

ABB BALDOR RELIANCE III

Customer information packet

VDRX05144

1//.75HP, 1770//1475RPM, 3PH, 60//50HZ, 56C

Class - CLI GP C,D

Division - Division I

Specifications

Enclosure	XPFC
Frame	56C
Frame Material	Steel
Frequency	50.00 Hz 60.00 Hz
Haz Area Class and Group	CLI GP C,D
Haz Area Division	Division I
Motor Letter Type	Three Phase
Output @ Frequency	.750 HP @ 50 HZ 1.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ 190.0 V @ 50 HZ 460.0 V @ 60 HZ 380.0 V @ 50 HZ
Agency Approvals	CSA EEV UL
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	6
Current @ Voltage	3.200 A @ 208.0 V 3.200 A @ 230.0 V 3.080 A @ 190.0 V 1.600 A @ 460.0 V 1.540 A @ 380.0 V
Design Code	B
Drip Cover	No Drip Cover

Part Detail

Revision	B
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	35WGG004
Layout	35LYX748
Eff. date	01-10-2023
CD Diagram	CD0005
Poles	04
Leads	9#18
Proprietary	False
Created date	01-20-2022

Duty Rating	CONT
Efficiency @ 100% Load	85.5 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Haz Area Temp Code	T3C
Heater Indicator	No Heater
High Voltage Full Load Amps	1.5 a
Insulation Class	F
Inverter Code	Inverter Duty
KVA Code	N
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	2700 rpm
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3520M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	14.28 IN
Power Factor	69
Product Family	General Purpose
Pulley Face Code	C-Face
Rodent Screen	None
Service Factor	1.00
Shaft Diameter	0.625 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Speed	1770 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	Normally Closed Thermostat
Vibration Sensor Indicator	No Vibration Sensor
Winding Thermal 1	None

Winding Thermal 2

None

Nameplate

NP1401XPSLEV												
NO.							CC	010A				
S/N							TEMP CODE		T3C			
SPEC.	35-0000-1330						INV.TYPE		PWM			
CAT.NO.	VDRX05144						C HP FR	60	C HP TO	90		
HP	1//.75						CT HZ FROM		6	CT HZ TO		60
VOLTS	230/460//190/380						VT HZ FROM		6	VT HZ TO		60
AMPS	3.2/1.6//3.08/1.54						MAG CUR		2.2/1.1			
RPM	1770//1475						MX RPM		2700			
HZ	60//50	PH	3	CL	F	NOM.EFF.		85.5				
SER.F.	1.00	DES	B	SL HZ	1	WK2		0.144				
FRAME	56C	RATING		40C AMB-CONT								
	55C AMB @ 1.0 SF											
	1.15 SF SINEWAVE						NEMA MG-1 PT 5,IP55					

Parts List

Part number	Description	Quantity
SA400477	SA 35-0000-1330	1.000 ea
RA391639	RA 35-0000-1330	1.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
LC0145B01	CONNECTION LABEL	1.000 ea
PK3082	STYROFOAM CRADLE	1.000 ea
NP1401XPSLEV	SS XP INV UL CSA-EEV CC CL-I GP-C&D	1.000 ea
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 ea
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	4.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea
LB1359F	ALUM XP CAUTION LABEL	1.000 ea
35FH4005A01SP	IEC FH NO GREASER W/PRIMED	1.000 ea
51XW1032A06	10-32 X .38, TAPTITE II, HEX WSHR SLTD S	3.000 ea
35FN3002A05SP	EXFN, PLASTIC, 6.376 OD, .638 ID	1.000 ea
51XB1214A16	12-14X1.00 HXWSSLD SERTYB	1.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.050 lb
HA3104A06	THRUBOLT 5/16-18 X 8.50 OHIO ROD	4.000 ea
XY3118A12	5/16-18 HEX NUT DIRECTIONAL SERRATION	4.000 ea
35EP3700B07	FR ENDPLATE, XPFC - GROUP C, W/ DRAIN	1.000 ea
HW5100A03	WAVY WASHER (W1543-017)	1.000 ea
HW4506A02	BREATHHER/DRAIN-EXP PROOF-.125-27 NPTF AI	1.000 ea
HW3022E05	.125 DIA X .500 ROLLED SPRING PIN	1.000 ea
35EP1704A39	PUEP 205 BRG XP GRP C W/SLINGER, DRAIN	1.000 ea
HA2071A02	ALUM SLINGER 205 BRG DRILL RIG MOTOR	1.000 ea
80XN1032J04	10-32 X 1/4 SET SCREW, HEX SOC, CUP PT	1.000 ea
84XN1032J20	SCREW, SOC 10-32 X 1 1/4"BMH4602	2.000 ea
HW4001A01	1/4 HX SOC PIPE PLG (F/S) ALLOY STEEL W/	2.000 ea
63XN1032A07	10-32 X 7/16 TRUSS HEAD,TORX SERRATED ZN	2.000 ea
HW4506A02	BREATHHER/DRAIN-EXP PROOF-.125-27 NPTF AI	1.000 ea
HW3022E05	.125 DIA X .500 ROLLED SPRING PIN	1.000 ea
35CB1005A01	CONDUIT BOX,MACH - GROUP "C" MTRS	1.000 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
35CB1501A01	CONDUIT BOX LID, MACH. - GROUP "C" MTRS	1.000 ea
RM1020A41	O-RING, -150 BUNA-N, .103 CS X 2.862 ID	1.000 ea
MG1500Y02	WILKOPON PRIMER YELLOW	0.022 ga
MG1025G29	WILKOFAS, 789.229, DARK CHARCOAL GRAY	0.022 ga
36PA1000	PKG GRP, PRINT PK1016A08	1.000 ea
HW2501D13	KEY, 3/16 SQ X 1.375	1.000 ea
HA7000A04	KEY RETAINER 0.625 DIA SHAFTS	1.000 ea

AC Induction Motor Performance Data

Record # 86931

Typical performance - not guaranteed values

Winding: 35WGG004-R010			Type: 3520M		Enclosure: XPFC			
Nameplate Data				460 V, 60 Hz: High Voltage Connection				
Rated Output (HP)		1//.75		Full Load Torque		2.97 LB-FT		
Volts		230/460//190/380		Start Configuration		direct on line		
Full Load Amps		3.26/1.63//3.08/1.54		Breakdown Torque		13.68 LB-FT		
R.P.M.		1760//1475		Pull-up Torque		7.85 LB-FT		
Hz		60//50	Phase	3	Locked-rotor Torque		9.01 LB-FT	
NEMA Design Code		B		KVA Code	N	Starting Current		14.13 A
Service Factor (S.F.)		1		No-load Current		1.08 A		
NEMA Nom. Eff.		85.5	Power Factor		67	Line-line Res. @ 25°C		16.9 Ω
Rating - Duty		40C		AMB-CONT		Temp. Rise @ Rated Load		24°C
						Locked-rotor Power Factor		61.5
						Rotor inertia		0.144 lb-ft²

Load Characteristics 460 V, 60 Hz, 1 HP

% of Rated Load	25	50	75	100	125	150
Power Factor	30	47	60	69	76	79
Efficiency	72.1	81.7	84.7	85.7	85.5	84.7
Speed	1791	1784	1776	1768	1759	1750
Line amperes	1.11	1.22	1.38	1.59	1.82	2.09

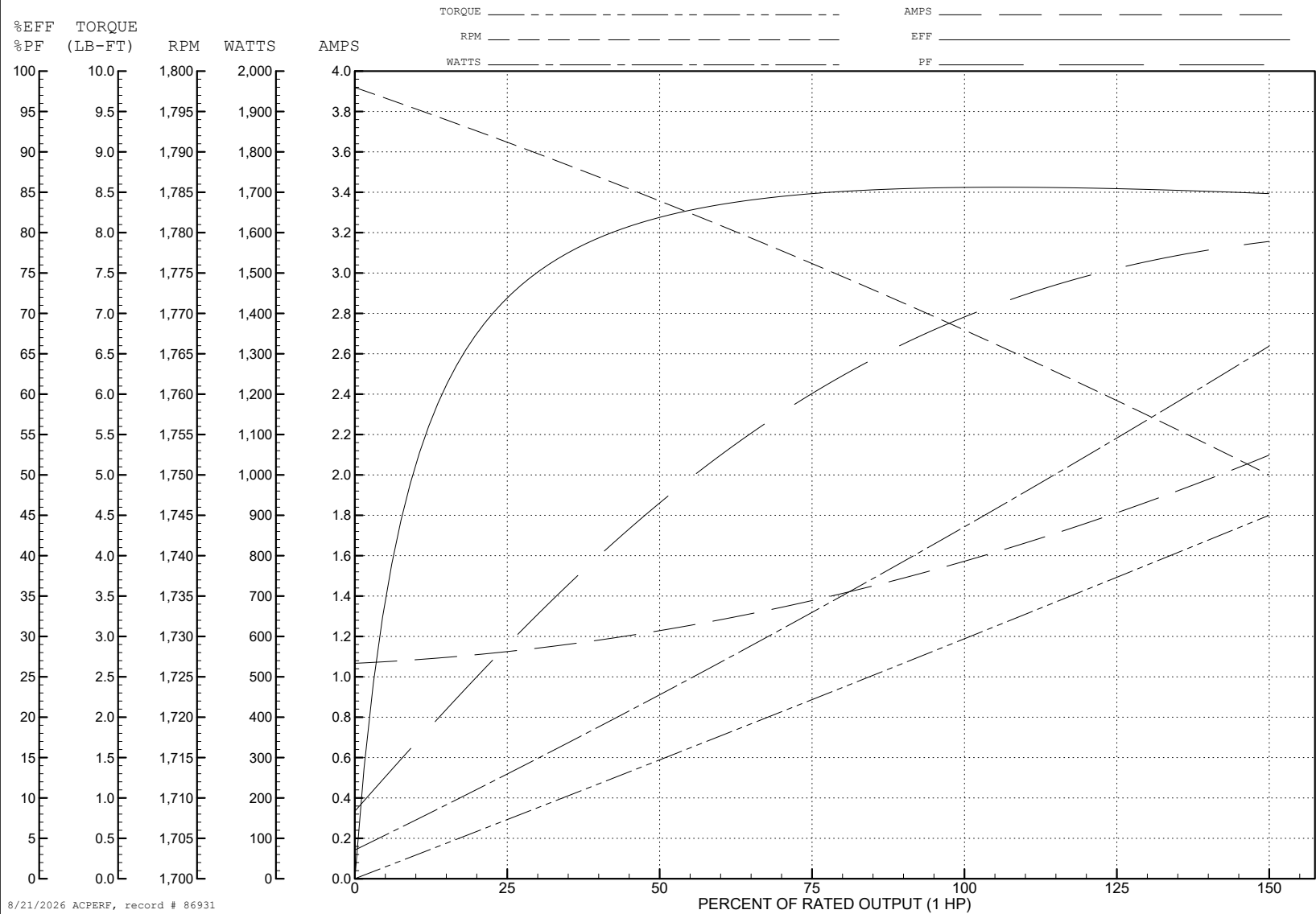
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WINDING # 35WGG004

Typical performance - not guaranteed values.

1 HP 3 PH 60 HZ 1768 RPM 460 V 3520M

TORQUES (LB-FT): PO=13.68 PU=7.85 LR=9.01 LRA=14.13



AC Induction Motor Performance Data

Record # 86932

Typical performance - not guaranteed values

Winding: 35WGG004-R010			Type: 3520M		Enclosure: XPFC			
Nameplate Data				380 V, 50 Hz: High Voltage Connection				
Rated Output (HP)		1//.75		Full Load Torque		2.68 LB-FT		
Volts		230/460//190/380		Start Configuration		direct on line		
Full Load Amps		3.26/1.63//3.08/1.54		Breakdown Torque		12.31 LB-FT		
R.P.M.		1760//1475		Pull-up Torque		7.45 LB-FT		
Hz		60//50	Phase	3	Locked-rotor Torque		8.55 LB-FT	
NEMA Design Code		B		KVA Code	N		Starting Current	13.12 A
Service Factor (S.F.)		1		No-load Current		1.06 A		
NEMA Nom. Eff.		85.5	Power Factor		67	Line-line Res. @ 25°C		16.9 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		22°C		
				Locked-rotor Power Factor		67.1		
				Rotor inertia		0.144 lb-ft²		

Load Characteristics 380 V, 50 Hz, 0.75 HP

% of Rated Load	25	50	75	100	125	150
Power Factor	29	46	58	67	74	79
Efficiency	68.3	79	82.7	84	83.7	83.2
Speed	1492	1486	1479	1471	1463	1455
Line amperes	1.08	1.18	1.32	1.5	1.71	1.95

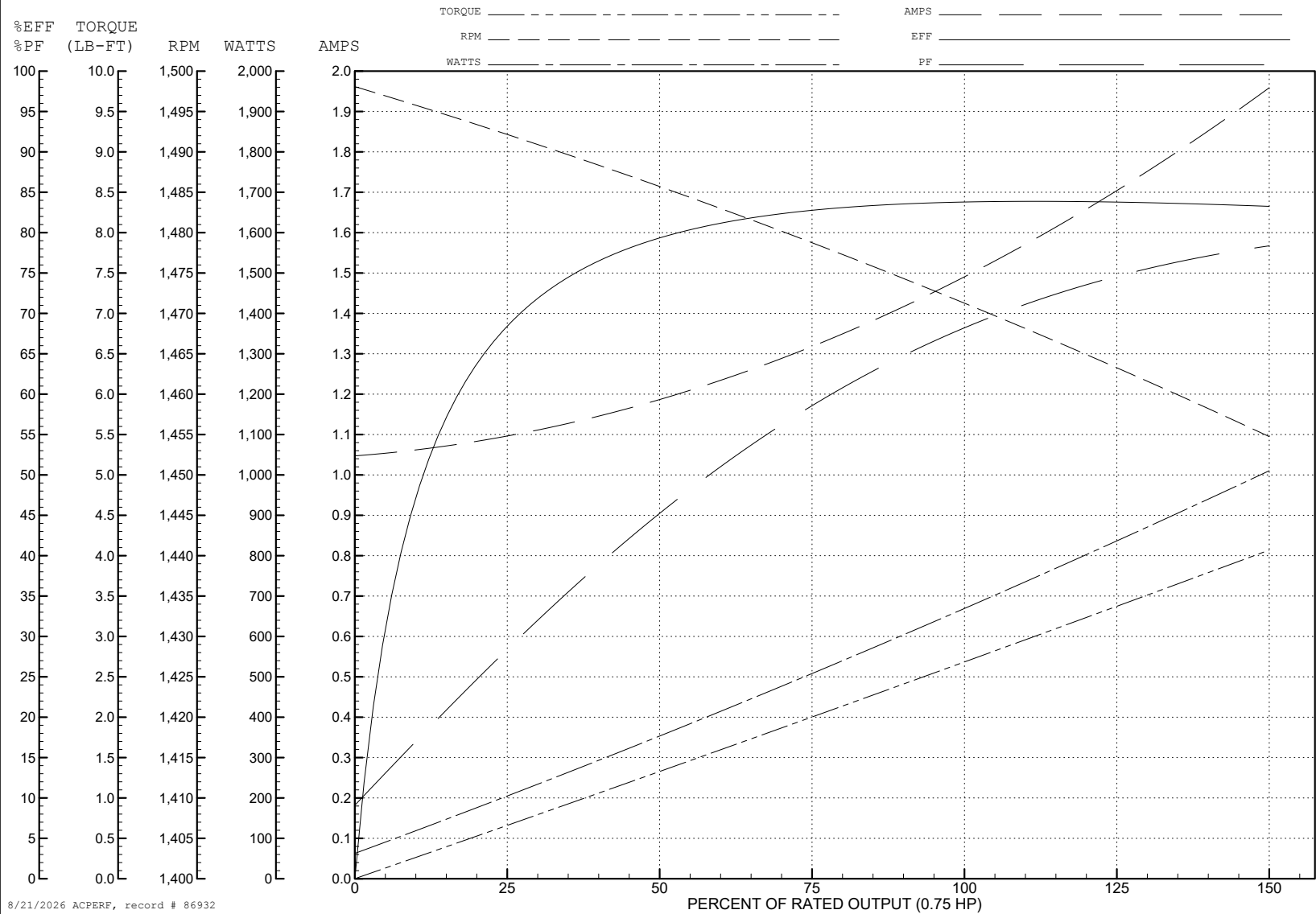
ABB Motors and Mechanical Inc.

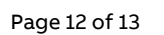
WINDING # 35WGG004

0.75 HP 3 PH 50 HZ 1471 RPM 380 V 3520M

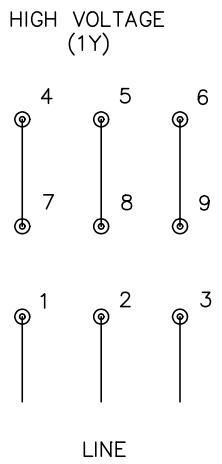
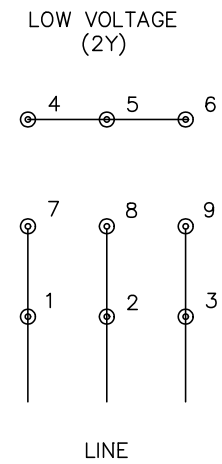
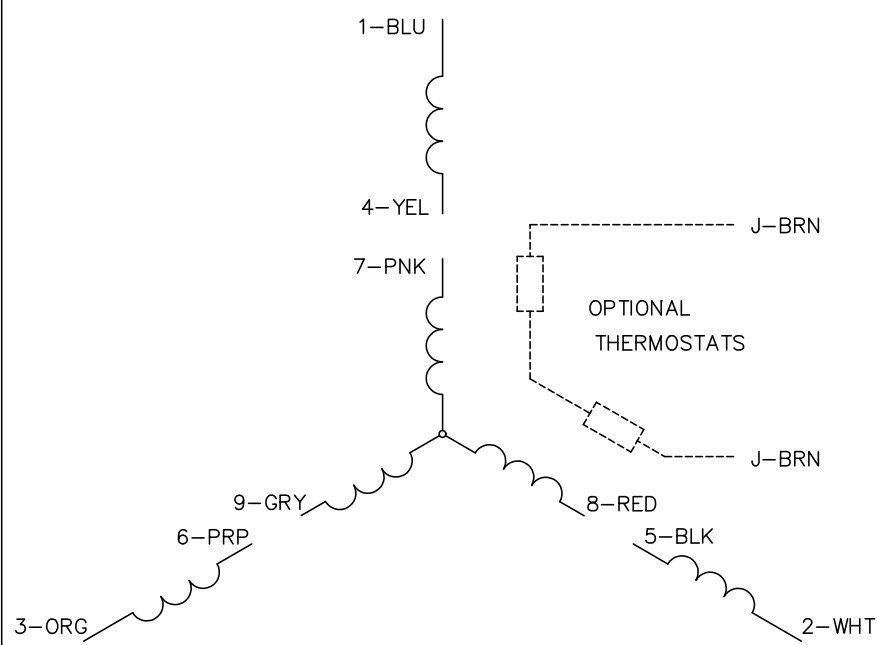
Typical performance - not guaranteed values.

TORQUES (LB-FT) : PO=12.31 PU=7.45 LR=8.55 LRA=13.12





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
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BALDOR ELECTRIC Co.

3PH, DV, 9 LEADS

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