

BALDOR® • RELIANCE 

Product Information Packet

VFD FL3516TM

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

Part Detail							
Revision:	C	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Elec. Spec:	35WGN499	CD Diagram:	CD0002A02	Mfg Plant:	
Mech. Spec:	35E3081	Layout:	35LYE3081	Poles:	04	Created Date:	03-09-2015
Base:	N	Eff. Date:	03-16-2018	Leads:	2#16 A PH,3#18 B%J		

Specs			
Catalog Number:	VFDFL3516TM	Inverter Code:	Not Inverter
Enclosure:	TEFC	KVA Code:	H
Frame:	145TC	Lifting Lugs:	No Lifting Lugs
Frame Material:	Steel	Locked Bearing Indicator:	Locked Bearing
Output @ Frequency:	2.000 HP @ 60 HZ	Motor Lead Quantity/Wire Size:	2 @ 16 AWG, A PH
Synchronous Speed @ Frequency:	1800 RPM @ 60 HZ	Motor Lead Exit:	Ko Box
Voltage @ Frequency:	230.0 V @ 60 HZ	Motor Lead Termination:	Flying Leads
XP Class and Group:	None	Motor Type:	3535LC
XP Division:	Not Applicable	Mounting Arrangement:	F2
Agency Approvals:	CSA	Power Factor:	99
	UR	Product Family:	General Purpose
Auxillary Box:	No Auxillary Box	Pulley End Bearing Type:	Ball
Auxillary Box Lead Termination:	None	Pulley Face Code:	C-Face
Base Indicator:	No Mounting	Pulley Shaft Indicator:	Standard
Bearing Grease Type:	Polyrex EM (-20F +300F)	Rodent Screen:	None
Blower:	None	Shaft Extension Location:	Pulley End
Current @ Voltage:	7.900 A @ 230.0 V	Shaft Ground Indicator:	No Shaft Grounding
	8.900 A @ 208.0 V	Shaft Rotation:	Reversible

Design Code:	L	Shaft Slinger Indicator:	Shaft Slinger
Drip Cover:	No Drip Cover	Speed Code:	Single Speed
Duty Rating:	CONT	Motor Standards:	NEMA
Electrically Isolated Bearing:	Not Electrically Isolated	Starting Method:	Direct on line
Feedback Device:	NO FEEDBACK	Thermal Device - Bearing:	None
Front Face Code:	Standard	Thermal Device - Winding:	None
Front Shaft Indicator:	None	Vibration Sensor Indicator:	No Vibration Sensor
Heater Indicator:	No Heater	Winding Thermal 1:	Manual Thermal Overload
Insulation Class:	F	Winding Thermal 1 Location:	KO
		Winding Thermal 2:	None

Nameplate NP1280L										
CAT.NO.	VFDFL3516TM									
SPEC.	35E3081N499G1									
HP	2									
VOLTS	230									
AMP	7.9									
RPM	1740									
FRAME	145TC			HZ	60			PH	1	
SER.F.	1.15			CODE	H		DES	L	CL	F
NEMA-NOM-EFF	82.5			PF	99					
RATING	40C AMB-CONT									
CC							USABLE AT 208V	8.9		
DE	6205			ODE	6203					
ENCL	TEFC			SN						

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
HW4600B49	SEAL 0.938 X 1.624 X 0.250 SINGLE LIP DB	1.000 EA

Parts List (continued)		
Part Number	Description	Quantity
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 (USe 4824-15A)	0.050 LB
MG1025C02	WILKOFASST SG, 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 THERMAL KIT	1.000 EA
SP5181A02	MODEL 35 LC TORQ STAT SWITCH LEAD ASSY	1.000 EA
LC0002	CONNECTION LABEL	1.000 EA
LB1119N	WARNING LABEL	1.000 EA
MN416A01	TAG-INSTAL-MAINT no wire (1200/bx) 5/18	1.000 EA
NP1280L	ALUM FARM DUTY UL CSA 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

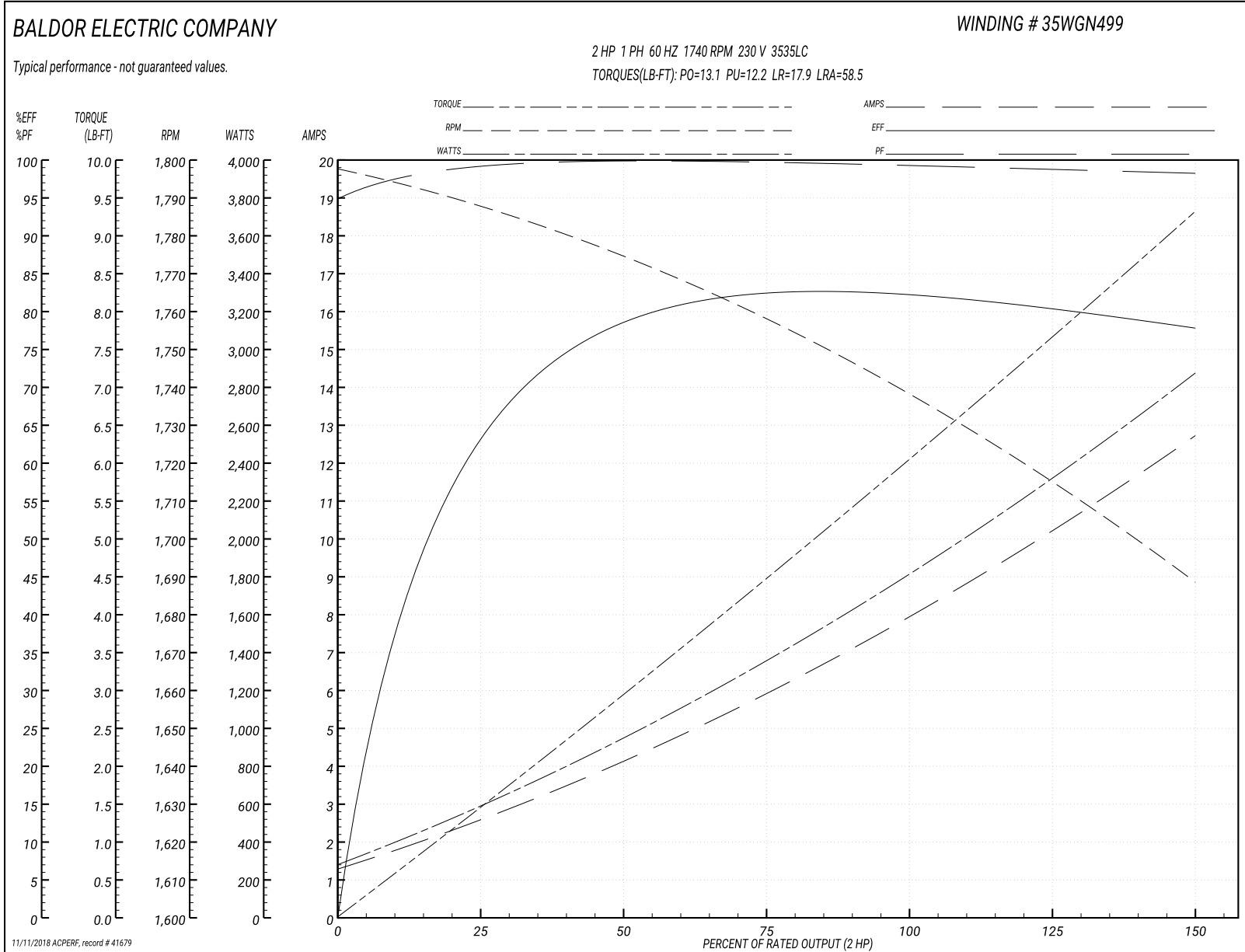
Winding: 35WGN499-R001	Type: 3535LC	Enclosure: TEFC
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Nameplate Data				230 V, 60 Hz: Single Voltage Motor	
Rated Output (HP)	2			Full Load Torque	6.04 LB-FT
Volts	230			Start Configuration	direct on line
Full Load Amps	7.9			Breakdown Torque	13.1 LB-FT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

Load Characteristics 230 V, 60 Hz, 2 HP

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

Performance Graph at 230V, 60Hz, 2.0HP Typical performance - Not guaranteed values



AC Induction Motor Performance Data

Record # 42038 - Typical performance - not guaranteed values

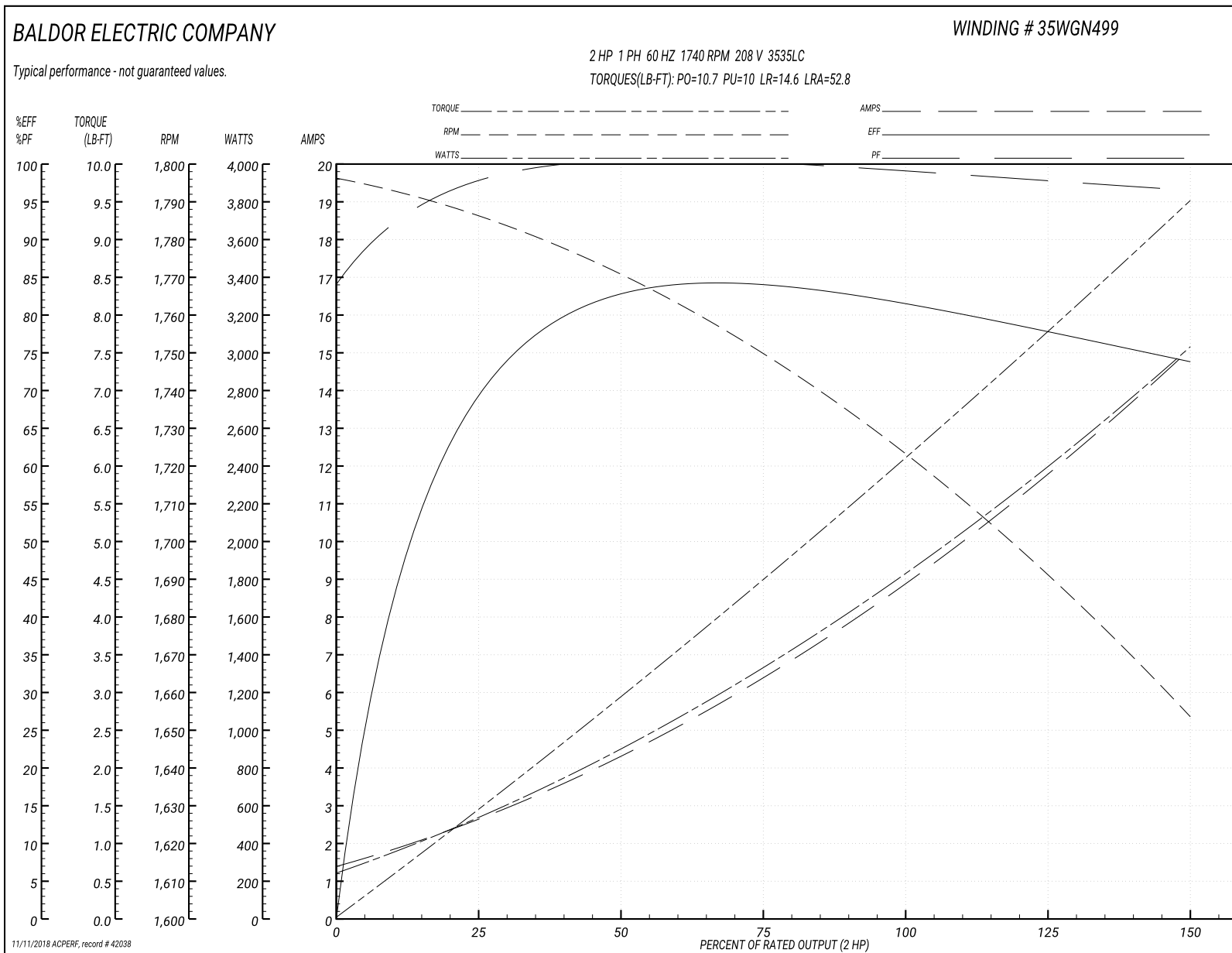
Winding: 35WGN499-R001	Type: 3535LC	Enclosure: TEFC
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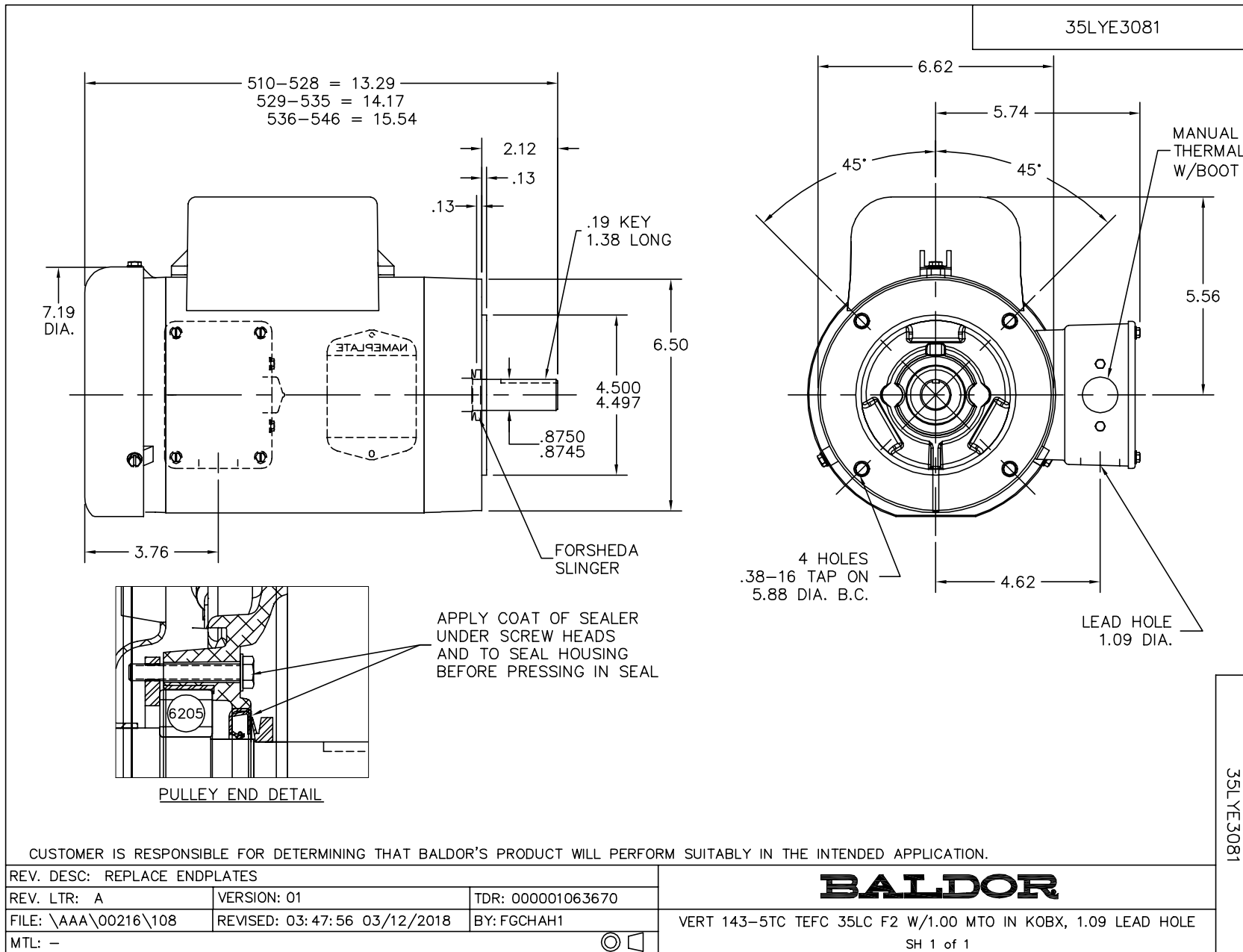
Nameplate Data				208 V, 60 Hz: Single Voltage Motor	
Rated Output (HP)	2			Full Load Torque	6.09 LB-FT
Volts	230			Start Configuration	direct on line
Full Load Amps	7.9			Breakdown Torque	10.7 LB-FT
R.P.M.	1740			Pull-up Torque	10 LB-FT
Hz	60	Phase	1	Locked-rotor Torque	14.6 LB-FT
NEMA Design Code	L	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

Performance Graph at 208V, 60Hz, 2.0HP Typical performance - Not guaranteed values





CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION.

REV. DESC: REPLACE ENDPLATES		
REV. LTR: A	VERSION: 01	TDR: 000001063670
FILE: \AAA\00216\108	REVISED: 03:47:56 03/12/2018	BY: FGCHAH1
MTL: -	⊙ ⊐	

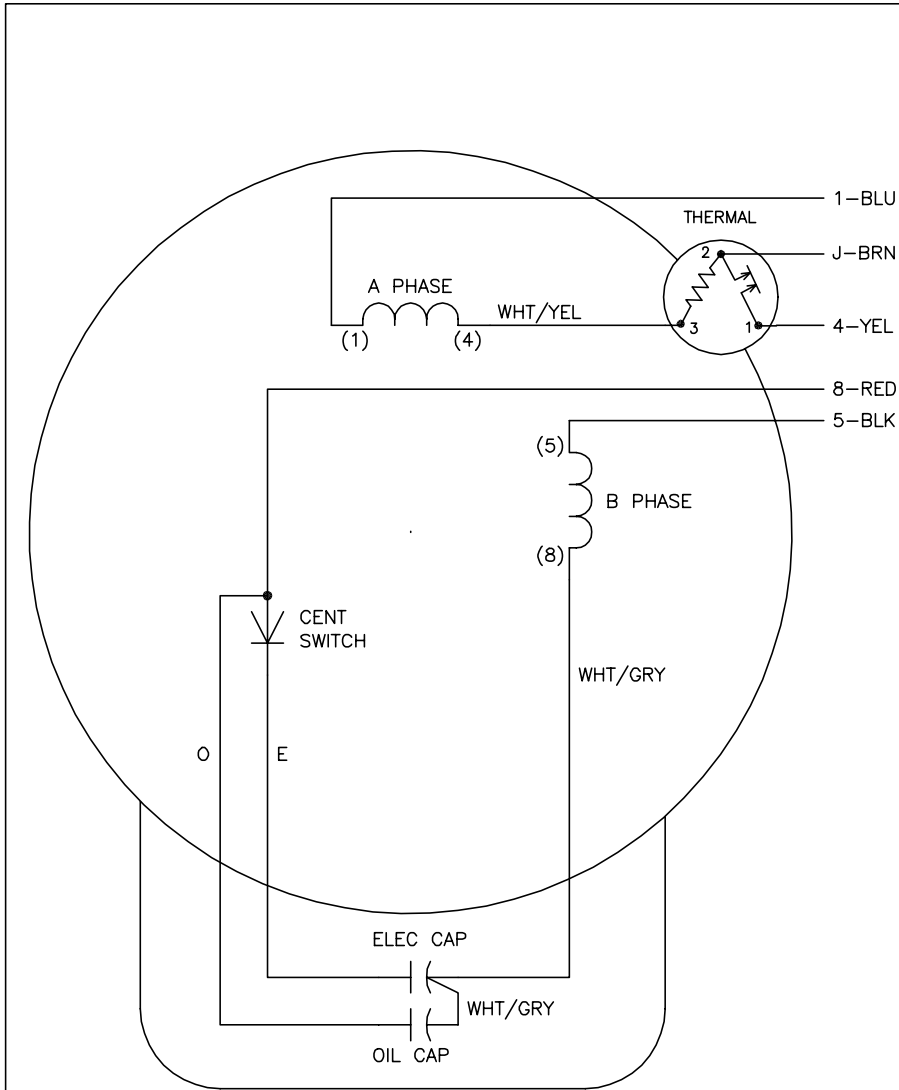
BALDOR

VERT 143-5TC TEFC 35LC F2 W/1.00 MTO IN KOBX, 1.09 LEAD HOLE

SH 1 of 1

35LYE3081

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
Z0VZ00000 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