

ABB BALDOR RELIANCE III

Customer information packet

VL3509A

1HP, 3450RPM, 1PH, 60HZ, 56C, 3524L, TEFC, F1

Class - None

Division - Not Applicable

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	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
Heater Indicator	No Heater
High Voltage Full Load Amps	6.0 a
Insulation Class	B

Part Detail

Revision	BQ
Type	AC
Mech. spec.	35C013
Base	
Status	PRD/A
Elec. spec.	35WG0498
Layout	35LYC013
Eff. date	01-12-2026
CD Diagram	CD0008
Poles	02
Leads	4#16 A&J,2#18 B PH,1#14 #4TH
Proprietary	False
Created date	06-21-2007

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	13.25 IN
Power Factor	81
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	Automatic Thermal Overload
Winding Thermal 1 Location	ES
Winding Thermal 2	None

Nameplate

NP1257L									
CAT.NO.	VL3509A								
SPEC.	35C13-498								
HP	1								
VOLTS	115/230								
AMP	12/6								
RPM	3450								
FRAME	56C		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
SA022568	SA 35C13-498	1.000 ea
RA018618	RA 35C13-498	1.000 ea
EC1645A06SP	ELEC CAP, 645-774 MFD, 125V, 2.06D X 4.	1.000 ea
TP5059	GENERIC WELDED THERMAL, 7" LEAD KIT	1.000 ea
WD1000A16	2-520128-2 AMP FLAG TERMINAL(4M/RL)	2.000 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 HWSSLD 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 HWSSLD 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
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
SP5051A24	MODEL 35 TORQ STATIONARY SWITCH FOR "L"	1.000 ea
HA3100A15	THRUBOLT 10-32 X 8.375	4.000 ea
LB1118	LABEL,WARNING (ROLL LABEL)	1.000 ea
35CB4802A02SP	CAPACITOR COVER, STAMPED X	1.000 ea

35GS3001A02	GASKET, CA.COVER, 5.38 LONG .06 CS301	1.000 ea
LC0008	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	
Service Factor (S.F.)		1.25	Starting Current		38.5 A	
NEMA Nom. Eff.		66	Power Factor		81	
Rating - Duty		40C	AMB-CONT		Temp. Rise @ Rated Load	
S.F. Amps		14.4/7.2	Temp. Rise @ S.F. Load		2.46 Ω A Ph 1.75 Ω B Ph	

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

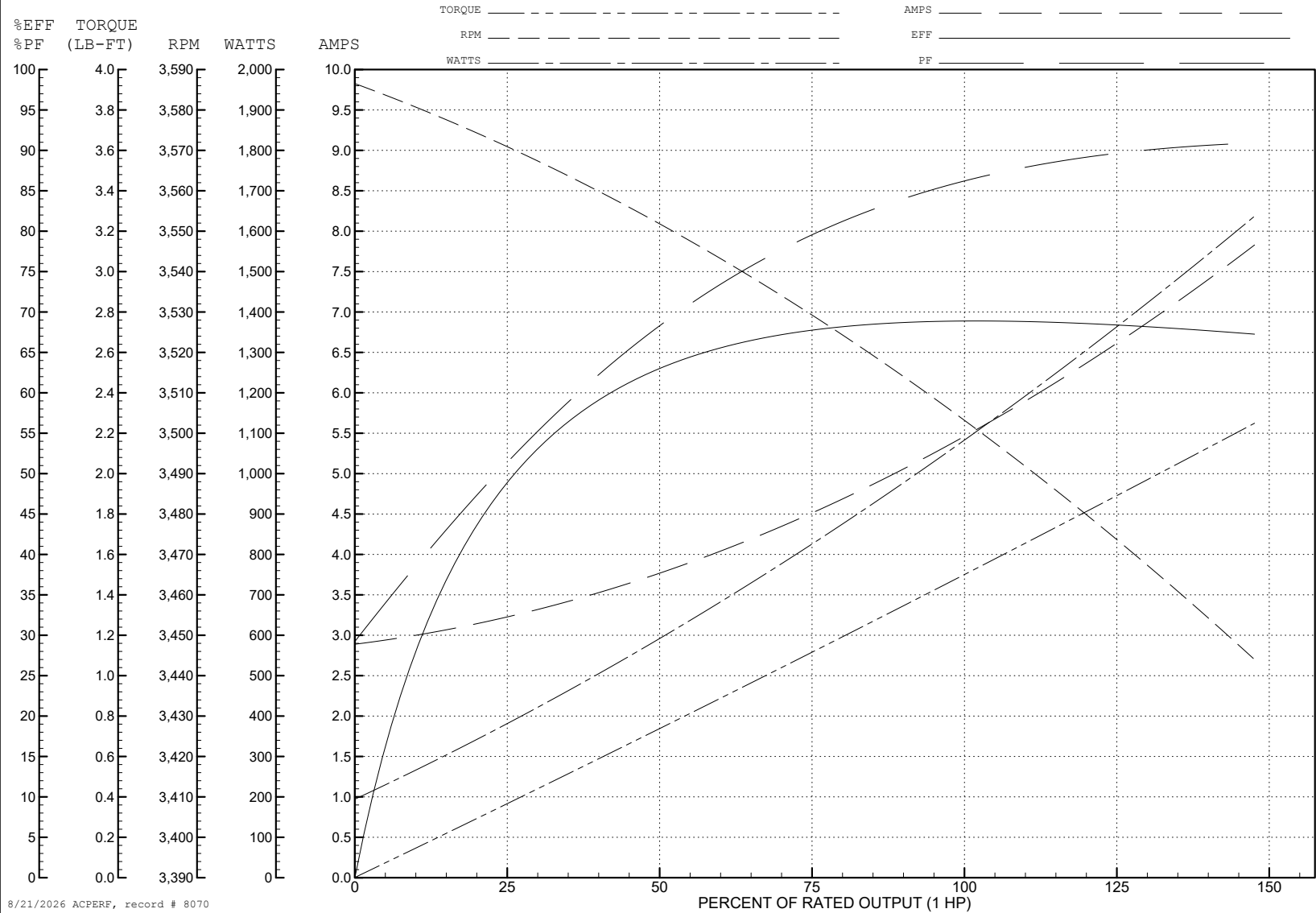
ABB Motors and Mechanical Inc.

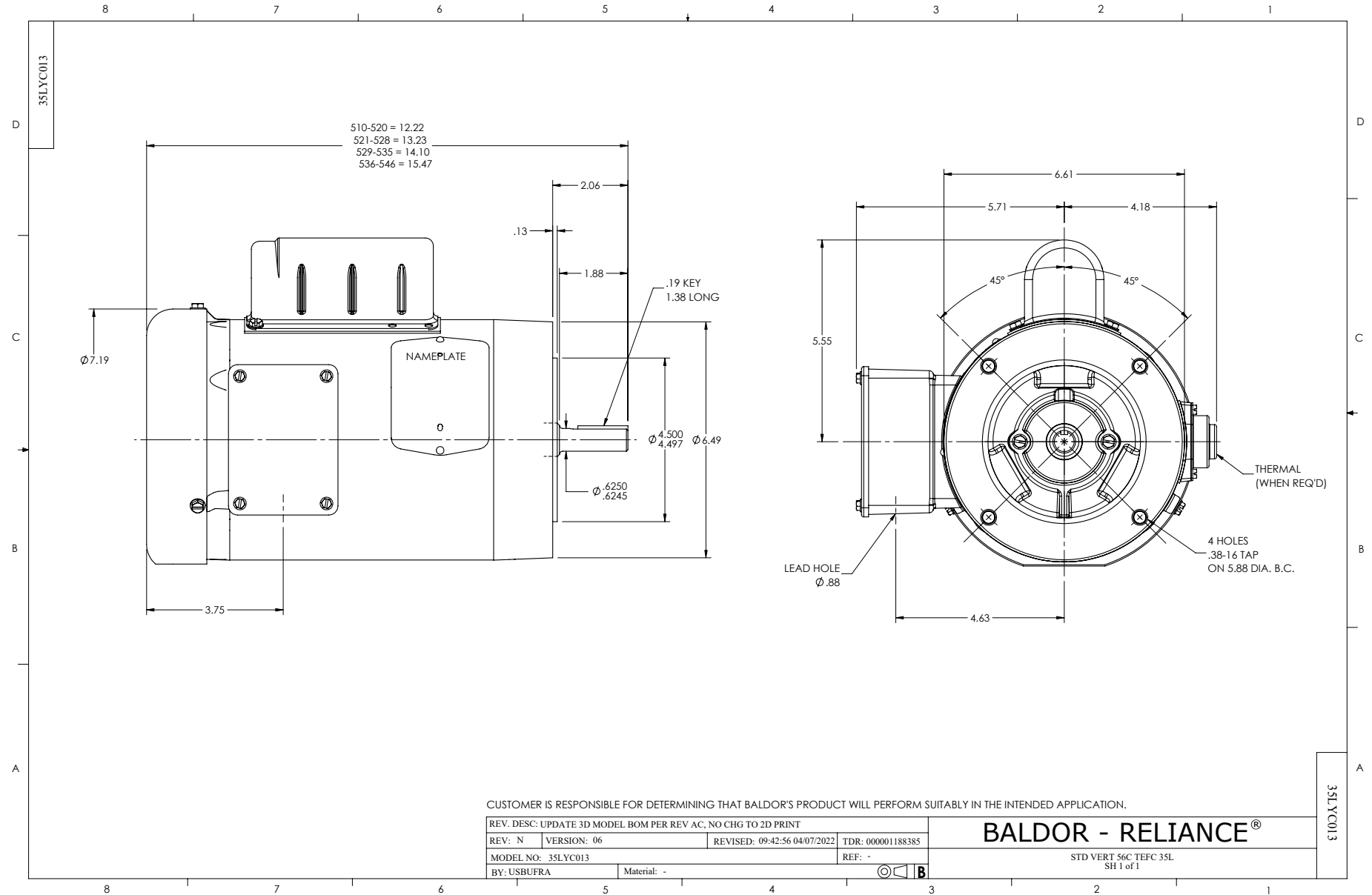
WINDING # 35WG0498

Typical performance - not guaranteed values.

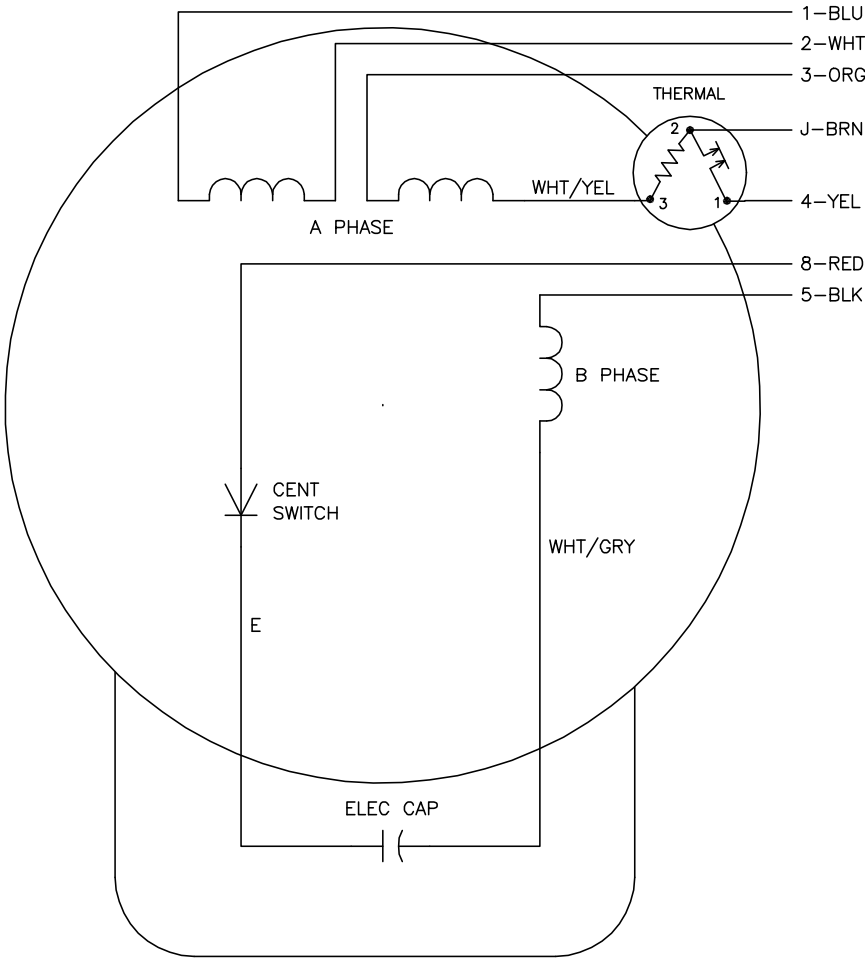
1 HP 1 PH 60 HZ 3450 RPM 230 V 3524L

TORQUES (LB-FT) : PO=4.1 PU=3.1 LR=5 LRA=38.5





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