

BALDOR® • RELIANCE 

Product Information Packet

VDM3537

.5HP,3450RPM,3PH,60HZ,56C,3414M,TEFC,F1

Part Detail							
Revision:	H	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Elec. Spec:	34WGR421	CD Diagram:	CD0005	Mfg Plant:	
Mech. Spec:	34M809	Layout:	34LYM809	Poles:	02	Created Date:	04-19-2016
Base:	N	Eff. Date:	06-24-2021	Leads:	9#18		

Specs			
Catalog Number:	VDM3537	Heater Indicator:	No Heater
Enclosure:	TEFC	Insulation Class:	F
Frame:	56C	Inverter Code:	Inverter Duty
Frame Material:	Steel	KVA Code:	P
Motor Letter Type:	Three Phase	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:	3414M
XP Division:	Not Applicable	Mounting Arrangement:	F1
Agency Approvals:	UR	Power Factor:	75
	CSA EEV	Product Family:	Dirty Duty Plus
	CCSA US	Pulley End Bearing Type:	Sealed Bearing
Auxillary Box:	No Auxillary Box	Pulley Face Code:	C-Face
Auxillary Box Lead Termination:	None	Pulley Shaft Indicator:	Standard
Base Indicator:	No Mounting	Rodent Screen:	None
Bearing Grease Type:	Polyrex EM (-20F +300F)	RoHS Status:	ROHS COMPLIANT

Blower:	None	Shaft Extension Location:	Pulley End
Constant Torque Speed Range:	6	Shaft Ground Indicator:	No Shaft Grounding
Current @ Voltage:	1.700 A @ 208.0 V	Shaft Rotation:	Reversible
	1.800 A @ 230.0 V	Shaft Slinger Indicator:	No Slinger
	.900 A @ 460.0 V	Speed Code:	Single Speed
Design Code:	B	Motor Standards:	NEMA
Drip Cover:	No Drip Cover	Starting Method:	Direct on line
Duty Rating:	CONT	Thermal Device - Bearing:	None
Electrically Isolated Bearing:	Not Electrically Isolated	Thermal Device - Winding:	None
Feedback Device:	NO FEEDBACK	Vibration Sensor Indicator:	No Vibration Sensor
Front Face Code:	Standard	Winding Thermal 1:	None
Front Shaft Indicator:	None	Winding Thermal 2:	None

Nameplate NP3556E												
CAT NO	VDM3537											
SPEC.	34M809R421G1						ENCL	TEFC				
FRAME	56C			HP	.5							
VOLTS	230/460 SFA 2/1											
FLA	1.8/.9				I.P.	56						
RPM	3450			RPM MAX	5400							
HZ	60			PH	3		CLASS	F				
SER.F.	1.25			DES	B		CC					
NEMA-NOM-EFF	68											
RATING	40C AMB-CONT											
DE BRG	6203			ODE BRG	6203							
GREASE	POLYREX EM											
C HP FR	60			C HP TO	90							
CT HZ FROM	6			CT HZ TO	60							
SER.NO												
	50C AT 1.0SF											
							VT HZ FROM	6		VT HZ TO	60	

Parts List		
Part Number	Description	Quantity
SA320460	SA 34M809R421G1	1.000 EA
RA308188	RA 34M809R421G1	1.000 EA
NS2512A01	INSULATOR, CONDUIT BOX X	1.000 EA
34CB1000A01E	CONDUIT BOX, WASHDOWN, W/E-COATED	1.000 EA
34GS1017	GASKET, CONDUIT BOX MODEL 34 (BLACK NEOP	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
34EP1100A137LP2	FRONT EP TEFC 203 BRG W/ SEAL	1.000 EA
HW4601A23	INPRO SEAL, 203 BRG, VBX	1.000 EA
HW4500S33	1/8 NPT STAINLESS #304 SS PLUG	3.000 EA
HA4054	SHORT T-DRAIN FITTING, .125" N.P.T.	1.000 EA
HW5100A03	WAVY WASHER (W1543-017)	1.000 EA
34EP1300A35E	ENDPLATE, MACH W/E-COAT	1.000 EA
HW4606A01	JM CLIPPER/SEAL (WDE-0667-1064-BH49)	1.000 EA
HW4500S33	1/8 NPT STAINLESS #304 SS PLUG	3.000 EA
HA4054	SHORT T-DRAIN FITTING, .125" N.P.T.	1.000 EA
12XN1032S20	10-32 X 1-1/4 HEX M.S. , STAINLESS STEEL	2.000 EA
34FN3002A01SP	EXTERNAL FAN, PLASTIC, .637/.639 HUB W/	1.000 EA
34FH4002A01LP2	IEC FH NO GREASER	1.000 EA
11XW1032S06	10-32 X .38, TAPTITE II, HEX WSHR SLTD U	3.000 EA
34CB4500E	CONDUIT BOX LID, E-COAT	1.000 EA
34GS1007	GASKET, CONDUIT BOX LID MODEL 34 (BLACK	1.000 EA
59XW0832S07	TAPTITE II,HEX WSHR UNSLTD SER,410 S.S.,	4.000 EA
HW2502D13	SS KEY, 3/16 SQ X 1.375	1.000 EA

Parts List (continued)		
Part Number	Description	Quantity
HA7000A04	KEY RETAINER 0.625 DIA SHAFTS	1.000 EA
MJ5001A02	732 CL SEALANT 3 OZ DIXIE BEARING 289100	0.001 EA
LB1164	LABEL,WARNING AND DRAIN	1.000 EA
MJ5001A23	P.D. GEORGE B-276 AIR DRY VARNISH	0.001 GA
LB1000	LABEL, DIRTY DUTY	1.000 EA
HW3001B02	BRASS CUP WASHER W/GROUND SYMBOL TAB,	1.000 EA
WD1000D21	TRM,T&B #B71M,RING,18-14,.25,NON-INSL	9.000 EA
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 EA
MG2000A17	RUST INHIBITOR PART # SRPO #20	0.001 GA
MG1025L01	WILKOFASD FD, 786.04, BLACK	0.014 GA
MG1500Y02	WILKOPON PRIMER YELLOW	0.010 GA
HA3100S08	THRUBOLT 7.375LG SS	4.000 EA
MN416A01	TAG-INSTAL-MAINT no wire (2200bx) 4/22	1.000 EA
LC0005	CONN.DIA.,TY M,9-LD,DUAL VOLT,REVERSING	1.000 EA
NP3556E	SS DIRTY DUTY PLUS INV UL CSA-C US EEV C	1.000 EA
35PA1066	PKG GRP, PRINT PK1008A06	1.000 EA
PK3083	STYROFOAM PACKING CRADLE	1.000 EA
PK3088	MICROFOAM, 8"X"8 PERF. SHEETS	1.000 EA

AC Induction Motor Performance Data

Record # 58290

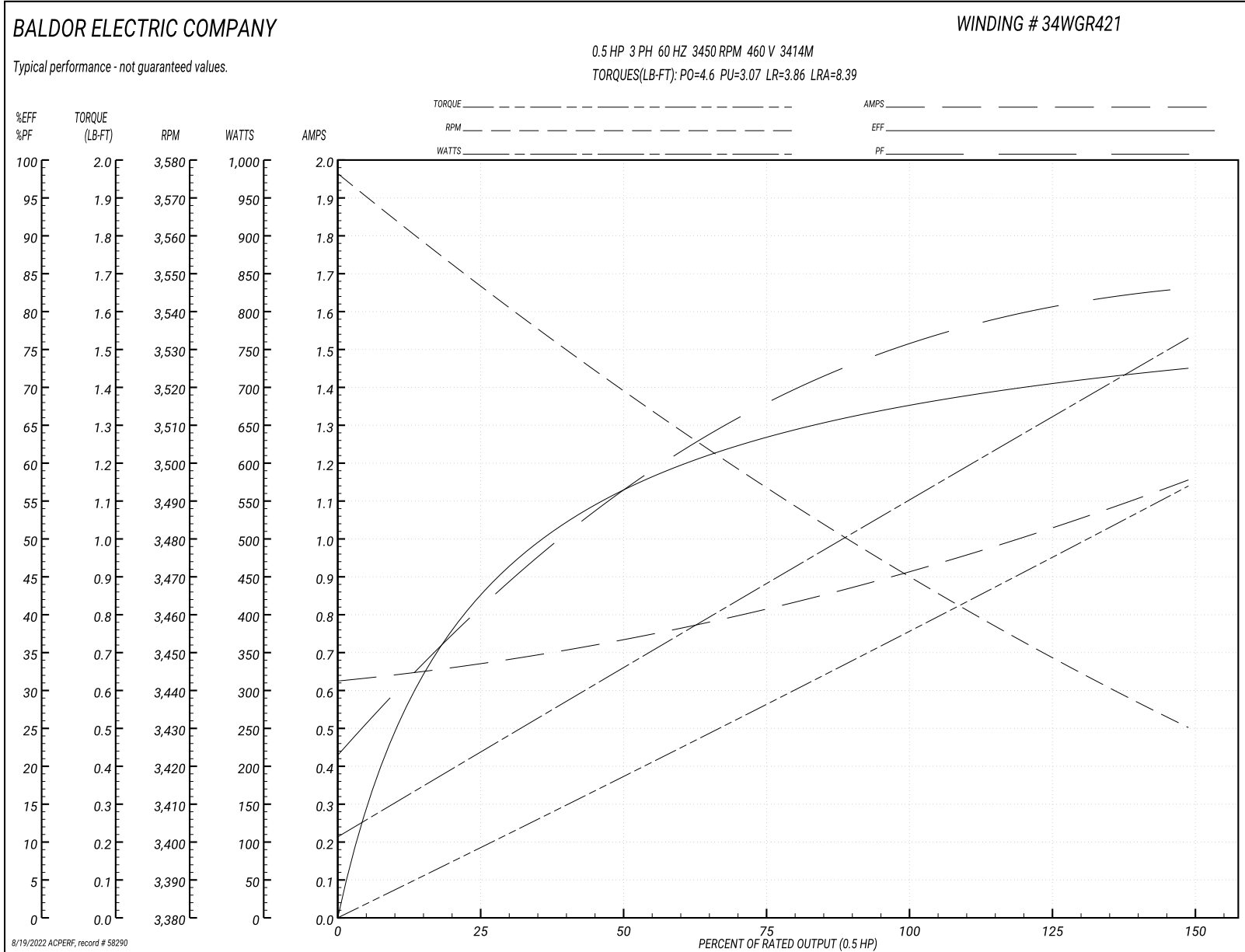
Typical performance - not guaranteed values

Winding: 34WGR421-R001			Type: 3414M			Enclosure: TEFC		
Nameplate Data				460 V, 60 Hz: High Voltage Connection				
Rated Output (HP)			.5	Full Load Torque	0.763 LB-FT			
Volts	230/460			Start Configuration	direct on line			
Full Load Amps	1.8/.9			Breakdown Torque	4.6 LB-FT			
R.P.M.	3450			Pull-up Torque	3.07 LB-FT			
Hz	60 Phase		3	Locked-rotor Torque	3.86 LB-FT			
NEMA Design Code	B	KVA Code	P	Starting Current	8.39 A			
Service Factor (S.F.)	1.25			No-load Current	0.626 A			
NEMA Nom. Eff.	68	Power Factor	75	Line-line Res. @ 25°C	26.14 Ω			
Rating - Duty	40C AMB-CONT			Temp. Rise @ Rated Load	51°C			
S.F. Amps	2/1			Temp. Rise @ S.F. Load	59°C			
				Locked-rotor Power Factor	69.4			

Load Characteristics 460 V, 60 Hz, 0.5 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	45	58	67	75	80	84	80
Efficiency	39.7	56.1	64.1	69.1	70.6	72.3	70.6
Speed	3536.7	3517.5	3497.4	3469	3451.9	3427.2	3452
Line amperes	0.674	0.731	0.817	0.915	1.04	1.15	1.04

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



AC Induction Motor Performance Data

Record # 73819

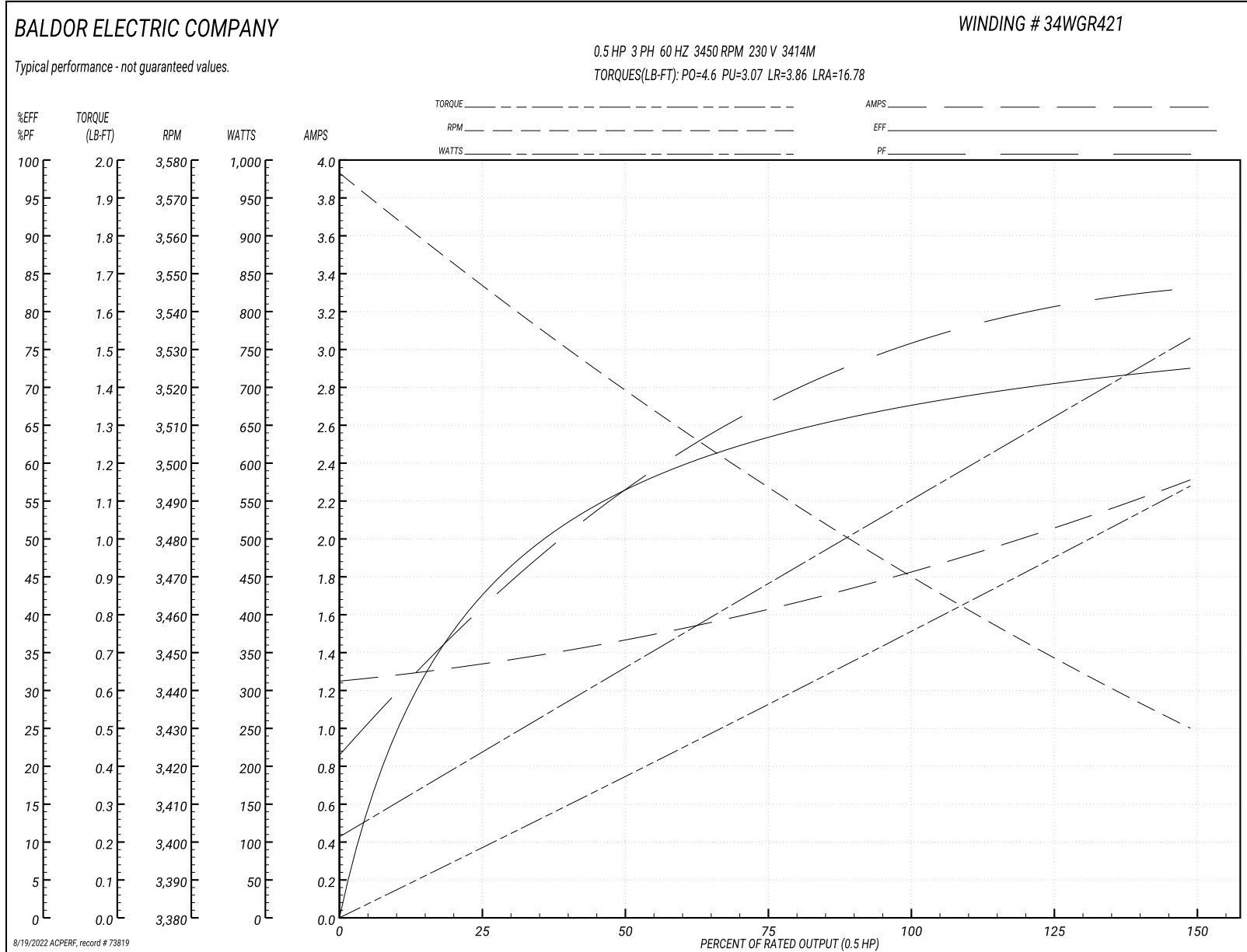
Typical performance - not guaranteed values

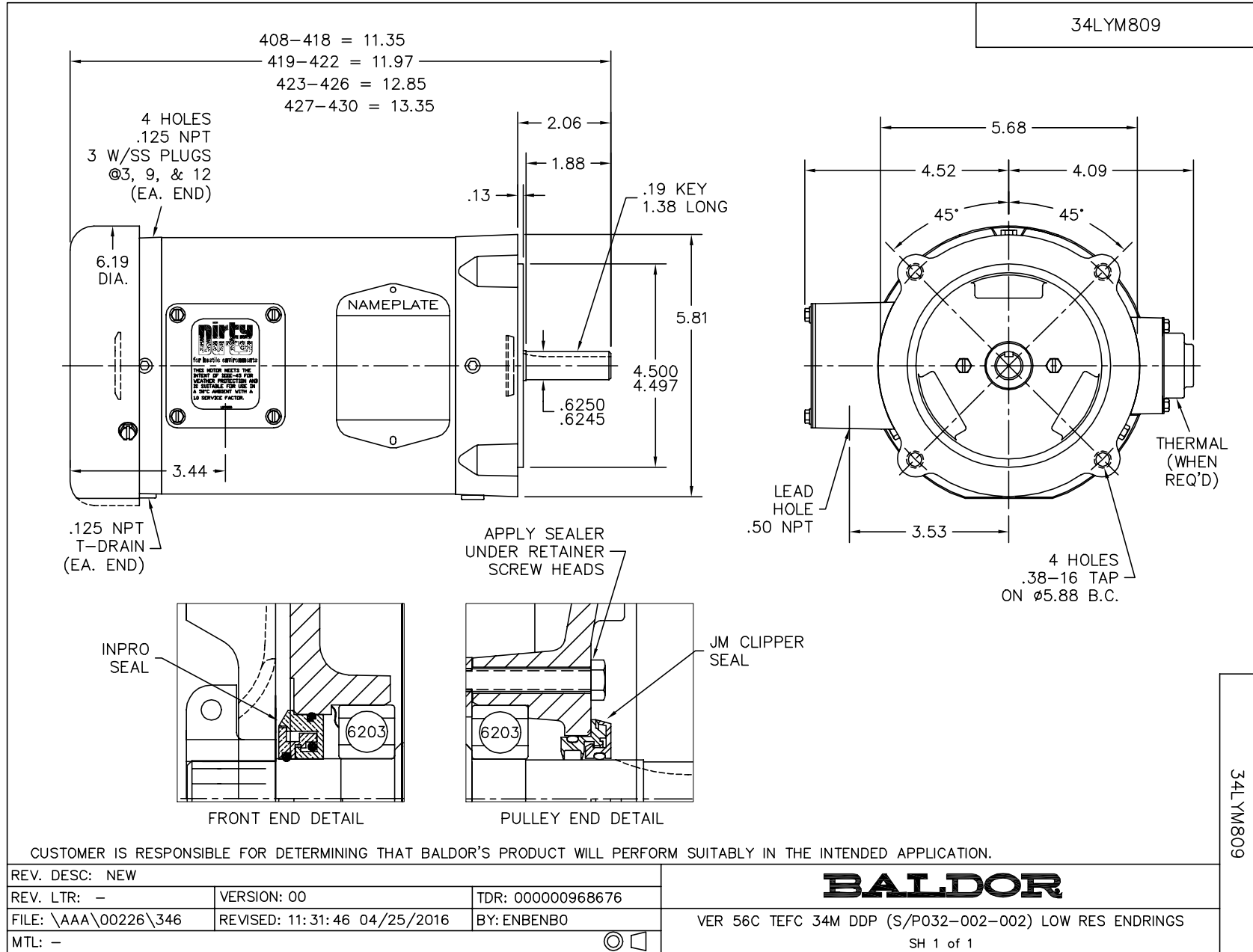
Winding: 34WGR421-R001			Type: 3414M			Enclosure: TEFC		
Nameplate Data				230 V, 60 Hz: Low Voltage Connection				
Rated Output (HP)			.5	Full Load Torque	0.763 LB-FT			
Volts	230/460			Start Configuration	direct on line			
Full Load Amps	1.8/.9			Breakdown Torque	4.6 LB-FT			
R.P.M.	3450			Pull-up Torque	3.07 LB-FT			
Hz	60	Phase	3	Locked-rotor Torque	3.86 LB-FT			
NEMA Design Code	B	KVA Code	P	Starting Current	16.78 A			
Service Factor (S.F.)	1.25			No-load Current	1.25 A			
NEMA Nom. Eff.	68	Power Factor	75	Line-line Res. @ 25°C	6.46 Ω			
Rating - Duty	40C AMB-CONT			Temp. Rise @ Rated Load	51°C			
S.F. Amps	2/1			Temp. Rise @ S.F. Load	57°C			
				Locked-rotor Power Factor	69.4			
				Rotor inertia	0.013 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	58	68	75	80	84	80
Efficiency	39.6	56.2	64.1	69.1	70.6	71.9	70.6
Speed	3537	3518	3497	3469	3452	3427	3452
Line amperes	1.35	1.46	1.63	1.83	2.08	2.3	2.08

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





CD0005

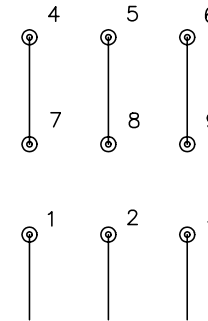


LOW VOLTAGE
(2Y)



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