ABB BALDOR RELIANCE

Customer information packet

FDEM4109T-5

40M 2P TEFC HOR 324TS FARM DUTY SE
Class - None
Division - Not Applicable

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Specifications

Enclosure	TEFC
Frame	324TS
Frame Material	Iron
Frequency	60.00 Hz
Haz Area Class and Group	None
Haz Area Division	Not Applicable
Motor Letter Type	Three Phase
Output @ Frequency	40.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	3600 RPM @ 60 HZ
Voltage @ Frequency	575.0 V @ 60 HZ
Agency Approvals	CURUSEEV
	NEMA PREMIUM
	NEMA PREMIUM (OLD LOGO)
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	37.000 A @ 575.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	92.4 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	37.0 a
Insulation Class	F
Inverter Code	Inverter Ready

Part Detail

Revision	G
Type	AC
Mech. spec.	12H685
Base	
Status	PRD/A
Elec. spec.	12WGY367
Layout	12LYH685
Eff. date	12-05-2024
CD Diagram	CD0006
Poles	02
Leads	3#8
Proprietary	False
Created date	06-14-2018

KVA Code	G
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Quantity/Wire Size	3 @ 8 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	1240M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	28.78 IN
Power Factor	88
Product Family	General Purpose
Pulley End Bearing Type	Sealed Bearing
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	1.875 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	3530 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

	NP3126L									
CAT.NO.	FDEM4109T-5									
SPEC.	12H685Y367G1									
HP	40									
VOLTS	575									
AMP	37									
RPM	3530									
FRAME	324TS	**HZ**	60				**PH**	3		
SER.F.	1.15	**CODE**	G	**DES**	A	**CL**	F			
NEMA-NOM-EFF	92.4	**PF**	88							
RATING	40C AMB-CONT									
CC	010A									
DE	6312	**ODE**	6311							
ENCL	TEFC	**SN**								

Parts List

Part number	Description	Quantity
SA357358	SA 12H685Y367G1	1.000 ea
RA346350	RA 12H685Y367G1	1.000 ea
09FN3001D03	EXTERNAL FAN, PLASTIC (COMES W/SCREW FRO	1.000 ea
10CB3000SP	KOBX, CAST W/2.00 LEAD HOLE	1.000 ea
09GS1000	GASKET-CONDUIT BOX, 1/16 THICK LEXIDE	1.000 ea
10XN3118K12	5/16-18 X .75 GRADE 5, ZINC PLATED	4.000 ea
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	4.000 ea
WD1000B25	GND LUG, BURNDY L125HP OR T&B L125HP-BB	1.000 ea
19XW3118G08	.31-18X.50,HEX WSHR HD,TAPTITE 2,GREEN	1.000 ea
12EP1107A156	FREP W/"O" DRN & NO GRSR,RLF,DRN,RET HLS	1.000 ea
HA3400A13	STUD, 1/2-13 X 7" WELKER	4.000 ea
HW1001A50	LOCKWASHER 1/2, ZINC PLT,.879 OD, .509 I	4.000 ea
HW5100A13	W4627-047 WVY WSHER	1.000 ea
10XN3118K40	5/16-18 X 2.50" HEX HD, GRADE 5	4.000 ea
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	4.000 ea
12EP1106A85	PUEP, MACH FOR 3.00 LIP SEAL	1.000 ea
10XN5013K28	1/2-13 X 1.75 HEX HEAD MACH SCREW,GRAD	4.000 ea
HW1001A50	LOCKWASHER 1/2, ZINC PLT,.879 OD, .509 I	4.000 ea
HW4600B37	SEAL 2.250 X 3.000 X .375 SINGLE LIP	1.000 ea
HW4600B41	V-RING SLINGER 2.125 X 2.880 X 0.280	1.000 ea
12FH1002SP	FAN COVER, CAST	1.000 ea
HW1001A50	LOCKWASHER 1/2, ZINC PLT,.879 OD, .509 I	4.000 ea
XY5013A12	NUT,1/2-13,HEX,STEEL,ZINCPLATED	4.000 ea
WD4100A02	DP-1000 HEYCO PLUG OR 62MP1000 MICRO PL	1.000 ea
10CB3500	CONDUIT BOX LID, CAST	1.000 ea
10GS1000	GASKET, CONDUIT BOX LID	1.000 ea
51XW2520A12	.25-20 X .75, TAPTITE II, HEX WSHR SLTD	4.000 ea
HW2501H18	KEY, 1/2 SQ X 2.000	1.000 ea
HA4066A01	PUSH IN T-DRAIN FITTING (BLACK)	1.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.200 lb
HA4066A01	PUSH IN T-DRAIN FITTING (BLACK)	1.000 ea

HW2500A25	WOODRUFF KEY USA #1008 #BLOW CARBON STEE	1.000 ea
51XB1214A20	12-14X1.25 HXWSSLD SERTYB	1.000 ea
MG1025C02	WILKOFAST SG, 787.105, TAN	0.080 ga
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
LC0006	CONNECTION LABEL	1.000 ea
NP3126L	ALUM FARM DUTY SUPER-E UL CSA-EEV PREM	1.000 ea
12PA1000	PACKAGING GROUP PRINT PK1024A08	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea

AC Induction Motor Performance Data
Record # 32547
Typical performance - not guaranteed values

Winding: 12WGY367-R001	**Type:** 1240M	**Enclosure:** TEFC

Nameplate Data				**575 V, 60 Hz: Single Voltage Motor**	
Rated Output (HP)			40	**Full Load Torque**	59.2 LB-FT
Volts			575	**Start Configuration**	direct on line
Full Load Amps			37	**Breakdown Torque**	237 LB-FT
R.P.M.			3530	**Pull-up Torque**	80.9 LB-FT
Hz	60	**Phase**	3	**Locked-rotor Torque**	111 LB-FT
NEMA Design Code	A	**KVA Code**	G	**Starting Current**	250 A
Service Factor (S.F.)			1.15	**No-load Current**	11.5 A
NEMA Nom. Eff.	92.4	**Power Factor**	88	**Line-line Res. @ 25ºC**	0.224 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	65°C
S.F. Amps				**Temp. Rise @ S.F. Load**	78°C
				Locked-rotor Power Factor	21.7
				Rotor inertia	3.13 LB-FT2

Load Characteristics 575 V, 60 Hz, 40 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	59	78	85	88	89	89	89
Efficiency	85.3	91.1	92.1	92.6	91.9	91.2	92.2
Speed	3586	3573	3559	3544	3528	3512	3534
Line amperes	14.8	21.1	28.6	36.9	45.9	55.3	42.3

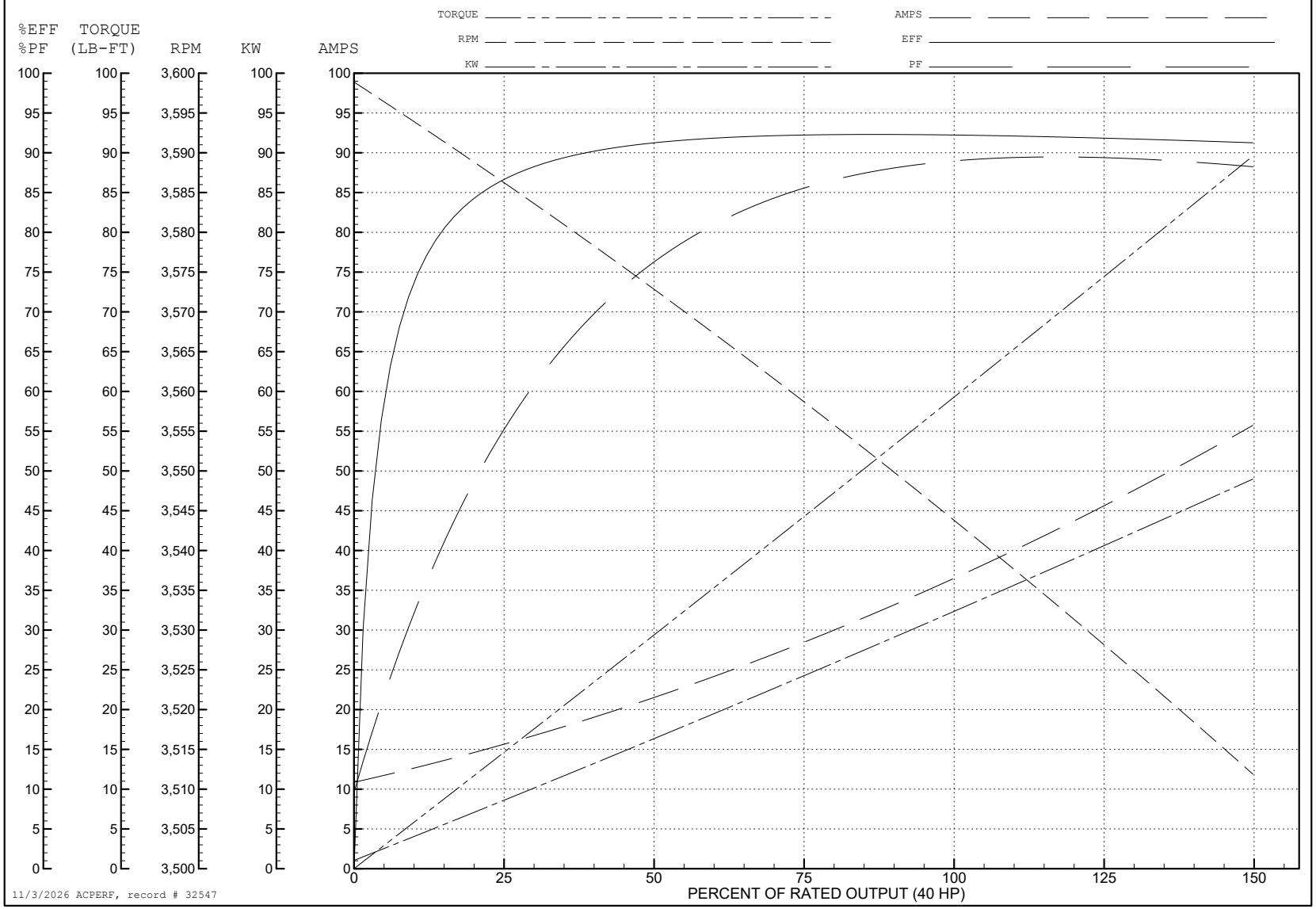
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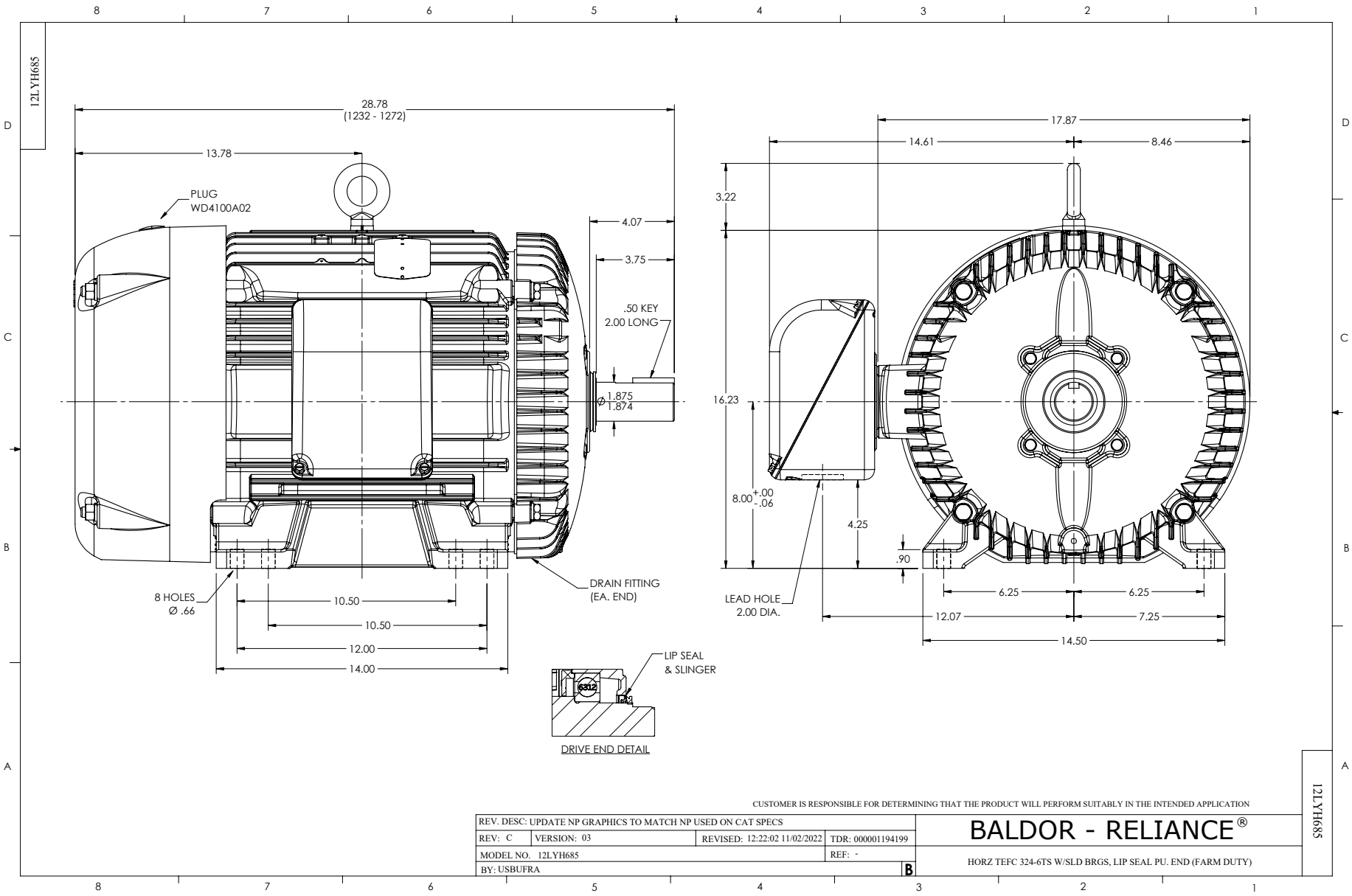
WINDING # 12WGY367

40 HP 3 PH 60 HZ 3530 RPM 575 V 1240M

Typical performance - not guaranteed values.

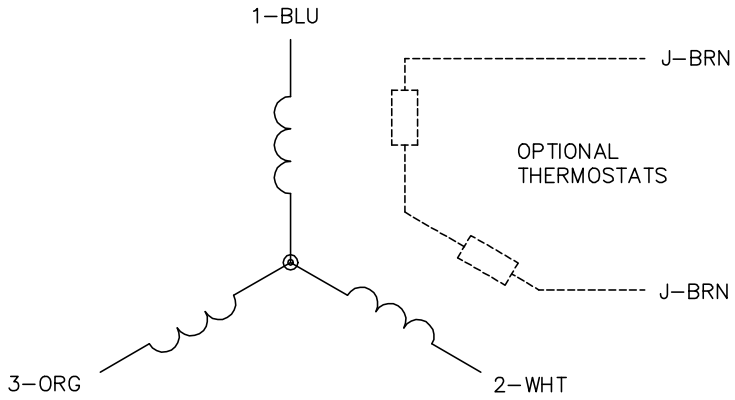
TORQUES(LB-FT): PO=237 PU=80.9 LR=111 LRA=250

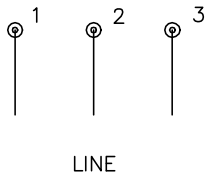



12LYH685
28.78
(1232 - 1272)
13.78
PLUG
WD4100A02
4.07
3.75
.50 KEY
2.00 LONG
1.875
1.874
8 HOLES
Ø .66
10.50
10.50
12.00
14.00
DRAIN FITTING
(EA. END)
LIP SEAL
& SLINGER
6312
DRIVE END DETAIL
17.87
14.61
8.46
3.22
16.23
8.00 +.00 -.06
4.25
.90
LEAD HOLE
2.00 DIA.
6.25
6.25
12.07
7.25
14.50
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: UPDATE NP GRAPHICS TO MATCH NP USED ON CAT SPECS
REV: C
VERSION: 03
REVISED: 12:22:02 11/02/2022
TDR: 000001194199
MODEL NO. 12LYH685
REF: -
BY: USBUFRA
B
BALDOR - RELIANCE®
HORZ TEFC 324-6TS W/SLD BRGS, LIP SEAL PU. END (FARM DUTY)
12LYH685

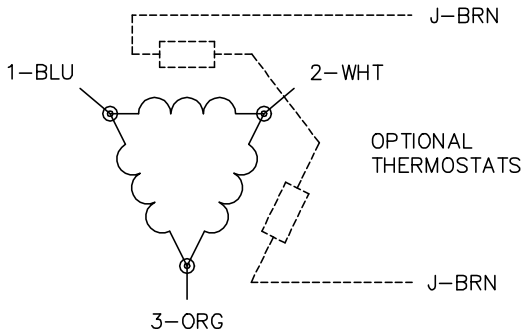
CD0006

TYPICAL WYE–CONNECTED MOTOR





TYPICAL DELTA–CONNECTED MOTOR



NOTES:

1. THREE LEAD MOTOR MAY BE EITHER WYE CONNECTED OR DELTA CONNECTED.
2. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
3. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
4. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY VARY.
5. LEAD COLORS ARE OPTIONAL. LEADS MUST BE NUMBERED AS SHOWN.

CD0006

REV. DESC: ADD CLASS CONN00000007			BALDOR - RELIANCE®
REV. LTR: E	VERSION: 01	TDR: 000001099922	
FILE: \AAA\00005\141	REVISED: 10:24:49 02/19/2019	BY: ENBRIR0	3PH, SV, 3 LEADS, WYE OR DELTA CONNECTED
MTL: –			SH 1 of 1