ABB BALDOR RELIANCE

Customer information packet

JL3509A

1HP, 3450RPM, 1PH, 60HZ, 56J, 3524L, TEFC, F1
Class - None
Division - Not Applicable

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Specifications

Enclosure	TEFC
Frame	56J
Frame Material	Steel
Frequency	60.00 Hz
Haz Area Class and Group	None
Haz Area Division	Not Applicable
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
	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
	5.800 A @ 208.0 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
Heater Indicator	No Heater

Part Detail

Revision	BK
Type	AC
Mech. spec.	35F083
Base	
Status	PRD/A
Elec. spec.	35WG0498
Layout	35LYF083
Eff. date	01-12-2026
CD Diagram	CD0094
Poles	02
Leads	4#16 A&J,1#14 #4TH
Proprietary	False
Created date	06-21-2007

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	1 @ 14 AWG, #4TH
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3524L
Mounting Arrangement	F1
Number of Poles	2
Overall Length	13.74 IN
Power Factor	81
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	C-Face
Pulley Shaft Indicator	Ext Thread
Rodent Screen	None
RoHS Status	ROHS COMPLIANT
Service Factor	1.25
Shaft Diameter	0.625 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Fixed Opposite Standard
Shaft Slinger Indicator	No Slinger
Speed	3450 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	Do Not Use Eve-Not Valiid
Vibration Sensor Indicator	No Vibration Sensor
Winding Thermal 1	Automatic Thermal Overload

Winding Thermal 1 Location	SB
Winding Thermal 2	None

Nameplate

NP1257L											
CAT.NO.	JL3509A										
SPEC.	35F83-498										
HP	1										
VOLTS	115/230										
AMP	12/6										
RPM	3450										
FRAME	56J		**HZ**	60		**PH**	1				
SER.F.	1.25	**CODE**	K	**DES**	N	**CL**	B				
NEMA-NOM-EFF	66	**PF**	81								
RATING	40C AMB-CONT										
CC											
DE	6205	**ODE**	6203								
ENCL	TEFC	**SN**									
	SFA 14.4/7.2										

Parts List

Part number	Description	Quantity
SA024898	SA 35F83-498	1.000 ea
RA020948	RA 35F83-498	1.000 ea
EC1645A06SP	ELEC CAP, 645-774 MFD, 125V, 2.06D X 4.	1.000 ea
NS2512A01	INSULATOR, CONDUIT BOX X	1.000 ea
35CB3007	35 CB CASTING W/.88 DIA. LEAD HOLE	1.000 ea
36GS1000SP	GASKET-CONDUIT BOX, .06 THICK #SV-330 LE	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
35EP3122K00	MASTER ODE,203 BRG,.683SH,#26 DRN,FH MTG	1.000 ea
51XW0832A07	8-32 X .44, TAPTITE II, HEX WSHR SLTD SE	2.000 ea
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 ea
51XB1016A05	10-16X5/16HX WA SL SR TYB (F/S)	2.000 ea
HW5100A03	WAVY WASHER (W1543-017)	1.000 ea
35EP3307G00	MASTER DE,205 BRG,1.232SH,#26 DRN	1.000 ea
51XN1032A20	10-32 X 1 1/4 HX WS SL SR	2.000 ea
51XB1214A16	12-14X1.00 HXWSSLD SERTYB	1.000 ea
35FH4005A55	IEC FH NO GRSR,3 MTG HOLE NO DIMPLES,	1.000 ea
51XW1032A06	10-32 X .38, TAPTITE II, HEX WSHR SLTD S	3.000 ea
WD4100A10	465 NIAGARA PLUG (SO ELEC),FOR 1.093 DIA	1.000 ea
35CB4521GX	CONDUIT BOX LID KIT **ORDER INDIV PARTS	1.000 ea
51XW0832A07	8-32 X .44, TAPTITE II, HEX WSHR SLTD SE	4.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.050 lb
34FN3002A01SP	EXTERNAL FAN, PLASTIC, .637/.639 HUB W/	1.000 ea
MG1050G01	CELEROL MEDIUM CHARCOAL METALLIC GRAY	0.017 ga
SP5051A99	MODEL 34/35 TORQ STA SW LEAD CONFIG	1.000 ea
HA3100A15	THRUBOLT 10-32 X 8.375	4.000 ea
LB1118	LABEL,WARNING (ROLL LABEL)	1.000 ea
LB1009N	LABEL,ROTATION DIRECTION (ON ROLLS)	1.000 ea
WD1000A16	2-520128-2 AMP FLAG TERMINAL(4M/RL)	2.000 ea
35CB4802A02SP	CAPACITOR COVER, STAMPED X	1.000 ea
35GS3001A02	GASKET, CA.COVER, 5.38 LONG .06 CS301	1.000 ea

LC0031	CONNECTION LABEL	1.000 ea
NP1257L	ALUM UL CC THERMAL REV MTG	1.000 ea
36PA1000	PKG GRP, PRINT PK1016A08	1.000 ea
PK3083	STYROFOAM PACKING CRADLE	1.000 ea
PK3088	MICROFOAM, 8"X"8 PERF. SHEETS	1.000 ea
FE-0000001	ZRTG FE ASSEMBLY	1.000 ea
PE-0000001	ZRTG PE ASSEMBLY	1.000 ea

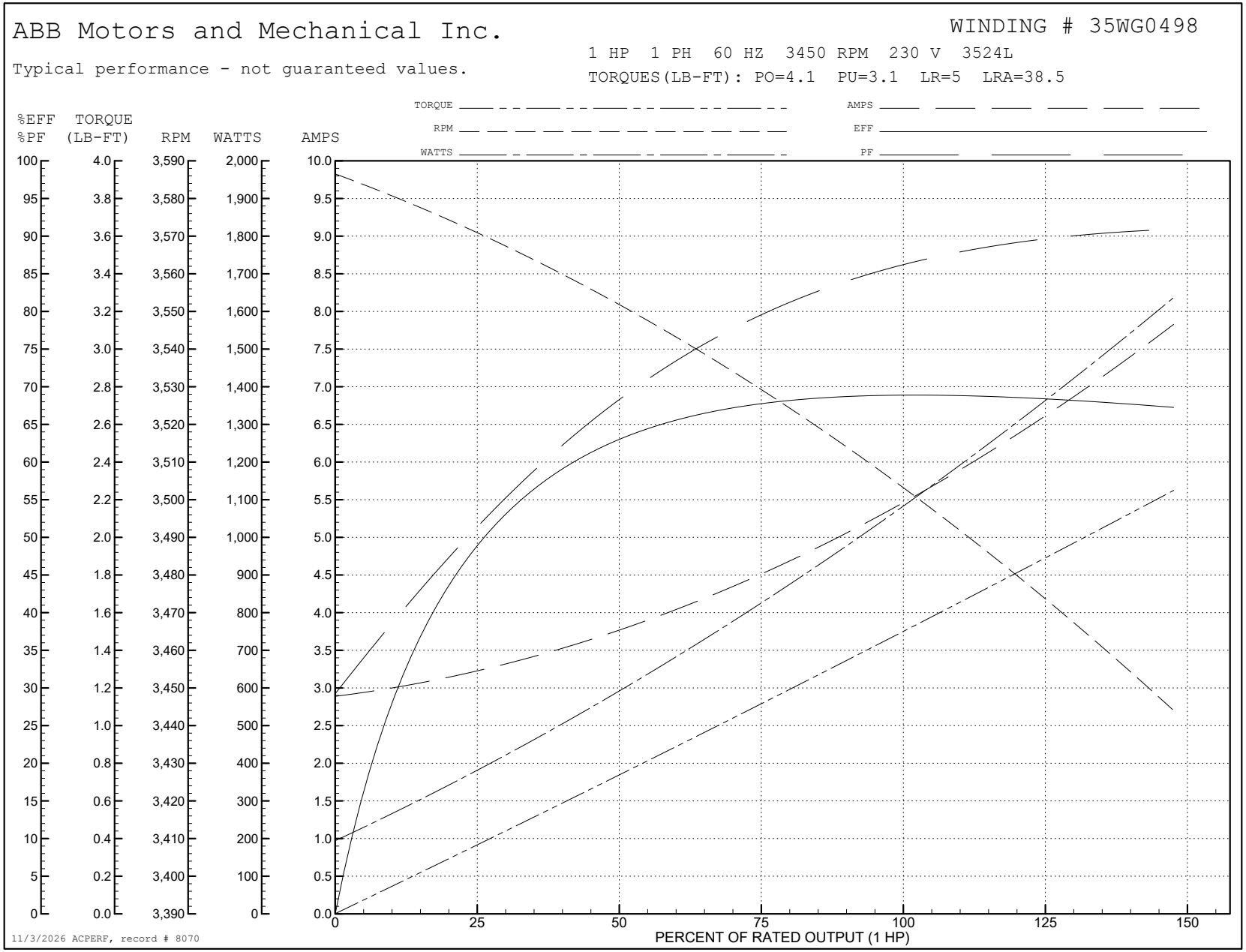
AC Induction Motor Performance Data
Record # 8070
Typical performance - not guaranteed values

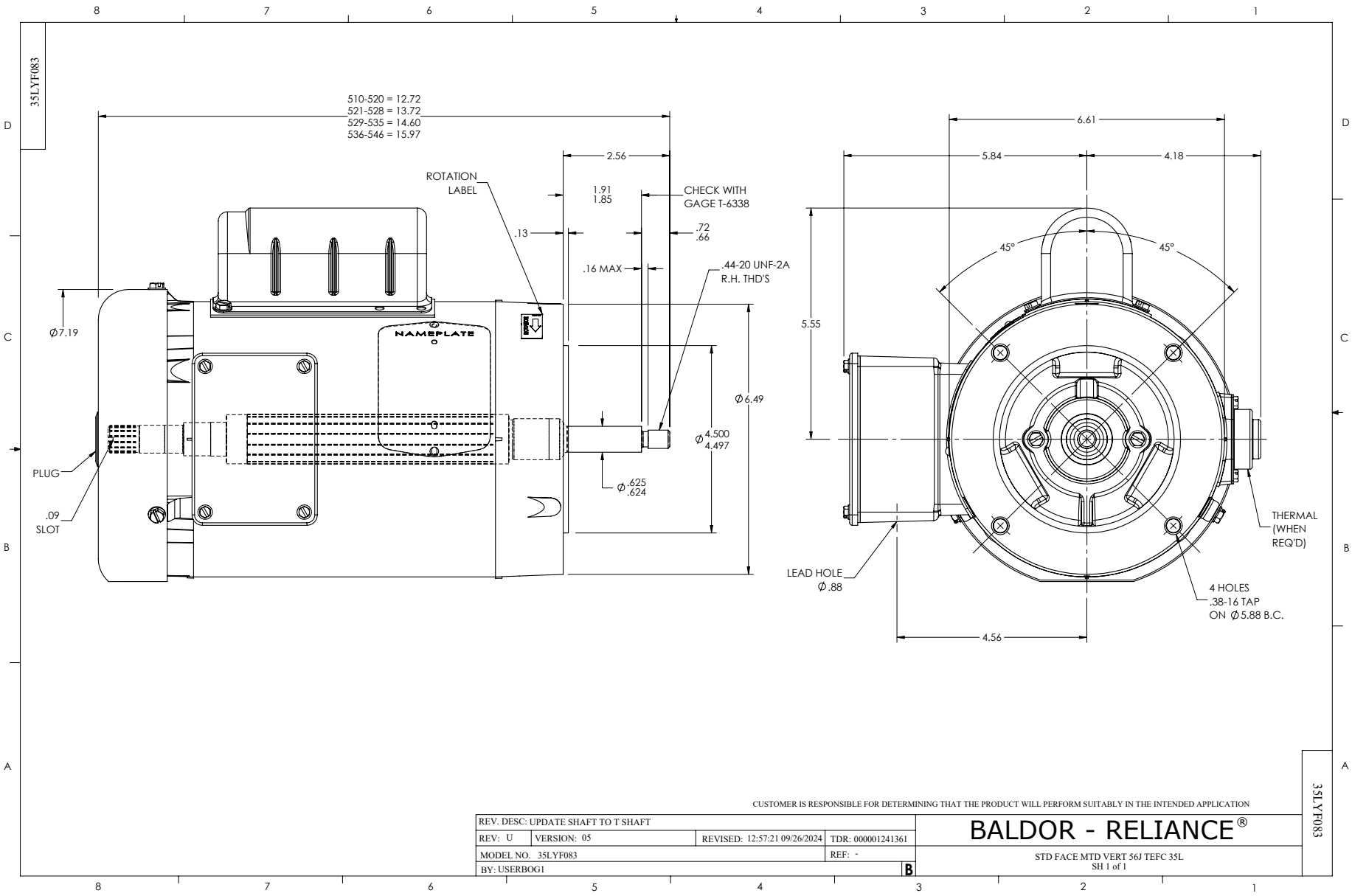
Winding: 35WG0498-R001	**Type:** 3524L	**Enclosure:** TEFC

Nameplate Data			**230 V, 60 Hz: High Voltage Connection**	
Rated Output (HP)		1	**Full Load Torque**	1.5 LB-FT
Volts		115/230	**Start Configuration**	direct on line
Full Load Amps		12/6	**Breakdown Torque**	4.1 LB-FT
R.P.M.		3450	**Pull-up Torque**	3.1 LB-FT
Hz	60 **Phase**	1	**Locked-rotor Torque**	5 LB-FT
NEMA Design Code	N **KVA Code**	K	**Starting Current**	38.5 A
Service Factor (S.F.)		1.25	**No-load Current**	2.95 A
NEMA Nom. Eff.	66 **Power Factor**	81	**Line-line Res. @ 25ºC**	2.46 Ω A Ph 1.75 Ω B Ph
Rating - Duty		40C AMB-CONT	**Temp. Rise @ Rated Load**	
S.F. Amps		14.4/7.2	**Temp. Rise @ S.F. Load**	

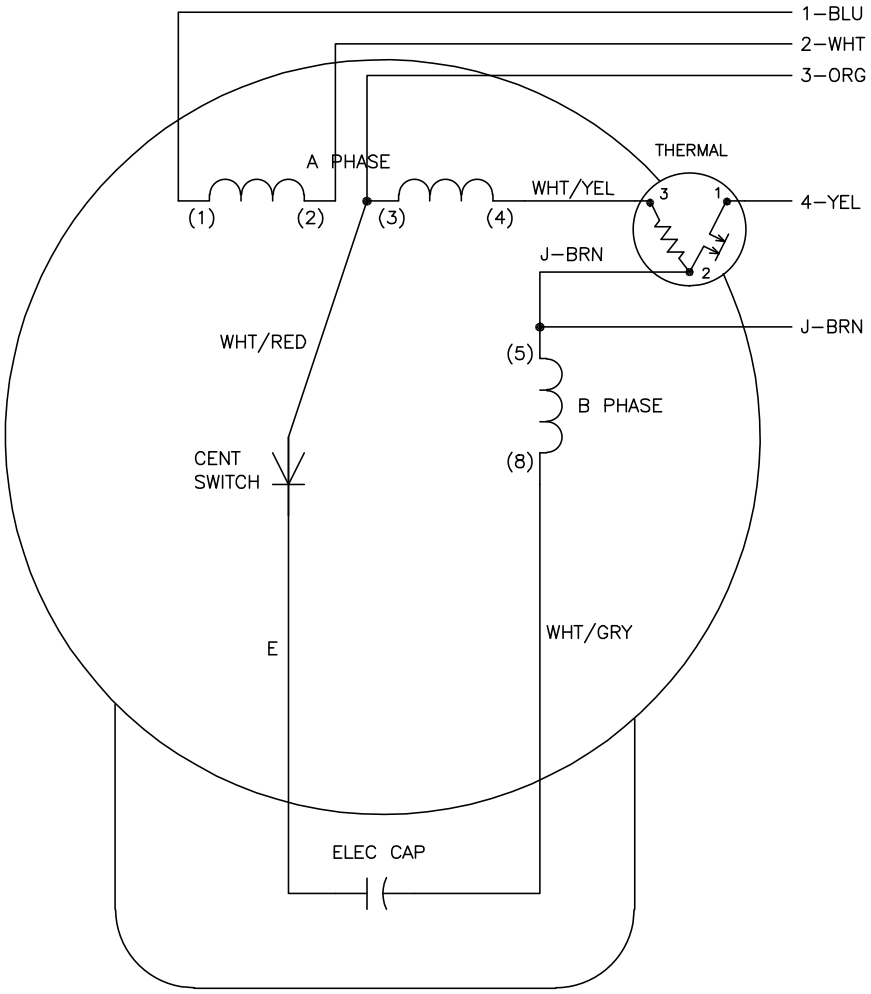
Load Characteristics 230 V, 60 Hz, 1 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	50	64	75	81	84	86	84
Efficiency	49	65	67	69	68	67.5	68
Speed	3570	3550	3530	3505	3472	3445	3472
Line amperes	3.2	3.7	4.5	5.5	6.75	7.7	6.75


ABB Motors and Mechanical Inc.
WINDING # 35WG0498
1 HP 1 PH 60 HZ 3450 RPM 230 V 3524L
Typical performance - not guaranteed values.
TORQUES(LB-FT): PO=4.1 PU=3.1 LR=5 LRA=38.5
TORQUE
RPM
WATTS
AMPS
EFF
PF
%EFF %PF
TORQUE (LB-FT)
RPM
WATTS
AMPS
PERCENT OF RATED OUTPUT (1 HP)
11/3/2026 ACPERF, record # 8070


35LYF083
510-520 = 12.72
521-528 = 13.72
529-535 = 14.60
536-546 = 15.97
2.56
ROTATION LABEL
1.91
1.85
CHECK WITH GAGE T-6338
.13
.72
.66
.16 MAX
.44-20 UNF-2A R.H. THD'S
Ø7.19
NAMEPLATE
Ø6.49
Ø4.500
4.497
Ø.625
.624
PLUG
.09 SLOT
6.61
5.84
4.18
45°
45°
5.55
THERMAL (WHEN REQ'D)
LEAD HOLE Ø.88
4 HOLES .38-16 TAP ON Ø5.88 B.C.
4.56
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: UPDATE SHAFT TO T SHAFT
REV: U
VERSION: 05
REVISED: 12:57:21 09/26/2024
TDR: 000001241361
MODEL NO. 35LYF083
REF: -
BY: USERBOG1
B
BALDOR - RELIANCE®
STD FACE MTD VERT 56J TEFC 35L
SH 1 of 1
35LYF083

CD0094



	LINE A	LINE B	JOIN	JOIN
HIGH	1	4	2,3	J
LOW	1,3	4	2,J	–

NOTES:

1. CONNECTIONS ARE SHOWN FOR CCW ROTATION FACING END OPPOSITE SHAFT EXTENSION (STD). FOR CW ROTATION, INTERCHANGE 5 AND 8 INTERNALLY.
2. MULTIPLE CAPACITORS ARE CONNECTED IN PARALLEL UNLESS OTHERWISE SPECIFIED.
3. LEAD COLORS ARE OPTIONAL. LEADS MUST ALWAYS BE NUMBERED AS SHOWN.

CD0094

REV. DESC: ADD B PH AMPS THRU HTR HVC TO DESCRIPTION		
REV. LTR: F	VERSION: 02	TDR: 000001258306
FILE: \AAA\00007\476	REVISED: 03:40:33 06/18/2025	BY: ENBRIR0
MTL: –		

BALDOR - RELIANCE®

TYPE L, DV, FIX, THERMAL, B PH AMPS THRU HTR HVC, 5 LEAD

SH 1 of 1