

ABB BALDOR RELIANCE III

Customer information packet

VECP3770T

7.5HP, 1770RPM, 3PH, 60HZ, 213TC, 0738M, TEFC

Class - CLI GP A,B,C,D

Division - Division II

Specifications

Enclosure	TEFC
Frame	213TC
Frame Material	Iron
Frequency	60.00 Hz
Haz Area Class and Group	CL I GP A,B,C,D
Haz Area Division	Division II
Motor Letter Type	Three Phase
Output @ Frequency	7.500 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	460.0 V @ 60 HZ 230.0 V @ 60 HZ
Agency Approvals	CCSA US CSA EEV NEMA PREMIUM NEMA_PREMIUM UR
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
Constant Torque Speed Range	1
Current @ Voltage	9.500 A @ 460.0 V 19.000 A @ 230.0 V
Design Code	A
Drip Cover	Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	91.7 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK

Part Detail

Revision	C
Type	AC
Mech. spec.	07K370
Base	
Status	PRD/A
Elec. spec.	07WGT510
Layout	07LYK370
Eff. date	10-01-2025
CD Diagram	CD0005
Poles	04
Leads	9#14
Proprietary	False
Created date	01-28-2021

Front Shaft Indicator	None
Haz Area Temp Code	T3C
Heater Indicator	No Heater
High Voltage Full Load Amps	9.5 a
Insulation Class	F
Inverter Code	Inverter Ready
KVA Code	J
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	2700 rpm
Motor Lead Quantity/Wire Size	9 @ 14 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	0738M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	21.36 IN
Power Factor	81
Product Family	Chemical Processing (Not DC)
Pulley End Bearing Type	Ball
Pulley Face Code	C-Face
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	1.375 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	1770 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

NP3257									
CAT.NO.	VECP3770T								
SPEC.	07K370T510G1								
HP	7.5 TE								
VOLTS	230/460								
AMP	19/9.5								
RPM	1770								
FRAME	213TC	HZ		60		PH		3	
SER.F.	1.15	CODE		J	DES		A	CL F	
RATING	40C AMB-CONT								
SN									
DE	6307	ODE		6307					
NEMA-NOM-EFF	91.7	PF		81					
G.MIN.EFF	90.2	CC		010A					
T. CODE	T3C	T=		160					

NP3260			
SPEC.	07K370T510G1		
D.E. BRG.	35BC03XP30X		
O.D.E. BRG.	35BC03XP30X		
GREASE	POLYREX EM		
RPM MAX	2700	MAX. KVAR	1.4
BLANK			
INV.TYPE	PWM		
T=	160		
C HP FR	60	C HP TO	90
CT HZ FROM	1	CT HZ TO	60
VT HZ FROM	0-	VT HZ TO	60
HTR-VOLTS		HTR-AMPS	
HTR-WATTS		MAX. SPACE HEATER TEMP.	

Parts List

Part number	Description	Quantity
SA390713	SA 07K370T510G1	1.000 ea
RA381171	RA 07K370T510G1	1.000 ea
37FN3002C01	EXFN, PLASTIC, 6.00 OD, 1.155 ID	1.000 ea
HW3201A05	3/8-16 EYEBOLT	1.000 ea
09CB1001A03G	CONDUIT BOX, MACH GRAY	1.000 ea
RM1017	LEAD SEPERATOR GASKET MODEL 307 1/8" THK	1.000 ea
19XW2520A16	SCREW,1/4-20X1 TAPTITE-II OR ROLOC 91	2.000 ea
11XW1032G06	10-32 X .38, TAPTITE II, HEX WSHR SLTD U	1.000 ea
HW3001B01	BRASS CUP WASHER, FOR #10 SCREW	1.000 ea
10XN2520S06	1/4 20X3/8 HX HD CAP S.S.	2.000 ea
WD1000B16	T&B CX70TN OR L70P TERMINAL LUG	1.000 ea
37EP1101C43G	TEFC 307 BRG, GRSR,RELIEF,.25-20 FH TAPS	1.000 ea
HW4500A01	1641B(ALEMITE)400 UNIV, GREASE FITT	1.000 ea
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 ea
HA4054	SHORT T-DRAIN FITTING, .125" N.P.T.	1.000 ea
HW5100A08	W3118-035 WVY WSHR (WB)	1.000 ea
37EP1300A41G	FACE MTD E.P. ENCL 307 BRG. 213-5TC S.P.	1.000 ea
HW4500A01	1641B(ALEMITE)400 UNIV, GREASE FITT	1.000 ea
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 ea
HA4054	SHORT T-DRAIN FITTING, .125" N.P.T.	1.000 ea
10XN2520A30	HEX HD CAP SCREW-STD THD-.25 X 20 THD PE	4.000 ea
XY3118A12	5/16-18 HEX NUT DIRECTIONAL SERRATION	4.000 ea
51XB1214A20	12-14X1.25 HXWSSLD SERTYB	1.000 ea
07FH1001A02G	FAN HOUSING, 307 W/MTG BOSSES, GRS HOLE	1.000 ea
10XN2520A16	1/4-20 X 1 HEX HEAD CAP SCR, ZINC PLATED	3.000 ea
WD4100A02	DP-1000 HEYCO PLUG OR 62MP1000 MICRO PL	1.000 ea
39FH4500A04G	SP'L DRIP COVER FOR 307 MOTOR MACH GRAY	1.000 ea
12XN1032A20	10-32X1 1/4 HXWS SLTD	4.000 ea
HA2001A09	SPACER, .218 ID X .937 LG	4.000 ea

09CB1504A01G	LIPPED CONDUIT BOX LID, MACH GRAY EPOXY	1.000 ea
09GS1001A01	GASKET, BOX LID, 1/8 THICK BLACK NEOPREN	1.000 ea
10XN2520A12	1/4-20 X 3/4 HEX HEAD CAP	2.000 ea
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	2.000 ea
HA1005A07	SLINGER, OD 2.25, ID 1.344, 307 BRG	1.000 ea
HW4600B33	V-RING SLINGER 1.375 X 1.890 X .35 VITON	1.000 ea
HW2501F21	KEY, 5/16 SQ X 2.375	1.000 ea
HA7000A02	KEY RETAINER RING, 1 1/8 DIA, 1 3/8 DIA	1.000 ea
MJ5001A27	32220KN GRAY SEALER *MIN BUY 4 QTS=1GAL	0.001 qt
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.050 lb
HA3104A32	THRUBOLT- 5/16-18 X12.750	4.000 ea
MG1025N19	WILKOFAS, 778.50, RELIANCE BLUE-GREEN 8	0.036 ga
LB1449	DIV-2/NEC WARNING LABEL	1.000 ea
LC0005	CONN.DIA.,TY M,9-LD,DUAL VOLT,REVERSING	1.000 ea
LB1002N	LABEL,MARINE DUTY (ON ROLLS)	1.000 ea
NP3257	SS CP SUPER-E DIV-2 UL CSA-C US EEV PREM	1.000 ea
NP3260	SS CP SUPER-E AUX DATA INFORMATION	1.000 ea
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 ea
07PA1011	PKG GRP, 07 CAST IRON PK1181	1.000 ea
07PA1095	PKG GRP, VER 07 CAST IRON	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea

AC Induction Motor Performance Data

Record # 86631

Preliminary Data Sheet

Winding: 07WGT510-R004			Type: 0738M		Enclosure: TEFC		
Nameplate Data			460 V, 60 Hz: High Voltage Connection				
Rated Output (HP)		7.5	Full Load Torque		22.3 LB-FT		
Volts		230/460	Start Configuration		direct on line		
Full Load Amps		19/9.5	Breakdown Torque		69.1 LB-FT		
R.P.M.		1770	Pull-up Torque		28.7 LB-FT		
Hz	60	Phase	3	Locked-rotor Torque		39.1 LB-FT	
NEMA Design Code		A	KVA Code		J		
Service Factor (S.F.)		1.15	Starting Current		67.4 A		
NEMA Nom. Eff.		91.7	Power Factor		81		
Rating - Duty		40C	AMB-CONT		Temp. Rise @ Rated Load		48°C
S.F. Amps		21.4/10.4			Temp. Rise @ S.F. Load		62°C
					Locked-rotor Power Factor		41.2
					Rotor inertia		0.934 lb-ft²

Load Characteristics 460 V, 60 Hz, 7.5 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	44	66	76	81	84	85	83
Efficiency	88	91.7	92.2	91.7	90.7	89.3	90.9
Speed	1792	1785	1777	1769	1759	1749	1761
Line amperes	4.61	5.85	7.48	9.43	11.6	13.9	10.7

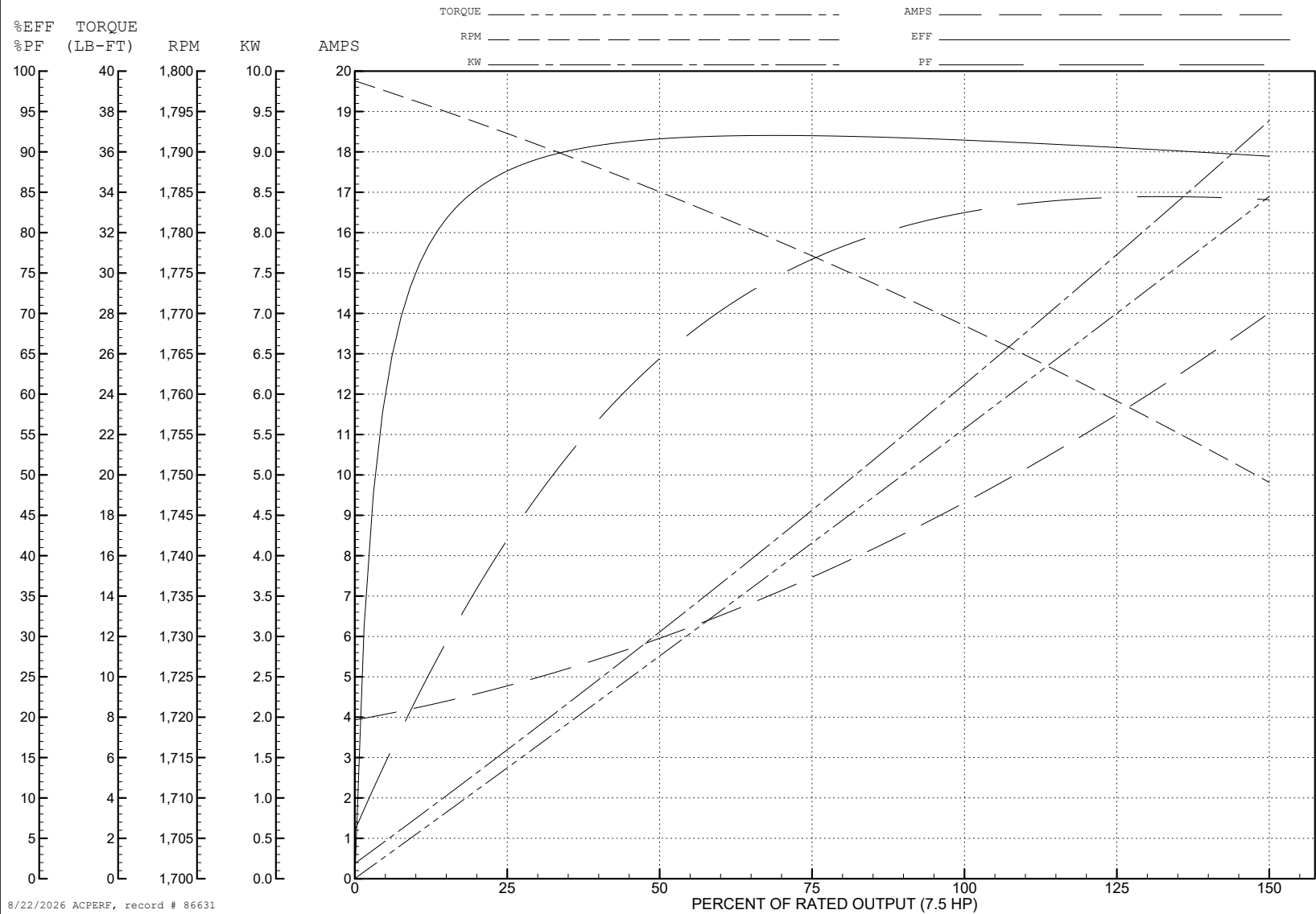
ABB Motors and Mechanical Inc.

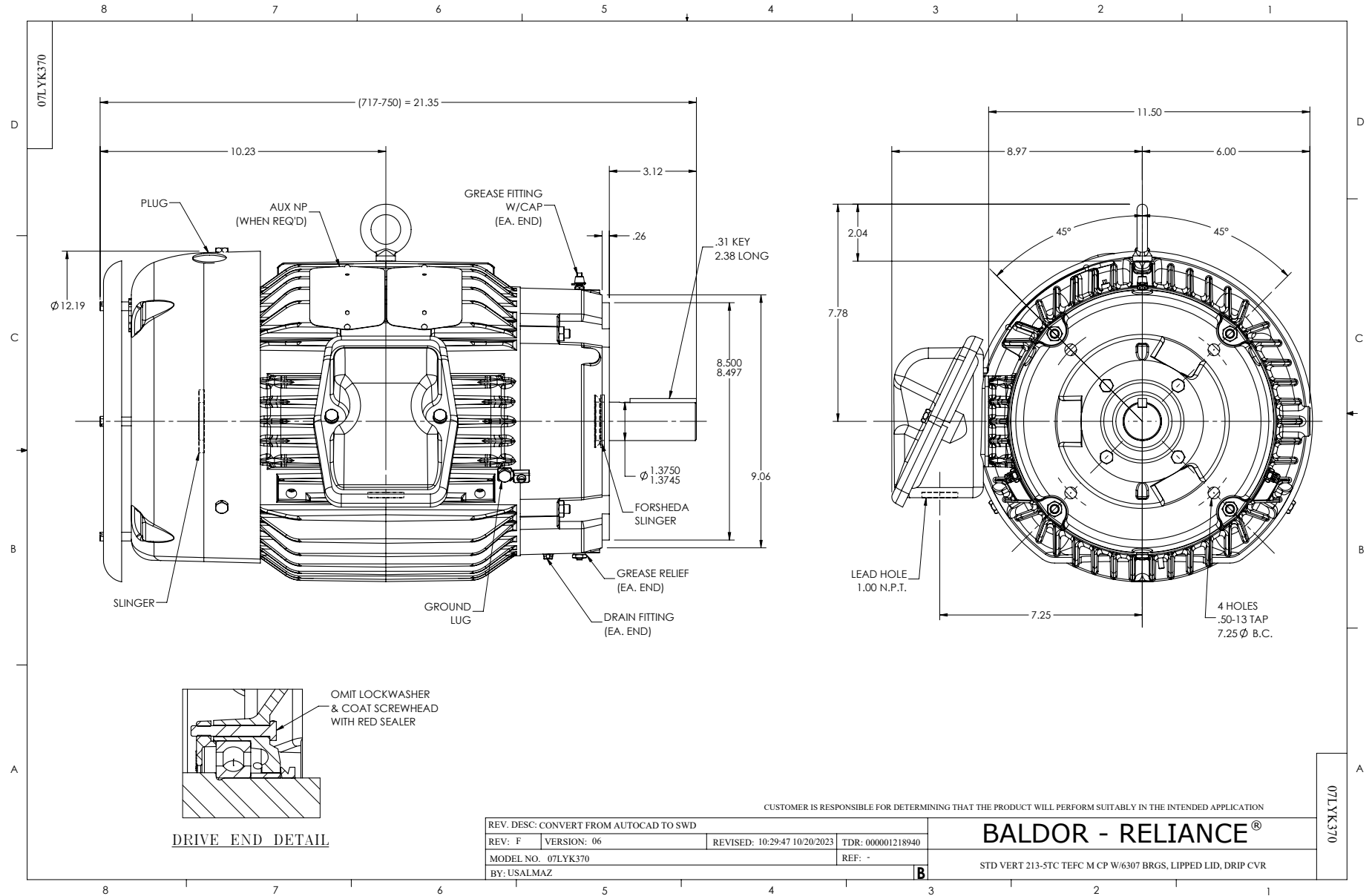
WINDING # 07WGT510

Typical performance - not guaranteed values.

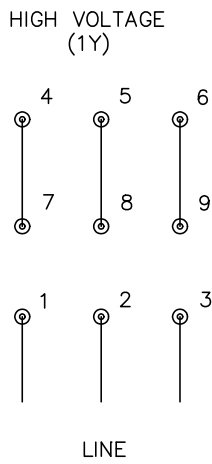
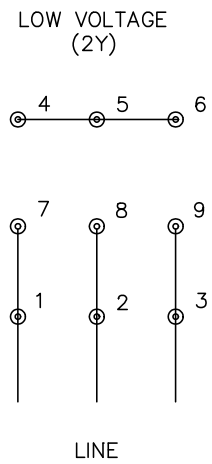
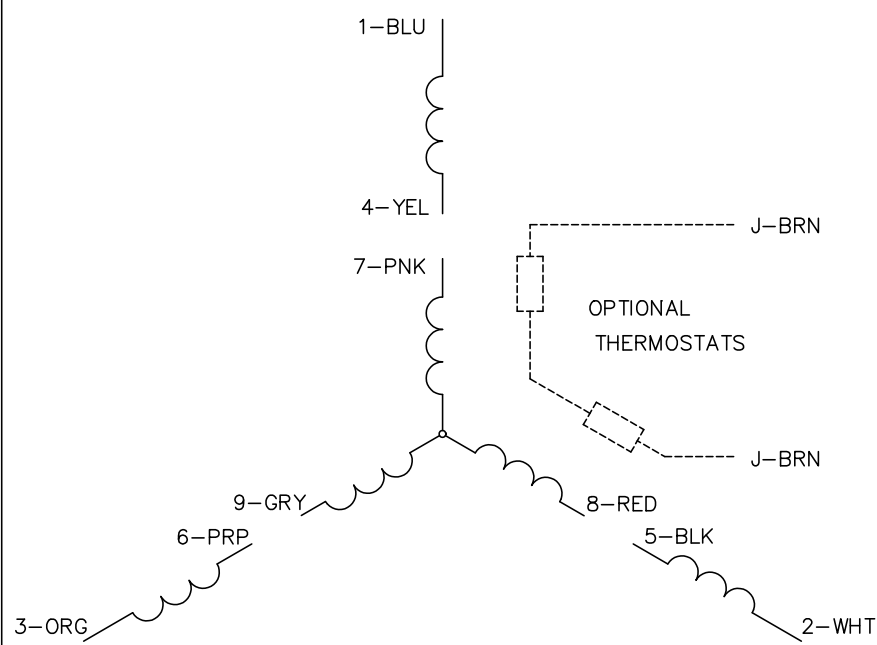
7.5 HP 3 PH 60 HZ 1770 RPM 460 V 0738M

TORQUES (LB-FT): PO=69.1 PU=28.7 LR=39.1 LRA=67.4





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.

REV. DESC: REVISE TO SHOW OPTIONAL COLORS			
REV. LTR: E	BY: JLP	REVISED: 01/19/99 10:15	TDR: 0171435
S00000		FILE: AAA00005140	MDL: -
		MTL: -	

BALDOR ELECTRIC Co.

3PH, DV, 9 LEADS

CD0005