ABB BALDOR RELIANCE

Customer information packet

VL3509

1HP, 3450RPM, 1PH, 60HZ, 56C, 3520L, TEFC, F1
Class - None
Division - Not Applicable

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Specifications

Enclosure	TEFC
Frame	56C
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	C UR US
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	11.800 A @ 115.0 V
	5.900 A @ 230.0 V
	6.100 A @ 208.0 V
Design Code	N
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	68.0 %
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	5.9 a

Part Detail

Revision	AS
Type	AC
Mech. spec.	35C013
Base	
Status	PRD/A
Elec. spec.	35WGX964
Layout	35LYC013
Eff. date	12-17-2024
CD Diagram	CD0001
Poles	02
Leads	4#16 A PH,2#18 B PH
Proprietary	False
Created date	06-21-2007

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 PH
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3520L
Mounting Arrangement	F1
Number of Poles	2
Overall Length	12.22 IN
Power Factor	82
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	C-Face
Pulley Shaft Indicator	Standard
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	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	None
Winding Thermal 2	None

Nameplate

NP1256L									
CAT.NO.	VL3509								
SPEC.	35C013X964								
HP	1								
VOLTS	115/230								
AMP	11.8/5.9								
RPM	3450								
FRAME	56C	**HZ**	60			**PH**	1		
SER.F.	1.25	**CODE**	K	**DES**	N	**CLASS**	B		
NEMA-NOM-EFF	68	**PF**	82						
RATING	40C AMB-CONT								
CC									
DE	6205	**ODE**	6203						
ENCL	TEFC	**SN**							
	SFA 14/7								

Parts List

Part number	Description	Quantity
SA040464	SA 35C013X964	1.000 ea
RA036350	RA 35C013X964	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
51XB1016A05	10-16X5/16HX WA SL SR TYB (F/S)	2.000 ea
HW5100A03	WAVY WASHER (W1543-017)	1.000 ea
35EP3307F00	MASTER DE,205 BRG,.998SH,#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
35FH4005A32	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
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
HA7000A04	KEY RETAINER 0.625 DIA SHAFTS	1.000 ea
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 ea
WD1000A16	2-520128-2 AMP FLAG TERMINAL(4M/RL)	2.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.050 lb
MG1050G01	CELEROL MEDIUM CHARCOAL METALLIC GRAY	0.017 ga
34FN3002A01SP	EXTERNAL FAN, PLASTIC, .637/.639 HUB W/	1.000 ea
SP5051A24	MODEL 35 TORQ STATIONARY SWITCH FOR "L"	1.000 ea
HA3100A12	THRUBOLT 10-32 X 7.375	4.000 ea
35CB4802A02SP	CAPACITOR COVER, STAMPED X	1.000 ea
35GS3001A02	GASKET, CA.COVER, 5.38 LONG .06 CS301	1.000 ea
LC0001A01	CONN LABEL / WARNING LABEL (LC0001 / LB1	1.000 ea

NP1256L	ALUM UL CC INDUSTRIAL MOTOR A60	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 # 10114
Typical performance - not guaranteed values

Winding: 35WGX964-R001	**Type:** 3520L	**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			11.8/5.9	**Breakdown Torque**	4.25 LB-FT
R.P.M.			3450	**Pull-up Torque**	3.5 LB-FT
Hz	60	**Phase**	1	**Locked-rotor Torque**	4.75 LB-FT
NEMA Design Code	N	**KVA Code**	K	**Starting Current**	38 A
Service Factor (S.F.)			1.25	**No-load Current**	3.2 A
NEMA Nom. Eff.	68	**Power Factor**	82	**Line-line Res. @ 25ºC**	2 Ω A Ph 1.77 Ω B Ph
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	72°C
S.F. Amps			14/7	**Temp. Rise @ S.F. Load**	90°C

Load Characteristics 230 V, 60 Hz, 1 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	47	64	72	80	84	86	84
Efficiency	50	61	67	68	67	64.5	67
Speed	3560	3525	3485	3450	3400	3340	3400
Line amperes	3.5	4.2	5	5.9	7	8.4	7

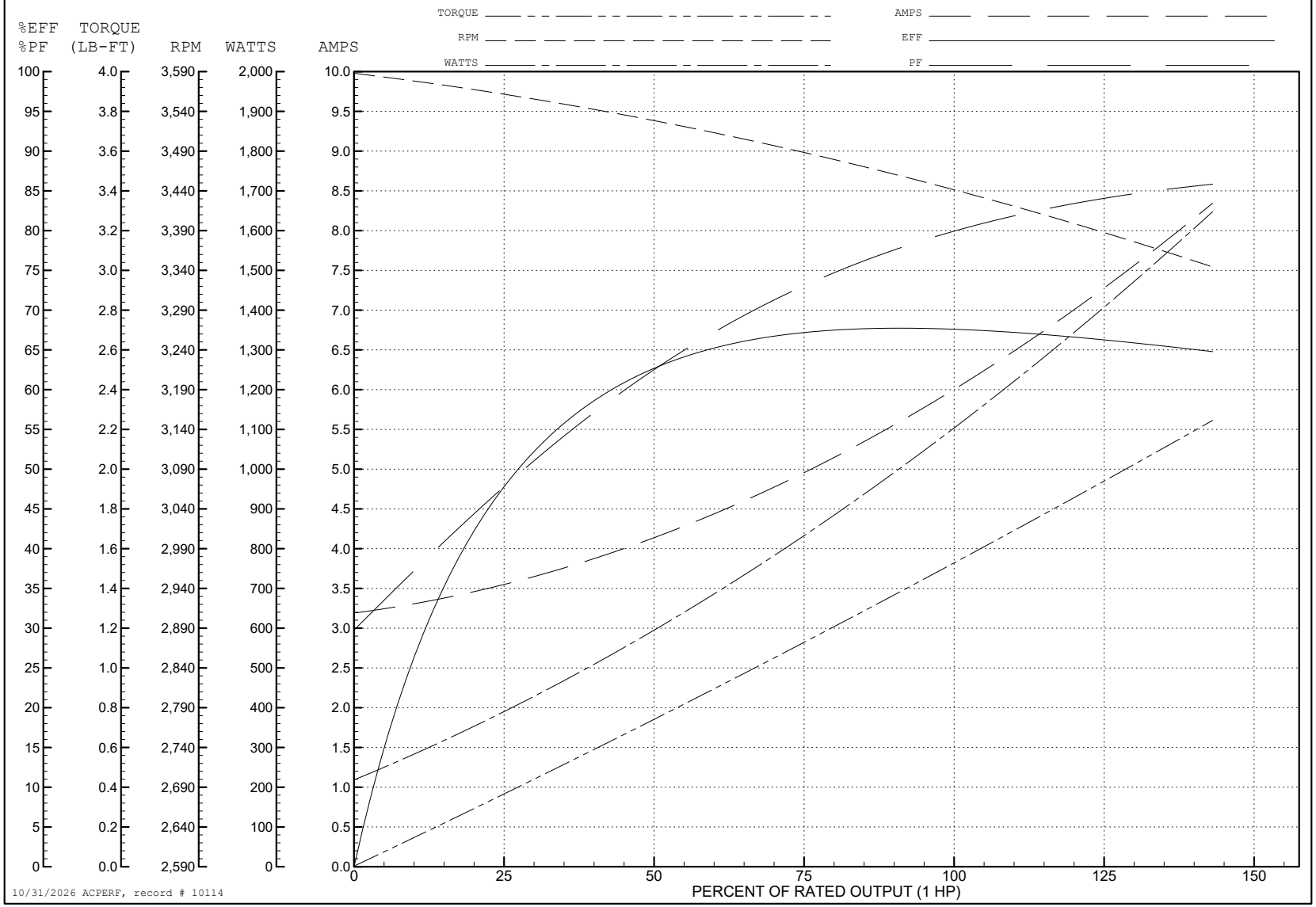
ABB Motors and Mechanical Inc.

WINDING # 35WGX964

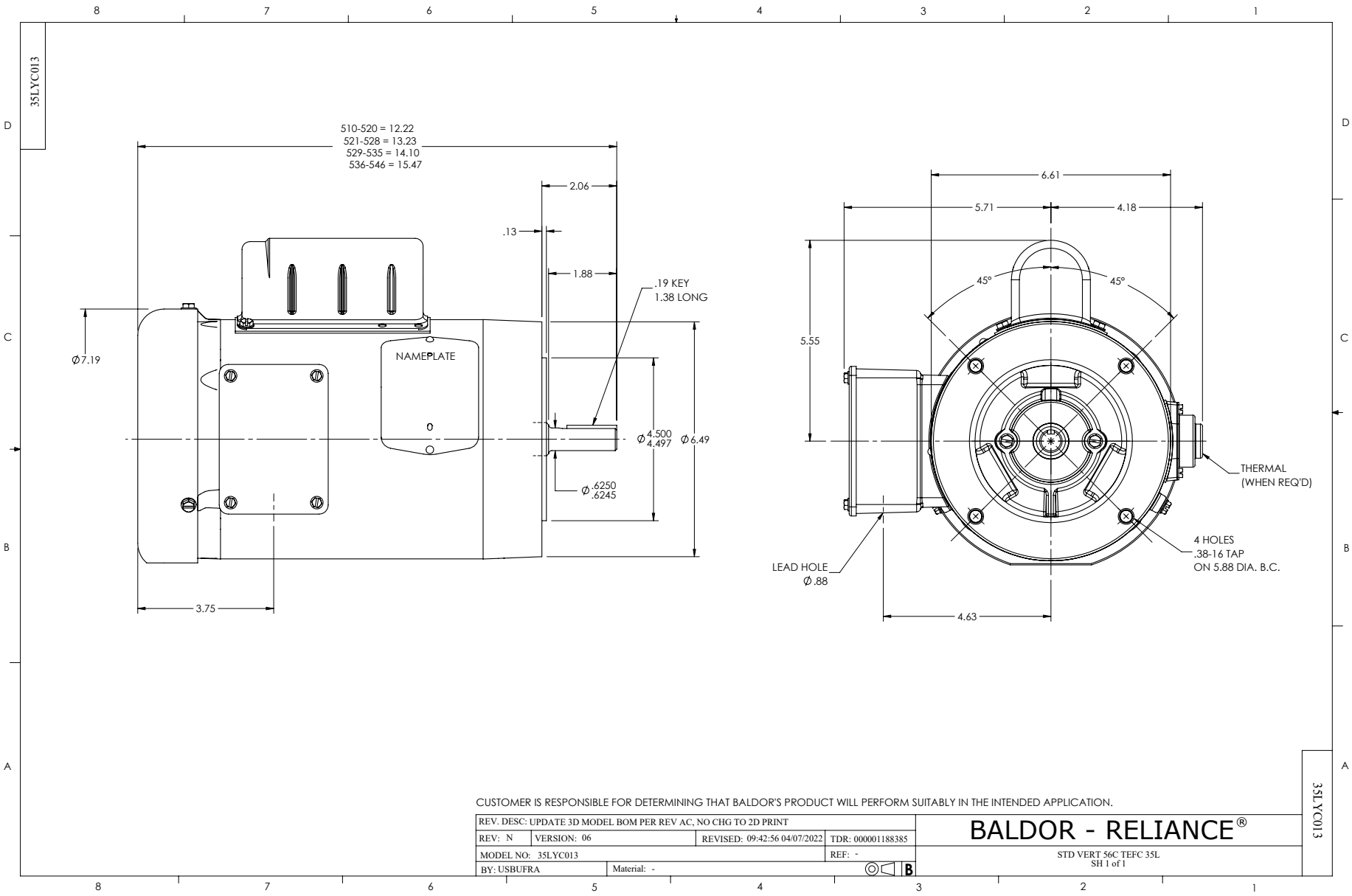
1 HP 1 PH 60 HZ 3450 RPM 230 V 3520L

Typical performance - not guaranteed values.

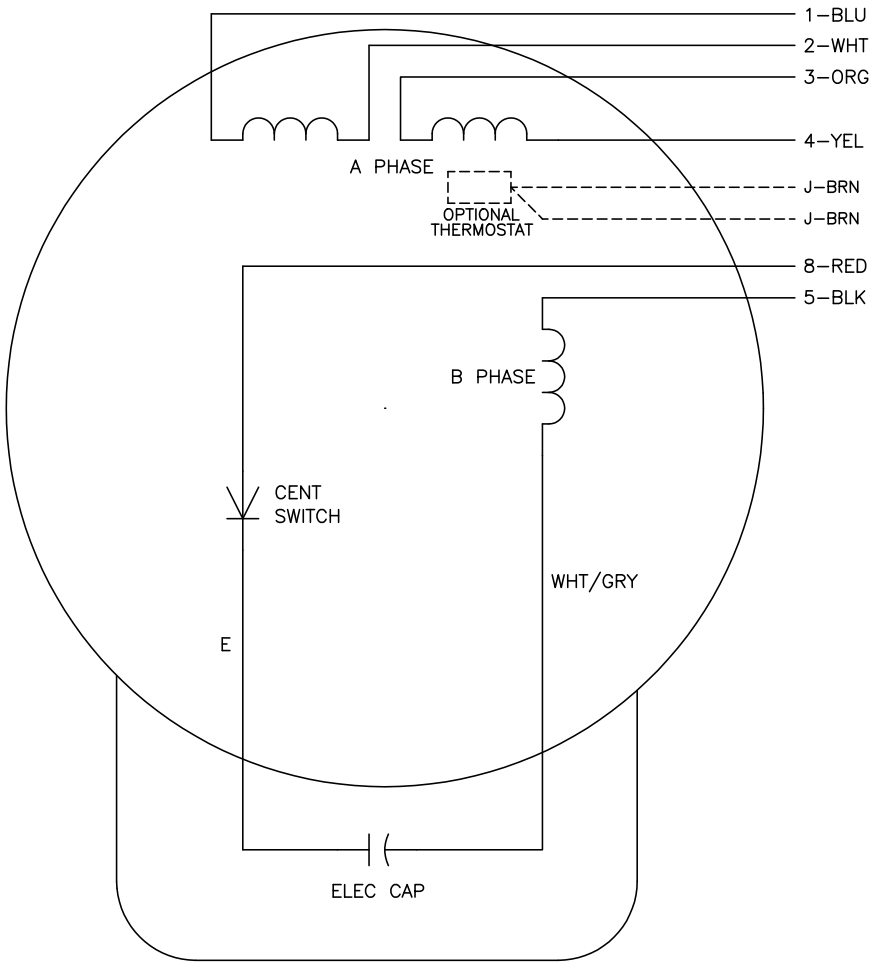
TORQUES(LB-FT): PO=4.25 PU=3.5 LR=4.75 LRA=38



10/31/2026 ACPERF, record # 10114


35LYC013
510-520 = 12.22
521-528 = 13.23
529-535 = 14.10
536-546 = 15.47
2.06
.13
1.88
.19 KEY
1.38 LONG
Ø7.19
NAMEPLATE
Ø4.500
4.497
Ø6.49
Ø.6250
.6245
3.75
6.61
5.71
4.18
45°
45°
5.55
THERMAL
(WHEN REQ'D)
4 HOLES
.38-16 TAP
ON 5.88 DIA. B.C.
LEAD HOLE
Ø.88
4.63
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION.
REV. DESC: UPDATE 3D MODEL BOM PER REV AC, NO CHG TO 2D PRINT
REV: N
VERSION: 06
REVISED: 09:42:56 04/07/2022
TDR: 000001188385
MODEL NO: 35LYC013
REF: -
BY: USBUFRA
Material: -
B
BALDOR - RELIANCE®
STD VERT 56C TEFC 35L
SH 1 of 1
35LYC013

CD0001



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

NOTES:

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

CD0001

REV. DESC: REVISE TO SHOW OPTIONAL COLORS			BALDOR ELECTRIC Co.
REV. LTR: D	BY: JLP	REVISED: 04/08/99 1:16	TDR: 0178636
CD0001		FILE: AAA00007405	MDL: –
		MTL: –	TYPE L, DV, REV, 6 LEADS

CD0001