

**BALDOR • RELIANCE**

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# Customer information packet

## VFDL3516TM

2HP, 1740RPM, 1PH, 60HZ, 145TC, 3535LC, TEFC, F

Class - None

Division - Not Applicable

## Specifications

Enclosure	TEFC
Frame	145TC
Frame Material	Steel
Frequency	60.00 Hz
Haz Area Class and Group	None
Haz Area Division	Not Applicable
Motor Letter Type	Cap Start, Cap Run
Output @ Frequency	2.000 HP @ 60 HZ
Phase	1
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ
Agency Approvals	UR CSA
Ambient Temperature	40 °C
Auxillary Box	No Auxillary Box
Auxillary Box Lead Termination	None
Base Indicator	No Mounting
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Current @ Voltage	7.900 A @ 230.0 V 8.900 A @ 208.0 V
Design Code	L
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	82.5 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	7.9 a
Insulation Class	F

## Part detail

Revision	F
Type	AC
Mech. spec.	35E3081
Base	
Status	PRD/A
Elec. spec.	35WGN499
Layout	35LYE3081
Eff. date	07-25-2024
CD Diagram	CD0002A02
Poles	04
Leads	2#16 A PH,3#18 B%J
Proprietary	False
Created date	03-09-2015

Inverter Code	Not Inverter
KVA Code	H
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	2 @ 16 AWG, A PH
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3535LC
Mounting Arrangement	F2
Number of Poles	4
Overall Length	14.17 IN
Power Factor	99
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	C-Face
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	0.875 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	1740 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	Manual Thermal Overload
Winding Thermal 1 Location	KO
Winding Thermal 2	None

**Nameplate**

<b>NP1280L</b>									
<b>CAT.NO.</b>	VFDL3516TM								
<b>SPEC.</b>	35E3081N499G1								
<b>HP</b>	2								
<b>VOLTS</b>	230								
<b>AMP</b>	7.9								
<b>RPM</b>	1740								
<b>FRAME</b>	145TC	<b>HZ</b>	60	<b>PH</b>	1				
<b>SER.F.</b>	1.15	<b>CODE</b>	H	<b>DES</b>	L	<b>CL</b>	F		
<b>NEMA-NOM-EFF</b>	82.5	<b>PF</b>	99						
<b>RATING</b>	40C AMB-CONT								
<b>CC</b>									
<b>DE</b>	6205	<b>ODE</b>	6203						
<b>ENCL</b>	TEFC	<b>SN</b>							

## Parts list

Part number	Description	Quantity
SA295634	SA 35E3081N499G1	1.000 ea
RA281694	RA 35E3081N499G1	1.000 ea
OC3030F11SP	CAPACITOR 30 MFD 370 VAC	1.000 ea
TPCRD4778	THERMAL 1PH 1.00 MAN 105C,WELD TERMINALS	1.000 ea
EC1216C06SP	ELEC CAP, 216-259 MFD, 250V, 2.06D X 4.	1.000 ea
NS2512A01	INSULATOR, CONDUIT BOX X	1.000 ea
35CB3009A25	35 CB 1.09 DIA @ 6:00, 1.00 MTO @ 9:00	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
RM1014A01SP	BUTYL RUB.THRM COV. (MENA)	1.000 ea
NS2500A02	INSULATOR, MAN THER PROT	1.000 ea
HA6015A11	EARED 1" THERMAL RETAINER (PLATED)	1.000 ea
51XB1214A10	12-14 X 5/8HX WS SL SR TYBX	2.000 ea
11XW1032G06	10-32 X .38, TAPTITE II, HEX WSHR SLTD U	1.000 ea
51XW0832A07	8-32 X .44, TAPTITE II, HEX WSHR SLTD SE	2.000 ea
35EP3122K00	MASTER ODE,203 BRG,.683SH,#26 DRN,FH MTG	1.000 ea
35CB3801	CAPACITOR COVER, CAST	1.000 ea
34GS3002	GASKET, CAPACITOR BOX	1.000 ea
HA7010	CAPACITOR RETENTION CLAMP	1.000 ea
NS2501A02	INSULATOR, CAPACITOR BOX	1.000 ea
51XB1016A08	10-16X 1/2HXWSSLD SERTYB	2.000 ea
HW5100A03	WAVY WASHER (W1543-017)	1.000 ea
35EP3307A00	MASTER DE,205 BRG,1.623SH,#26 DRN	1.000 ea
HW4600H11	SEAL 0.938 X 1.624 X 0.250 SINGLE LIP DB	1.000 ea
HW4600B46	V-RING SLINGER 0.875 X 1.420 X .24 VITON	1.000 ea
51XN1032A20	10-32 X 1 1/4 HX WS SL SR	2.000 ea
35FH4005A32SP	IEC FH NO GRSR W/3 HOLES - PRIMED	1.000 ea
51XW1032A06	10-32 X .38, TAPTITE II, HEX WSHR SLTD S	3.000 ea
51XB1214A16	12-14X1.00 HXWSSLD SERTYB	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

HW2501D13	KEY, 3/16 SQ X 1.375	1.000 ea
HA7000A01	KEY RETAINER 7/8" DIA SHAFT	1.000 ea
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 ea
LB1087	LABEL,MANUAL RESET (ROLL LABEL)	1.000 ea
MJ5001A27	32220KN GRAY SEALER *MIN BUY 4 QTS=1GAL	0.001 qt
WD1000A15	3-520132-2 AMP FLAG (4M/RL NON-CANC/NON-	4.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.050 lb
MG1025C02	WILKOFASG, 787.105, TAN	0.017 ga
35FN3002A05SP	EXFN, PLASTIC, 6.376 OD, .638 ID	1.000 ea
HA3100A38	THRUBOLT 10-32 X 9.375	4.000 ea
TP5059	GENERIC WELDED THERMAL, 7" LEAD KIT	1.000 ea
SP5181A02	MODEL 35 LC TORQ STAT SWITCH LEAD ASSY	1.000 ea
LC0002	CONNECTION LABEL	1.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500bx)4/22	1.000 ea
NP1280L	ALUM FARM DUTY UL CC THERMAL	1.000 ea
36PA1000	PKG GRP, PRINT PK1016A06	1.000 ea
PK3082	STYROFOAM CRADLE	1.000 ea
PE-0000002	ZRTG PE ASSEMBLY	1.000 ea
FE-0000001	ZRTG FE ASSEMBLY	1.000 ea

**AC Induction Motor Performance Data**

Record # 41679

Typical performance - not guaranteed values

<b>Winding: 35WGN499-R001</b>		<b>Type: 3535LC</b>		<b>Enclosure: TEFC</b>	
<b>Nameplate Data</b>			<b>230 V, 60 Hz: Single Voltage Motor</b>		
<b>Rated Output (HP)</b>	2	<b>Full Load Torque</b>	6.04 LB-FT		
<b>Volts</b>	230	<b>Start Configuration</b>	direct on line		
<b>Full Load Amps</b>	7.9	<b>Breakdown Torque</b>	13.1 LB-FT		
<b>R.P.M.</b>	1740	<b>Pull-up Torque</b>	12.2 LB-FT		
<b>Hz</b>	60	<b>Phase</b>	1	<b>Locked-rotor Torque</b>	17.9 LB-FT
<b>NEMA Design Code</b>	L	<b>KVA Code</b>	H	<b>Starting Current</b>	58.5 A
<b>Service Factor (S.F.)</b>	1.15	<b>No-load Current</b>	1.22 A		
<b>NEMA Nom. Eff.</b>	82.5	<b>Power Factor</b>	99	<b>Line-line Res. @ 25°C</b>	1.5935 Ω A Ph 3.2782 Ω B Ph
<b>Rating - Duty</b>	40C AMB-CONT		<b>Temp. Rise @ Rated Load</b>	75°C	
<b>S.F. Amps</b>			<b>Temp. Rise @ S.F. Load</b>	93°C	

**Load Characteristics 230 V, 60 Hz, 2 HP**

<b>% of Rated Load</b>	<b>25</b>	<b>50</b>	<b>75</b>	<b>100</b>	<b>125</b>	<b>150</b>	<b>S.F.</b>
<b>Power Factor</b>	99	100	100	99	99	98	99
<b>Efficiency</b>	61.1	77.4	82.1	83.1	81.2	77.3	82
<b>Speed</b>	1786.6	1773.4	1758.2	1739.3	1717.4	1687	1726
<b>Line amperes</b>	2.65	4.18	5.92	7.87	10.1	12.8	9.21

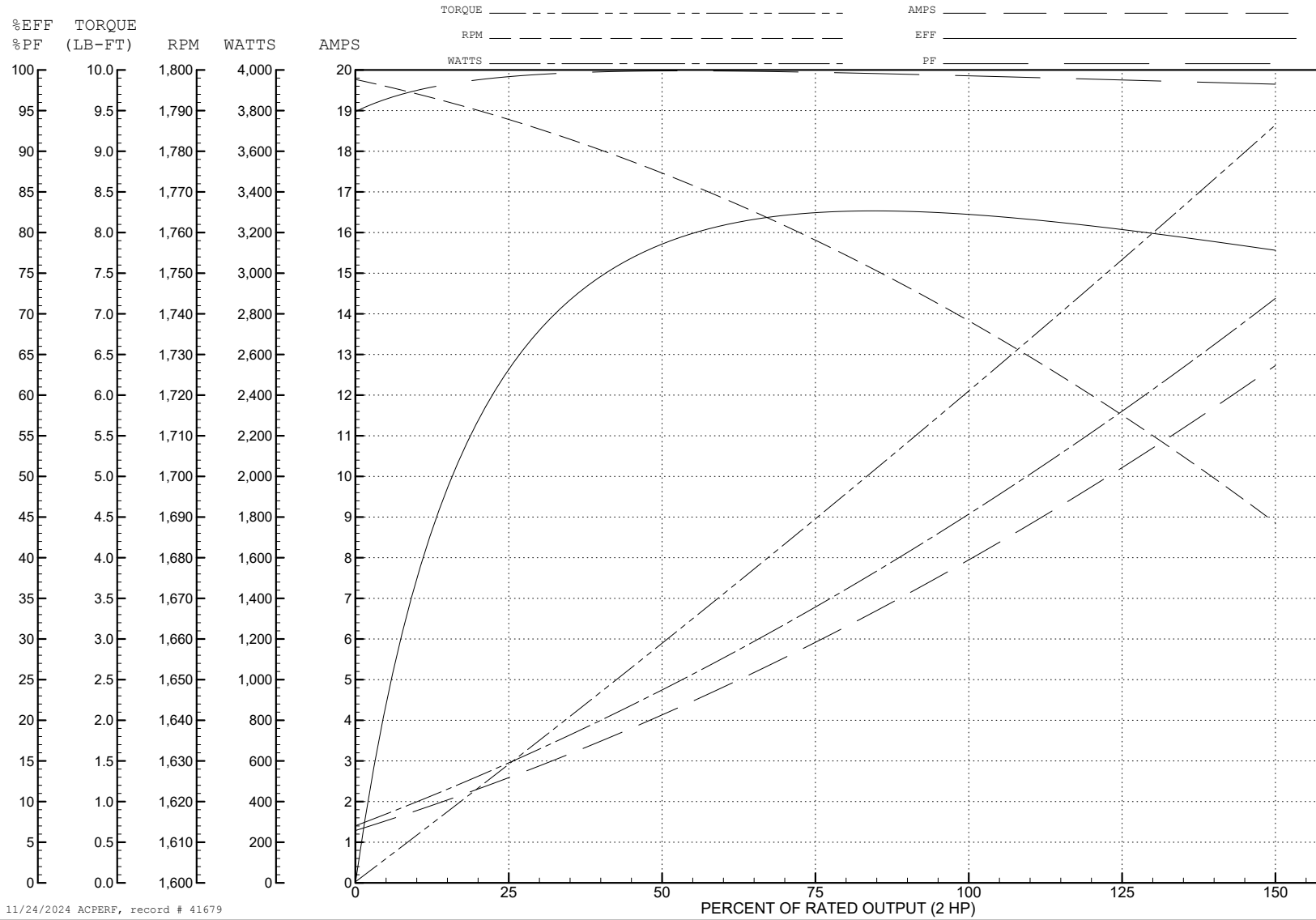
ABB Motors and Mechanical Inc.

WINDING # 35WGN499

Typical performance - not guaranteed values.

2 HP 1 PH 60 HZ 1740 RPM 230 V 3535LC

TORQUES (LB-FT): PO=13.1 PU=12.2 LR=17.9 LRA=58.5



11/24/2024 ACPERF, record # 41679



**AC Induction Motor Performance Data**

Record # 42038

Typical performance - not guaranteed values

Winding: 35WGN499-R001		Type: 3535LC	Enclosure: TEFC	
<b>Nameplate Data</b>			<b>208 V, 60 Hz: Single Voltage Motor</b>	
Rated Output (HP)	2	Full Load Torque	6.09 LB-FT	
Volts	230	Start Configuration	direct on line	
Full Load Amps	7.9	Breakdown Torque	10.7 LB-FT	
R.P.M.	1740	Pull-up Torque	10 LB-FT	
Hz	60 Phase	1	Locked-rotor Torque	14.6 LB-FT
NEMA Design Code	L KVA Code	H	Starting Current	52.8 A
Service Factor (S.F.)		1	No-load Current	1.25 A
NEMA Nom. Eff.	82.5 Power Factor	99	Line-line Res. @ 25°C	1.62 Ω A Ph 3.25 Ω B Ph
Rating - Duty		40C AMB-CONT	Temp. Rise @ Rated Load	90°C

**Load Characteristics 208 V, 60 Hz, 2 HP**

% of Rated Load	25	50	75	100	125	150
Power Factor	98	100	100	99	98	96
Efficiency	66	80.6	83.2	82.8	79.4	73
Speed	1784	1768	1749	1726	1696	1650
Line amperes	2.75	4.46	6.44	8.73	11.5	15.3

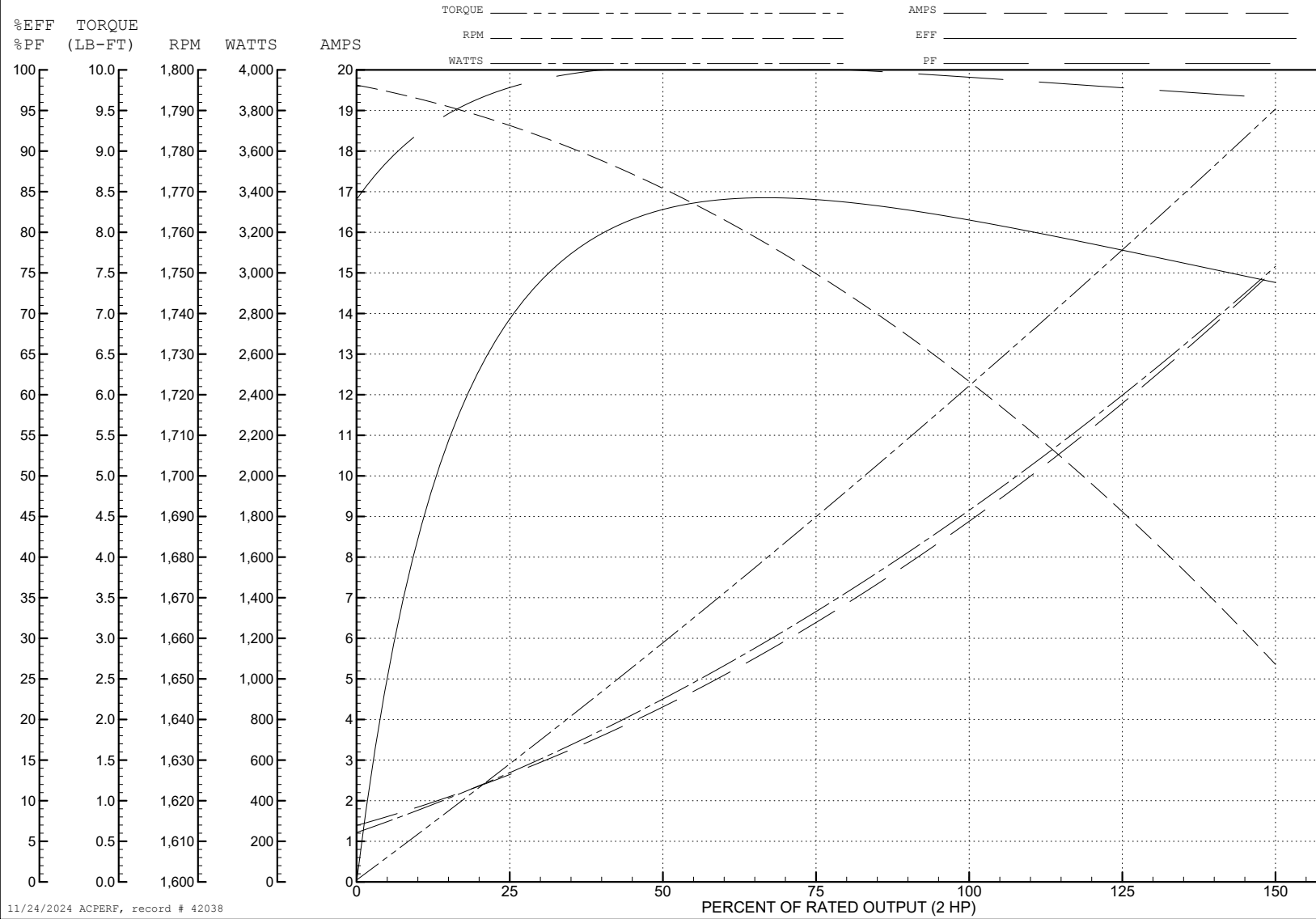
ABB Motors and Mechanical Inc.

WINDING # 35WGN499

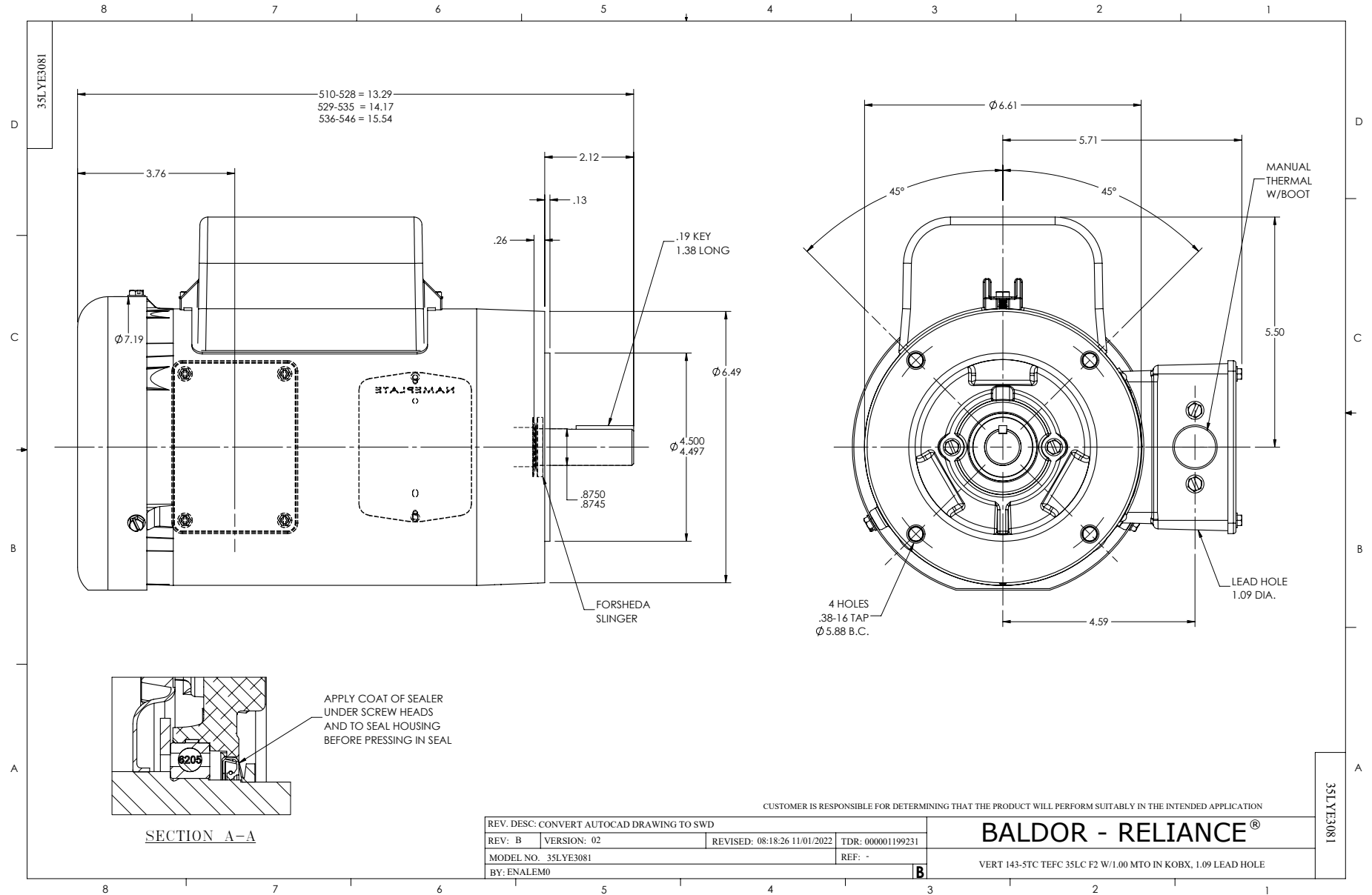
Typical performance - not guaranteed values.

2 HP 1 PH 60 HZ 1740 RPM 208 V 3535LC

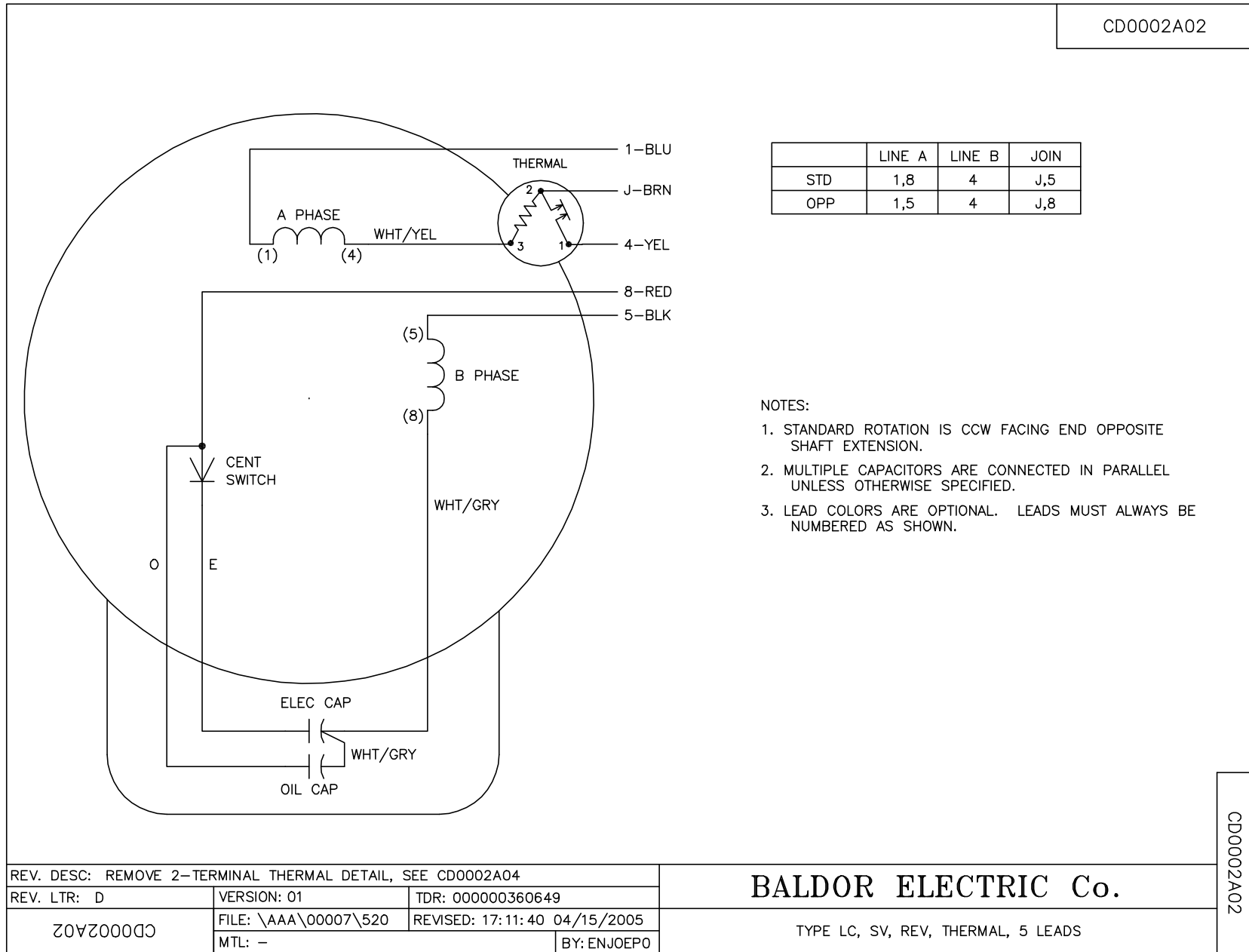
TORQUES (LB-FT): PO=10.7 PU=10 LR=14.6 LRA=52.8



11/24/2024 ACPERF, record # 42038



CD0002A02



	LINE A	LINE B	JOIN
STD	1,8	4	J,5
OPP	1,5	4	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 CD0002A04		
REV. LTR: D	VERSION: 01	TDR: 000000360649
CD0002A02	FILE: \AAA\00007\520	REVISED: 17:11:40 04/15/2005
	MTL: -	BY: ENJOEPO

**BALDOR ELECTRIC Co.**

TYPE LC, SV, REV, THERMAL, 5 LEADS

CD0002A02