

BALDOR® • RELIANCE 

Product Information Packet

ZDVSCP3770T

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

Part Detail							
Revision:	P	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Elec. Spec:	07WGX790	CD Diagram:	CD0005	Mfg Plant:	
Mech. Spec:	07M294	Layout:	07LYM294	Poles:	04	Created Date:	09-05-2012
Base:	RG	Eff. Date:	07-12-2019	Leads:	9#14		

Specs			
Catalog Number:	ZDVSCP3770T	Insulation Class:	F
Enclosure:	TEFC	Inverter Code:	Inverter Duty
Frame:	213TC	KVA Code:	J
Frame Material:	Iron	Lifting Lugs:	Standard Lifting Lugs
Output @ Frequency:	7.500 HP @ 60 HZ	Locked Bearing Indicator:	Locked Bearing
Synchronous Speed @ Frequency:	1800 RPM @ 60 HZ	Motor Lead Quantity/Wire Size:	9 @ 14 AWG
Voltage @ Frequency:	460.0 V @ 60 HZ	Motor Lead Exit:	Ko Box
	230.0 V @ 60 HZ	Motor Lead Termination:	Flying Leads
XP Class and Group:	None	Motor Type:	0738M
XP Division:	Not Applicable	Mounting Arrangement:	F1
Agency Approvals:	CSA	Power Factor:	81
	UR	Product Family:	Chemical Processing (Not DC)
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:	Standard
Bearing Grease Type:	Polyrex EM (-20F +300F)	Rodent Screen:	None
Blower:	None	Shaft Extension Location:	Pulley End
Current @ Voltage:	19.000 A @ 230.0 V	Shaft Ground Indicator:	No Shaft Grounding

	20.000 A @ 208.0 V	Shaft Rotation:	Reversible
	9.500 A @ 460.0 V	Shaft Slinger Indicator:	Shaft Slinger
Design Code:	A	Speed Code:	Single Speed
Drip Cover:	No Drip Cover	Motor Standards:	NEMA
Duty Rating:	CONT	Starting Method:	Direct on line
Electrically Isolated Bearing:	Not Electrically Isolated	Thermal Device - Bearing:	None
Feedback Device:	RESOLVER	Thermal Device - Winding:	Normally Closed Thermostat
Front Face Code:	Encoder/Feedback Device	Vibration Sensor Indicator:	No Vibration Sensor
Front Shaft Indicator:	No Key Or Flat	Winding Thermal 1:	None
Heater Indicator:	No Heater	Winding Thermal 2:	None

Nameplate NP3307E	
CAT NO	ZDVSCP3770T
SPEC.	07M294X790Z1
FRAME	213TC HP 7.5 TE
VOLTS	230/460
MAG CUR	8.6/4.3 FLA 19/9.5
RPM	1770 RPM MAX 4000
HZ	60 PH 3 CLASS F
SER.F.	1.00 SL HZ 1
NEMA-NOM-EFF	91.7 WK2 0.934
RATING	40C AMB-CONT
DE BRG	6307 ODE BRG 6206
CC	010A SN
	1.5:1 CHP PWM

Parts List		
Part Number	Description	Quantity
SA250934	SA 07M294X790Z1	1.000 EA
RA237782	RA 07M294X790Z1	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.	1.000 EA
WD1000B16	T&B CX70TN TERMINAL	1.000 EA
07EP1901A37G	FRONT 206 BRG, GRSR, REL, .125 NPT DRAIN	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
HW5100A06	W2420-025 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
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	4.000 EA

Parts List (continued)		
Part Number	Description	Quantity
XY3118A12	5/16-18 HEX NUT DIRECTIONAL SERRATION	4.000 EA
07FH1002A25G	307 C-FACE FH W/ 206 BRG, GRS, RLF, (CP)	1.000 EA
WD4100A02	DP-1000 HEYCO PLUG OR 62MP1000 MICRO PL	1.000 EA
10XN3118A52	5/16-18 X 3-1/4 HEX HEAD CAP SCR,GR.5,Z/	4.000 EA
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	4.000 EA
HA1103A13	#4 X 4 SCREEN FOR FAN CVR 07FH1002 (MR21	1.000 EA
13XT0832A07	8-32X7/16 TYP 23 PAN HD SLT DX	4.000 EA
HA6059A05	ADAPTER FOR 8.50" RABBET TO 4.50" RABBET	1.000 EA
84XN5013J16S	1/2-13 X 1 LOW HEAD HEX SOC HD, GRADE 8	4.000 EA
HW1001A50	LOCKWASHER 1/2, ZINC PLT.,879 OD, .509 I	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
10XF2520A12	1/4-20 X 3/4 HX HD TYPE F	2.000 EA
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	2.000 EA
HA1005A02	SLINGER, OD 2.00, ID 1.14, 206 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
LB1115N	LABEL,LIFTING DEVICE (ON ROLLS)	1.000 EA
MJ1000A02	GREASE, MOBIL POLYREX EM - 124047	0.050 LB
HA3104A32	THRUBOLT- 5/16-18 X12.750	4.000 EA
51XB1214A20	12-14X1.25 HXWSSLD SERTYB	1.000 EA

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611712073A	TACH 210	1.000 EA
MG1025N19	WILKOFEST, 778.50, RELIANCE BLUE-GREEN	0.036 GA
LB1119N	WARNING LABEL	1.000 EA
LC0145B01	CONNECTION LABEL	1.000 EA
NP3307E	SS CP VEC UL CSA CC W/OUT DESIGN FIELD	1.000 EA
07PA1011	PKG GRP, 07 CAST IRON PK1181	1.000 EA
MN416A01	TAG-INSTAL-MAINT no wire (1200/bx) 3/19	1.000 EA

REL. S.O.	ZDVSCP3770T	VOLTS	460	ENCLOSURE	TEFC	WYE CONNECTION	OHMS PER PHASE
FRAME	213TC	AMPS	9.5	MAX SAFE RPM	4000	(AT BASE RATING, 25°C)	
HP	7.5	DUTY	CONT	In (AMPS)	4.3	R1	0.7550 X1 2.5800
BASE SPEED	1770	S.F.	1.0	P.F. @NL/FL	5/81	R2	0.4560 X2 1.9300
PHASE/HZ	3/60	AMB ⁰ C/INSUL	40/F	WK ² (lb-ft ²)	0.86		XMI 56.0000

Rated Full Load Data

	RPM	HP	Torque	Volts	Freq-Hz	Amps
Base Speed	1769	7.5	22.30	460	60	9.44
Max Speed	2653	7.5	14.82	460	90	8.80
Min Speed	0	0.0	22.13	27.10	1.03	9.44

Load Performance at Base Speed

	RPM	HP	Torque	Volts	Freq-Hz	Amps
No Load	1799	0.0	0.00	460	60	4.30
1/4	1792	1.8	5.40	460	60	4.68
1/2	1784	3.7	11.00	460	60	5.93
3/4	1777	5.6	16.50	460	60	7.53
Full Load	1769	7.5	22.30	460	60	9.44
O/L	1714	17.9	54.90	460	60	23.00

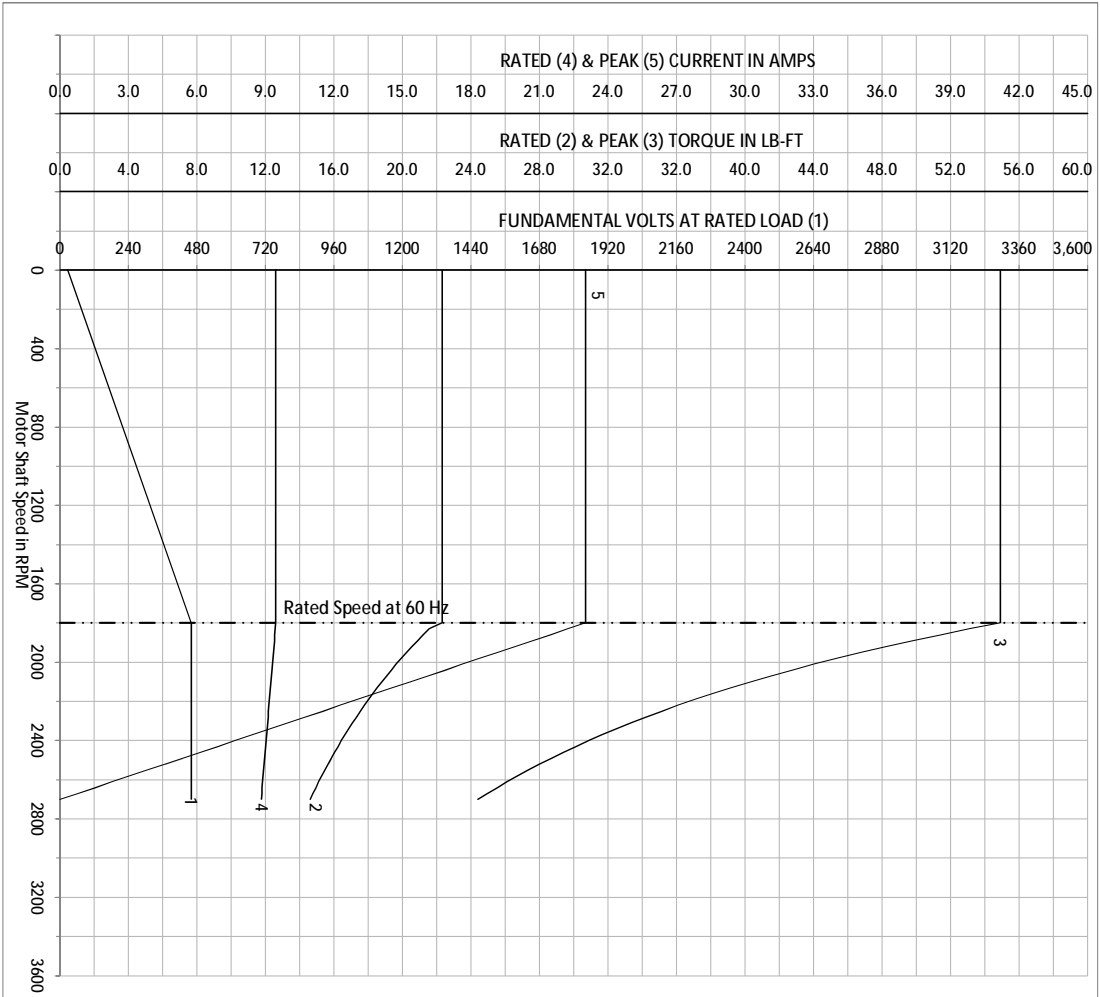
Blower Data	Volts	Ph/Hz	FL Amps	LR Amps	Frame	CFM

Remarks: Calculated Data
Vector PWM Inverter Duty

 <small>A MEMBER OF THE ABB GROUP</small>	<small>DR BY</small> Michael Williams <small>CK BY</small> Michael Williams <small>APP BY</small> Michael Williams <small>DATE</small> 5/14/2013	A-C MOTOR PERFORMANCE CURVES	07M294X790Z1
	<small>ISSUE DATE</small> 5/14/2013		

REL. S.O.	ZDVSCP3770T	VOLTS	460	ENCLOSURE	TEFC	WYE/CONN EQ CKT OHMS PER PHASE (AT BASE RATING, 25°C)
FRAME	213TC	AMPS	9.5	MAX SAFE RPM	4000	R1 0.7550 X1 2.5800
HP	7.5	DUTY	CONT	In (AMPS)	4.3	R2 0.4560 X2 1.9300
BASE SPEED	1770	S.F.	1.00	P.F. @NL/FL	5/81	XM 56.0000
PHASE/HZ	3/60	AMB ⁰ C/INSUL.	40/F	Wk ² (lb-ft ²)	0.86	

Vector PWM Inverter Duty
Variable Speed AC Motor Curves



Calculated Data

Data Valid For Nameplate Speed Range only

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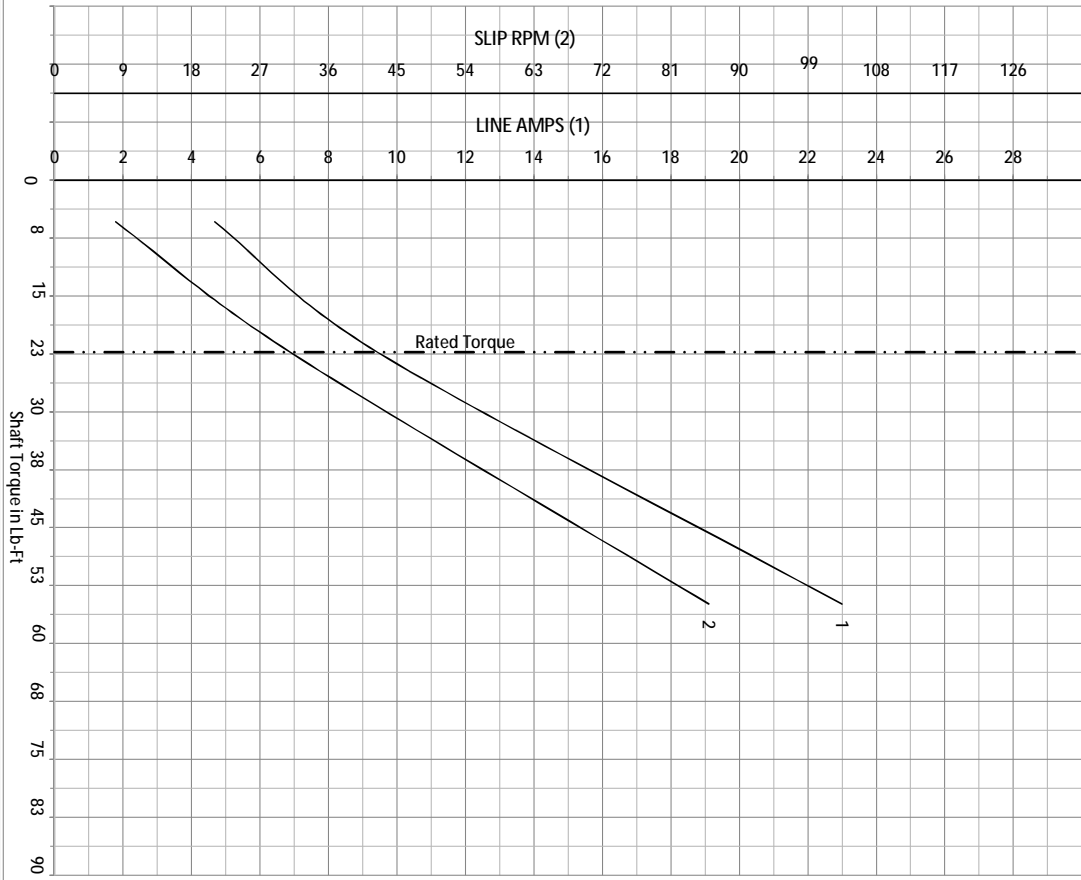
DR BY: Michael Williamson
CK BY: Michael Williamson
APP BY: Michael Williamson
DATE: 5/14/2013

A-C MOTOR PERFORMANCE CURVES

07M294X790Z1
SH 1 of 2
ISSUE DATE: 5/14/2013

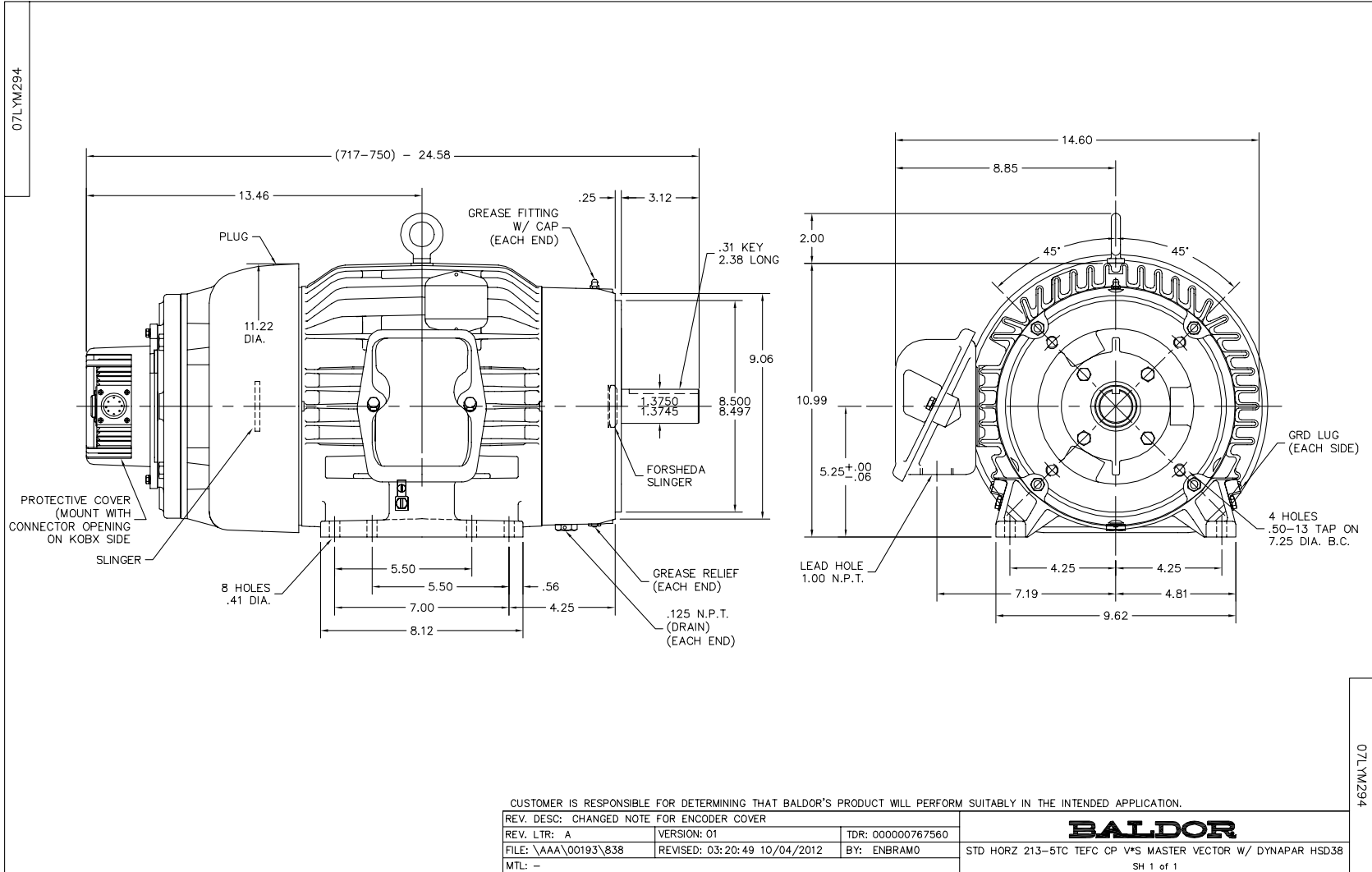
REL. S.O.	ZDVSCP3770T	VOLTS	460	ENCLOSURE	TEFC	WYE CONN. EQ. CKT OHMS PER PHASE
FRAME	213TC	AMPS	9.5	MAX SAFE RPM	4000	(AT BASE RATING, 25°C)
HP	7.5	DUTY	CONT	In (AMPS)	4.3	R1 0.7550 X1 2.5800
BASE SPEED	1770	S.F.	1.00	P.F. @NL/FL	5/81	R2 0.4560 X2 1.9300
PHASE/HZ	3/60	AMB ⁶ /INSUL.	40/F	WK ² (Lb-Ft ²)	0.86	XM 56.0000

Vector PWM Inverter Duty
Variable Speed AC Motor Curves

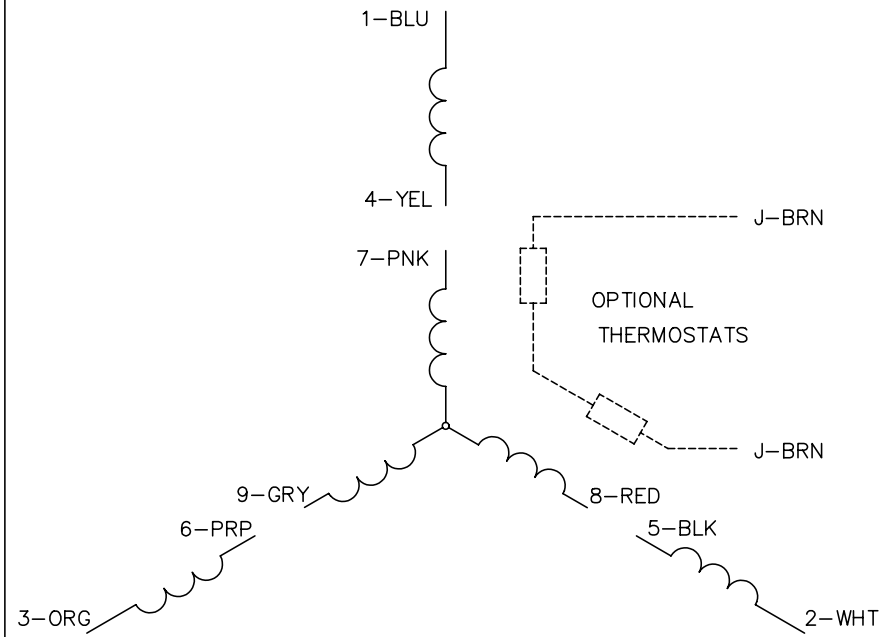


Calculated Data
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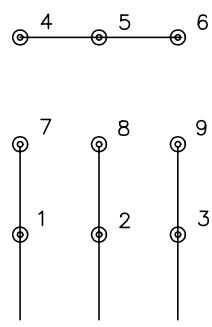
	DR BY	Michael Williams	A-C MOTOR	07M1294X790Z1
	CK BY	Michael Williams	PERFORMANCE CURVES	SH 2 of 2
	APP BY	Michael Williams	ISSUE DATE	5/14/2013
A MEMBER OF THE ABB GROUP	DATE	5/14/2013		



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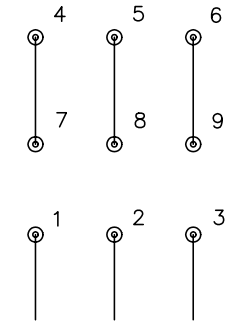


LOW VOLTAGE (2Y)



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
90000		FILE: AAA00005140	MDL: -
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BALDOR ELECTRIC Co.

3PH, DV, 9 LEADS

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