ABB BALDOR RELIANCE

Customer information packet

EM3116T-G

1HP, 1760RPM, 3PH, 60HZ, 143T, 3520M, OPSB, F1
Class - None
Division - Not Applicable

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Specifications

Enclosure	OPSB
Frame	143T
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	1.000 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	CSA EEV
	NEMA PREMIUM
	NEMA_PREMIUM
	UR
Ambient Temperature	40 °C
Auxiliary Box	NO AUXILLARY BOX
Auxiliary Box Lead Termination	None
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Current @ Voltage	3.260 A @ 230.0 V
	3.200 A @ 208.0 V
	1.630 A @ 460.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	85.5 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Shaft Indicator	None

Part Detail

Revision	F
Type	AC
Mech. spec.	35Z069
Base	
Status	PRD/A
Elec. spec.	35WGG004
Layout	35LYZ069
Eff. date	01-12-2026
CD Diagram	CD0005
Poles	04
Leads	9#18,0# Y
Proprietary	False
Created date	01-10-2022

Heater Indicator	No Heater
High Voltage Full Load Amps	1.6 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	3520M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	11.12 IN
Power Factor	67
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.00
Shaft Diameter	0.875 IN
Shaft Ground Indicator	Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	1760 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

NP3553LUA										
CAT.NO.	EM3116T-G									
SPEC.	35Z069G004G1									
HP	1									
VOLTS	230/460									
AMPS	3.26/1.63									
RPM	1760									
FRAME	143T	**HZ**	60			**PH**	3			
SF	1.15	**CODE**	N	**DES**	B	**CLASS**	H			
NEMA NOM. EFF	85.5	**PF**	67							
RATING	40C AMB-CONT									
CC	010A									
ENCL	OPSB	**SN**								
DE	6205	**ODE**	6203							
VPWM INVERTER READY	SFA 3.52/1.76									
CT30-60(2:1) VT3-60(20:1)										
USABLE AT	50HZ 1HP 190/380V 3.6/1.8A									SF1.0

Parts List

Part number	Description	Quantity
SA402438	SA 35Z069G004G1	1.000 ea
RA393715	RA 35Z069G004G1	1.000 ea
NS2512A01	INSULATOR, CONDUIT BOX X	1.000 ea
35CB3009	35 CB W/1.09 DIA. LEAD HOLE @ 6:	1.000 ea
51XB1016A06	10-16X3/8 HXWSSLD SERTYB	2.000 ea
11XW1032G06	10-32 X .38, TAPTITE II, HEX WSHR SLTD U	1.000 ea
35EP3209G00	MASTER ODE,203 BRG	1.000 ea
HW5100A03	WAVY WASHER (W1543-017)	1.000 ea
35EP3210C00	MASTER DE,205 BRG,1.000SH,LCK BRG	1.000 ea
51XN1032A18	10-32 X 1 1/8 HX WS SL SR (ESKAY)	2.000 ea
XY1032A02	10-32 HEX NUT DIRECTIONAL SERRATION	4.000 ea
35CB4521	35 LIPPED CB LID (GALV & PHOSPH)	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
LB1459	AEGIS SGR LABEL "AEGISLBL-100"	1.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.050 lb
HA3100A15	THRUBOLT 10-32 X 8.375	4.000 ea
35AD2005A01	BAFFLE PLATE,MOD 35-SLTD BAND MTRS TDR	1.000 ea
MG1050Y01	CELEROL BALDOR GOLD *5 GALLON BUCKET*	0.017 ga
LC0005	CONN.DIA.,TY M,9-LD,DUAL VOLT,REVERSING	1.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
NP3553LUA	ALUM SUPER-E VPWM INV READY UL CC NEMA P	1.000 ea
35PA1066	PKG GRP, PRINT PK1008A07	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea
LB1350	BAR CODE LABEL FOR YORK	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 # 86928
Typical performance - not guaranteed values

Winding: 35WGG004-R008	**Type:** 3520M	**Enclosure:** OPEN

Nameplate Data				**460 V, 60 Hz: High Voltage Connection**	
Rated Output (HP)			1	**Full Load Torque**	2.97 LB-FT
Volts			230/460	**Start Configuration**	direct on line
Full Load Amps			3.26/1.63	**Breakdown Torque**	13.68 LB-FT
R.P.M.			1760	**Pull-up Torque**	7.85 LB-FT
Hz	60	**Phase**	3	**Locked-rotor Torque**	9.01 LB-FT
NEMA Design Code	B	**KVA Code**	N	**Starting Current**	14.13 A
Service Factor (S.F.)			1.15	**No-load Current**	1.08 A
NEMA Nom. Eff.	85.5	**Power Factor**	67	**Line-line Res. @ 25ºC**	16.9 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	24°C
S.F. Amps			3.52/1.76	**Temp. Rise @ S.F. Load**	27°C
				Locked-rotor Power Factor	61.5
				Rotor inertia	0.144 lb-ft²

Load Characteristics 460 V, 60 Hz, 1 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	30	47	60	69	76	79	73
Efficiency	72.1	81.7	84.7	85.7	85.5	84.7	85.6
Speed	1791	1784	1776	1768	1759	1750	1763
Line amperes	1.11	1.22	1.38	1.59	1.82	2.09	1.73

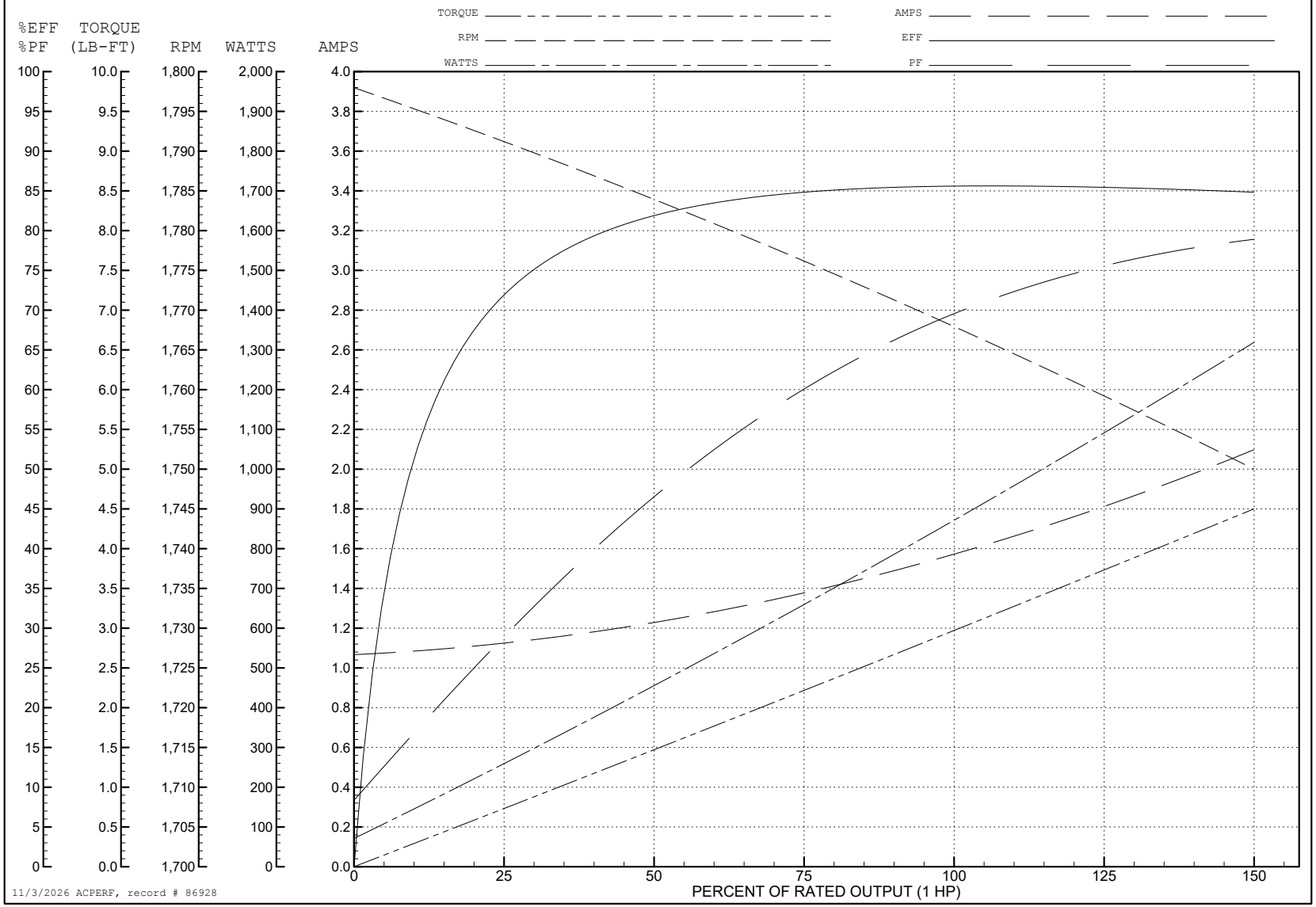
ABB Motors and Mechanical Inc.

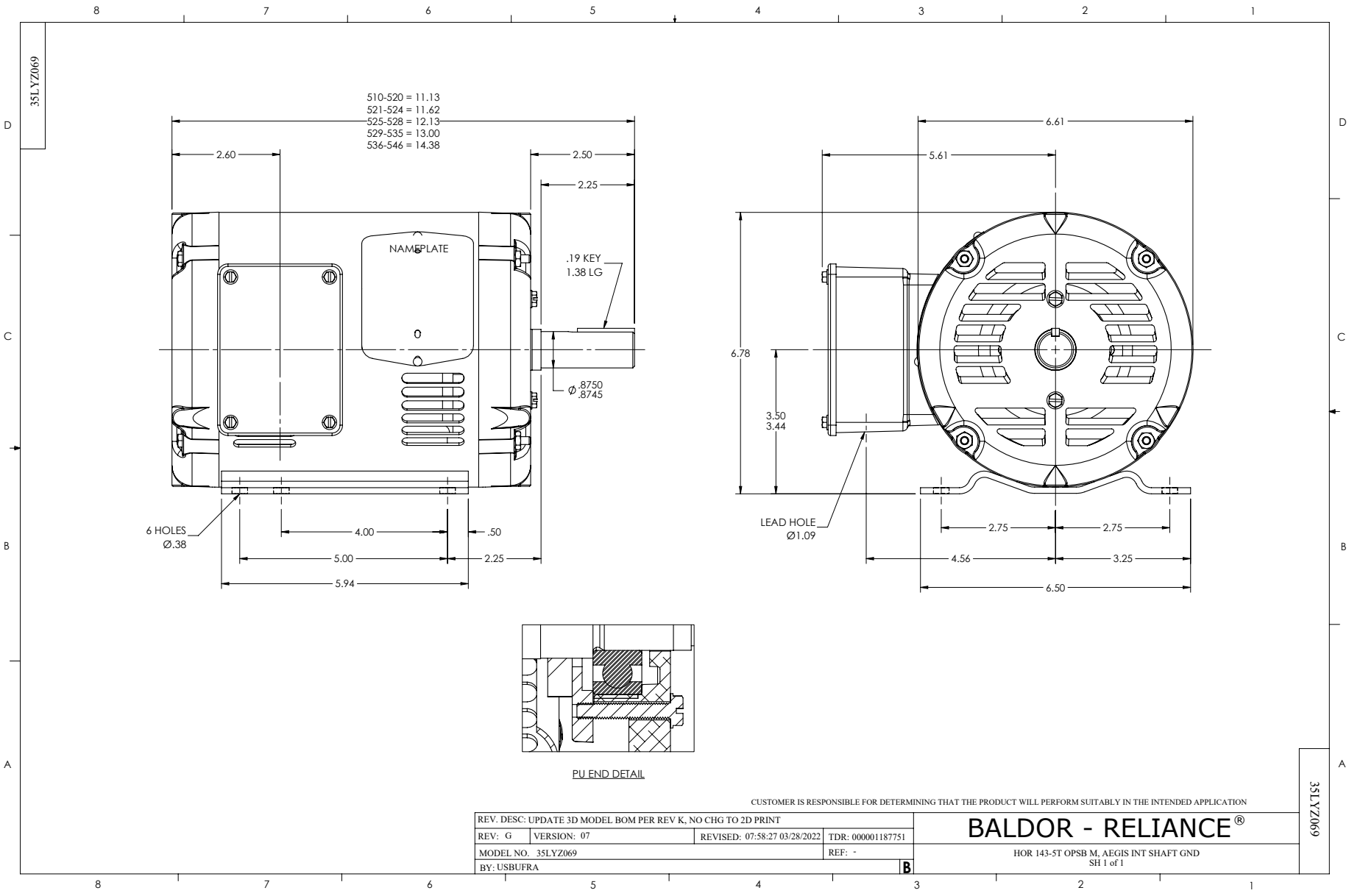
WINDING # 35WGG004

1 HP 3 PH 60 HZ 1760 RPM 460 V 3520M

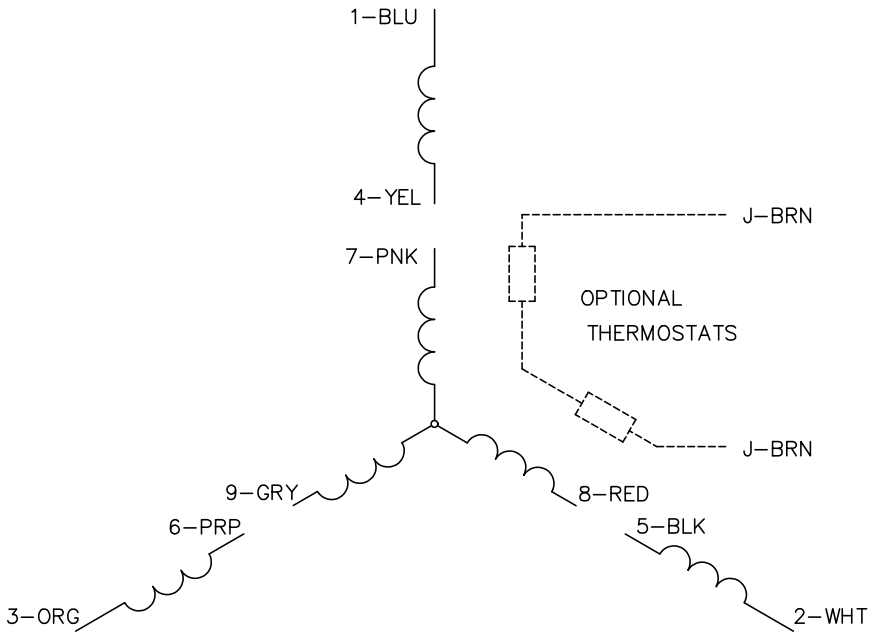
Typical performance - not guaranteed values.

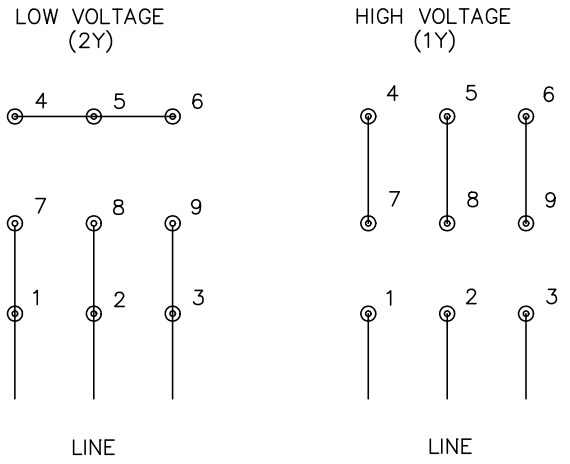
TORQUES(LB-FT): PO=13.68 PU=7.85 LR=9.01 LRA=14.13




35LYZ069
510-520 = 11.13
521-524 = 11.62
525-528 = 12.13
529-535 = 13.00
536-546 = 14.38
2.60
2.50
2.25
NAMEPLATE
.19 KEY
1.38 LG
Ø .8750
.8745
6 HOLES
Ø.38
4.00
.50
5.00
2.25
5.94
6.61
5.61
6.78
3.50
3.44
LEAD HOLE
Ø1.09
2.75
2.75
4.56
3.25
6.50
PU END DETAIL
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: UPDATE 3D MODEL BOM PER REV K, NO CHG TO 2D PRINT
REV: G
VERSION: 07
REVISED: 07:58:27 03/28/2022
TDR: 000001187751
MODEL NO. 35LYZ069
REF: -
BY: USBUFRA
B
BALDOR - RELIANCE®
HOR 143-5T OPSB M, AEGIS INT SHAFT GND
SH 1 of 1
35LYZ069

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