

**BALDOR® • RELIANCE** 

**Product Information Packet**

**VL5009A**

**1HP,3450RPM,1PH,60HZ,56C,X3524L,XPFC,F1**

Part Detail							
Revision:	BE	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Elec. Spec:	35WG0498	CD Diagram:	CD0008	Mfg Plant:	
Mech. Spec:	35E371	Layout:	35LYE371	Poles:	02	Created Date:	06-27-2007
Base:	N	Eff. Date:	01-06-2020	Leads:	4#16 A&J,2#18 B PH,1#14 #4TH		

Specs			
Catalog Number:	VL5009A	Inverter Code:	Not Inverter
Enclosure:	XPFC	KVA Code:	K
Frame:	56C	Lifting Lugs:	No Lifting Lugs
Frame Material:	Steel	Locked Bearing Indicator:	Locked Bearing
Output @ Frequency:	1.000 HP @ 60 HZ	Motor Lead Quantity/Wire Size:	4 @ 16 AWG, A&J
Synchronous Speed @ Frequency:	3600 RPM @ 60 HZ	Motor Lead Exit:	Ko Box
Voltage @ Frequency:	115.0 V @ 60 HZ	Motor Lead Termination:	Flying Leads
	230.0 V @ 60 HZ	Motor Type:	X3524L
XP Class and Group:	CLI GP D; CLII GP F,G	Mounting Arrangement:	F1
XP Division:	Division I	Power Factor:	81
Agency Approvals:	UR	Product Family:	Hazardous Location Motor
	UL	Pulley End Bearing Type:	Ball
	CSA	Pulley Face Code:	C-Face
Auxillary Box:	No Auxillary Box	Pulley Shaft Indicator:	Standard
Auxillary Box Lead Termination:	None	Rodent Screen:	None
Base Indicator:	No Mounting	RoHS Status:	ROHS COMPLIANT
Bearing Grease Type:	Polyrex EM (-20F +300F)	Shaft Extension Location:	Pulley End
Blower:	None	Shaft Ground Indicator:	No Shaft Grounding

<b>Current @ Voltage:</b>	12.000 A @ 115.0 V	<b>Shaft Rotation:</b>	Reversible
	6.000 A @ 230.0 V	<b>Shaft Slinger Indicator:</b>	No Slinger
<b>Design Code:</b>	N	<b>Speed Code:</b>	Single Speed
<b>Drip Cover:</b>	No Drip Cover	<b>Motor Standards:</b>	NEMA
<b>Duty Rating:</b>	CONT	<b>Starting Method:</b>	Direct on line
<b>Electrically Isolated Bearing:</b>	Not Electrically Isolated	<b>Thermal Device - Bearing:</b>	None
<b>Feedback Device:</b>	NO FEEDBACK	<b>Thermal Device - Winding:</b>	None
<b>Front Face Code:</b>	Standard	<b>Vibration Sensor Indicator:</b>	No Vibration Sensor
<b>Front Shaft Indicator:</b>	None	<b>Winding Thermal 1:</b>	Automatic Thermal Overload
<b>Heater Indicator:</b>	No Heater	<b>Winding Thermal 1 Location:</b>	SB
<b>Insulation Class:</b>	B	<b>Winding Thermal 2:</b>	None
		<b>XP Temp Code:</b>	T4

Nameplate NP0016XPSL										
NO.		CC								
SER. #										
SPEC	35E371-498									
CAT.NO.	VL5009A									
H.P.	1	T. CODE	T4							
VOLTS	115/230									
AMPS	12/6									
R.P.M.	3450									
HZ	60	PH	1	CLASS	B					
SER.F.	1.00	DES	N	CODE	K					
RATING	40C AMB-CONT									
FRAME	56C	NEMA NOM. EFF	66							
USABLE AT 208V		PF	81							
BLANK										

Parts List		
Part Number	Description	Quantity
SA024056	SA 35E371-498	1.000 EA
RA020106	RA 35E371-498	1.000 EA
TPMRJ28AX	THERMAL 1PH 0.75 AUT 120C	1.000 EA
EC1324A02	ELEC CAP, 324-389 MFD, 125V, 1.48D X 3.	2.000 EA
35CB3001A01SP	EXPL CONDUIT BOX, MACH, 1/2" PIPE TAP LE	1.000 EA
11XW1032G06	10-32 X .38, TAPTITE II, HEX WSHR SLTD U	1.000 EA
HW3001B01	BRASS CUP WASHER, FOR #10 SCREW	1.000 EA
35EP3700A01SP	FR ENDPLATE, XPFC	1.000 EA
MG1025G29	WILKOFASST, 789.229, DARK CHARCOAL GRAY	0.014 GA
HW5100A03	WAVY WASHER (W1543-017)	1.000 EA
35EP3702A01SP	PU EP-205 BRG-35X-56C-143-5TC	1.000 EA
84XN1032J20	SCREW, SOC 10-32 X 1 1/4"BMH4602	2.000 EA
HA3013A01	1/2-20X5/8 SPL.HX BOLT	2.000 EA
HW3021C06	3/32 DI X .625 PIN (F/S)	2.000 EA
XY3118A12	5/16-18 HEX NUT DIRECTIONAL SERRATION	4.000 EA
51XB1214A16	12-14X1.00 HXWSSLD SERTYB	1.000 EA
HA3104A08	THRUBOLT-5/16-18X9.375 X X	4.000 EA
NS2500A05	INSULATOR, AUTO THER PROT	1.000 EA
35FH4005A01SP	IEC FH NO GREASER W/PRIMED	1.000 EA
51XW1032A06	10-32 X .38, TAPTITE II, HEX WSHR SLTD S	3.000 EA
35CB3500A01SP	CONDUIT BOX LID, MACH	1.000 EA
51XN2520A16	SCREW, HEX WS SLT, ZN, 1/4-20 X 1.00	4.000 EA
HW2501D13	KEY, 3/16 SQ X 1.375	1.000 EA
HA7000A04	KEY RETAINER 0.625 DIA SHAFTS	1.000 EA

Parts List (continued)		
Part Number	Description	Quantity
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	6.000 EA
NP0018F	ALUM UL XP CONDUIT BOX NAMEPLATE	1.000 EA
51XW0832A07	8-32 X .44, TAPTITE II, HEX WSHR SLTD SE	2.000 EA
HA6003A52	CLAMP, CAPACITOR, WHITE ZINC PLATED	2.000 EA
51XW0832A07	8-32 X .44, TAPTITE II, HEX WSHR SLTD SE	2.000 EA
MJ1000A02	GREASE, MOBIL POLYREX EM - 124047	0.050 LB
HW3001B01	BRASS CUP WASHER, FOR #10 SCREW	1.000 EA
34FN3002A01SP	EXTERNAL FAN, PLASTIC, .637/.639 HUB W/	1.000 EA
51XB1214A16	12-14X1.00 HXWSSLD SERTYB	1.000 EA
WD1000A03	41531 AMP FLG.TERM,4M/REEL(2.5MIL)	8.000 EA
WD1000A04	1-480307-1AMP REC(200/PKG)ACC#081693-10-	8.000 EA
HA6001A01	THERMAL RETAINER (PLATED)	1.000 EA
12XF0632A06	6-32X3/8 TY F HEX HD SLT	2.000 EA
SP5051A64	MODEL 35 TORQ STATIONARY SWITCH FOR XP	1.000 EA
LB1118	LABEL,WARNING (ROLL LABEL)	1.000 EA
LC0008	CONNECTION LABEL	1.000 EA
PK3088	MICROFOAM, 8"X"8 PERF. SHEETS 5,400/RL	1.000 EA
NP0016XPSL	SS XP UL CSA CC CL-I GP-D CL-II GP-F&G	1.000 EA
36PA1000	PKG GRP, PRINT PK1016A06	1.000 EA
PK3083	STYROFOAM PACKING CRADLE	1.000 EA

**AC Induction Motor Performance Data**

Record # 30814 - Typical performance - not guaranteed values

<b>Winding:</b> 35WG0498-R002	<b>Type:</b> 3524L	<b>Enclosure:</b> XPFC
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Nameplate Data				230 V, 60 Hz: High Voltage Connection	
Rated Output (HP)	1			Full Load Torque	1.51 LB-FT
Volts	115/230			Start Configuration	direct on line
Full Load Amps	12/6			Breakdown Torque	4.97 LB-FT
R.P.M.	3450			Pull-up Torque	2.74 LB-FT
Hz	60	Phase	1	Locked-rotor Torque	4.24 LB-FT
NEMA Design Code	N	KVA Code	K	Starting Current	37.9 A
Service Factor (S.F.)	1			No-load Current	2.95 A
NEMA Nom. Eff.	66	Power Factor	81	Line-line Res. @ 25°C	2.572 Ω A Ph 1.8019 Ω B Ph
Rating - Duty	40C AMB-CONT			Temp. Rise @ Rated Load	49°C

Load Characteristics 230 V, 60 Hz, 1 HP

% of Rated Load	25	50	75	100	125	150
Power Factor	51	66	76	82	85	88
Efficiency	48.2	63.2	68.3	70.6	70.1	68
Speed	3563.8	3541.1	3515.3	3483.1	3445.7	3401.4
Line amperes	3.28	3.83	4.58	5.59	6.75	8.09

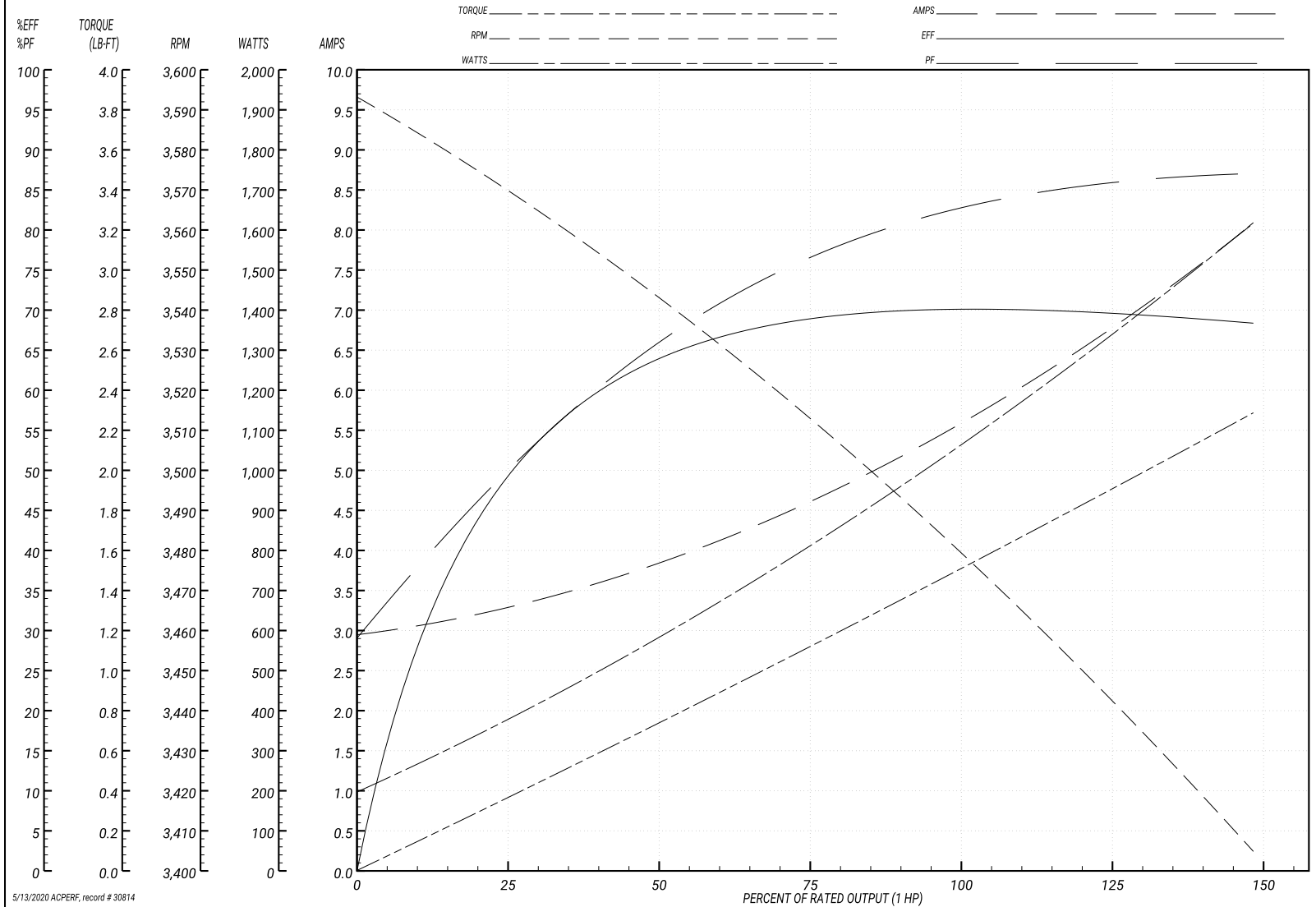
Performance Graph at 230V, 60Hz, 1.0HP Typical performance - Not guaranteed values

ABB Motors and Mechanical Inc.

WINDING # 35WG0498

Typical performance - not guaranteed values.

1 HP 1 PH 60 HZ 3450 RPM 230 V 3524L  
 TORQUES(LB-FT): PO=4.97 PU=2.74 LR=4.24 LRA=37.9



5/13/2020 ACPERF, record # 30814

**AC Induction Motor Performance Data**

Record # 59849 - Typical performance - not guaranteed values

<b>Winding:</b> 35WG0498-R002	<b>Type:</b> 3524L	<b>Enclosure:</b> XPFC
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Nameplate Data				115 V, 60 Hz: Low Voltage Connection	
Rated Output (HP)	1			Full Load Torque	1.51 LB-FT
Volts	115/230			Start Configuration	direct on line
Full Load Amps	12/6			Breakdown Torque	4.97 LB-FT
R.P.M.	3450			Pull-up Torque	2.74 LB-FT
Hz	60	Phase	1	Locked-rotor Torque	4.24 LB-FT
NEMA Design Code	N	KVA Code	K	Starting Current	75.8 A
Service Factor (S.F.)	1			No-load Current	5.9 A
NEMA Nom. Eff.	66	Power Factor	81	Line-line Res. @ 25°C	0.643 Ω A Ph 1.8019 Ω B Ph
Rating - Duty	40C AMB-CONT			Temp. Rise @ Rated Load	49°C

Load Characteristics 115 V, 60 Hz, 1 HP

% of Rated Load	25	50	75	100	125	150
Power Factor	51	66	76	82	85	88
Efficiency	48.2	63.2	68.3	70.6	70.1	68
Speed	3563.8	3541.1	3515.3	3483.1	3445.7	3401.4
Line amperes	6.56	7.66	9.16	11.18	13.5	16.18

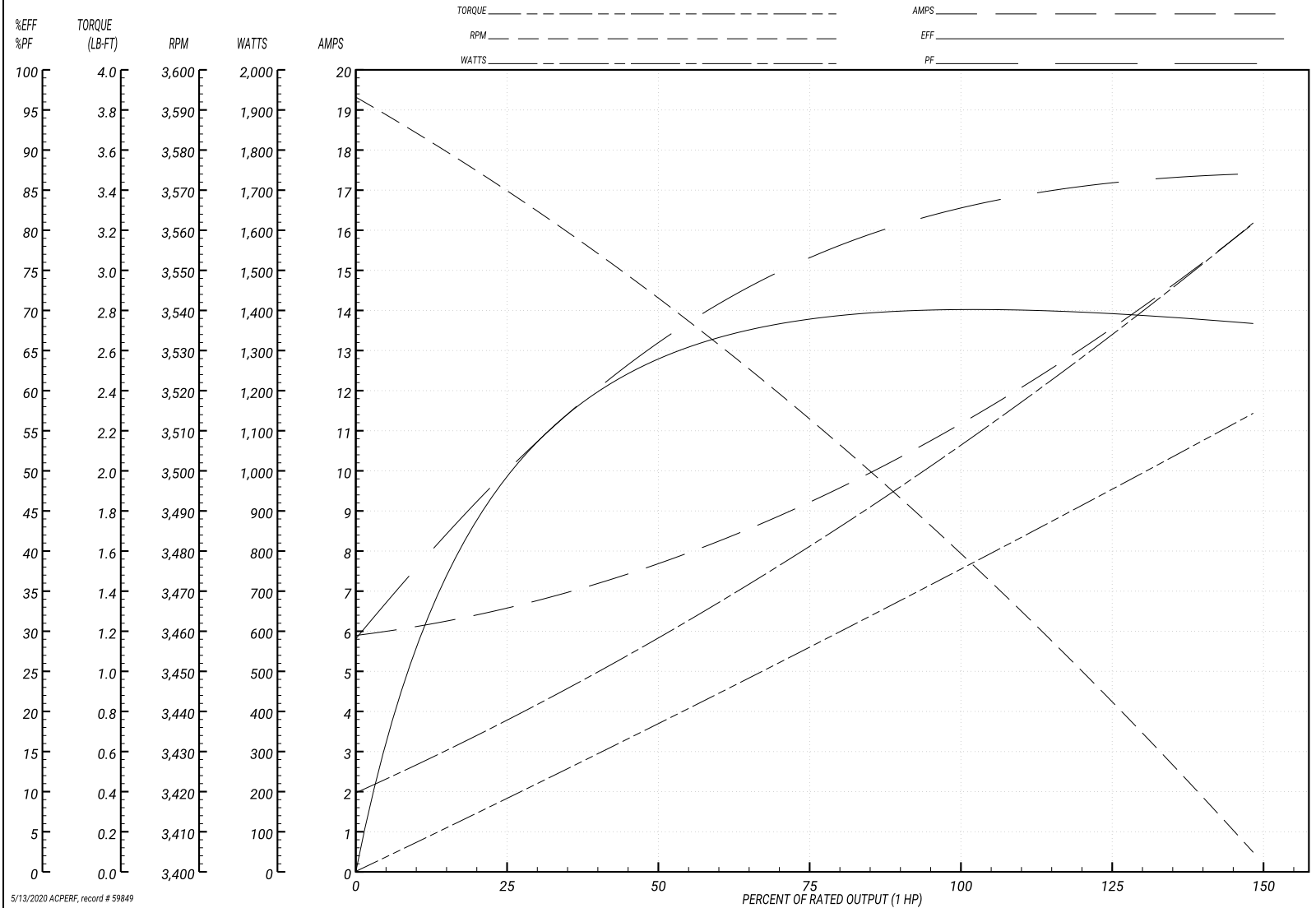
Performance Graph at 115V, 60Hz, 1.0HP Typical performance - Not guaranteed values

ABB Motors and Mechanical Inc.

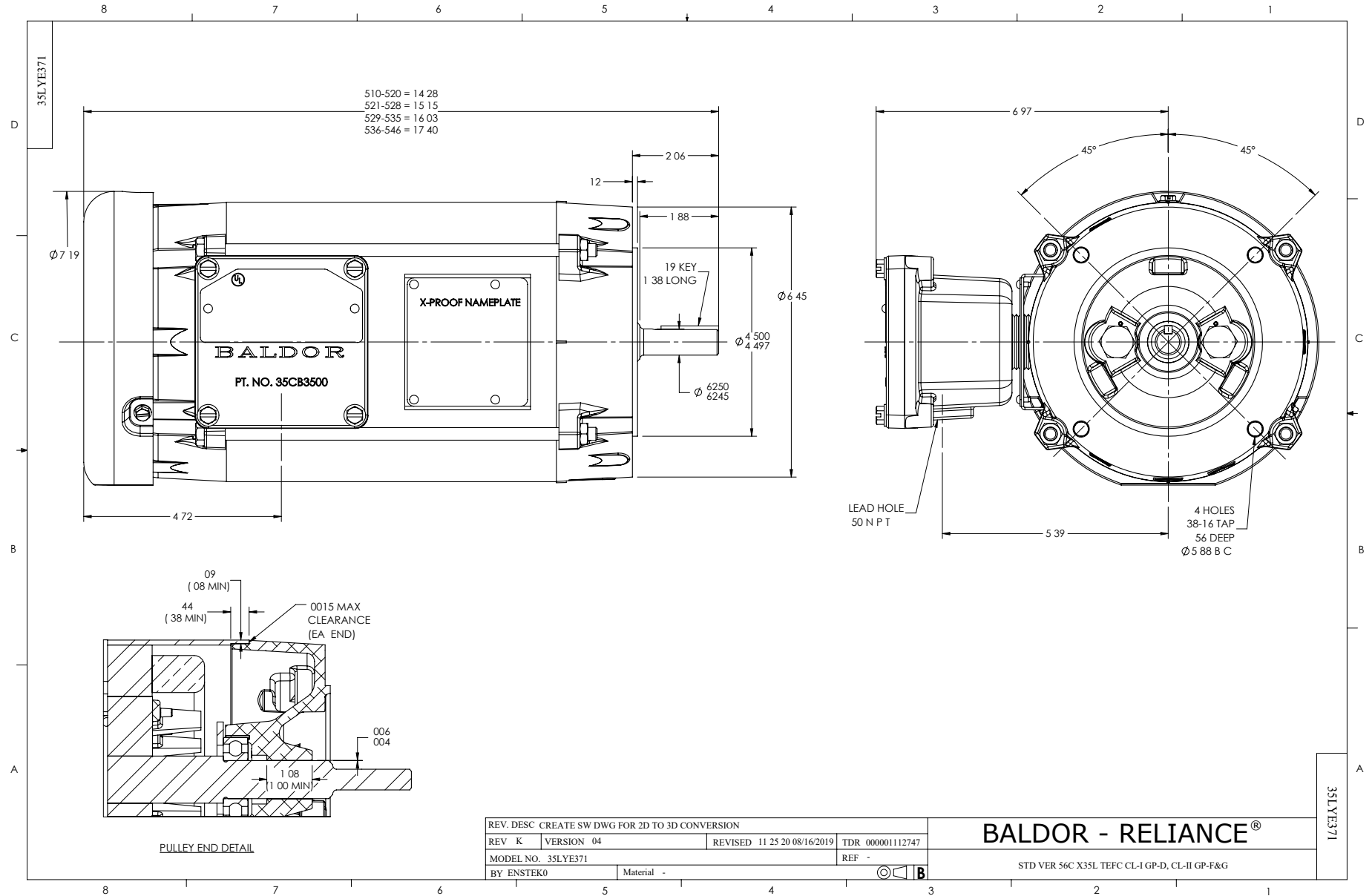
WINDING # 35WG0498

Typical performance - not guaranteed values.

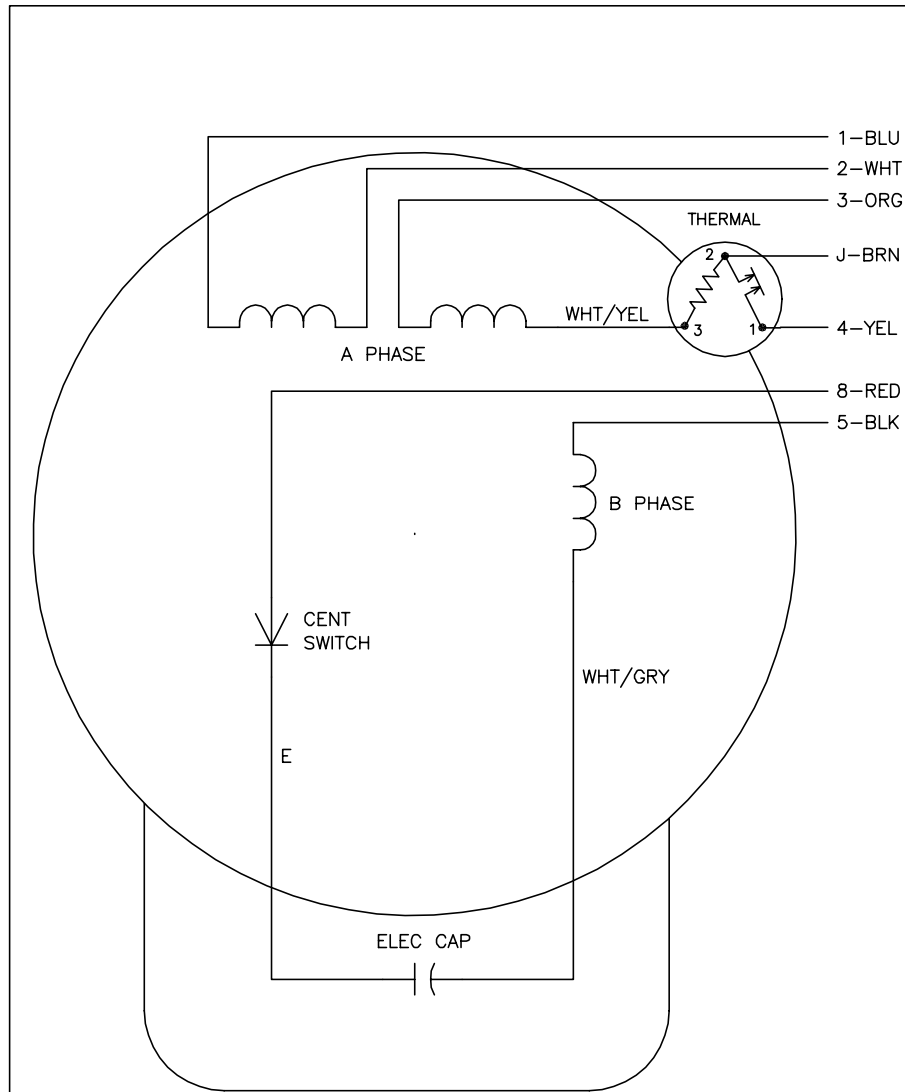
1 HP 1 PH 60 HZ 3450 RPM 115 V 3524L  
 TORQUES(LB-FT): PO=4.97 PU=2.74 LR=4.24 LRA=75.8



5/13/2020 ACPERF, record # 59849



CD0008



	LINE A	LINE B	JOIN	JOIN
HIGH STD	1	4	2,3,8	J,5
HIGH OPP	1	4	2,3,5	J,8
LOW STD	1,3,8	4	-	2,J,5
LOW OPP	1,3,5	4	-	2,J,8

NOTES:

1. STANDARD ROTATION IS CCW FACING END OPPOSITE SHAFT EXTENSION.
2. MULTIPLE CAPACITORS ARE CONNECTED IN PARALLEL UNLESS OTHERWISE SPECIFIED.
3. LEAD COLORS ARE OPTIONAL. LEADS MUST ALWAYS BE NUMBERED AS SHOWN.

REV. DESC: REMOVE 2-TERMINAL THERMAL DETAIL, SEE CD0008A02		
REV. LTR: F	VERSION: 01	TDR: 000000360649
80000	FILE: \AAA\00007\408	REVISED: 10:56:54 04/18/2005
	MTL: -	BY: ENJOEPO

**BALDOR ELECTRIC Co.**

TYPE L, DV, REV, THERMAL, 7 LEADS

CD0008