ABB BALDOR RELIANCE

Customer information packet

VEM3538

.5HP, 1775RPM, 3PH, 60HZ, 56C, 3514M, 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	Three Phase
Output @ Frequency	.500 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ
	460.0 V @ 60 HZ
Agency Approvals	C UR US
	CE
	CSA
	UR
	WEEE
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	2.020 A @ 230.0 V
	1.010 A @ 460.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	81.5 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Shaft Indicator	None

Part Detail

Revision	E
Type	AC
Mech. spec.	35J302
Base	
Status	PRD/A
Elec. spec.	35WGG069
Layout	35LYJ302
Eff. date	05-27-2026
CD Diagram	CD0005
Poles	04
Leads	9#18
Proprietary	False
Created date	09-15-2023

Heater Indicator	No Heater
High Voltage Full Load Amps	1.0 a
Insulation Class	F
Inverter Code	Inverter Ready
KVA Code	N
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Quantity/Wire Size	9 @ 18 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3514M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	12.23 IN
Power Factor	63
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 Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	1775 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

NP2136L									
CAT.NO.	VEM3538								
SPEC.	35J302G069								
HP	.5/.37KW								
VOLTS	208-230/460								
AMP	2/1								
RPM	1775 1/min IP44 IC411 14KG								
FRAME	56C	**HZ**	60		**PH**	3			
SER.F.	1.25	**CODE**	N	**DES**	B	**CL**	F		
NEMA-NOM-EFF	77.3	**PF**	63						
RATING	40C AMB-S1 CONT								
CC				**USABLE AT 208V**			N/A		
DE	6205	**ODE**	6203						
ENCL	TEFC	**SN**							
	IE3-78.4(75%)72.5(50%)								

Parts List

Part number	Description	Quantity
SA418464	SA 35J302G069	1.000 ea
RA410367	RA 35J302G069	1.000 ea
34FN3002B01	EXTERNAL FAN, PLASTIC, .637/.639 HUB W/	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
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
MJ1000A02	GREASE, POLYREX EM EXXON	0.050 lb
MG1050Y01	CELEROL BALDOR GOLD *5 GALLON BUCKET*	0.017 ga
HA3100A12	THRUBOLT 10-32 X 7.375	4.000 ea
LC0005	CONN.DIA.,TY M,9-LD,DUAL VOLT,REVERSING	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
NP2136L	ALUM SUPER-E UL CSA CE CC	1.000 ea
36PA1000	PKG GRP, PRINT PK1016A08	1.000 ea
PK3082	STYROFOAM CRADLE	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 # 101707
Typical performance - not guaranteed values

Winding: 35WGG069-R098	**Type:** 3514M	**Enclosure:** TEFC

Nameplate Data			
Rated Output (HP)			.5
Volts			208-230/460
Full Load Amps			2/1
R.P.M.			1775
Hz	60	**Phase**	3
NEMA Design Code	B	**KVA Code**	N
Service Factor (S.F.)			1.25
NEMA Nom. Eff.	77.3	**Power Factor**	63
Rating - Duty			40C AMB-CONT
S.F. Amps			2.2/1.1

460 V, 60 Hz: High Voltage Connection	
Full Load Torque	1.48 LB-FT
Start Configuration	direct on line
Breakdown Torque	8 LB-FT
Pull-up Torque	4.4 LB-FT
Locked-rotor Torque	5.1 LB-FT
Starting Current	8.4 A
No-load Current	0.85 A
Line-line Res. @ 25ºC	30.3 Ω
Temp. Rise @ Rated Load	19°C
Temp. Rise @ S.F. Load	21°C
Locked-rotor Power Factor	66.8
Rotor inertia	0.101 lb-ft²

Load Characteristics 460 V, 60 Hz, 0.5 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	24	37	48	58	65	71	65
Efficiency	58.9	72.5	78.4	80.5	81.6	81.5	81.6
Speed	1793	1788	1782	1776	1771	1763	1771
Line amperes	0.85	0.89	0.94	1.01	1.11	1.21	1.11

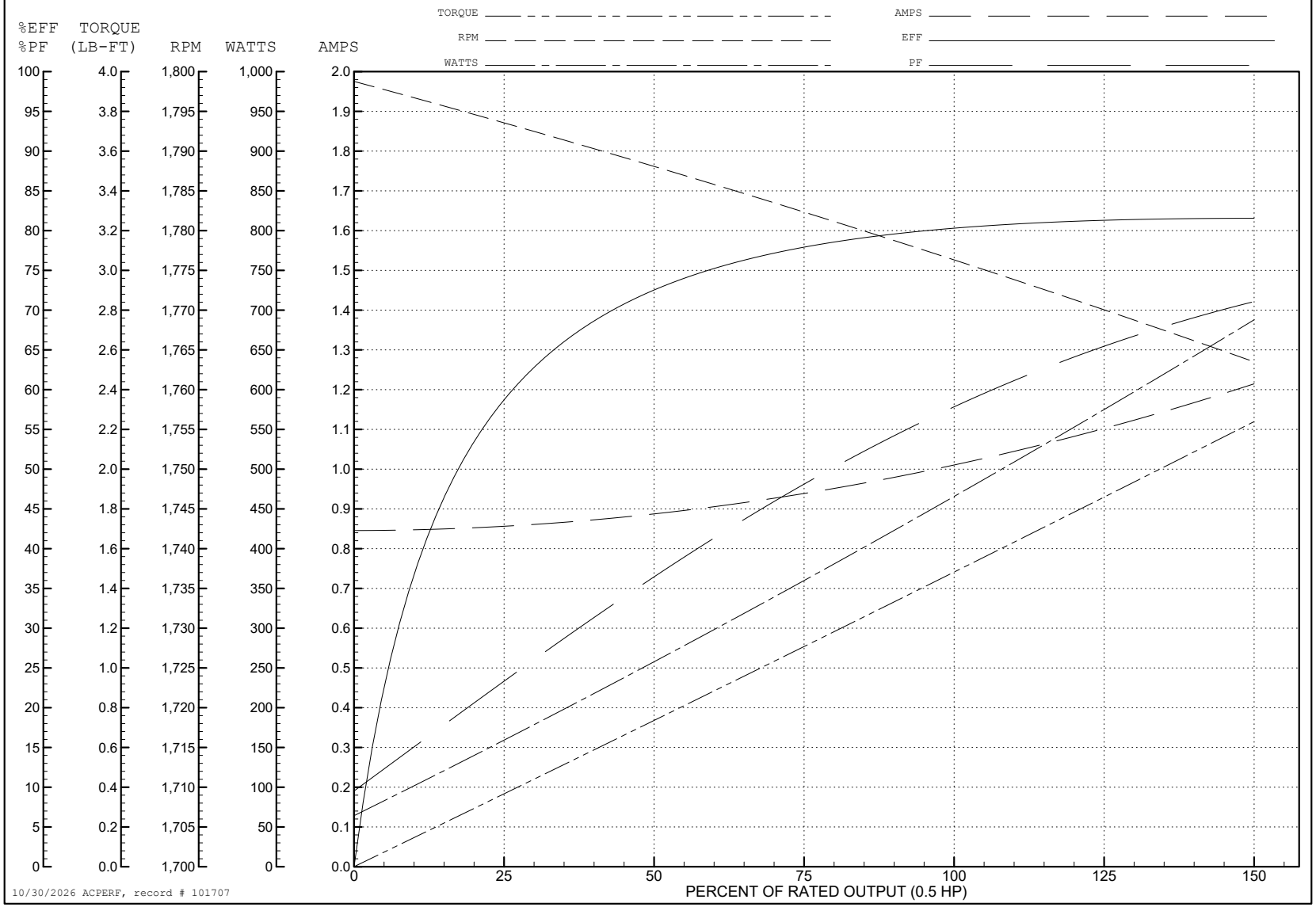
ABB Motors and Mechanical Inc.

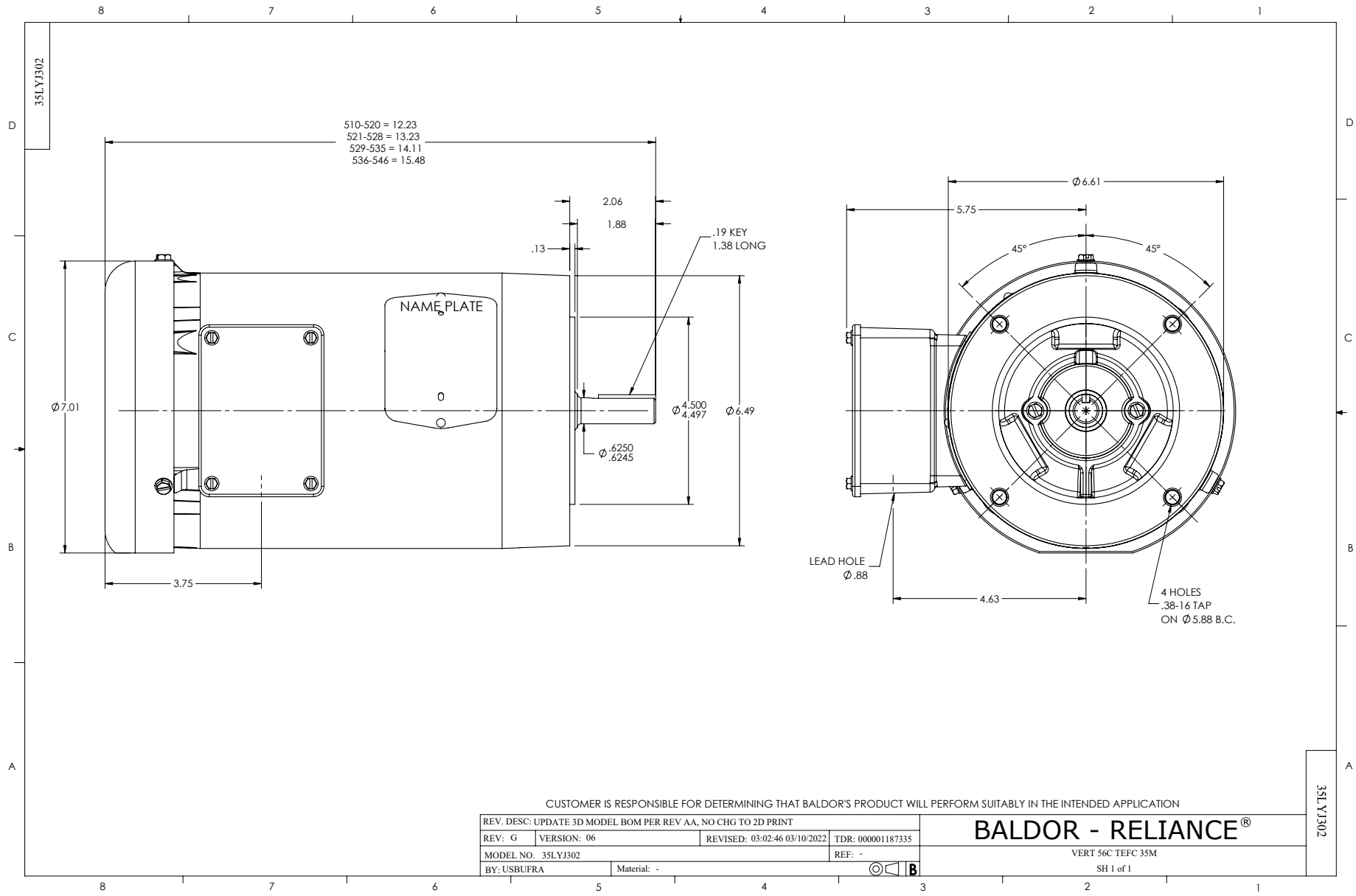
WINDING # 35WGG069

0.5 HP 3 PH 60 HZ 1775 RPM 460 V 3514M

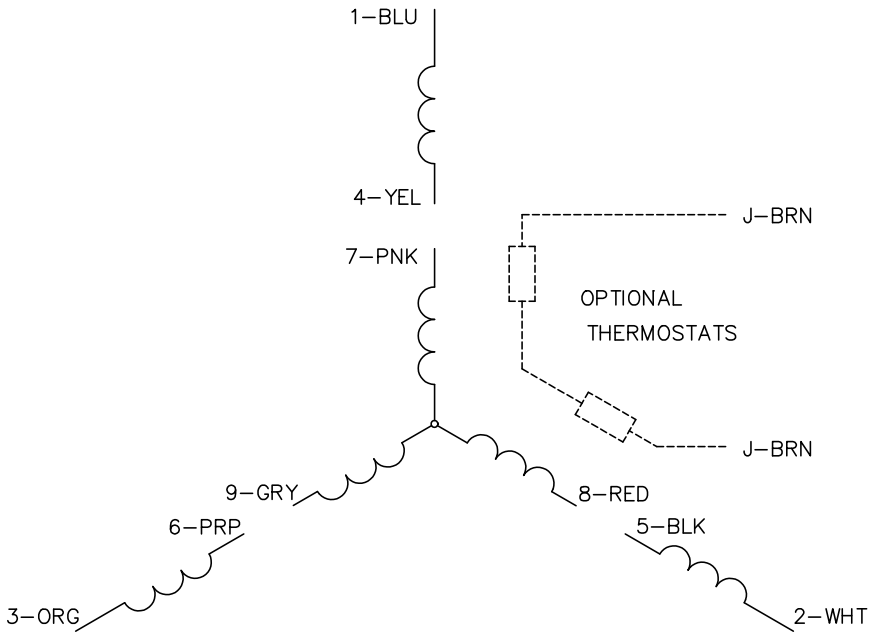
Typical performance - not guaranteed values.

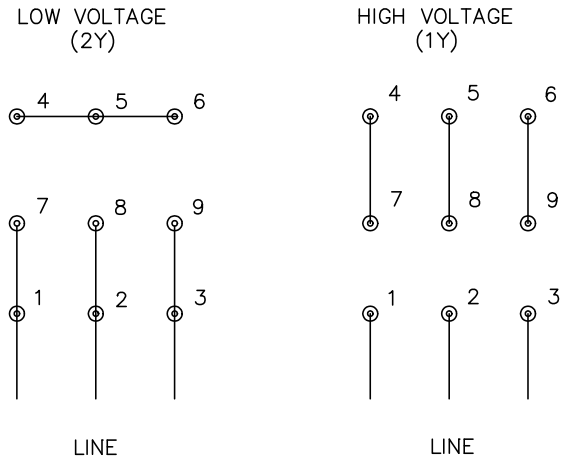
TORQUES(LB-FT): PO=8 PU=4.4 LR=5.1 LRA=8.4




35LYJ302
510-520 = 12.23
521-528 = 13.23
529-535 = 14.11
536-546 = 15.48
2.06
1.88
.13
.19 KEY
1.38 LONG
NAME PLATE
Ø7.01
Ø4.500
4.497
Ø6.49
Ø.6250
.6245
3.75
Ø6.61
5.75
45°
45°
LEAD HOLE
Ø.88
4.63
4 HOLES
.38-16 TAP
ON Ø5.88 B.C.
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: UPDATE 3D MODEL BOM PER REV AA, NO CHG TO 2D PRINT
REV: G
VERSION: 06
REVISED: 03:02:46 03/10/2022
TDR: 000001187335
MODEL NO. 35LYJ302
REF: -
BY: USBUFRA
Material: -
B
BALDOR - RELIANCE®
VERT 56C TEFC 35M
SH 1 of 1
35LYJ302

CD0005





NOTES:

1. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
2. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
3. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY BE A MULTIPLE OF THOSE SHOWN ABOVE.
4. LEAD COLORS ARE OPTIONAL. LEADS MUST ALWAYS BE NUMBERED AS SHOWN.

CD0005

REV. DESC: REVISE TO SHOW OPTIONAL COLORS			BALDOR ELECTRIC Co.
REV. LTR: E	BY: JLP	REVISED: 01/19/99 10:15	TDR: 0171435
CD0005		FILE: AAA00005140	MDL: –
		MTL: –	3PH, DV, 9 LEADS