

ABB BALDOR RELIANCE III

Customer information packet

VL5009A

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

Class - CLI GP D; CLII GP F,G

Division - Division I

Specifications

Enclosure	XPFC
Frame	56C
Frame Material	Steel
Frequency	60.00 Hz
Haz Area Class and Group	CLI GP D; CLII GP F,G
Haz Area Division	Division I
Motor Letter Type	Cap Start, Induction Run
Output @ Frequency	1.000 HP @ 60 HZ
Phase	1
Synchronous Speed @ Frequency	3600 RPM @ 60 HZ
Voltage @ Frequency	115.0 V @ 60 HZ 230.0 V @ 60 HZ
Agency Approvals	UR UL CSA
Ambient Temperature	40 °C
Auxiliary Box	NO AUXILLARY BOX
Auxiliary Box Lead Termination	None
Base Indicator	No Mounting
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Current @ Voltage	12.000 A @ 115.0 V 6.000 A @ 230.0 V
Design Code	N
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	66.0 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None
Haz Area Temp Code	T4

Part Detail

Revision	BP
Type	AC
Mech. spec.	35E371
Base	
Status	PRD/A
Elec. spec.	35WG0498
Layout	35LYE371
Eff. date	04-30-2026
CD Diagram	CD0008
Poles	02
Leads	4#16 A&J,2#18 B PH,1#14 #4TH
Proprietary	False
Created date	06-27-2007

Heater Indicator	No Heater
High Voltage Full Load Amps	6.0 a
Insulation Class	B
Inverter Code	Not Inverter
KVA Code	K
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	4 @ 16 AWG, A&J
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3524L
Mounting Arrangement	F1
Number of Poles	2
Overall Length	15.17 IN
Power Factor	81
Product Family	Hazardous Location Motor
Pulley End Bearing Type	Ball
Pulley Face Code	C-Face
Pulley Shaft Indicator	Standard
Rodent Screen	None
RoHS Status	ROHS COMPLIANT
Service Factor	1.00
Shaft Diameter	0.625 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	3450 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	None
Vibration Sensor Indicator	No Vibration Sensor

Winding Thermal 1	Automatic Thermal Overload
Winding Thermal 1 Location	SB
Winding Thermal 2	None

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	
		PF	81						
BLANK									

AC Induction Motor Performance Data

Record # 30814

Typical performance - not guaranteed values

Winding: 35WG0498-R002			Type: 3524L		Enclosure: XPFC		
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

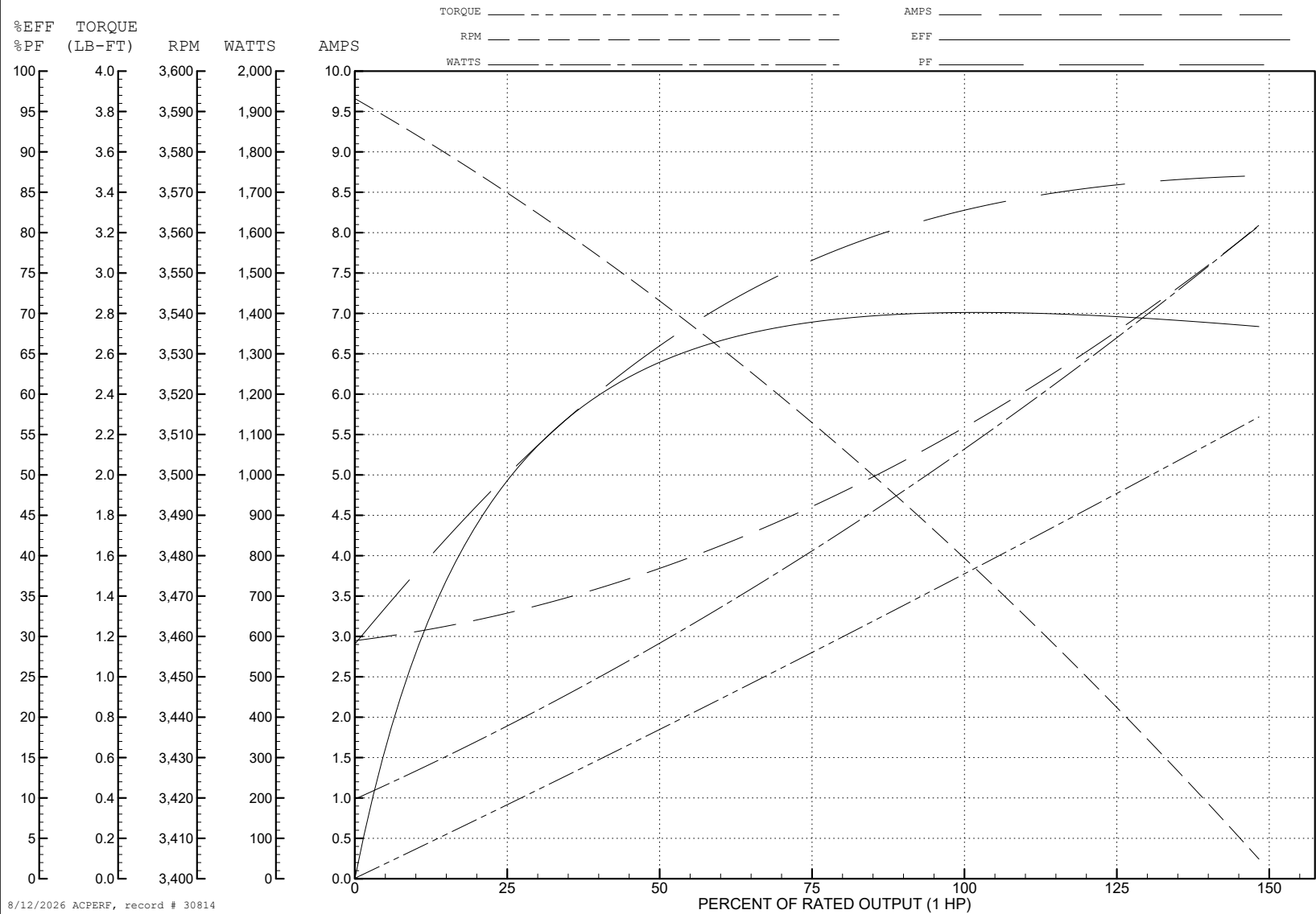
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WINDING # 35WG0498

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



AC Induction Motor Performance Data

Record # 59849

Typical performance - not guaranteed values

Winding: 35WG0498-R002				Type: 3524L		Enclosure: XPFC	
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

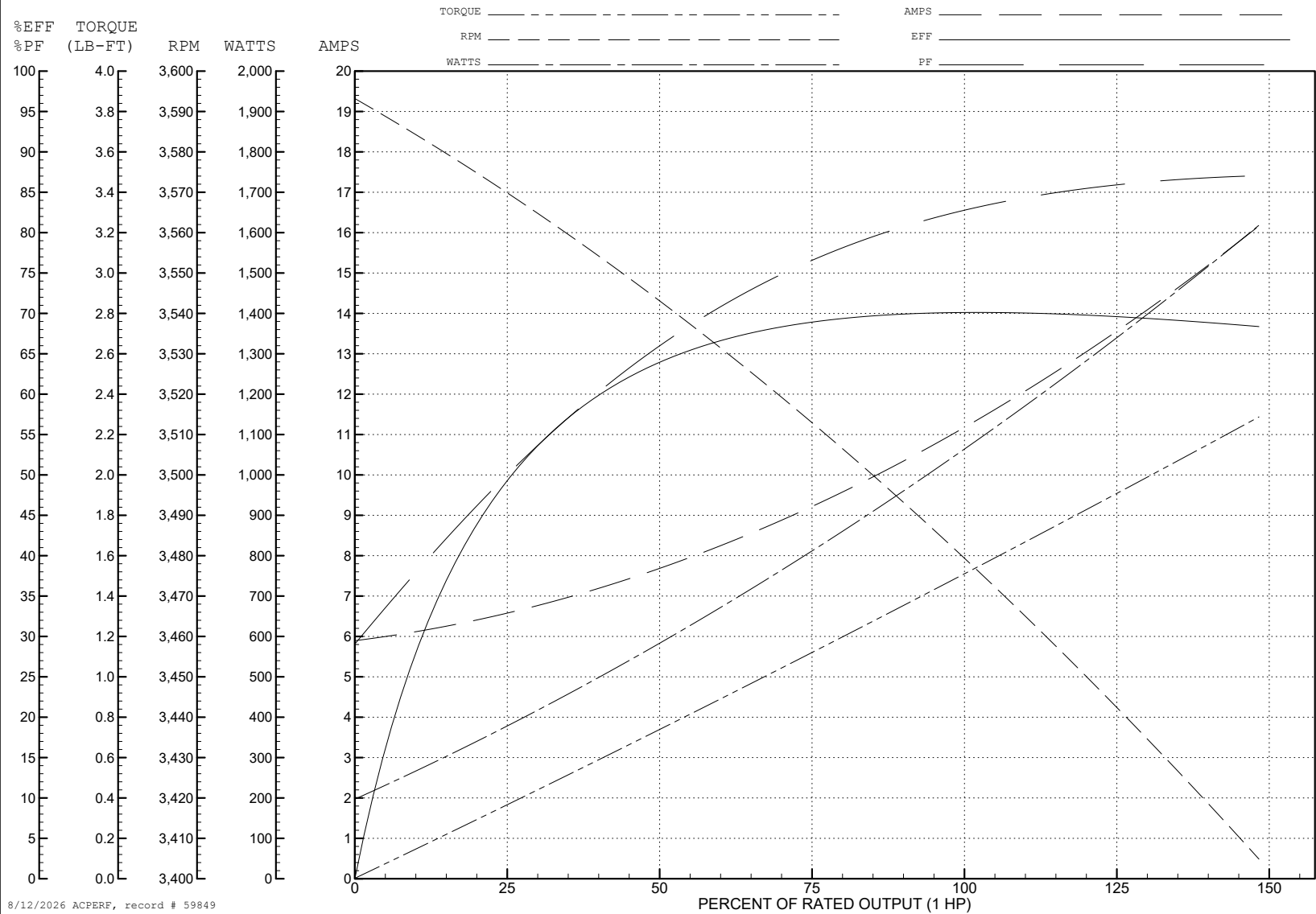
ABB Motors and Mechanical Inc.

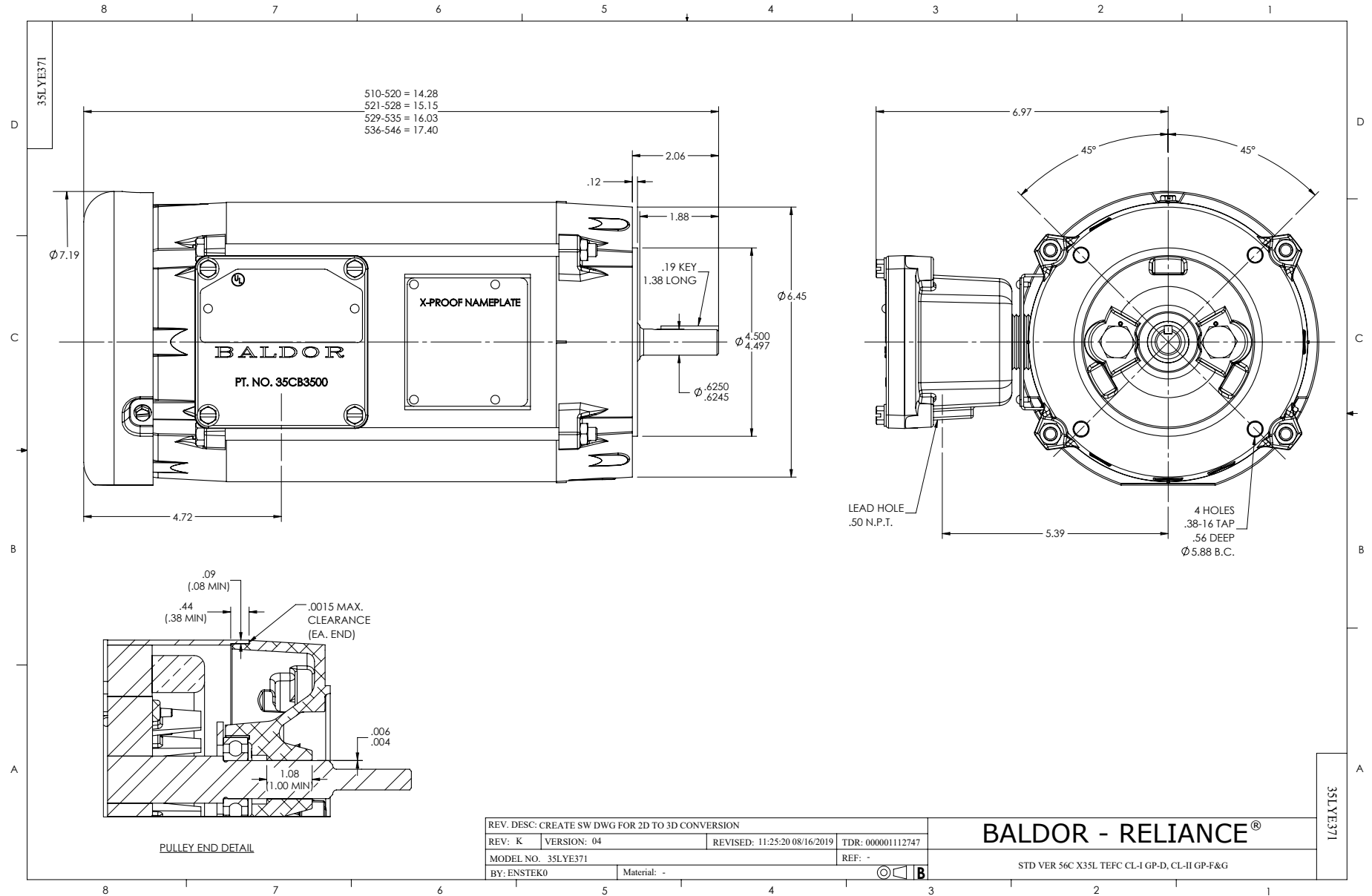
WINDING # 35WG0498

Typical performance - not guaranteed values.

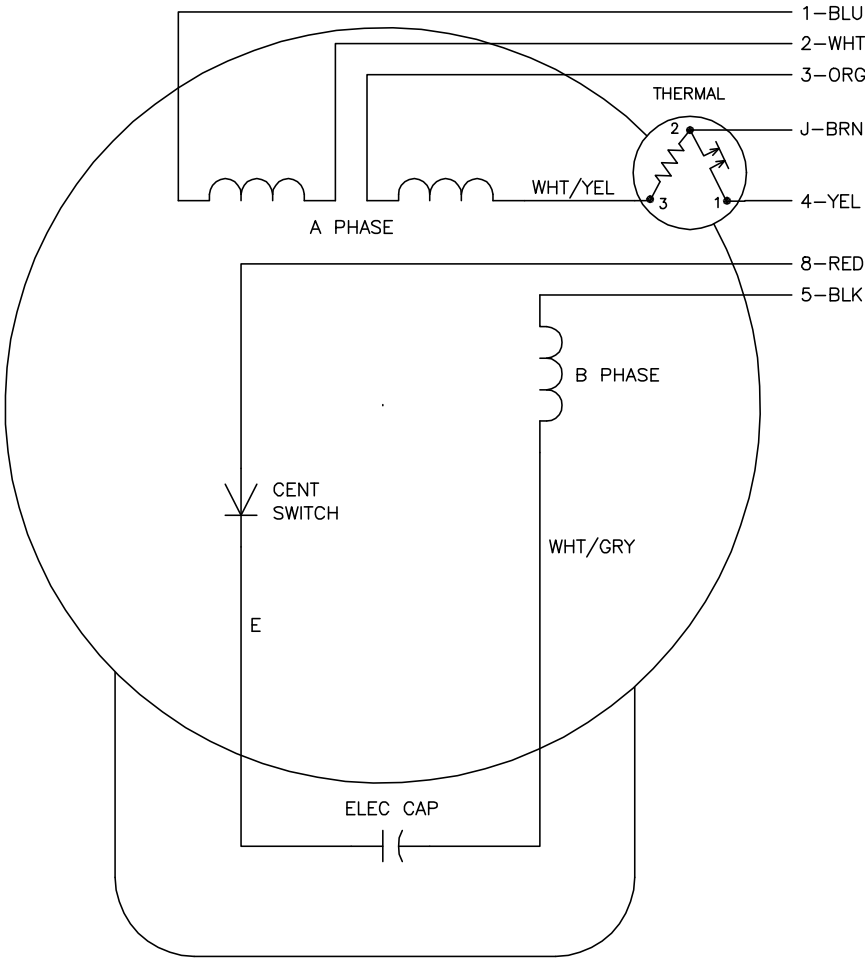
1 HP 1 PH 60 HZ 3450 RPM 115 V 3524L

TORQUES (LB-FT) : PO=4.97 PU=2.74 LR=4.24 LRA=75.8





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
800000	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