

**BALDOR® • RELIANCE** 

**Product Information Packet**

**EWCM3709T**

**7.5HP,3450RPM,3PH,60HZ,213TCZ,3646M,TEFC**

Part Detail							
Revision:	D	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Elec. Spec:	36WGR431	CD Diagram:	CD0005	Mfg Plant:	
Mech. Spec:	36N536	Layout:	36LYN536	Poles:	02	Created Date:	05-19-2015
Base:	RG	Eff. Date:	11-24-2020	Leads:	9#16		

Specs			
Catalog Number:	EWCM3709T	Heater Indicator:	No Heater
Enclosure:	TEFC	Insulation Class:	F
Frame:	213TCZ	Inverter Code:	Inverter Ready
Frame Material:	Steel	KVA Code:	S
Output @ Frequency:	7.500 HP @ 60 HZ	Lifting Lugs:	Standard Lifting Lugs
Synchronous Speed @ Frequency:	3600 RPM @ 60 HZ	Locked Bearing Indicator:	Locked Bearing
Voltage @ Frequency:	460.0 V @ 60 HZ	Motor Lead Quantity/Wire Size:	9 @ 16 AWG
	230.0 V @ 60 HZ	Motor Lead Exit:	Ko Box
XP Class and Group:	None	Motor Lead Termination:	Flying Leads
XP Division:	Not Applicable	Motor Type:	3646M
Agency Approvals:	UR	Mounting Arrangement:	F1
	CSA EEV	Power Factor:	79
	CSA	Product Family:	General Purpose
Auxillary Box:	No Auxillary Box	Pulley End Bearing Type:	Ball
Auxillary Box Lead Termination:	None	Pulley Face Code:	C-Face
Base Indicator:	Rigid	Pulley Shaft Indicator:	Tapped & Key
Bearing Grease Type:	Polyrex EM (-20F +300F)	Rodent Screen:	None
Blower:	None	Shaft Extension Location:	Pulley End

<b>Current @ Voltage:</b>	19.400 A @ 208.0 V	<b>Shaft Ground Indicator:</b>	No Shaft Grounding
	19.400 A @ 230.0 V	<b>Shaft Rotation:</b>	Reversible
	9.700 A @ 460.0 V	<b>Shaft Slinger Indicator:</b>	No Slinger
<b>Design Code:</b>	A	<b>Speed Code:</b>	Single Speed
<b>Drip Cover:</b>	No Drip Cover	<b>Motor Standards:</b>	NEMA
<b>Duty Rating:</b>	CONT	<b>Starting Method:</b>	Direct on line
<b>Electrically Isolated Bearing:</b>	Not Electrically Isolated	<b>Thermal Device - Bearing:</b>	None
<b>Feedback Device:</b>	NO FEEDBACK	<b>Thermal Device - Winding:</b>	None
<b>Front Face Code:</b>	Standard	<b>Vibration Sensor Indicator:</b>	No Vibration Sensor
<b>Front Shaft Indicator:</b>	None	<b>Winding Thermal 1:</b>	None
		<b>Winding Thermal 2:</b>	None

<b>Nameplate NP3441L</b>										
<b>CAT.NO.</b>	EWCM3709T									
<b>SPEC.</b>	36N536R431G1									
<b>HP</b>	7.5									
<b>VOLTS</b>	230/460									
<b>AMP</b>	19.4/9.7									
<b>RPM</b>	3450									
<b>FRAME</b>	213TCZ				<b>HZ</b>	60			<b>PH</b>	3
<b>SER.F.</b>	1.15		<b>CODE</b>	S	<b>DES</b>	A		<b>CL</b>	F	
<b>NEMA-NOM-EFF</b>	89.5		<b>PF</b>	79						
<b>RATING</b>	40C AMB-CONT									
<b>CC</b>	010A				<b>USABLE AT 208V</b>			19.4		
<b>DE</b>	6307				<b>ODE</b>	6205				
<b>ENCL</b>	TEFC		<b>SN</b>							
<b>VPWM INVERTER READY</b> <b>CT6-60H(10:1)VT3-60H(20:1)</b>										

Parts List		
Part Number	Description	Quantity
SA301063	SA 36N536R431G1	1.000 EA
RA288134	RA 36N536R431G1	1.000 EA
HW3200A01	3/8-16X3/4 I-BLT WELDED F/S	1.000 EA
36CB3004	36 CB CASTING W/1.09 DIA LEAD HOLE @ 6:0	1.000 EA
36GS1000SP	GASKET-CONDUIT BOX, .06 THICK #SV-330 LE	1.000 EA
51XB1016A08	10-16X 1/2HXWSSLD SERTYB	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
36EP3104A04	FR ENDPLATE, FOR ROUTING	1.000 EA
HW4500A01	1641B(ALEMITE)400 UNIV, GREASE FITT	1.000 EA
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 EA
HW5100A05	WVY WSHR F/205 & 304 BRGS	1.000 EA
36EP3305A03	PUEP 182-4TC ENCL, 307 BRG, GREASER, REL	1.000 EA
HW4500A01	1641B(ALEMITE)400 UNIV, GREASE FITT	1.000 EA
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 EA
10XN2520A36	1/4-20X 2 1/4 HEX HD X	4.000 EA
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	4.000 EA
HA3101A28	THRUBOLT 1/4-20 X 12.500 OHIO ROD	4.000 EA
51XB1214A16	12-14X1.00 HXWSSLD SERTYB	1.000 EA
36FH4009A102	IEC FH GREASER PRIMED	1.000 EA
51XW1032A06	10-32 X .38, TAPTITE II, HEX WSHR SLTD S	3.000 EA
36CB4516	750LIPPED CB LID - GALVANNEAL	1.000 EA
37GS1001	GASKET, CONDUIT BOX LID, .06 THICK LEXID	1.000 EA
51XW0832A07	8-32 X .44, TAPTITE II, HEX WSHR SLTD SE	4.000 EA

<b>Parts List (continued)</b>		
<b>Part Number</b>	<b>Description</b>	<b>Quantity</b>
HA2009A01	36-4613 SL ANOD. ALUM (STER	1.000 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
LB1115N	LABEL,LIFTING DEVICE (ON ROLLS)	1.000 EA
MJ1000A02	GREASE, MOBIL POLYREX EM - 124047	0.050 LB
36FN3000C01SP	EXFN, PLASTIC, 5.25 OD, .912 ID	1.000 EA
MG1000Y03	MUNSELL 2.53Y 6.70/ 4.60, GLOSS 20,	0.022 GA
LC0005E01	CONN.DIA./WARNING LABEL (LC0005/LB1119N)	1.000 EA
NP3441L	ALUM SUPER-E VPWM INVERTER READY UL	1.000 EA
07PA1007	PKG GRP, PRINT PK1156A06	1.000 EA
PK3085X	FOAM SHAFT SUPPORT PRECUT 4-1/4 X 6-3/4	1.000 EA
MN416A01	TAG-INSTAL-MAINT no wire (2100/bx) 4/22	1.000 EA

**AC Induction Motor Performance Data**

Record # 65929

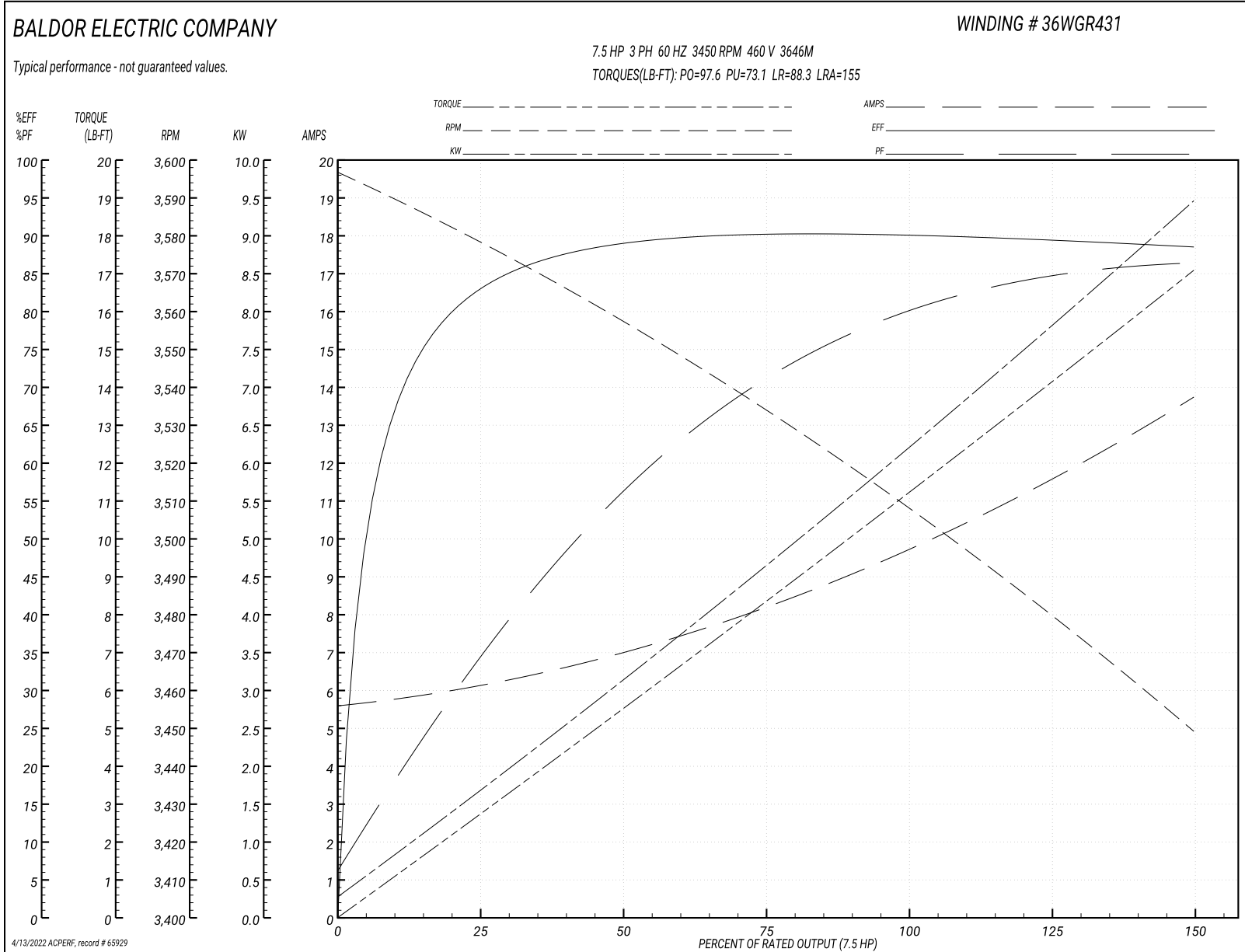
Typical performance - not guaranteed values

Winding: 36WGR431-R004		Type: 3646M	Enclosure: TEFC
<b>Nameplate Data</b>		<b>460 V, 60 Hz: High Voltage Connection</b>	
Rated Output (HP)	7.5	Full Load Torque	11.3 LB-FT
Volts	230/460	Start Configuration	direct on line
Full Load Amps	19.4/9.7	Breakdown Torque	97.6 LB-FT
R.P.M.	3450	Pull-up Torque	73.1 LB-FT
Hz	60 Phase	Locked-rotor Torque	88.3 LB-FT
NEMA Design Code	A KVA Code	Starting Current	155 A
Service Factor (S.F.)	1.15	No-load Current	5.69 A
NEMA Nom. Eff.	89.5 Power Factor	Line-line Res. @ 25°C	0.936 Ω
Rating - Duty	40C AMB-CONT	Temp. Rise @ Rated Load	72°C
S.F. Amps		Temp. Rise @ S.F. Load	84°C
		Locked-rotor Power Factor	48.4
		Rotor inertia	0.205 LB-FT <sup>2</sup>

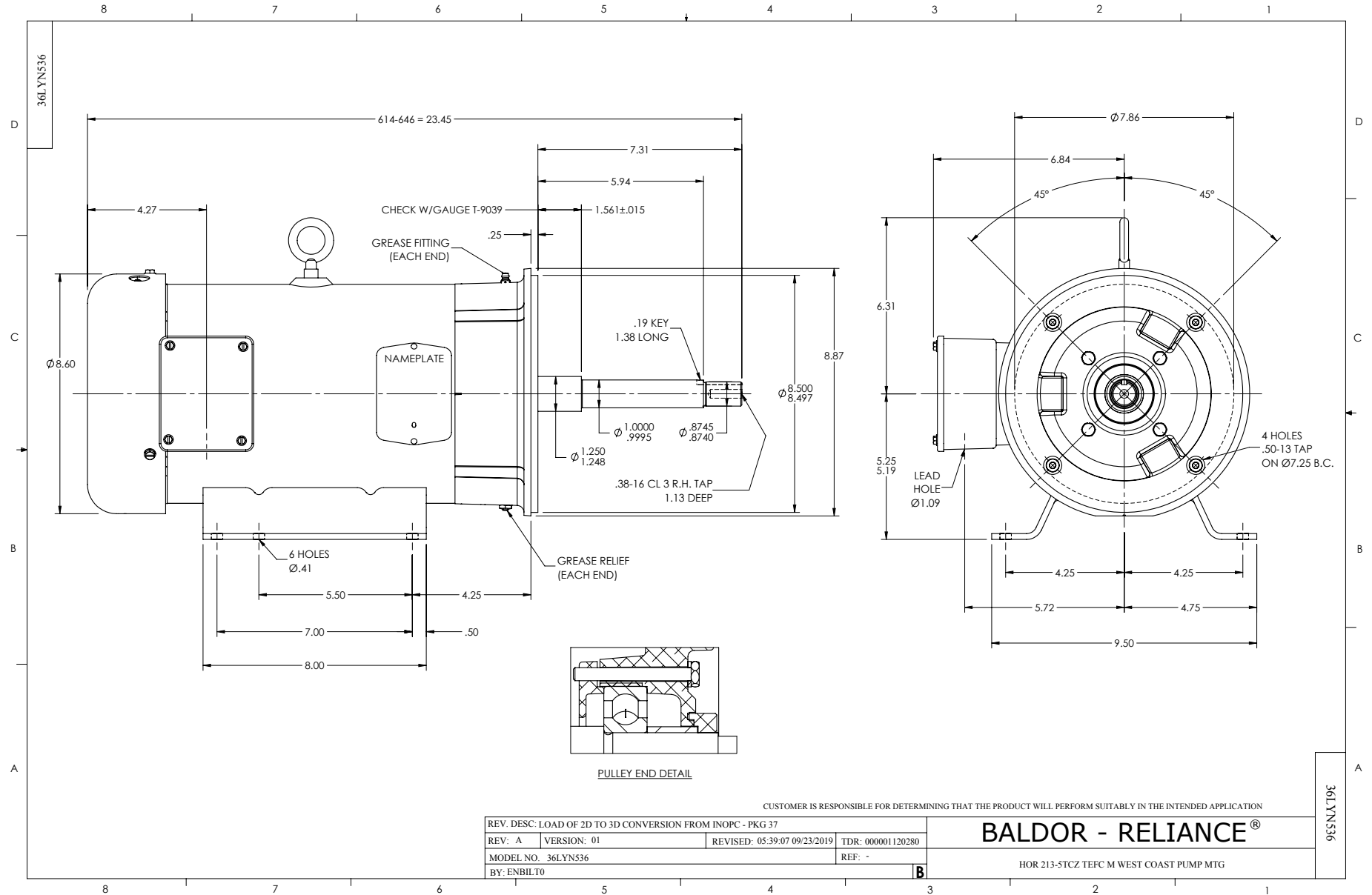
**Load Characteristics 460 V, 60 Hz, 7.5 HP**

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	35	58	71	79	85	87	83
Efficiency	82	88.4	90.2	90.3	89.7	88.3	89.9
Speed	3580	3557	3533	3507	3480	3449	3491
Line amperes	6.03	6.89	8.27	9.9	11.6	13.7	10.9

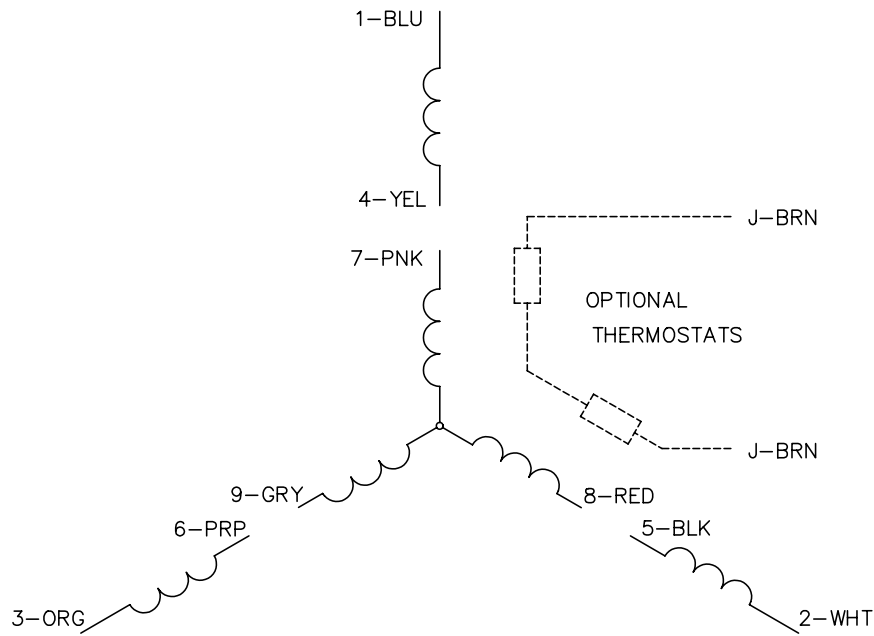
Performance Graph at 460V, 60Hz, 7.5HP Typical performance - Not guaranteed values



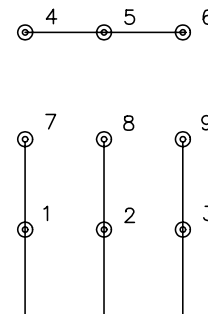




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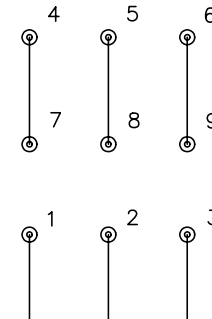


LOW VOLTAGE  
(2Y)



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.

REV. DESC: REVISE TO SHOW OPTIONAL COLORS			
REV. LTR: E	BY: JLP	REVISED: 01/19/99 10:15	TDR: 0171435
900000		FILE: AAA00005140	MDL: -
		MTL: -	

**BALDOR ELECTRIC Co.**

3PH, DV, 9 LEADS

CD0005