

**BALDOR • RELIANCE**

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# Customer information packet

## CEM3770T

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

Class - None

Division - Not Applicable

## Specifications

Enclosure	TEFC
Frame	213TC
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	7.500 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	CSA EEV CURUSEEV NEMA PREMIUM NEMA_PREMIUM UR
Ambient Temperature	40 °C
Auxillary Box	No Auxillary Box
Auxillary Box Lead Termination	None
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Current @ Voltage	19.800 A @ 208.0 V 9.500 A @ 460.0 V 19.000 A @ 230.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	91.7 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK

## Part detail

Revision	AA
Type	AC
Mech. spec.	07H058
Base	
Status	PRD/A
Elec. spec.	07WGX790
Layout	07LYH058
Eff. date	10-17-2024
CD Diagram	CD0005
Poles	04
Leads	9#14
Proprietary	False
Created date	01-01-0001

<b>Front Face Code</b>	Standard
<b>Front Shaft Indicator</b>	None
<b>Heater Indicator</b>	No Heater
<b>High Voltage Full Load Amps</b>	9.5 a
<b>Insulation Class</b>	F
<b>Inverter Code</b>	Inverter Ready
<b>KVA Code</b>	J
<b>Lifting Lugs</b>	Standard Lifting Lugs
<b>Locked Bearing Indicator</b>	Locked Bearing
<b>Motor Lead Exit</b>	Ko Box
<b>Motor Lead Quantity/Wire Size</b>	9 @ 14 AWG
<b>Motor Lead Termination</b>	Flying Leads
<b>Motor Standards</b>	NEMA
<b>Motor Type</b>	0738M
<b>Mounting Arrangement</b>	F1
<b>Number of Poles</b>	4
<b>Overall Length</b>	19.20 IN
<b>Power Factor</b>	81
<b>Product Family</b>	General Purpose
<b>Pulley End Bearing Type</b>	Ball
<b>Pulley Face Code</b>	C-Face
<b>Pulley Shaft Indicator</b>	Standard
<b>Rodent Screen</b>	None
<b>Service Factor</b>	1.15
<b>Shaft Diameter</b>	1.375 IN
<b>Shaft Extension Location</b>	Pulley End
<b>Shaft Ground Indicator</b>	No Shaft Grounding
<b>Shaft Rotation</b>	Reversible
<b>Shaft Slinger Indicator</b>	No Slinger
<b>Speed</b>	1770 rpm
<b>Speed Code</b>	Single Speed
<b>Starting Method</b>	Direct on line
<b>Thermal Device - Bearing</b>	None
<b>Thermal Device - Winding</b>	None

<b>Vibration Sensor Indicator</b>	<b>No Vibration Sensor</b>
<b>Winding Thermal 1</b>	<b>None</b>
<b>Winding Thermal 2</b>	<b>None</b>

**Nameplate**

**NP3441LUA**

<b>CAT.NO.</b>	CEM3770T						
<b>SPEC</b>	07H058X790						
<b>HP</b>	7.5						
<b>VOLTS</b>	230/460						
<b>AMPS</b>	19/9.5						
<b>RPM</b>	1770						
<b>FRAME</b>	213TC	<b>HZ</b>	60	<b>PH</b>	3		
<b>SF</b>	1.15	<b>CODE</b>	J	<b>DES</b>	A	<b>CLASS</b>	F
<b>NEMA NOM. EFF</b>	91.7	<b>PF</b>	81				
<b>RATING</b>	40C AMB-CONT						
<b>CC</b>	010A						
<b>ENCL</b>	TEFC	<b>SER</b>					
<b>DE</b>	6307	<b>ODE</b>	6206				
<b>VPWM INVERTER READY</b>							
<b>CT6-60H(10:1)VT3-60H(20:1</b>	50Hz 7.5HP 190/380V 22/11A						SF1.0

## Parts list

Part number	Description	Quantity
SA126211	SA 07H058X790	1.000 ea
RA116527	RA 07H058X790	1.000 ea
37FN3002C01	EXFN, PLASTIC, 6.00 OD, 1.155 ID	1.000 ea
HW3201A05	3/8-16 EYEBOLT	1.000 ea
09CB3002SP	CB W/1.38 LEAD HOLE FOR 37, 39, 307 & 30	1.000 ea
09GS1000	GASKET-CONDUIT BOX, 1/16 THICK LEXIDE	1.000 ea
51XW2520A12	.25-20 X .75, TAPTITE II, HEX WSHR SLTD	2.000 ea
59XW2520G07	.25-20X.44,HEX SER WSHR,TAPTITE 2,GREEN	1.000 ea
37EP1100A41	FR ENDPLATE MACH FOR GREASER & RELIEF	1.000 ea
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 ea
HW4500A01	1641B(ALEMITE)400 UNIV, GREASE FITT	1.000 ea
HW5100A06	W2420-025 WVY WSHR (WB)	1.000 ea
37EP1300A10	FACE MTD EP,307BRG,213-5TC,GRSR,RELIEF &	1.000 ea
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 ea
HW4500A01	1641B(ALEMITE)400 UNIV, GREASE FITT	1.000 ea
10XN2520A30	HEX HD CAP SCREW-STD THD-.25 X 20 THD PE	4.000 ea
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	4.000 ea
XY3118A12	5/16-18 HEX NUT DIRECTIONAL SERRATION	4.000 ea
51XB1214A20	12-14X1.25 HXWSSLD SERTYB	1.000 ea
07FH4007SP	PRIMED	1.000 ea
51XW1032A06	10-32 X .38, TAPTITE II, HEX WSHR SLTD S	3.000 ea
09CB3501SP	CONDUIT BOX LID FOR 09CB3001 & 09CB3002	1.000 ea
09GS1013SP	GS FOR 09CB3501, 12CB1500 & 12CB1503 LID	1.000 ea
51XW2520A12	.25-20 X .75, TAPTITE II, HEX WSHR SLTD	2.000 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
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
MG1050Y01	CELEROL BALDOR GOLD *** NLA IN 5 GALLON	0.036 ga

LC0005	CONN.DIA.,TY M,9-LD,DUAL VOLT,REVERSING	1.000 ea
NP3441LUA	AL SUPER-E VPWM INV RDY,UL EEV,NEMA PREM	1.000 ea
07PA1011	PKG GRP, 07 CAST IRON PK1181	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500bx)4/22	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 # 34382

Typical performance - not guaranteed values

<b>Winding:</b> 07WGX790-R010		<b>Type:</b> 0738M		<b>Enclosure:</b> TEFC	
<b>Nameplate Data</b>			<b>460 V, 60 Hz: High Voltage Connection</b>		
<b>Rated Output (HP)</b>	7.5	<b>Full Load Torque</b>	22.2 LB-FT		
<b>Volts</b>	230/460	<b>Start Configuration</b>	direct on line		
<b>Full Load Amps</b>	19/9.5	<b>Breakdown Torque</b>	70.9 LB-FT		
<b>R.P.M.</b>	1770	<b>Pull-up Torque</b>	32.7 LB-FT		
<b>Hz</b>	60 <b>Phase</b>	3	<b>Locked-rotor Torque</b>	43 LB-FT	
<b>NEMA Design Code</b>	A	<b>KVA Code</b>	J	<b>Starting Current</b>	70.8 A
<b>Service Factor (S.F.)</b>	1.15		<b>No-load Current</b>	4.3 A	
<b>NEMA Nom. Eff.</b>	91.7	<b>Power Factor</b>	81	<b>Line-line Res. @ 25°C</b>	1.41 Ω
<b>Rating - Duty</b>	40C AMB-CONT		<b>Temp. Rise @ Rated Load</b>	41°C	
<b>S.F. Amps</b>			<b>Temp. Rise @ S.F. Load</b>	50°C	
			<b>Locked-rotor Power Factor</b>	37.2	
			<b>Rotor inertia</b>	0.934 LB-FT <sup>2</sup>	

**Load Characteristics 460 V, 60 Hz, 7.5 HP**

<b>% of Rated Load</b>	<b>25</b>	<b>50</b>	<b>75</b>	<b>100</b>	<b>125</b>	<b>150</b>	<b>S.F.</b>
<b>Power Factor</b>	42	64	75	80	83	84	82
<b>Efficiency</b>	87.5	91.6	92.5	91.8	91.1	90.1	91.5
<b>Speed</b>	1793	1786	1778	1770	1760	1750	1764
<b>Line amperes</b>	4.83	6.02	7.6	9.5	11.6	13.9	10.7



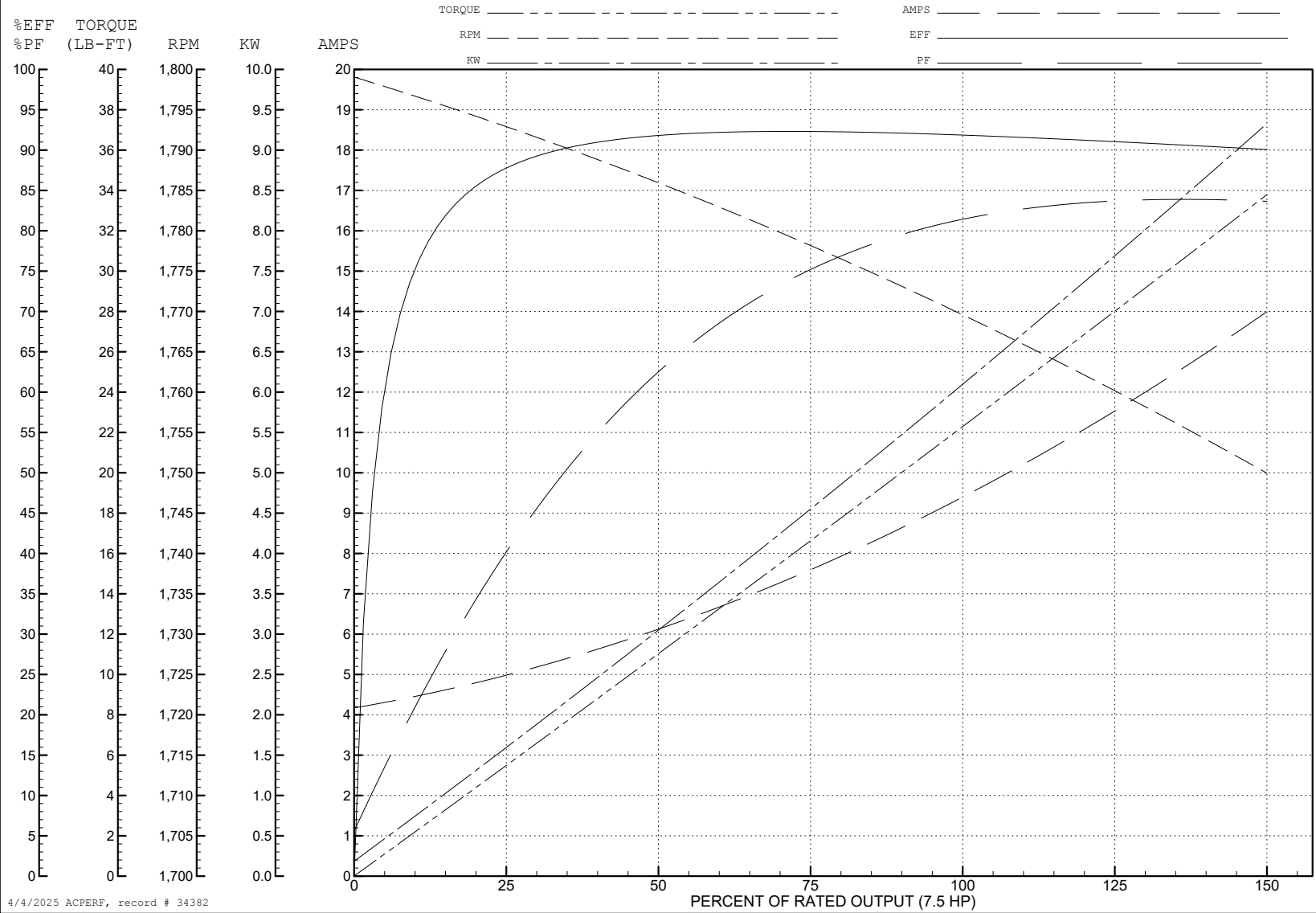
ABB Motors and Mechanical Inc.

WINDING # 07WGx790

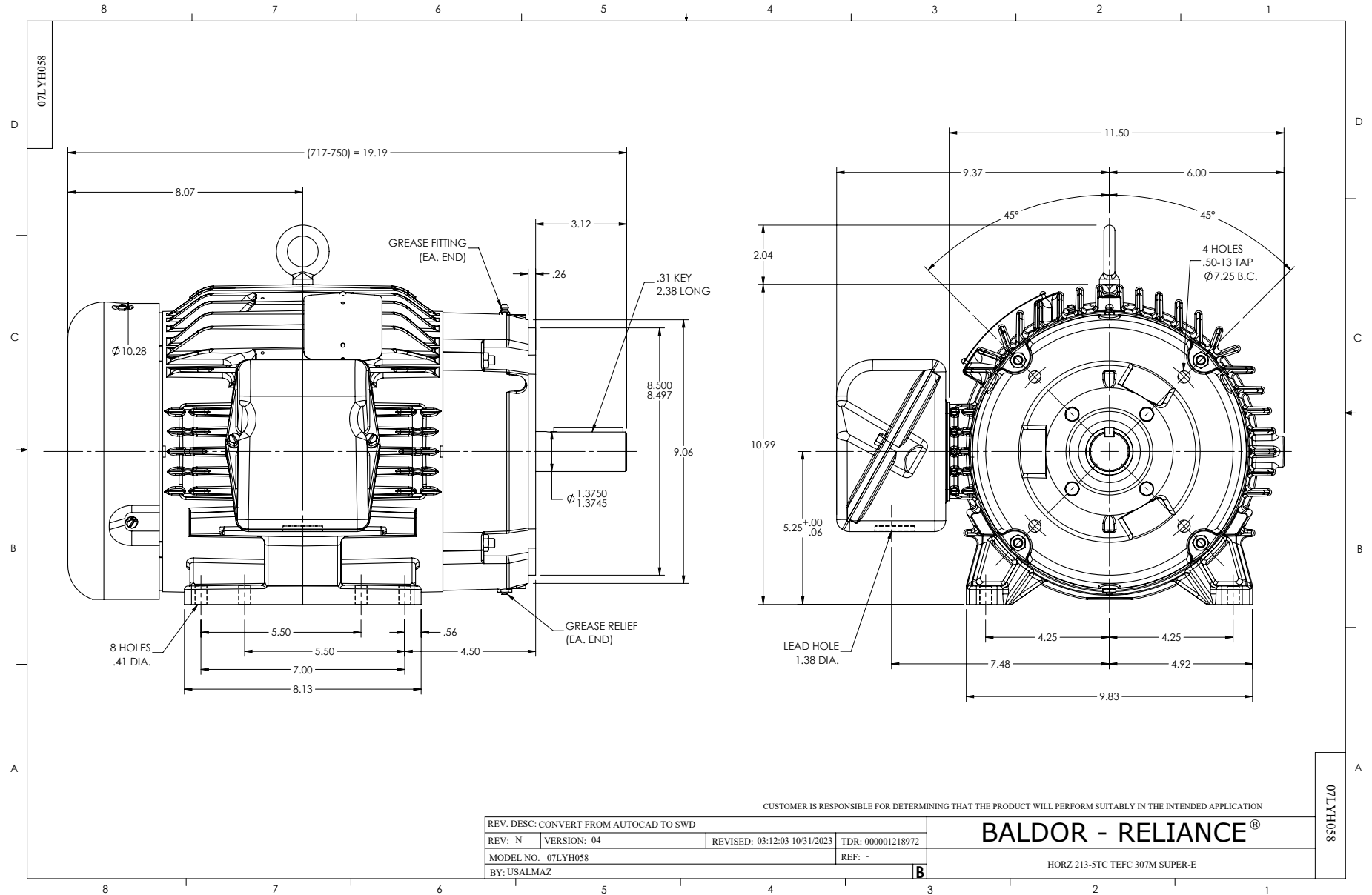
7.5 HP 3 PH 60 HZ 1770 RPM 460 V 0738M

Typical performance - not guaranteed values.

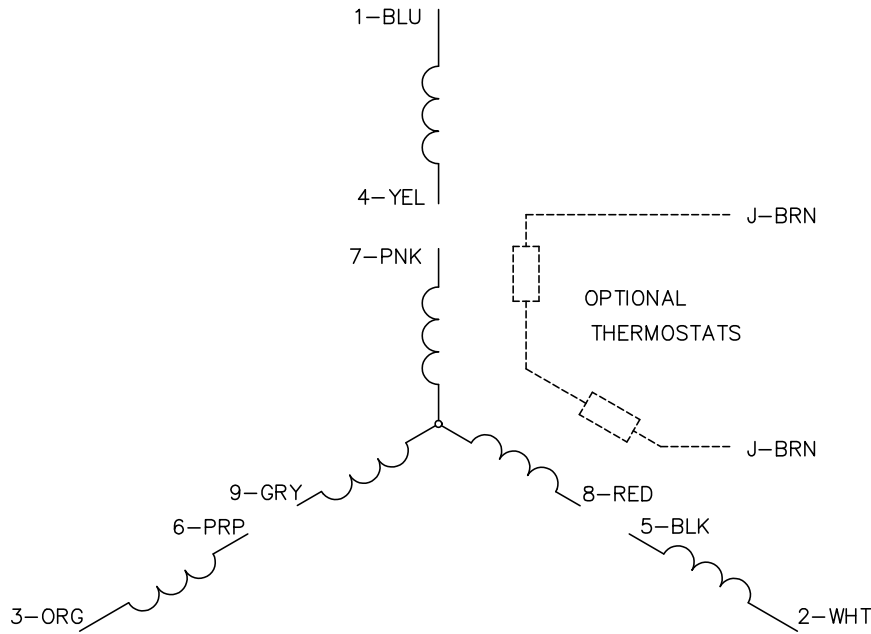
TORQUES (LB-FT): PO=70.9 PU=32.7 LR=43 LRA=70.8



4/4/2025 ACPERF, record # 34382



CD0005

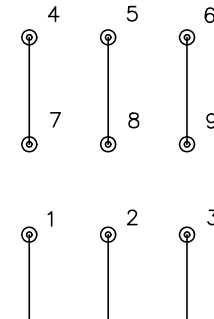


LOW VOLTAGE  
(2Y)



LINE

HIGH VOLTAGE  
(1Y)



LINE

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			
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