

BALDOR® • RELIANCE 

Product Information Packet

D5050R

50 1750 MC2812ATZ DPG 500V

Part Detail							
Revision:	-	Status:	PRD/A	Change #:		Proprietary:	No
Type:	DC	Prod. Type:		Elec. Spec:	G6185B A	CD Diagram:	406770-002
Enclosure:	DP	Mfg Plant:		Mech. Spec:		Layout:	609950-001
Frame:	MC281	Mounting:	F2	Poles:	00	Created Date:	04-09-2015
Base:		Rotation:	R	Insulation:	F	Eff. Date:	04-13-2015
Field Type:		Literature:		Elec. Diagram:		Replaced By:	

Specs			
Enclosure:	DP		
Frame:	MC2812ATZ		
Frame Material:	Steel		
Agency Approvals:	CCSA US		
Base Indicator:	Rigid		
Bearing Grease Type:	Polyrex EM (-20F +300F)		
Drip Cover:	No Drip Cover		
Duty Rating:	CONT		
Feedback Device:	NO FEEDBACK		
Field Winding Type:	STAB SHUNT		
Frame Prefix:	MC		
Heater Indicator:	No Heater		
Insulation Class:	F		
Lifting Lugs:	Standard Lifting Lugs		
Mounting Arrangement:	F2		
Shaft Extension Location:	Pulley End		

Shaft Ground Indicator:	No Shaft Grounding		
Shaft Slinger Indicator:	No Slinger		
Motor Standards:	NEMA		

Nameplate 000613006HP	
CAT.NO.	D5050R
FR	MC 2812ATZ
ENCL.	DP
ENCL MOD	GUARDED
MAX SAFE SPEED	4500
FIELD DATA	
WINDING	STAB SHUNT
VOLTS	300
MAX AMPS @ 25 C	2.02
HOT AMPS	1.44/ .95
BRUSH:419904051AB; FLD. DATA	
FOR HIGH VOLTS; FIELD VOLTS	
SPEC NO.	T28S1313
HP	50
RPM	1750/ 2300
VOLTS	500
AMPS	85.00
SER.NO.	
DUTY	CONT
S.F.	1.0
INSUL	F
AMB.	40
POWER CODE	C
D.E. BRG.	65BC03J30X
O.D.E. BRG.	55BC02J30X
MIN. AMB.	0
TYPE	TR
	150/300

Parts List		
Part Number	Description	Quantity
SA297068	SA T28S1313	1.000 EA
AA016119	AA T28S1313	1.000 EA
000613006HP	NAMEPLATE - RPM III D-C MOTOR W/CSA LOGO	1.000 EA
000692000FP	NP, WARNING LIFT INSTRUCTIONS	1.000 EA
000692000FS	WARNING LABEL	1.000 EA
036170004EA	ROUND HEAD DRIVE SCREW	6.000 EA
406770002	C/D TAG STAB SHUNT D.V.	1.000 EA
034182010GA	KEY 1/2 X 3/8 X 1.25"	1.000 EA
036000020HB	HHCS M6-1.0X20MM PLATED	4.000 EA
036000020KB	MHHCS M10-1.5X20MM PLTD.	4.000 EA
036501008AB	KPNUT M6-1.0 ZINCPLTED	8.000 EA
036610010AB	MHSLW M10 PLATED	4.000 EA
419904051AB	BRUSH EXTRUDER DUTY C	8.000 EA
419905003A	FLAT WASHER ROCKER RPM III RGG	4.000 EA
419905008A	HARDWARE	8.000 EA
706364051RE	BRHLD METRIC SPRING CHG.	4.000 EA
706372011RG	BR STUD/ROCKER	1.000 EA
034693001AB	PPLG - G508- use 034692001AB	1.000 EA
034693001AB	PPLG - G508- use 034692001AB	1.000 EA
035000001A	ALFTG 1/8" 1610-BL	1.000 EA
035000001BB	GREASE FTG,GRS.IN	1.000 EA
036000075KB	HHCS M10 75MM ZINCPLAT	3.000 EA
036100060JA	M8-1.25 X 60MM HXSOCHDCS	3.000 EA
036500011AB	METRIC NUT M12-1.75 PLT.	4.000 EA

Parts List (continued)		
Part Number	Description	Quantity
036500011AB	METRIC NUT M12-1.75 PLT.	4.000 EA
048977006C	GRFTG - XP	1.000 EA
400638001AD	WAVEN - 400	1.000 EA
418150003A	GREASE FITTING CAP	2.000 EA
609830005V	TBOLT METRIC RP609830-	4.000 EA
801928052A	BRKT,ODE,C280	1.000 EA
801929052A	BRKT,DE,C280	1.000 EA
032018004CK	HHCS 3/8-16X1/2L PLATED	4.000 EA
036000012HB	HHCS M6X12MM LONG PLATED	4.000 EA
036000045JB	M8-1.25 X 45MM HXHCS	4.000 EA
036620009AB	M8 EXTERNAL LK WASHER	1.000 EA
074875000A	CONDUIT BOX COVER	1.000 EA
402731000A	GASK 320-400	1.000 EA
417733004D	GASKET CONDUIT BOX	2.000 EA
418014004A	ADAPT 418014-4WCA	1.000 EA
418018074A	GROUND LABEL G100 METRIC 160 D.C.	1.000 EA
422919053	HHCVR KIT, C280, DE, XT	1.000 EA
422919055	HHCVR KIT, C280, DE, LOUVERED	1.000 EA
422919055	HHCVR KIT, C280, DE, LOUVERED	1.000 EA
422919064	HHCVR KIT, C280, ODE, SOLID	1.000 EA
422919066	HHCVR KIT, C280, ODE LOUVERED	1.000 EA
422919066	HHCVR KIT, C280, ODE LOUVERED	1.000 EA
706305026A	GUARD,SHAFT	1.000 EA
706320009A	CB, 2.00 CONDUIT, METRIC, SHEET METAL	1.000 EA

Product Information Packet: D5050R - 50 1750 MC2812ATZ DPG 500V

000640000P	TAG WINDING THERMOST	1.000 EA
000692000NG	LABEL ;NP 4POLE METRIC LABEL	1.000 EA
034180028HA	KEY 5/8X5/8X3-1/2L-445	1.000 EA

609950-001

**INDUSTRIAL DIRECT CURRENT MOTORS
AND GENERATORS — RPM III**

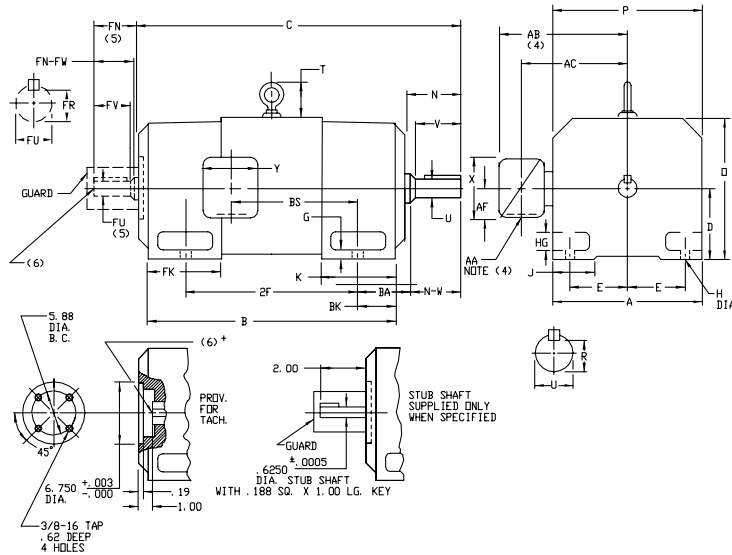
ENCLOSURE: DRIP-PROOF FULLY-GUARDED, SPLASHPROOF, TOTALLY ENCLOSED COOLING: SELF-VENTILATED NON-VENTILATED

MOUNTING: FOOT ACCESSORIES: PROVISION FOR TACHOMETER MOUNTING ONLY WHEN SPECIFIED

METHOD OF DRIVE: COUPLED OR BELTED

FRAMES SC2113ATZ THRU LC2812ATZ

DIMENSIONS ARE IN INCHES; SEE 609950-1M FOR DIMENSIONS IN MILLIMETERS



FRAME	A	B(1)	E	G	H	HG	J	D	P	T	BA	K	FK	BK
SC2113ATZ-LC2113ATZ	10.25	5.25	4.25	.44	.44	1.38	1.75	10.44	10.31	2.56	3.50	5.19	6.81	2.38
SC2512ATZ-LC2512ATZ	12.31	6.25	5.00	.50	.56	1.62	2.00	12.50	12.44	3.06	4.25	6.06	8.00	3.00
MC2812ATZ-LC2812ATZ	13.78	7.00	5.50	.62	.56	1.88	2.75	14.00	13.94	3.38	4.75	6.75	9.19	3.50

FRAME	C(7)	B	BS	2F	DRIVE END SHAFT AND KEY							OPPOSITE DRIVE END SHAFT AND KEY(S)					WT. LBS.		
					N	N-W	UK(2)	V	R(3)	SO.	LGTH.	FN	FN-FW	FK(2)	FV	FR(3)		SD	LGTH.
SC2113ATZ	28.38	22.50	11.38	18.00	4.00	3.75	1.875	3.50	1.591	.500	2.50	3.50	3.25	1.625	3.00	1.416	.375	2.25	315
MC2113ATZ	29.62	23.75	12.62	18.00	4.00	3.75	1.875	3.50	1.591	.500	2.50	3.50	3.25	1.625	3.00	1.416	.375	2.25	340
LC2113ATZ	31.25	25.38	14.25	18.00	4.00	3.75	1.875	3.50	1.591	.500	2.50	3.50	3.25	1.625	3.00	1.416	.375	2.25	370
SC2512ATZ	31.69	25.06	12.06	20.00	4.50	4.25	2.125	4.00	1.845	.500	3.00	4.00	3.75	1.875	3.50	1.591	.500	2.50	505
MC2512ATZ	33.19	26.56	13.56	20.00	4.50	4.25	2.125	4.00	1.845	.500	3.00	4.00	3.75	1.875	3.50	1.591	.500	2.50	540
LC2512ATZ	34.69	28.06	15.06	20.00	4.50	4.25	2.125	4.00	1.845	.500	3.00	4.00	3.75	1.875	3.50	1.591	.500	2.50	580
MC2812ATZ	37.38	29.94	14.25	22.00	5.00	4.75	2.375	4.50	2.021	.625	3.50	4.50	4.25	2.125	4.00	1.845	.500	3.00	775
LC2812ATZ	39.62	32.19	16.50	22.00	5.00	4.75	2.375	4.50	2.021	.625	3.50	4.50	4.25	2.125	4.00	1.845	.500	3.00	850

- (1) "P" DIMENSION WILL NOT BE EXCEEDED SHIMS UP TO .03 INCHES IN THICKNESS ARE USUALLY REQUIRED FOR COUPLED OR GEARED MACHINES.
- (2) "U" AND "FV" VARY ---+ .000 - .001
- (3) "R" AND "FR" VARY ---+ .000 - .015
- (4) TERMINAL BOX VARIES WITH H.P. FOR DIMENSIONS "AA", "AB", "AC", "AF", "X" AND "Y". REFER TO BOX D/S. (STD. 609959-1, "K/P" 609959-2, MILL 609959-3)
- (5) OPPOSITE DRIVE END SHAFT SUPPLIED ONLY WHEN SPECIFIED.
- (6) MOTOR SHAFT TAPPED FOR SCREW-IN STUB SHAFT.
- (7) WHEN THE MOTOR APPLICATION DOES NOT REQUIRE THE USE OF DFP, DRIVE END, ADD .25 TO "C" DIM. FOR BRACKET COVER.

TERMINAL BOX CAN BE ROTATED FOR LEAD OUTLET AT TOP, SIDES OR BOTTOM. TERMINAL BOX LOCATED ON OPPOSITE SIDE WHEN F-2, W-1, W-4, V-5, W-7, OR C-1 MOUNTING IS SPECIFIED. BOX LOCATED ON TOP WHEN SPECIFIED. MOTOR WEIGHT MAY VARY 15% FOR NON-STANDARD RATINGS AND/OR ACCESSORIES. IF MOUNTING CLEARANCE DETAILS ARE REQUIRED, CONSULT FACTORY.

CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION.

REV. DESC: LOADED TO BUS	VERSION: 00	TDR: 000000577407
REV. LTR: -	REVISED: 10/21/19 01/26/2011	BY: RGGBC
FILE: \RGG\00015\543		
MTL: -		

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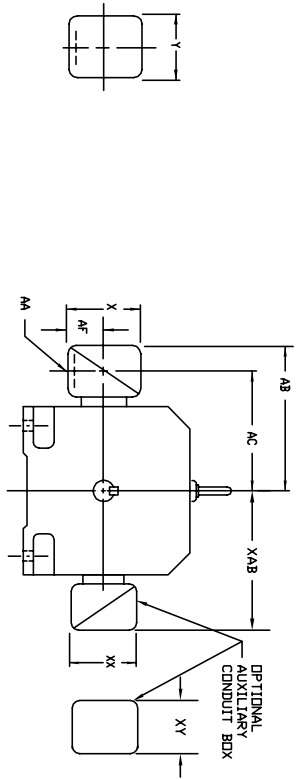
DIMENSION DRAWING, SC2113ATZ - LC2812ATZ, DPP, TENV, FOOT MTG

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609950-001

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INDUSTRIAL DIRECT CURRENT MOTORS
AND GENERATORS - RPM III
TERMINAL BOX DIMENSIONS
STANDARD SIZE AND ONE SIZE LARGER
FRAMES C2113ATZ THRU C2815ATZ



DIMENSIONS ARE IN INCHES

FRAME SIZE	STANDARD SIZE						ONE SIZE LARGER								
	MAX. AMPS	AK(1)	AB	AC	AF	PART NUMBER	AK(1)	AB	AC	AF	PART NUMBER				
C2113ATZ	40	3/4 & 1"	8.97	7.47	1.94	4.38	5.00	7.05028-1-R	1-1/4 & 1-1/2	10.03	8.03	2.50	5.00	6.12	7.05029-1-R
C2115ATZ	96	1-1/4 & 1-1/2	10.03	8.03	2.50	5.00	6.12	7.05029-1-R	2" & 2-1/2	11.16	8.41	3.19	7.00	7.62	7.05030-1-R
(2)	208	2" & 2-1/2	11.16	8.41	3.19	7.00	7.62	7.05030-1-R	2" & 2-1/2	11.16	8.41	3.19	7.00	7.62	7.05030-1-R
C2513ATZ	40	3/4 & 1"	10.03	8.53	1.94	4.38	5.00	7.05029-1-R	1-1/4 & 1-1/2	11.09	9.09	2.50	5.00	6.12	7.05029-1-R
C2515ATZ	96	1-1/4 & 1-1/2	11.09	9.09	2.50	5.00	6.12	7.05029-1-R	2" & 2-1/2	12.22	9.47	3.19	7.00	7.62	7.05030-1-R
(2)	208	2" & 2-1/2	12.22	9.47	3.19	7.00	7.62	7.05030-1-R	2" & 2-1/2	12.22	9.47	3.19	7.00	7.62	7.05030-1-R
C2813ATZ	128	2"	14.03	10.53	4.25	8.44	7.25	7.4874-R	3"	14.47	11.22	4.25	8.44	7.25	7.4874-R
C2815ATZ	185	3"	14.47	11.22	4.25	8.44	7.25	7.4874-R	4"	15.91	11.84	5.38	10.56	9.00	7.0308-3-R
(2)	259	4"	15.91	11.84	5.38	10.56	9.00	7.0308-3-R	5" (4)	18.72	13.47	7.00	12.75	15.00	7.02658-1-C

FRAME SIZE	STANDARD SIZE						ONE SIZE LARGER								
	MAX. AMPS	AK(3)	AB	AC	AF	PART NUMBER	AK(3)	AB	AC	AF	PART NUMBER				
C2113ATZ	18	3/4	10.03	8.03	2.50	5.00	5.75	7.05028-2-S	1"	10.03	8.03	2.50	5.00	5.75	7.05028-2-T
C2115ATZ	40	1"	10.03	8.03	2.50	5.00	5.75	7.05028-2-R	1-1/2	10.97	8.53	3.00	6.00	7.00	7.05029-2-S
(2)	96	1-1/2	10.97	8.53	3.00	6.00	7.00	7.05029-2-R	2-1/2	12.66	8.91	3.62	7.88	9.23	7.05029-2-S
208	3/4	10.97	8.53	3.00	6.00	7.00	7.05029-2-S	1"	11.09	9.09	2.50	5.00	5.75	7.05028-2-T	
C2513ATZ	40	1"	11.09	9.09	2.50	5.00	5.75	7.05028-2-T	1-1/2	12.03	9.59	3.00	6.00	7.00	7.05029-2-R
C2515ATZ	96	1-1/2	12.03	9.59	3.00	6.00	7.00	7.05029-2-S	2"	12.03	9.59	3.00	6.00	7.00	7.05029-2-S
(2)	208	2"	12.03	9.59	3.00	6.00	7.00	7.05029-2-S	1-1/2	12.03	9.59	3.00	6.00	7.00	7.05029-2-S
C2813ATZ	128	2"	12.78	10.34	3.00	6.00	7.00	7.5460-T	3"	14.47	10.72	3.62	7.88	9.23	7.6700-R
C2815ATZ	185	3"	14.47	10.72	3.62	7.88	9.23	7.6700-R	4"	15.78	11.59	4.12	9.50	10.50	7.6700-R
(2)	259	4"	15.78	11.59	4.12	9.50	10.50	7.6700-R	5" (4)	18.59	13.34	7.00	12.75	15.00	7.6870-S

FRAME SIZE	STANDARD SIZE						ONE SIZE LARGER					
	AMP'S	AB	AC	AF	X	Y	AB	AC	AF	X	Y	
C210	100	10.71	8.98	2.72	7.48	7.48	7.48	7.48	7.48	7.48	7.48	
200	11.26	9.25	3.35	8.82	8.82	8.82	7.48	7.48	7.48	7.48	7.48	
100	11.30	9.57	2.72	7.48	7.48	7.48	7.48	7.48	7.48	7.48	7.48	
200	11.85	9.84	3.35	8.82	8.82	8.82	7.48	7.48	7.48	7.48	7.48	
400	17.48	12.75	6.20	14.39	14.39	14.39	7.48	7.48	7.48	7.48	7.48	
800	17.48	12.75	6.20	14.39	14.39	14.39	7.48	7.48	7.48	7.48	7.48	
200	12.60	10.99	3.76	8.82	8.82	8.82	7.48	7.48	7.48	7.48	7.48	
400	18.27	13.54	6.20	14.39	14.39	14.39	7.48	7.48	7.48	7.48	7.48	
800	18.27	13.54	6.20	14.39	14.39	14.39	7.48	7.48	7.48	7.48	7.48	
1600	18.27	13.54	7.68	15.35	15.35	15.35	7.48	7.48	7.48	7.48	7.48	

(1) *M* CONDUIT
(2) STEEL TERMINAL BOX FOR C2113ATZ AND C2515ATZ
(3) *M* PIPE TAP
(4) TERMINAL BOX 76870-9R EXTENDS BELOW MOTOR FEET.
TERMINAL BOX CAN BE ROTATED FOR LEAD DULLET AT TOP, SIDES OR BOTTOM.
TERMINAL BOX LOCATED ON OPPOSITE SIDE WHEN F-2, V-1, V-4, V-5, V-7,
OR C-1 MOUNTING IS SPECIFIED. BOX LOCATED ON TOP WHEN SPECIFIED.
FOR *X*P TERMINAL BOX DIMENSIONS SEE 609959-2.
FOR *Y*P TERMINAL BOX DIMENSIONS SEE 609959-3.

CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION.

REV. DESC: ADD 706310-63G C/BOX TO C250 AND C280 FRAMES	VERSION: 01	TDR: 000000816512
REV. LTR: A		
FILE: \RGG\00021\153		REVISED: 03:09:09 09/06/2013
MTL: -		BY: RGGWT



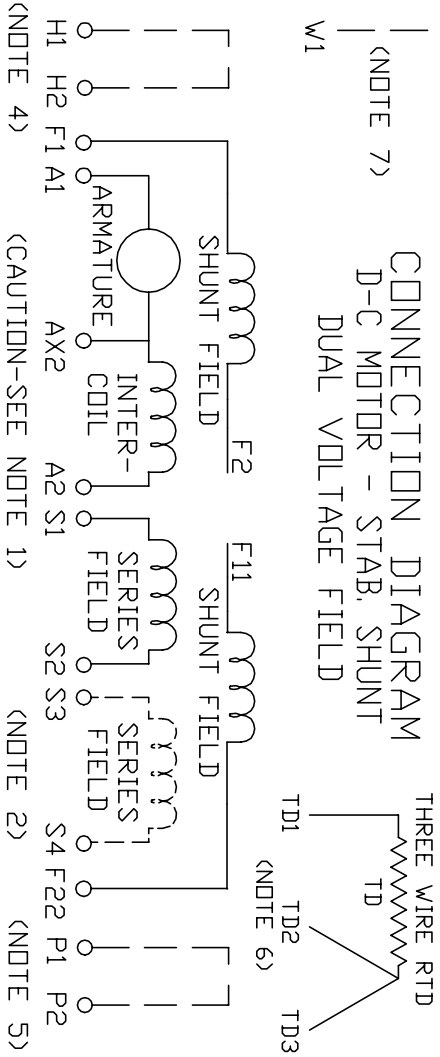
DIMENSION SHEET
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406770-002

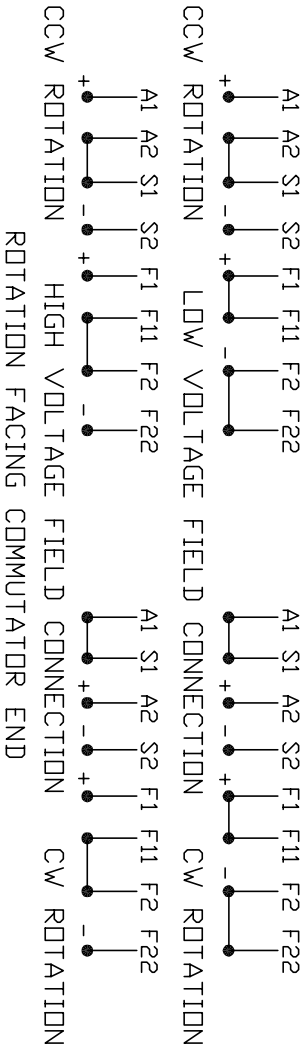
406770-002

CONNECTION DIAGRAM
D-C MOTOR - STAB, SHUNT
DUAL VOLTAGE FIELD



ARMATURE AND FIELD EXTERNAL CONNECTIONS

WARNING- SEE NOTE 8 FOR GROUNDING INSTRUCTIONS



1. CAUTION - ARMATURE AND SERIES FIELD MAY HAVE MULTIPLE LEADS.

1. CONNECT ALL LUGS WITH THE SAME MARKING TOGETHER.
2. OPTIONAL SERIES FIELD IS MARKED S3 AND S4. FOR CUMULATIVE SERIES FIELD, CONNECT S3 TO S2 AND CONNECT S4 TO NEGATIVE. FOR DIFFERENTIAL SERIES FIELD CONNECT S4 TO S2 AND S3 TO NEGATIVE.
3. OPTIONAL CONTROL SIGNAL LEAD IS MARKED AX2. ALWAYS TAKE INTERPOLE DROP BETWEEN A2 AND AX2. NOTE: NEMA DESIGNATION FOR AX2 IS LETTER C.
4. SPACE HEATERS, WHEN PROVIDED, WILL HAVE LEADS MARKED H1 AND H2, H3, H4, ETC.
5. THERMAL PROTECTOR, WHEN PROVIDED, WILL HAVE LEADS MARKED P1 AND P2, P3, P4, ETC.
6. WINDING RTD'S, WHEN PROVIDED, WILL HAVE LEADS MARKED TD1, TD2, & TD3
7. BRUSH WEAR SENSOR, WHEN PROVIDED, WILL HAVE LEAD MARKED W1.
8. **WARNING -** MOTOR MUST BE GROUNDED TO PREVENT SERIOUS INJURIES TO PERSONNEL. GROUND THE MOTOR PER IEC, NATIONAL ELECTRICAL CODE AND ANY APPLICABLE LOCAL ELECTRICAL CODES. A TAPPED HOLE IS PROVIDED IN THE CONDUIT BOX, ON THE FOOT. FRAME BRACE OR OPPOSITE OPPOSITE DRIVE END BRACKET, ADJACENT TO THE TERMINAL BOX FOR FOR MOTOR GROUNDING. GROUND LEAD, WHEN PROVIDED, WILL BE GREEN.

CUSTOMER _____ ORDER NO. _____

CUSTOMER _____ S.D. NO. _____

RELIANCE

REV. DESC: UPDATE LOGO AND TITLEBLOCK: LOADED TO BUS

REV. LTR: -

VERSION: 00

TDR: 000000781086

FILE: \RSN\00026\434

REVISED: 02: 35: 07 02/01/2013

MTL: -

BY: MGHPC

BALDOR

D-C MOTOR CONNECTION DIAGRAM STAB. SHUNT, DUAL VOLTAGE FIELD

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