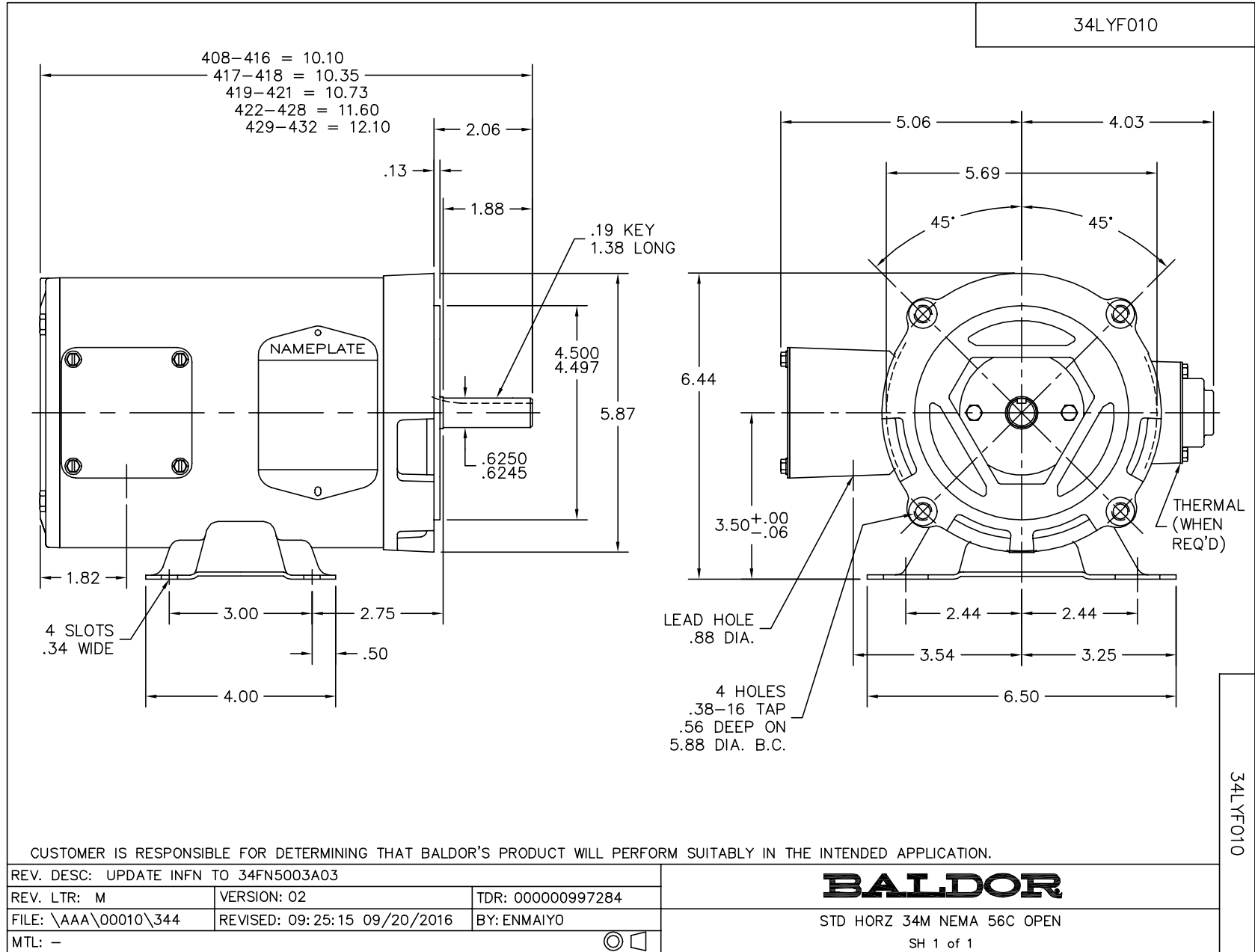
**Load Characteristics 230 V, 60 Hz, 0.5 HP**

<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>	45	61	72	78	83	85	83
<b>Efficiency</b>	54	67.8	73.9	76.9	78.3	78.8	78.3
<b>Speed</b>	3560	3537.1	3511.5	3484.8	3456.5	3427.6	3456
<b>Line amperes</b>	1.048	1.182	1.352	1.58	1.822	2.1	1.822

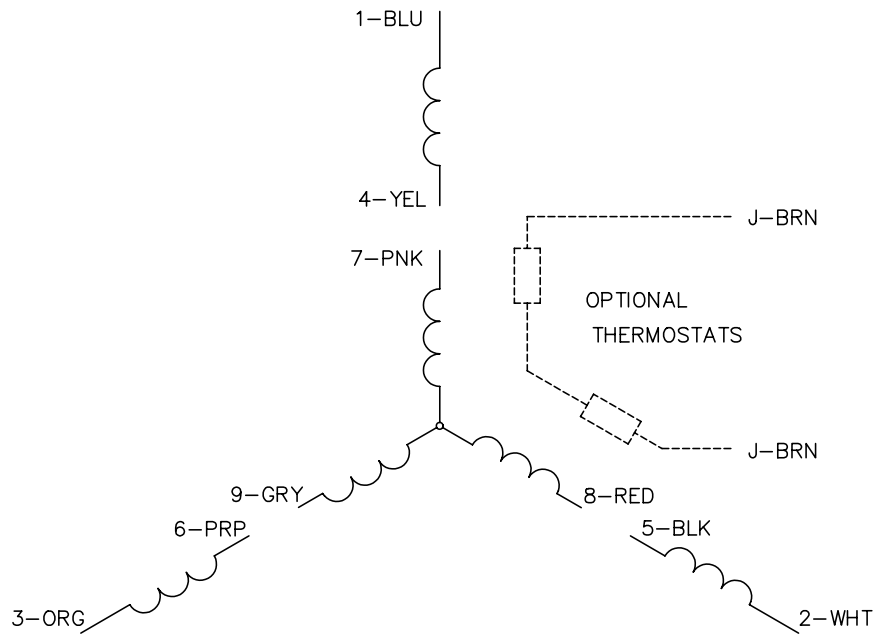


Performance Graph at 230V, 60Hz, 0.5HP Typical performance - Not guaranteed values

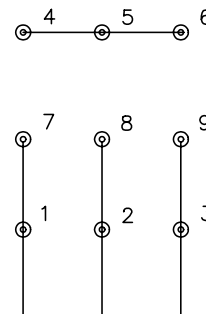




CD0005

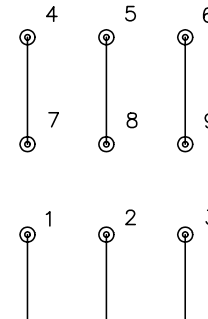


LOW VOLTAGE  
(2Y)



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
90000		FILE: AAA00005140	MDL: -
		MTL: -	

**BALDOR ELECTRIC Co.**

3PH, DV, 9 LEADS

CD0005