ABB BALDOR RELIANCE

Customer information packet

EM2542T-8

50HP, 3525RPM, 3PH, 60HZ, 324TS, 4058M, OPSB, F

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Specifications

Enclosure	OPSB
Frame	324TS
Frame Material	Steel
Frequency	60.00 Hz
Motor Letter Type	Three Phase
Output @ Frequency	50.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	3600 RPM @ 60 HZ
Voltage @ Frequency	200.0 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	129.000 A @ 200.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	93.0 %
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	129.0 a
Insulation Class	F
Inverter Code	Inverter Ready
IP Rating	NONE

Part Detail

Revision	K
Type	AC
Mech. spec.	40E213
Base	
Status	PRD/A
Elec. spec.	40WGX311
Layout	40LYE213
Eff. date	06-27-2024
CD Diagram	CD0695
Poles	02
Leads	6#6
Proprietary	False
Created date	08-12-2015

KVA Code	G
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	No Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	6 @ 6 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	4058M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	25.69 IN
Power Factor	90
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	1.875 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	3525 rpm
Speed Code	Single Speed
Starting Method	Part Winding
Thermal Device - Bearing	None
Thermal Device - Winding	None
Vibration Sensor Indicator	No Vibration Sensor
Winding Thermal 1	None
Winding Thermal 2	None

Nameplate

NP3554L											
CAT.NO.	EM2542T-8			**P/N**						**ENCL**	OPSB
SPEC.	40E213X311	**CC**	010A		**FRAME**	324TS		**SER.NO.**			
HP	50		**CLASS**	F		**HZ**	60				
RPM	3525		**PH**	3		**DES**	A				
VOLTS	200			**CODE**	G			**ODE BRG**	6309	**DE BRG**	6312
AMPS	129										
RATING	40C AMB-CONT				**NEMA-NOM-EFF**		93		**GREASE**	POLYREX EM	
PF	90	**SER.F.**	1.15			**VPWM INVERTER READY**					
HTR-VOLTS		**HTR-AMPS**				**MAX. SPACE HEATER TEMP.**					

Parts List

Part number	Description	Quantity
SA305478	SA 40E213X311	1.000 ea
RA292699	RA 40E213X311	1.000 ea
HA6361A01	LIFTING LUG FOR 37, 39 & 40 FRAME ZINC	2.000 ea
HA6017	CAST ADAPTER, 40,42 KOBX	1.000 ea
19XW3118A12	.31-18 X .75 HEX WASHER HEAD TAPTITE II	2.000 ea
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	2.000 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
10CB3001	CONDUIT BOX CAST W/2.500 LEAD HOLE	1.000 ea
19XW3118A12	.31-18 X .75 HEX WASHER HEAD TAPTITE II	4.000 ea
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	4.000 ea
40EP3200A02	STD FREP OPEN 309 BRG	1.000 ea
HW5100A11	W3917-042 WVY WSHR (WB)	1.000 ea
40EP3201A01	PU ENDPLATE, MACH - OPEN - FOR 312 BRG	1.000 ea
XY3816A12	3/8-16 FINISHED NUT W/SERRATIONS	8.000 ea
10CB3500	CONDUIT BOX LID, CAST	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
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 ea
HW4500A20	1/8NPT SL PIPE PLUG	1.000 ea
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.050 lb
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 ea
HW4500A20	1/8NPT SL PIPE PLUG	1.000 ea
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
HA3159A08	THRUBOLT- .38-16 X 20.00 LONG STUD	4.000 ea
MG1050Y01	CELEROL BALDOR GOLD *5 GALLON BUCKET*	0.070 ga
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	4.000 ea
40AD2002B01	LEXAN BAFFLE 40 FR OPEN	1.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
40AD2002B01	LEXAN BAFFLE 40 FR OPEN	1.000 ea

LC0695	CONNECTION LABEL	1.000 ea
NP3554L	SS SUPER-E,CURUS-EEV,NEMA PREM,CC,300 SR	1.000 ea
40PA1000	PACKAGING GROUP	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea
FE-0000022	ZRTG FE ASSEMBLY	1.000 ea

AC Induction Motor Performance Data
Record # 52219
Typical performance - not guaranteed values

Winding: 40WGX311-R001	**Type:** 4058M	**Enclosure:** OPSB

Nameplate Data				**200 V, 60 Hz: Single Voltage Motor**	
Rated Output (HP)			50	**Full Load Torque**	74.7 LB-FT
Volts			200	**Start Configuration**	direct on line
Full Load Amps			129	**Breakdown Torque**	174 LB-FT
R.P.M.			3525	**Pull-up Torque**	119 LB-FT
Hz	60	**Phase**	3	**Locked-rotor Torque**	139 LB-FT
NEMA Design Code	A	**KVA Code**	G	**Starting Current**	892 A
Service Factor (S.F.)			1.15	**No-load Current**	34.3 A
NEMA Nom. Eff.	93	**Power Factor**	90	**Line-line Res. @ 25ºC**	0.0243 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	46°C
S.F. Amps				**Temp. Rise @ S.F. Load**	57°C
				Locked-rotor Power Factor	23
				Rotor inertia	2.49 LB-FT2

Load Characteristics 200 V, 60 Hz, 50 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	63	82	88	90	90	90	90
Efficiency	92.5	94.5	94.2	93.4	92.2	90.5	92.7
Speed	3582	3566	3547	3529	3508	3479	3516
Line amperes	46.8	70	98.2	129	162	205	149

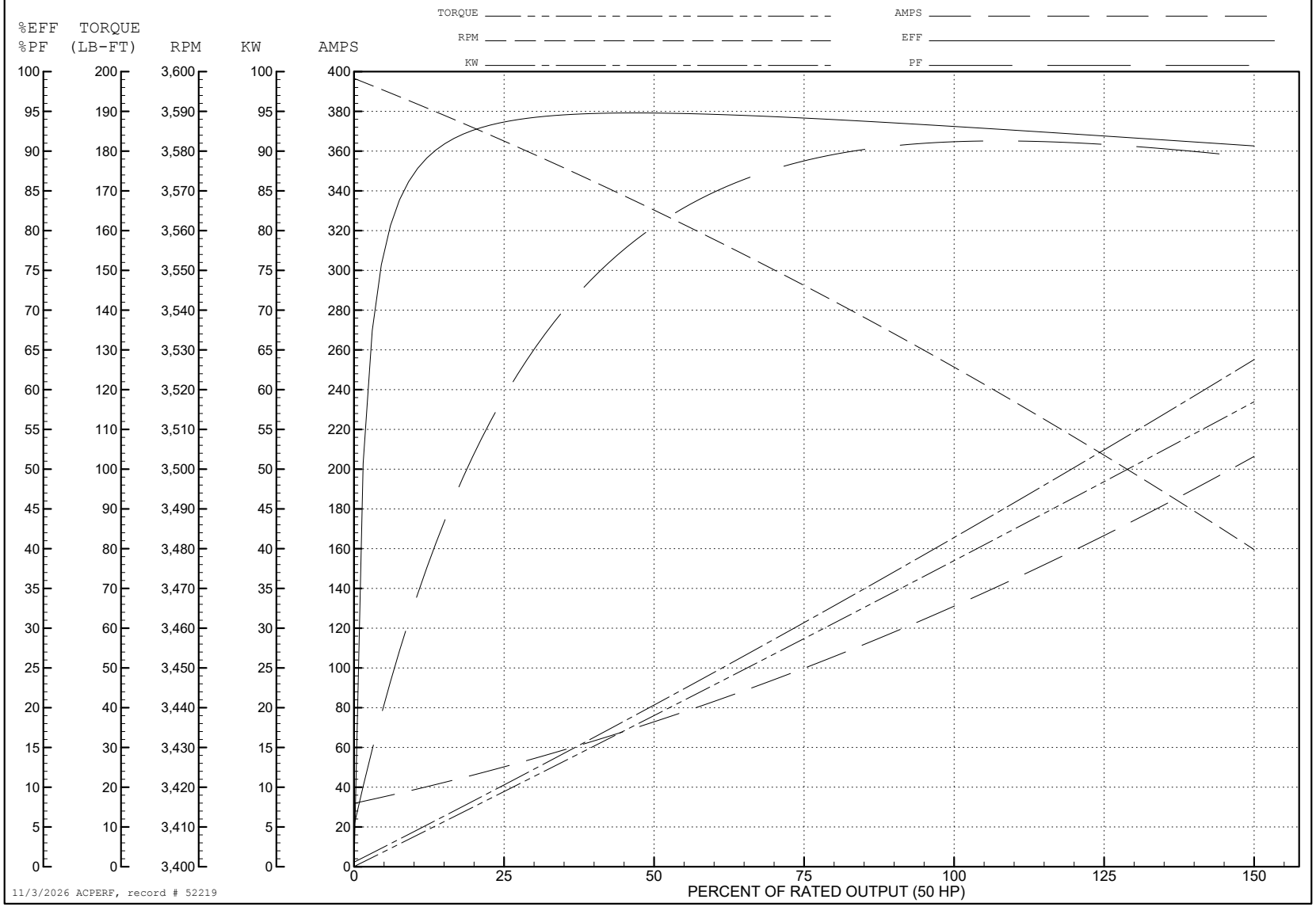
ABB Motors and Mechanical Inc.

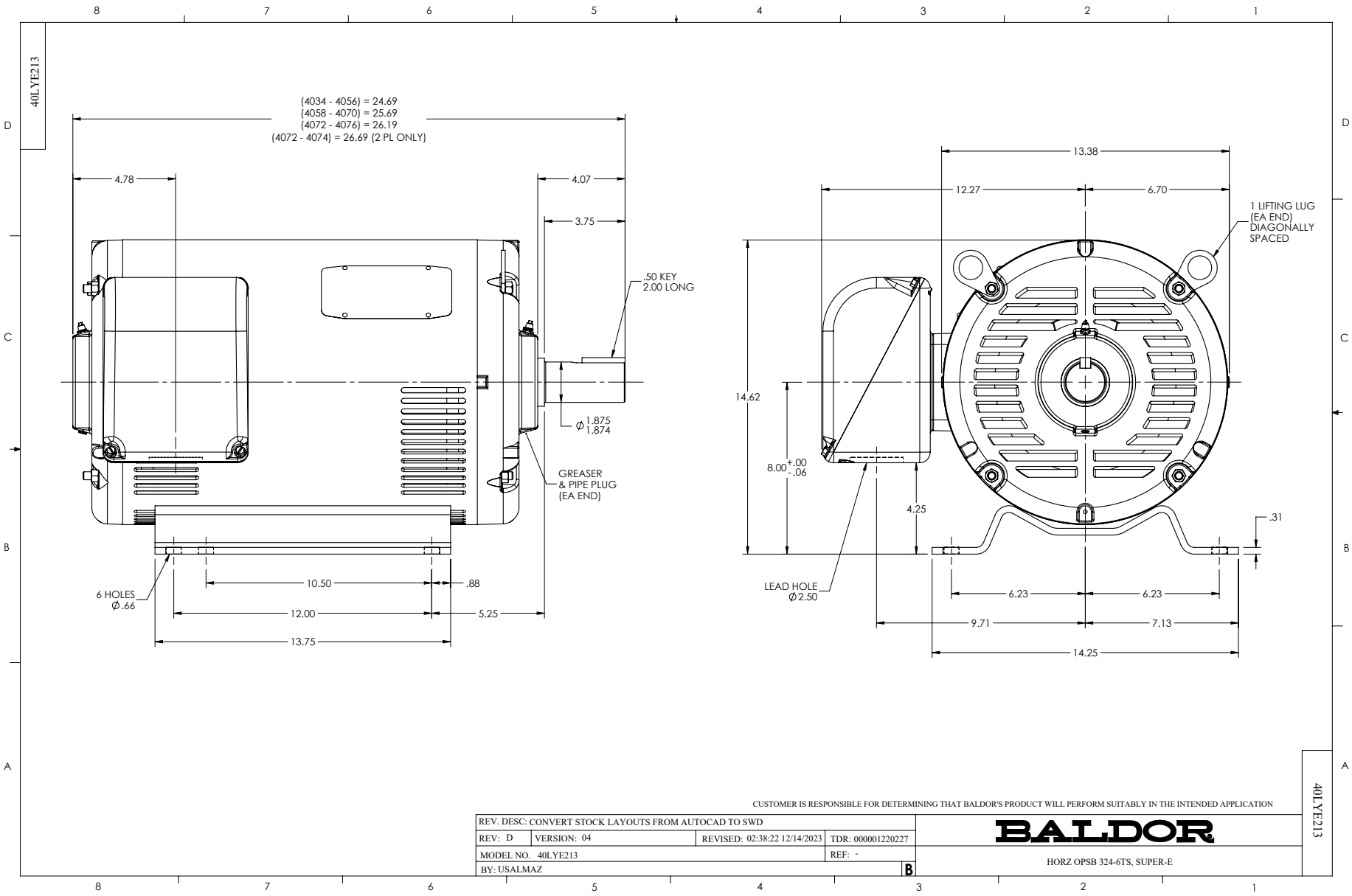
WINDING # 40WGX311

50 HP 3 PH 60 HZ 3525 RPM 200 V 4058M

Typical performance - not guaranteed values.

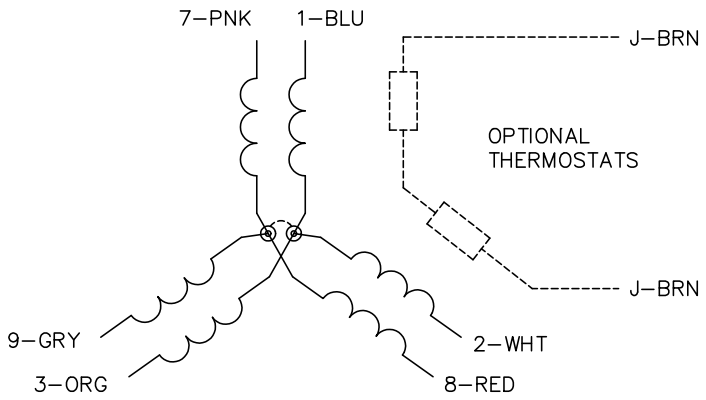
TORQUES(LB-FT): PO=174 PU=119 LR=139 LRA=892



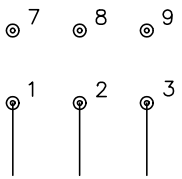

40LYE213
(4034 - 4056) = 24.69
(4058 - 4070) = 25.69
(4072 - 4076) = 26.19
(4072 - 4074) = 26.69 (2 PL ONLY)
4.78
4.07
3.75
.50 KEY
2.00 LONG
Ø 1.875
1.874
GREASER
& PIPE PLUG
(EA END)
6 HOLES
Ø.66
10.50
.88
12.00
5.25
13.75
13.38
12.27
6.70
1 LIFTING LUG
(EA END)
DIAGONALLY
SPACED
14.62
8.00 +.00 -.06
4.25
.31
LEAD HOLE
Ø2.50
6.23
6.23
9.71
7.13
14.25
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: CONVERT STOCK LAYOUTS FROM AUTOCAD TO SWD
REV: D
VERSION: 04
REVISED: 02:38:22 12/14/2023
TDR: 000001220227
MODEL NO. 40LYE213
REF: -
BY: USALMAZ
B
BALDOR
HORZ OPSB 324-6TS, SUPER-E
40LYE213

CD0695

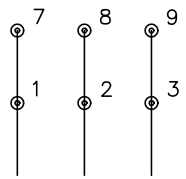
TYPICAL WYE–CONNECTED MOTOR



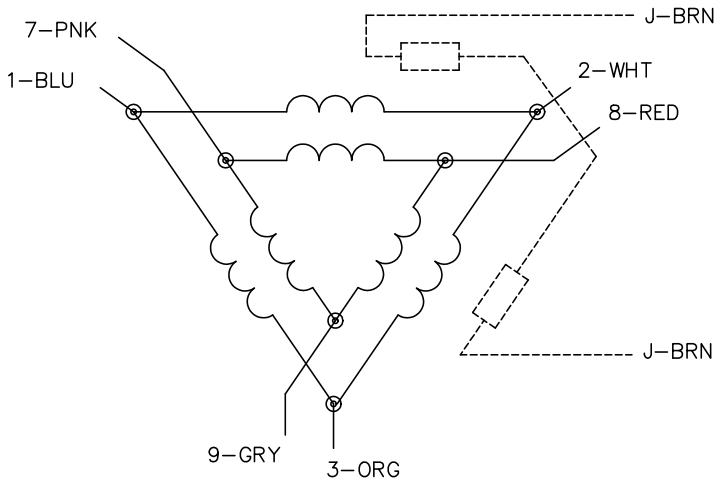
START CONNECTION



RUN CONNECTION



TYPICAL DELTA–CONNECTED MOTOR



NOTES:

1. MOTOR MAY BE 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 ALWAYS BE NUMBERED AS SHOWN.

CD0695

REV. DESC: REVISE TO SHOW OPTIONAL COLORS			BALDOR ELECTRIC Co.
REV. LTR: C	BY: JLP	REVISED: 01/21/99 3:19	TDR: 0171435
CD0695		FILE: AAA00005151	MDL: –
		MTL: –	3PH, SV, 6 LEADS, PART WINDING START