

**BALDOR® • RELIANCE** 

**Product Information Packet**

**D5040R**

**40HP, 1750RPM, DC, 2512ATZ, DPG,**

Part Detail							
Revision:	-	Status:	PRD/A	Change #:		Proprietary:	No
Type:	DC	Prod. Type:		Elec. Spec:	G6266A A	CD Diagram:	406770-002
Enclosure:	DP	Mfg Plant:		Mech. Spec:		Layout:	609950-001
Frame:	LC251	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:	LC2512ATZ		
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:	LC		
Heater Indicator:	No Heater		
Insulation Class:	F		
Lifting Lugs:	Standard Lifting Lugs		
Mounting Arrangement:	F2		
Shaft Extension Location:	Pulley End		

<b>Shaft Ground Indicator:</b>	No Shaft Grounding		
<b>Shaft Slinger Indicator:</b>	No Slinger		
<b>Motor Standards:</b>	NEMA		



Parts List		
Part Number	Description	Quantity
SA297097	SA T25S1323	1.000 EA
AA016145	AA T25S1323	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
036600008AB	MFWSH M6 PLATED	1.000 EA
036000012HB	HHCS M6X12MM LONG PLATED	4.000 EA
036000020KB	MHHCS M10-1.5X20MM PLTD.	4.000 EA
036501008AB	KPNUT M6-1.0 ZINCPLETED	8.000 EA
036610010AB	MHSLW M10 PLATED	4.000 EA
419904-51AC	BRUSH EXTRUDER DUTY C	4.000 EA
419905003A	FLAT WASHER ROCKER RPM III RGG	4.000 EA
419905008A	HARDWARE	8.000 EA
706364051RCA	BRHLD METRIC SPRING CHG.	4.000 EA
706372011RE	ROCKR METRIC	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
036000060JB	M8-1.25 X 60MM HXHDCSCR	2.000 EA
036100070KA	METRIC HSHCS	3.000 EA

Parts List (continued)		
Part Number	Description	Quantity
036500010AB	METRIC NUT M10-1.5PLTD400	4.000 EA
036500010AB	METRIC NUT M10-1.5PLTD400	4.000 EA
048977006B	GRFTG - XP	1.000 EA
418150003A	GREASE FITTING CAP	2.000 EA
419912001A	WWSHR	1.000 EA
609830005T	TBOLT METRIC RP609830-	4.000 EA
801926052A	BRKT,ODE,C250 801926001WCC	1.000 EA
801927052A	BRKT,DE,C250	1.000 EA
032018004CK	HHCS 3/8-16X1/2L PLATED	4.000 EA
036000012HB	HHCS M6X12MM LONG PLATED	2.000 EA
036000045JB	M8-1.25 X 45MM HXHCS	4.000 EA
036620009AB	M8 EXTERNAL LK WASHER	1.000 EA
065564000B	GASK 250-280	1.000 EA
075453000A	CBOXC, PAINTED 250-280	1.000 EA
417733001D	GASKT	2.000 EA
418010006A	CAST,MPLATE,180-280,EX1,7BY	1.000 EA
418018074A	GROUND LABEL G100 METRIC 160 D.C.	1.000 EA
422919027	HHCVR KIT, C250, ODE, SOLID	1.000 EA
422919029	HHCVR KIT, C250, DE, LOUVERED	1.000 EA
422919029	HHCVR KIT, C250, DE, LOUVERED	1.000 EA
422919038	HHCVR KIT C250 ODE SOLID	1.000 EA
422919040	HHCVR KIT,C250,ODE,LOUVERED	1.000 EA
422919040	HHCVR KIT,C250,ODE,LOUVERED	1.000 EA
706305026A	GUARD,SHAFT	1.000 EA

Product Information Packet: D5040R - 40HP,1750RPM,DC,2512ATZ,DPG,

706320005A	CONDUIT BOX	1.000 EA
000640000P	TAG WINDING THERMOST	1.000 EA
000692000NG	LABEL ;NP 4POLE METRIC LABEL	1.000 EA
034180024GA	KEY 1/2X1/2X3 L	1.000 EA

609950-001

## INDUSTRIAL DIRECT CURRENT MOTORS AND GENERATORS - RPM III

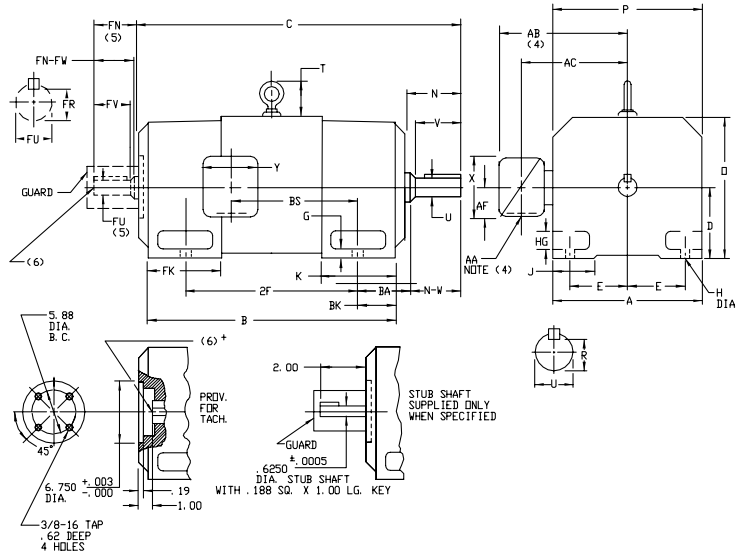
ENCLOSURE: DRIP-PROOF FULLY-GUARDED,  
SPLASHPROOF, TOTALLY ENCLOSED

COOLING: SELF-VENTILATED  
NON-VENTILATED

MOUNTING: FOOT  
METHOD OF DRIVE: COUPLED OR BELTED

ACCESSORIES: PROVISION FOR  
TACHOMETER MOUNTING  
ONLY WHEN SPECIFIED

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	ZF	DRIVE END SHAFT AND KEY						OPPOSITE DRIVE END SHAFT AND KEY(S)						WT. LBS.		
					N	N-W	UK(2)	V	RC(3)	SO.	LGTH.	FN	FN-FW	FK(2)	FV	FR(3)		SO.	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 1%; 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: -		

**BALDOR**

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

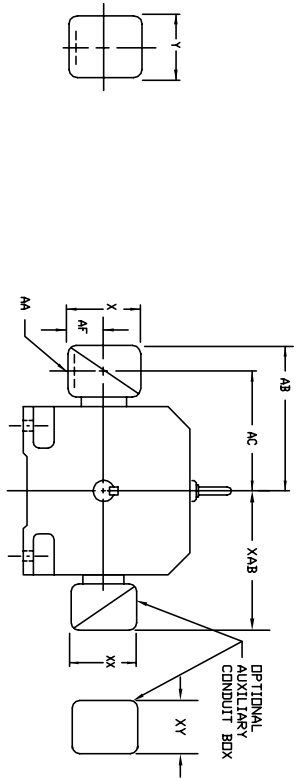
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609950-001



609959-001

**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						DNE 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	7.05028-1-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						DNE 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-R	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-R
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						DNE 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	8.82	8.82	8.82	8.82	8.82	
400	11.80	9.57	2.72	7.48	7.48	7.48	7.48	7.48	7.48	7.48	7.48	
800	11.85	9.84	3.35	8.82	8.82	8.82	8.82	8.82	8.82	8.82	8.82	
C290	400	17.48	12.75	6.20	14.39	14.39	14.39	14.39	14.39	14.39	14.39	
800	17.48	12.75	6.20	14.39	14.39	14.39	14.39	14.39	14.39	14.39	14.39	
400	12.60	10.99	3.76	8.82	8.82	8.82	8.82	8.82	8.82	8.82	8.82	
800	18.27	13.54	6.20	14.39	14.39	14.39	14.39	14.39	14.39	14.39	14.39	
1600	18.27	13.54	6.20	14.39	14.39	14.39	14.39	14.39	14.39	14.39	14.39	

FRAME SIZE	OPTIONAL AUXILIARY CONDUIT BOX DIMENSIONS (MAXIMUM)								
	XAB	XY	XX	XY	XX	XY			
C210	7.38	4.25	4.25	6.02007-26-A	C210	10.88	8.00	8.00	7.06310-3-B
C290	8.44	4.25	4.25	6.02007-26-A	C290	11.88	8.00	8.00	7.06310-3-B
C280	9.12	4.25	4.25	6.02007-26-A	C280	12.62	8.00	8.00	7.06310-3-B

(1) \*AM. CONDUIT  
(2) STEEL TERMINAL BOX FOR C2113ATZ AND C2515ATZ  
(3) \*AM. 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 \*\*X/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



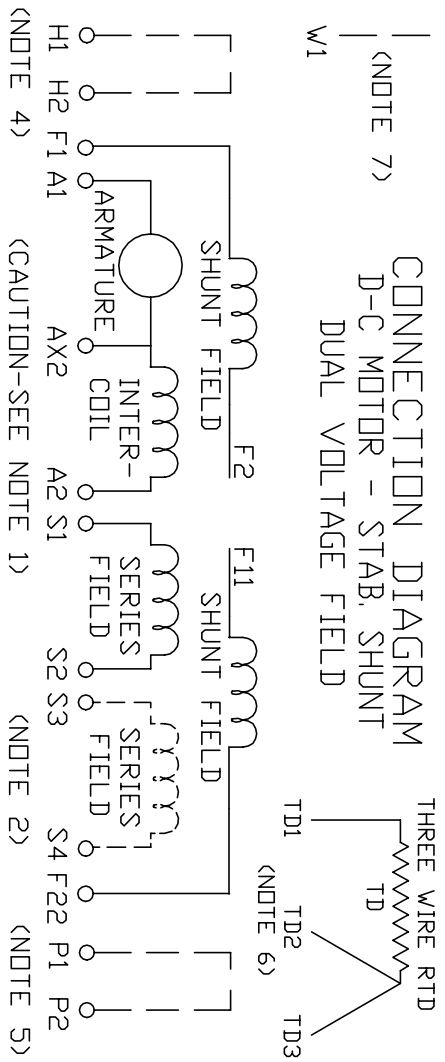
DIMENSION SHEET  
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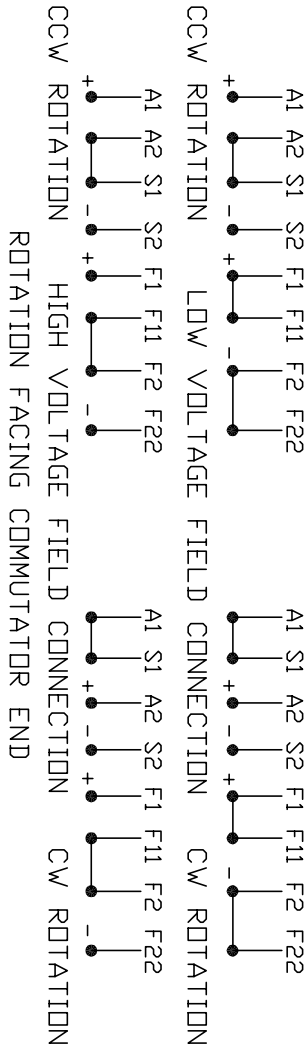
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**CONNECTION DIAGRAM**  
D-C MOTOR - STAB, SHUNT  
DUAL VOLTAGE FIELD



**ARMATURE AND FIELD EXTERNAL CONNECTIONS**

WARNING- SEE NOTE 8 FOR GROUNDING INSTRUCTIONS



1. **CAUTION** - ARMATURE AND SERIES FIELD MAY HAVE MULTIPLE LEADS. 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			<b>BALDOR</b>	
REV. LTR: -	VERSION: 00	TDR: 000000781086		
FILE: \RSN\00026\434	REVISED: 02:35:07 02/01/2013	D-C MOTOR CONNECTION DIAGRAM STAB. SHUNT, DUAL VOLTAGE FIELD		
MTL: -	BY: MGHPC	SH 1 of 1		