

BALDOR® • RELIANCE 

Product Information Packet

VEM31107

.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:	34F012	Layout:	34LYF012	Poles:	02	Created Date:	10-03-2014
Base:	N	Eff. Date:	08-23-2018	Leads:	9#18		

Specs			
Catalog Number:	VEM31107	Insulation Class:	B
Enclosure:	OPEN	Inverter Code:	Not Inverter
Frame:	56C	KVA Code:	P
Frame Material:	Steel	Lifting Lugs:	No Lifting Lugs
Output @ Frequency:	.500 HP @ 60 HZ	Locked Bearing Indicator:	Locked Bearing
Synchronous Speed @ Frequency:	3600 RPM @ 60 HZ	Motor Lead Quantity/Wire Size:	9 @ 18 AWG
Voltage @ Frequency:	460.0 V @ 60 HZ	Motor Lead Exit:	Ko Box
	230.0 V @ 60 HZ	Motor Lead Termination:	Flying Leads
XP Class and Group:	None	Motor Type:	3416M
XP Division:	Not Applicable	Mounting Arrangement:	F1
Agency Approvals:	CSA	Power Factor:	78
	UR	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:	No Mounting	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	Shaft Rotation:	Reversible
Design Code:	B	Shaft Slinger Indicator:	No Slinger
Drip Cover:	Drip Cover	Speed Code:	Single Speed
Duty Rating:	CONT	Motor Standards:	NEMA
Electrically Isolated Bearing:	Not Electrically Isolated	Starting Method:	Direct on line
Feedback Device:	NO FEEDBACK	Thermal Device - Bearing:	None
Front Face Code:	Drip Cover Mounting	Thermal Device - Winding:	None
Front Shaft Indicator:	None	Vibration Sensor Indicator:	No Vibration Sensor
Heater Indicator:	No Heater	Winding Thermal 1:	None
		Winding Thermal 2:	None

Nameplate NP3155L												
CAT.NO.	VEM31107											
SPEC.	34F012S937G1											
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
SA288050	SA 34F012S937G1	1.000 EA
RA274251	RA 34F012S937G1	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
34EP3210A03SP	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
34FH4000A11	DRIP COVER, STAMPED,PRIMER	1.000 EA
51XW1032A06	10-32 X .38, TAPTITE II, HEX WSHR SLTD S	3.000 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
LC0005E01	CONN.DIA./WARNING LABEL (LC0005/LB1119N)	1.000 EA
NP3155L	ALUM SUPER-E UL CSA CC "SEMS"	1.000 EA
35PA1000	PKG GRP, PRINT PK1008A06	1.000 EA

Parts List (continued)		
Part Number	Description	Quantity
MN416A01	TAG-INSTAL-MAINT no wire (1200/bx) 5/18	1.000 EA
PK3083T	STYROFOAM PACKING CRADLE	1.000 EA
PK3088	MICROFOAM, 8"X"8 PERF. SHEETS 5,400/RL	1.000 EA

AC Induction Motor Performance Data

Record # 47468 - Typical performance - not guaranteed values

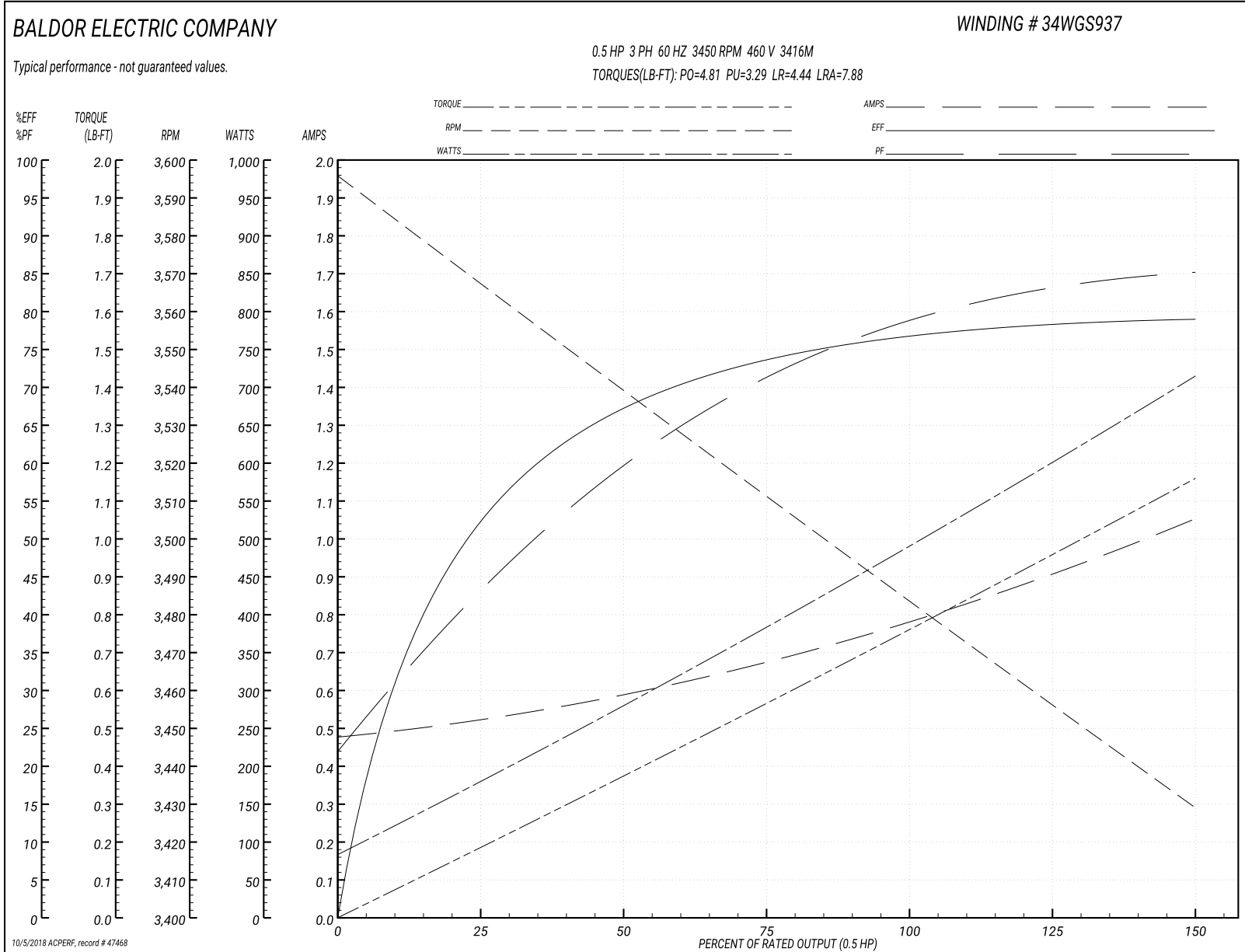
Winding: 34WGS937-R002	Type: 3416M	Enclosure: OPEN
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Nameplate Data				460 V, 60 Hz: High Voltage Connection	
Rated Output (HP)	.5			Full Load Torque	0.767 LB-FT
Volts	230/460			Start Configuration	direct on line
Full Load Amps	1.6/.8			Breakdown Torque	4.81 LB-FT
R.P.M.	3450			Pull-up Torque	3.29 LB-FT
Hz	60	Phase	3	Locked-rotor Torque	4.44 LB-FT
NEMA Design Code	B	KVA Code	P	Starting Current	7.88 A
Service Factor (S.F.)	1.25			No-load Current	0.48 A
NEMA Nom. Eff.	73.4	Power Factor	78	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 ²

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

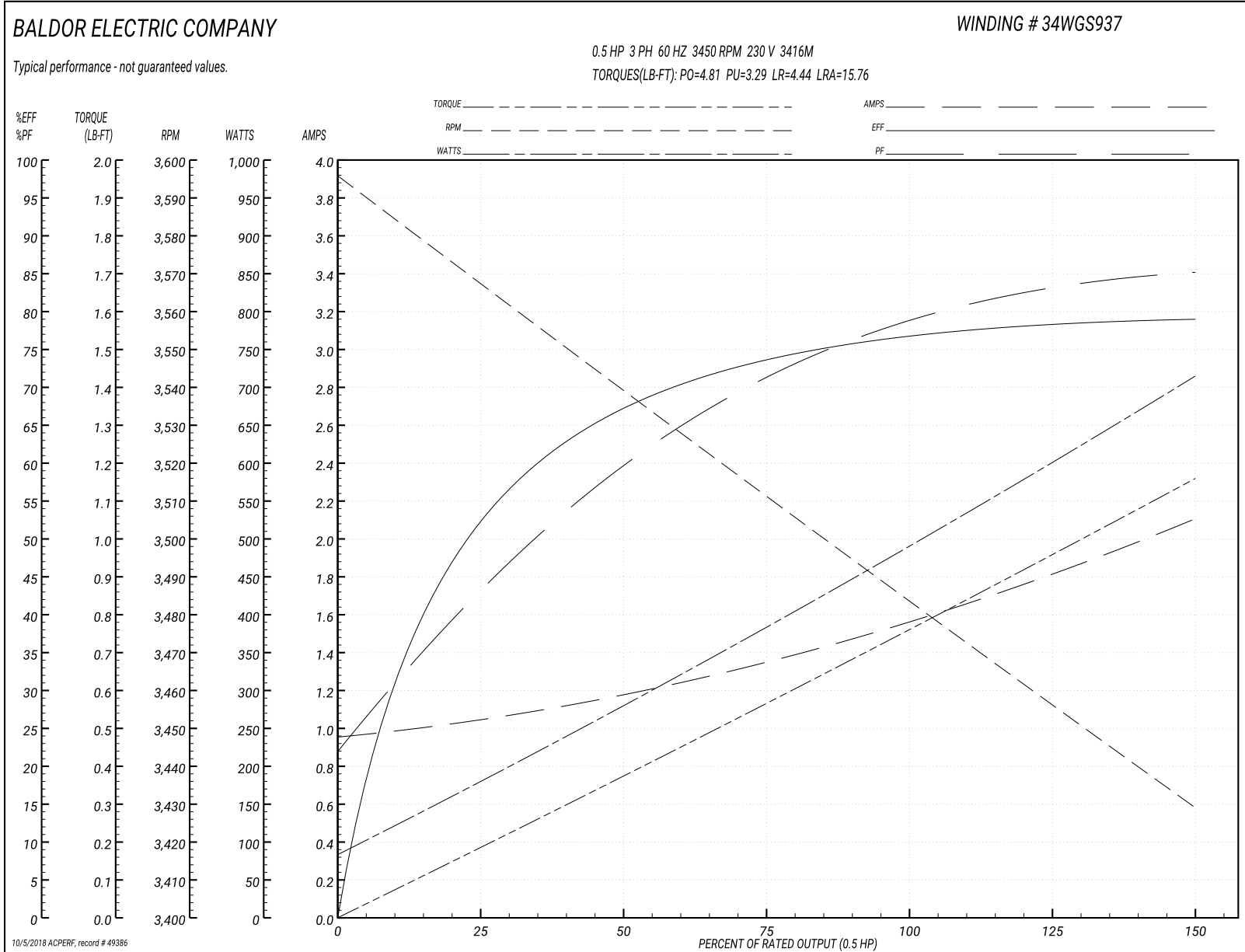
Winding: 34WGS937-R002	Type: 3416M	Enclosure: OPEN
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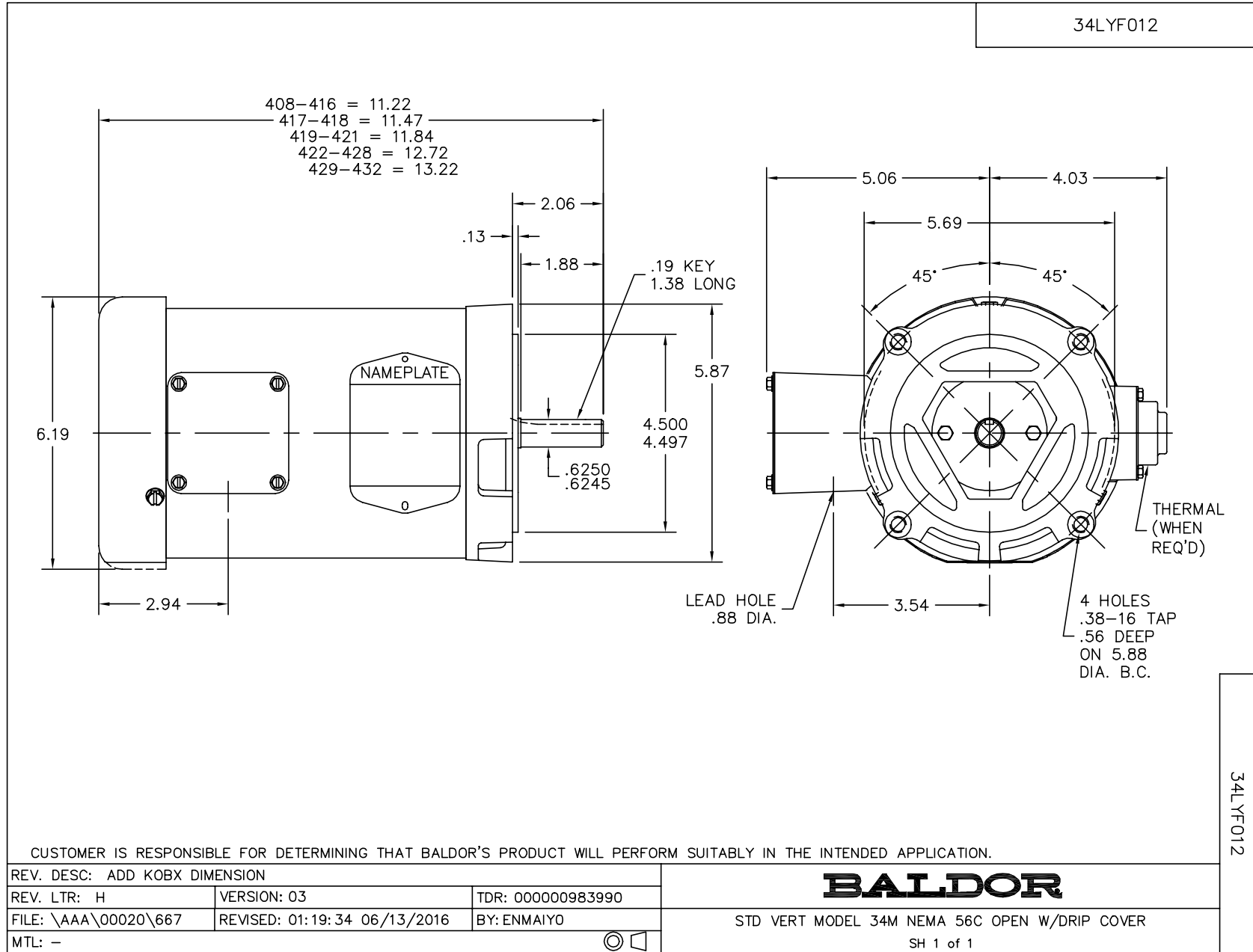
Nameplate Data				230 V, 60 Hz: High Voltage Connection	
Rated Output (HP)	.5			Full Load Torque	0.767 LB-FT
Volts	230/460			Start Configuration	direct on line
Full Load Amps	1.6/.8			Breakdown Torque	4.81 LB-FT
R.P.M.	3450			Pull-up Torque	3.29 LB-FT
Hz	60	Phase	3	Locked-rotor Torque	4.44 LB-FT
NEMA Design Code	B	KVA Code	P	Starting Current	15.76 A
Service Factor (S.F.)	1.25			No-load Current	0.96 A
NEMA Nom. Eff.	73.4	Power Factor	78	Line-line Res. @ 25°C	5.52 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 ²

Load Characteristics 230 V, 60 Hz, 0.5 HP

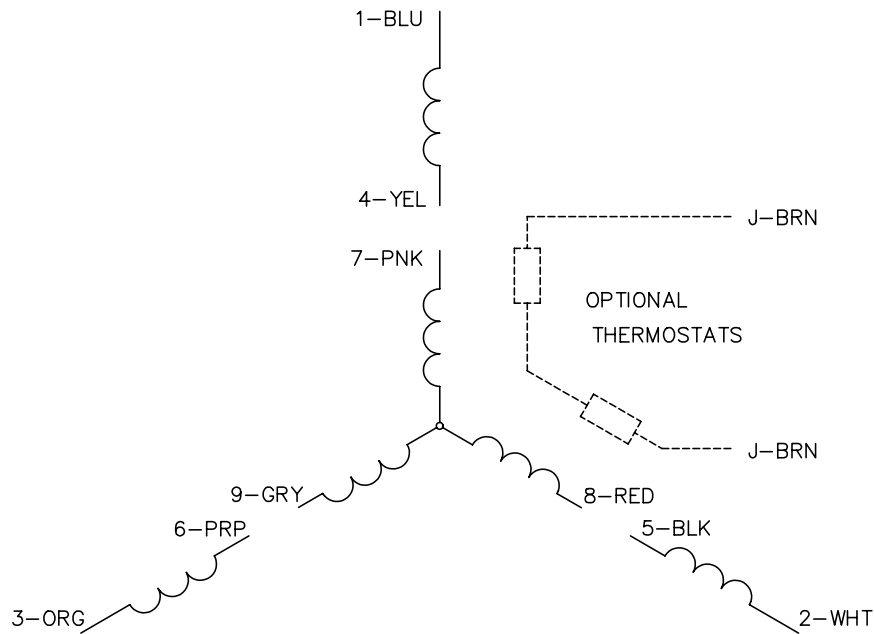
% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	45	61	72	78	83	85	83
Efficiency	54	67.8	73.9	76.9	78.3	78.8	78.3
Speed	3560	3537.1	3511.5	3484.8	3456.5	3427.6	3456
Line amperes	1.048	1.182	1.352	1.58	1.822	2.1	1.822

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

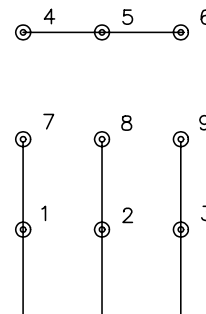




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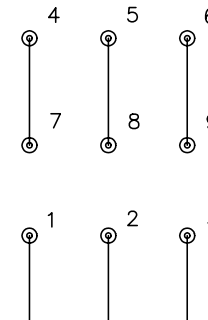


LOW VOLTAGE
(2Y)



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