

ABB BALDOR RELIANCE III

Customer information packet

D2010R-2

10HP, 1750RPM, DC, SC2113ATCZ, SPG

Specifications

Enclosure	DP
Frame	SC2113ATCZ
Frame Material	Exposed Laminations
Output Power	10.000 HP
Agency Approvals	CCSA US
Ambient Temperature	40 °C
Bearing Grease Type	Polyrex EM (-20F +300F)
Drip Cover	No Drip Cover
Feedback Device	NO FEEDBACK
Field Winding Type	STAB SHUNT
Frame Prefix	SC
Heater Indicator	No Heater
Lifting Lugs	Standard Lifting Lugs
Motor Standards	NEMA
Mounting Arrangement	F1
Overall Length	28.00 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Slinger Indicator	No Slinger

Part Detail

Revision	-
Type	DC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	G6190A A
Layout	609950-023
Eff. date	04-13-2015
CD Diagram	406770-001
Poles	00
Leads	
Proprietary	False
Created date	04-09-2015

Nameplate

000613006HP									
CAT.NO.	D2010R-2	SPEC NO.		T21S1001					
FR	SC 2113ATCZ	HP	10		DUTY		CONT		
ENCL.	DP	RPM	1750/ 2300			S.F.	1.0		
ENCL MOD	GUARDED	VOLTS		240		INSUL		F	
MAX SAFE SPEED	4500	AMPS		37.00		AMB.		40	
FIELD DATA		SER.NO.							
WINDING	STAB SHUNT	POWER CODE			C				
VOLTS	240	D.E. BRG.			50BC03J30X				
MAX AMPS @ 25 C	2.20	O.D.E. BRG.			45BC02J30X				
HOT AMPS	1.56/ 1.08	MIN. AMB.		0		TYPE		TR	
BRUSH:419904051AB; SPLASHPROOF									

Parts List

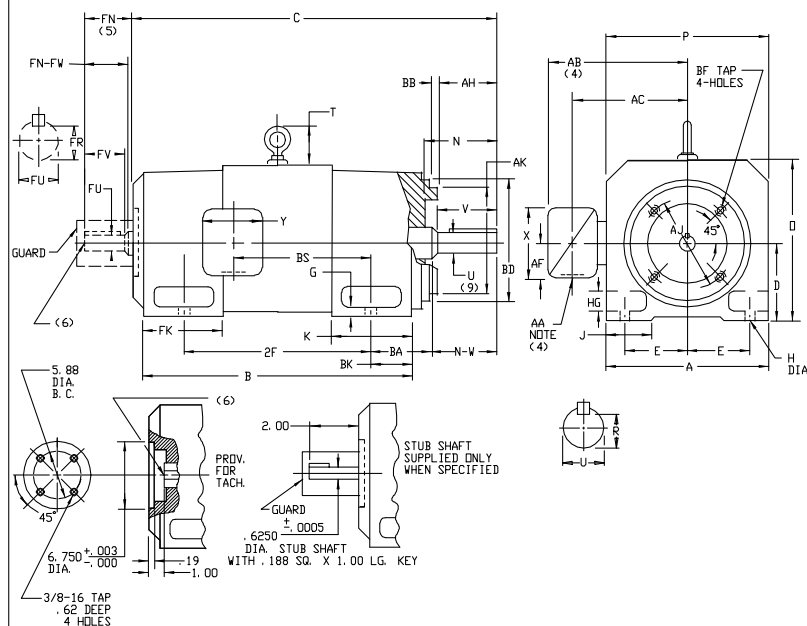
Part number	Description	Quantity
SA297165	SA T21S1001	1.000 ea
AA016179	AA T21S1001	1.000 ea
000613006HP	NAMEPLATE - RPM III D-C MOTOR W/CSA LOGO	1.000 ea
000692000FP	NP, WARNING LIFT INSTRUCTIONS	1.000 ea
000692000FS	WARNING LABEL	1.000 ea
033775004EA	DRSCR #6-1/4 304 S.S.	8.000 ea
406770001	C/D TAG (STAB SHUNT)	1.000 ea
034182010GA	KEY 1/2 X 3/8 X 1.25"	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 ZINCPLTED	8.000 ea
036610010AB	MHSLW M10 PLATED	4.000 ea
419904051AB	BRUSH EXTRUDER DUTY C	4.000 ea
419905003A	FLAT WASHER ROCKER RPM III RGG	4.000 ea
419905008A	HARDWARE	8.000 ea
706364051AA	BRHLD ADD HARDWARE	4.000 ea
706372001B	ROCKR METRIC	1.000 ea
004824015A	GREASE POLYREX EM	0.100 lb
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
036000055JB	HHCS,DE CAP	2.000 ea
036000075KB	HHCS M10 75MM ZINCPLAT	3.000 ea
036500010AB	METRIC NUT M10-1.5PLTD400	4.000 ea
036500010AB	METRIC NUT M10-1.5PLTD400	4.000 ea
406055001B	GRFTG	1.000 ea
406055001B	GRFTG	1.000 ea
400638001H	SPRING WASHER (Customer number 43699)	1.000 ea
418150003A	GREASE FITTING CAP	2.000 ea
609830005M	TBOLT METRIC RP609830-	4.000 ea

801924102A	BRKT,ODE,C210	1.000 ea
801925104A	BRKT,DE,C210	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
065530000B	GASK	1.000 ea
075451000A	COVER, CONDUIT BOX	1.000 ea
415000103G	TLUG	1.000 ea
417733001G	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
422919007	HHCVR KIT,C210, DE SOLID XT	1.000 ea
422919010	HHCVR KIT,C210, DE, S/P, X/T	1.000 ea
422919010	HHCVR KIT,C210, DE, S/P, X/T	1.000 ea
422919019	HHCVR KIT,C210,ODE,SOILD XT	1.000 ea
422919021	HHCVR KIT,C210,ODE,LOUVERED,SP,XT	1.000 ea
422919021	HHCVR KIT,C210,ODE,LOUVERED,SP,XT	1.000 ea
706305026A	GUARD,SHAFT	1.000 ea
706320003A	CONDUIT BOX	1.000 ea
000640000P	TAG WINDING THERMOST	1.000 ea
000692000NG	LABEL ;NP 4POLE METRIC LABEL	1.000 ea
004824007K	SPECIAL PAINT	0.100 ea
034180019EA	KEY 5/16X5/16X2-3/8L	1.000 ea

609950-023

COOLING: SELF-VENTILATED
NON-VENTILATED
ACCESSORIES: PROVISION FOR
TACHOMETER MOUNTING
ONLY WHEN SPECIFIED

FRAMES SC2113ATCZ THRU LC2812ATCZ
DRIVE END SHAFT PER NEMA AC MOTOR SHAFT



DIMENSIONS ARE IN INCHES

FRAME	BB	BD	BF TAP	BF TAP "DEPTH"	AJ	AK
SC2113ATC-LC2113ATCZ	.25	8.75	1/2-13	.75	7.25	8.50
SC2512ATC-LC2512ATCZ	.25	10.88	1/2-13	.75	7.25	8.50
MC2812ATC-LC2812ATCZ	.25	12.75	1/2-13	.75	9.00	10.50

FRAME	A	D(1)	E	G	H	HG	J	Q	P	T	BA	K	FK	BK
SC2151ATCZ-LC2113ATCZ	10.25	5.25	4.25	44	44	1.38	1.75	10.44	10.31	2.56	3.50	5.19	6.81	2.3
SC2512ATCZ-LC2512ATCZ	12.31	6.25	5.00	50	56	1.62	2.00	12.50	12.44	3.06	4.25	6.06	8.00	3.0
MC2812ATCZ-LC2812ATCZ	13.78	7.00	5.50	62	56	1.88	2.75	14.00	13.94	3.38	4.75	6.75	9.19	3.3

FRAME	C(7)	DRIVE END SHAFT AND KEY (9)										OPPOSITE DRIVE END SHAFT AND KEY (9)									
		B	BS	2F	N	N-W	UX(2)	FN	R(3)	SO	LOTH	FN	R(3)	SO	LOTH						
SCG113ATC2	26.00	22.50	11.39	18.00	3.62	3.38	1.3750	3.12	3.12	1.201	3.12	2.38	3.50	3.25	1.625	3.00	1.116	3.75	2.23		
SCG113ATC3	29.25	23.75	12.62	18.00	3.62	3.38	1.3750	3.12	3.12	1.201	3.12	2.38	3.50	3.25	1.625	3.00	1.116	3.75	2.23		
SCG113ATC4	30.88	25.38	14.25	18.00	3.62	3.38	1.3750	3.12	3.12	1.201	3.12	2.38	3.50	3.25	1.625	3.00	1.116	3.75	2.23		
SCG215ATC2	31.44	25.06	12.06	20.00	4.25	4.00	1.625	3.75	3.75	1.416	3.75	2.88	4.00	3.75	1.875	3.50	1.991	500	2.50		
MC2515ATC2	32.94	26.56	13.56	20.00	4.25	4.00	1.625	3.75	3.75	1.416	3.75	2.88	4.00	3.75	1.875	3.50	1.991	500	2.50		
LCG215ATC2	34.44	28.06	15.06	20.00	4.25	4.00	1.625	3.75	3.75	1.416	3.75	2.88	4.00	3.75	1.875	3.50	1.991	500	2.50		
MC2819ATC2	37.25	29.14	14.25	22.00	4.88	4.62	1.875	4.38	4.38	1.591	500	3.25	4.50	4.25	2.125	4.00	1.845	500	3.00		
LC2819ATC2	39.50	32.19	16.50	22.00	4.88	4.62	1.875	4.38	4.38	1.591	500	3.25	4.50	4.25	2.125	4.00	1.845	500	3.00		

- (1) "D" DIMENSION WILL NOT BE EXCEEDED. SHIMS UP TO .03 INCHES IN THICKNESS ARE USUALLY REQUIRED FOR COUPLED OR GEARED MACHINES.
- (2) "U" AND "FU" VARY---
UP TO 1.625 DIA. + .0000, - .0005.
1.625 AND LARGER + .000, - .001.
- (3) "R" AND "FR" VARY----+ .000, - .015
- (4) "TERMINAL BOX VARIATIONS" IN "D" DIMENSIONS "AA", "AB", "AC", "AD", "AX" AND "AY" REFER TO BOX DVS. (C20 609959-1, X/SP 609959-2, M1 609959-3)
- (5) OPPOSITE DRIVE END SHIMMING ALLOWED ONLY WHEN SPECIFIED.
- (6) MOTOR SHIM TAPPED FOR SCREW-IN STUB SHAFT.
- (7) WHEN THE MOTOR APPLICATION DOES NOT REQUIRE THE USE OF SHIMS, DRIVE END, AND 25 TO 30 "C" DIA FOR BRACKET COVER
- (8) "AK" VARIES + .000, - .003---FACE ROUNDT AND ECCENTRICITY .004 MAX. T. I. R.
- (9) DRIVE END SHAFT DIMENSIONS PER SAME FRAME SIZE NEMA "AC" MOTOR SHAFT.
- (10) TERMINAL BOX CAN BE ROTATED FOR LEAD OUTLET AT TOP, SIZES OR BOTTOM.
- (11) TERMINAL BOX LOCATED ON OPPOSITE SIDE WHEN F-2, W-1, W-4, W-5, W-7, OR C-1 MOUNTING IS SPECIFIED.
- (12) MOTOR WEIGHT MOTOR FOR NON-STANDARD RATINGS AND OVERSIZES.
- (13) IF MOUNTING LOCATION DETAILS ARE REQUIRED, CONSULT FACTORY.
- (14) SHAFT RUNOUT .002 MAX. T. I. R.

609950-023

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

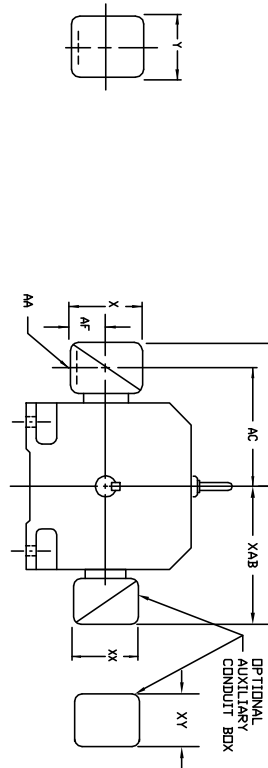
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REV. LTR: A	VERSION: 01	TDR: 000001187063		
FILE: \RGG\00015\549	REVISED: 09:10:20 03/10/2022	BY: RGGNAS		
MTL: --				
				
DIMENSION DRAWING, SC2113ATCZ - LC2812ATCZ, DPP, TENV, FOOT MTG			SH 1 of 1	

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

TERMINAL BOX DIMENSIONS

**STANDARD SIZE AND ONE SIZE LARGER
FRAMES C2113A1Z THRU C2815A1Z**

DIMENSIONS ARE IN INCHES



STEEL THERMAL BOX DIMENSIONS																	
FRAME SIZE	MAX. AREA	STANDARD SIZE					PART			END SIZE LARGER			PART				
		AB	AC	AF	X	Y	NUMBER	AA(1)	AB	AC	AF	X	Y	NUMBER	AA(2)		
C21(19A7)	40	3/4	1"	8.97	1.94	4.38	5.00	705029-1-R	1-1/4	-1/2	10.03	8.03	2.50	5.50	6.12	705029-1-R	
C21(19A7)	96	1-1/4	1-1/2	10.03	8.03	2.50	5.50	6.12	705029-1-R	2"	-1/2	11.16	8.41	3.19	7.00	7.62	705030-1-R
C21(19A7)	208	2"	2-1/2	11.16	8.41	3.19	7.00	7.62	705030-1-R	2"	-1/2	11.16	8.41	3.19	7.00	7.62	705030-1-R
C25(12A7)	40	3/4	1"	10.03	8.53	1.94	4.38	5.00	705028-1-R	1-1/4	-1/2	11.09	9.09	2.50	5.50	6.12	705030-1-R
C25(12A7)	96	1-1/4	1-1/2	11.09	9.09	2.50	5.50	6.12	705029-1-R	2"	-1/2	12.22	9.47	3.19	7.00	7.62	705030-1-R
C25(12A7)	208	2"	2-1/2	12.22	9.47	3.19	7.00	7.62	705030-1-R	2"	-1/2	12.22	9.47	3.19	7.00	7.62	705030-1-R
C28(15A7)	158	3"	3-1/2	14.03	10.53	4.25	8.44	7.25	74874-R	3"		14.47	11.82	4.25	8.44	7.25	74874-R
C28(15A7)	185	3"	3-1/2	14.47	11.82	4.25	8.44	7.25	74874-R	3"		15.91	11.82	4.25	8.44	7.25	74874-R
C28(15A7)	263	4"	4-1/2	15.91	11.84	5.38	10.56	9.00	705030-3-R	5"	(4)	18.72	13.47	7.00	12.73	15.00	702656-1-C

CAST IRON TERNAL BOX DIMENSIONS															
FRAME SIZE		STANDARD SIZE						ONE SIZE LARGER							
MAX. AMPS	AC(3)	AB	AC	AF	X	Y	PART NUMBER	AC(3)	AB	AC	AF	X	Y	PART NUMBER	
18	3/4	10.03	8.03	2.50	5.00	5.75	70508-2-S	1"	10.03	8.03	2.50	5.00	5.75	70508-2-R	
23119A7	40	1"	10.03	8.03	2.50	5.00	70508-2-T	1-1/2	10.97	8.53	3.00	6.00	7.00	70509-2-R	
23119A7	96	1-1/2	10.97	8.53	3.00	6.00	70509-2-R	2"	10.97	8.53	3.00	6.00	7.00	70509-2-S	
23119A7	208	2"	10.97	8.53	3.00	6.00	70509-2-S	2-1/2	12.66	8.51	3.62	7.88	9.25	70509-2-R	
2512A12	18	3/4	11.09	9.09	2.50	5.00	70508-2-T	1"	11.09	9.09	2.50	5.00	5.75	70508-2-R	
2512A12	40	1"	11.09	9.09	2.50	5.00	70508-2-T	1-1/2	12.03	9.59	3.00	6.00	7.00	70509-2-R	
2512A12	96	1-1/2	12.03	9.59	3.00	6.00	70509-2-S	2-1/2	13.72	9.59	3.62	7.88	9.25	70509-2-R	
2512A12	208	2"	12.03	9.59	3.00	6.00	7.00	70509-2-S	2"	12.03	9.59	3.00	6.00	7.00	70509-2-R
25812A12	128	2"	12.78	10.34	3.00	6.00	7.00	75460-T	3"	14.47	10.72	3.62	7.88	9.25	76700-R
25812A12	168	3"	14.47	10.72	3.62	7.88	9.25	76700-R	3"	15.78	11.59	4.12	7.50	10.50	76700-R
25812A12	265	4"	15.78	11.59	4.12	7.50	10.50	76700-R	5" (4)	18.59	13.34	5.17	10.50	15.00	76870-S

CONDUIT BOX DIMENSIONS WITH TERMINAL BORDERS (IEC TYPE BOX)										
STANDARD SIZE										
FRAME SIZE	AMPS	AB	AC	AF	X	AA	Y	PART NUMBER	PART NUMBER	
C210	100	10.71	8.98	2.72	7.48	---	7.48	706310-56-A	706310-225-R	
	200	11.26	9.25	3.35	8.82	---	8.82	706310-56-B	706310-225-R	
	100	11.30	9.57	2.72	7.48	---	7.48	706310-56-A	706310-225-R	
	200	11.85	9.84	3.35	8.82	---	8.82	706310-56-B	706310-225-R	
C250	400	17.48	12.75	6.20	14.39	---	14.39	706310-63-B & 706310-636	706310-63-B & 706310-636	
	800	17.48	12.75	6.20	14.39	---	14.39	706310-63-B & 706310-636	706310-63-B & 706310-636	
	200	12.60	10.99	3.76	8.82	---	8.82	706310-56-B	706310-225-R	
	400	18.27	13.54	6.20	14.39	---	14.39	706310-63-B & 706310-636	706310-63-B & 706310-636	
C280	800	18.27	13.54	6.20	14.39	---	14.39	706310-63-B & 706310-636	706310-63-B & 706310-636	
	1600	18.27	13.54	7.68	15.35	---	15.35	706310-63-C	706310-63-C	

FRAME SIZE		X-Y		PART NUMBER	
C310	7.48	4.25	4.25	602007-26-A	C310
C350	8.44	4.23	4.23	602007-26-A	C350
C380	9.12	4.23	4.23	602007-26-A	C380

- (1) STEEL CONDUIT.
(2) "AA" TERMINAL BOX FOR CELL13A17 AND C5512A17
(3) FRAMES PROVIDED WITH DOUBLE KNOCKOUT.
(4) "AA" PIPE TAB.
- (4) TERMINAL BOX 76870-05 AND 76870-0R EXTENDS BELOW MOTOR FEET.
TERMINAL BOX CAN BE ROUTED FOR LEAD OUTLET AT TOP, SIZES OR BOTTOM
TERMINAL BOX LOCATED ON OPPOSITE SIDE WHEN F-2, W-4, W-5, W-7,
OR C-1 MOUNTING IS SPECIFIED. BOX LOCATED ON TOP WHEN SPECIFIED.
FOR "X"PP TERMINAL BOX DIMENSIONS SEE 609393-2
FOR "LL" TYPE TERMINAL BOX DIMENSIONS SEE 609393-3.

609959-001

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		
REV. LTR: A	VERSION: 01	TDR: 000000816512
FILE: \RGG\00021\153		REVISED: 03:09:09 09/06/2013
MTL: -		BY: RGGWT

BALDOIR

DIMENSION SHEET

SH 1 of 1

406770-001			406770-001	
406770-001 CONNECTION DIAGRAM D-C MOTOR - STAB. SHUNT W1 (NOTE 7) SHUNT FIELD INTER-COIL AX2 A2 S1 SERIES FIELD S2 S3 (NOTE 2) S4 F2 P1 P2 (NOTE 5) THREE WIRE RTD TD1 TD2 TD3 (NOTE 6)				

ARMATURE AND FIELD EXTERNAL CONNECTIONS

WARNING- SEE NOTE 8 FOR GROUNDING INSTRUCTIONS

CCW ROTATION

A1 A2 S1 S2 F1 F2

CW ROTATION

A1 S1 A2 S2 F1 F2

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 DRIVE END BRACKET, ADJACENT TO THE TERMINAL BOX FOR MOTOR GROUNDING. GROUND LEAD, WHEN PROVIDED, WILL BE GREEN.

CUSTOMER _____ ORDER NO. _____ S.D. NO. _____

REV. DESC: DELETED DUPLICATE WORDS FROM NOTE 8

REV. LTR: A

VERSION: 01

TDR: 000000970330

FILE: \RSN\00026\422

REVISED: 10:19:12 03/11/2016

BY: RAGTBM

MTL: —

BALDOR

D-C MOTOR CONNECTION DIAGRAM STAB. SHUNT

SH 1 of 1