

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

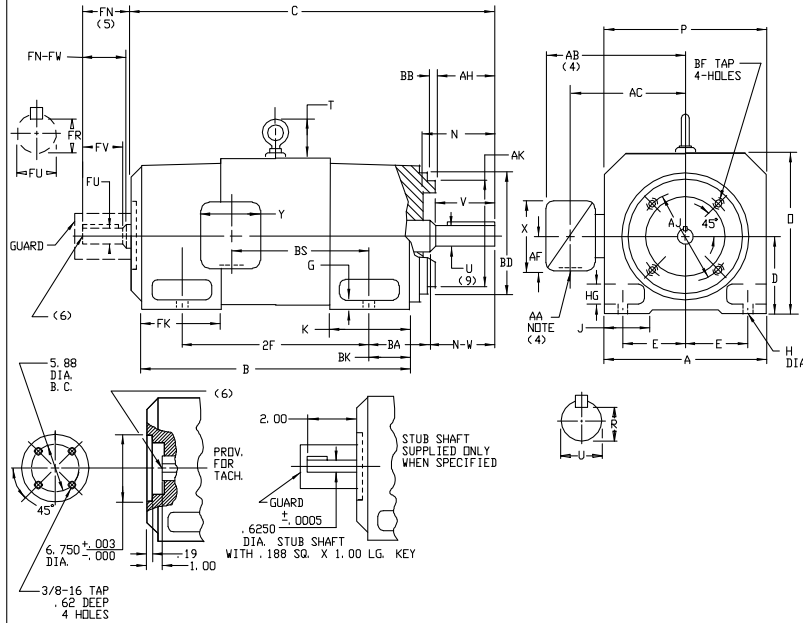
000613006HP					
CAT.NO.	D2010R-2	SPEC NO.	T21S1001		
FR	SC 2113ATCZ	HP	10	DUTY	CONT
ENCL.	DP	RPM	1750/ 2300	S.F.	1.0
ENCL MOD	GUARDED	VOLTS	240	INSUL	F
MAX SAFE SPEED	4500	AMPS	37.00	AMB.	40
	FIELD DATA	SER.NO.			
WINDING	STAB SHUNT	POWER CODE	C		
VOLTS	240	D.E. BRG.	50BC03J30X		
MAX AMPS @ 25 C	2.20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

609950-023

INDUSTRIAL DIRECT CURRENT MOTORS AND GENERATORS - RPM III

ENCLOSURE: DRIP-PROOF FULLY-GUARDED, COOLING: SELF-VENTILATED
 SPLASHPROOF, TOTALLY ENCLOSED NON-VENTILATED
 MOUNTING: FOOT, NEMA "C" FACE ACCESSORIES: PROVISION FOR
 METHOD OF DRIVE: COUPLED OR BELTED 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(B)
SC2113ATCZ-LC2113ATCZ	.25	8.75	1/2-13	.75	7.25	8.500
SC2512ATCZ-LC2512ATCZ	.25	10.88	1/2-13	.75	7.25	8.500
MC2812ATCZ-LC2812ATCZ	.25	12.75	1/2-13	.75	9.00	10.500

FRAME	A	D(1)	E	G	H	HG	J	D	P	T	BA	K	FK	BK
SC2113ATCZ-LC2113ATCZ	10.25	5.25	4.25	4.4	4.4	1.38	1.75	10.44	10.31	2.56	3.50	5.19	6.81	2.38
SC2512ATCZ-LC2512ATCZ	12.31	6.25	5.00	5.0	5.0	1.62	2.00	12.50	12.44	3.06	4.25	6.06	8.00	3.00
MC2812ATCZ-LC2812ATCZ	13.78	7.00	5.50	5.0	5.0	1.88	2.75	14.00	13.94	3.38	4.75	6.75	9.19	3.50

FRAME	C(7)	B	BS	2F	N	N-W	LK(2)	DRIVE END SHAFT AND KEY (9)					OPPOSITE DRIVE END SHAFT AND KEY(S)					WT. LBS.		
								AH	V	R(3)	SO	LGTH	FV	FN-FW	FK(2)	FV	FR(3)		SO	LGTH
SC2113ATCZ	28.00	22.50	11.38	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	1.416	3.75	2.25	325
MC2113ATCZ	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	1.416	3.75	2.25	350
LC2113ATCZ	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	1.416	3.75	2.25	380
SC2512ATCZ	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	1.591	5.00	2.50	515
MC2512ATCZ	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	1.591	5.00	2.50	550
LC2512ATCZ	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	1.591	5.00	2.50	590
MC2812ATCZ	37.25	29.94	14.25	22.00	4.88	4.62	1.875	4.38	4.38	1.591	5.00	3.25	4.50	4.25	2.125	4.00	1.845	5.00	3.00	785
LC2812ATCZ	39.50	32.19	16.50	22.00	4.88	4.62	1.875	4.38	4.38	1.591	5.00	3.25	4.50	4.25	2.125	4.00	1.845	5.00	3.00	860

- (1) "D" DIMENSION WILL NOT BE EXCEEDED. SHIMS UP TO .03 INCHES IN THICKNESS ARE USUALLY REQUIRED FOR COUPLED OR GEARED MACHINES. UP TO 1.625 DIA. +.0000, -.0005.
- (2) "U" AND "FU" VARY-----
- (3) "R" AND "FR" VARY-----1.625 AND LARGER +.000, -.001.
- (4) "R" AND "FR" VARY-----+.000 - .015
- (5) TERMINAL BOX VARIES WITH H.P. FOR DIMENSIONS "AA", "AB", "AC", "AF", "X" AND "Y". REFER TO BOX D/S. (STD. 609959-1, "X/P" 609959-2, MILL 609959-3)
- (6) OPPOSITE DRIVE END SHAFT SUPPLIED ONLY WHEN SPECIFIED.
- (7) MOTOR SHAFT TAPPED FOR SCREW-IN STUB SHAFT.
- (8) WHEN THE MOTOR APPLICATION DOES NOT REQUIRE THE USE OF DPP, DRIVE END, ADD .25 TO "C" DIM. FOR BRACKET COVER.
- (9) DRIVE END SHAFT DIMENSIONS PER SAME FRAME SIZE NEMA "AC" MOTOR SHAFT. 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, W-5, W-7, OR C-1 MOUNTING IS SPECIFIED. MOTOR WEIGHT MAY VARY FOR NON-STANDARD RATINGS AND/OR ACCESSORIES. IF MOUNTING CLEARANCE DETAILS ARE REQUIRED, CONSULT FACTORY.
- (10) SHAFT RUNDY .002 MAX. T. I. R.

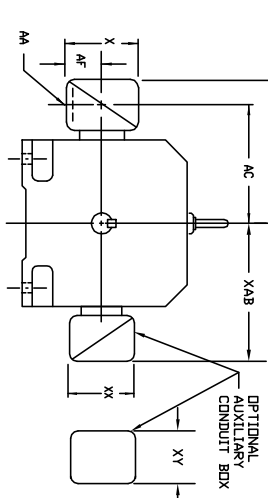
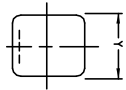
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION.

REV. DESC: ADD SHAFT RUNOUT NOTE			BALDOR - RELIANCE®		
REV. LTR: A	VERSION: 01	TDR: 000001187063			
FILE: \RGG\00015\549	REVISED: 09:10:20 03/10/2022	BY: RGNAS	DIMENSION DRAWING, SC2113ATCZ - LC2812ATCZ, DPP, TENV, FOOT MTG		
MTL: -			SH 1 of 1		

609950-023

609959-001

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



DIMENSIONS ARE IN INCHES

FRAME SIZE	MAX. AMPS	STANDARD SIZE						STEEL TERMINAL BOX DIMENSIONS						ONE SIZE LARGER													
		AK(1)	AB	AC	AF	X	Y	AK(1)	AB	AC	AF	X	Y	AK(1)	AB	AC	AF	X	Y	AK(1)	AB	AC	AF	X	Y		
C2113ATZ	40	3/4 & 1"	8.97	7.47	1.94	4.38	5.00	705028-1-R	1-1/4 & 1-1/2	10.03	8.03	2.50	3.50	6.12	705029-1-R												
C2115ATZ	96	1-1/4 & 1-1/2	10.03	8.03	2.50	5.50	6.12	705029-1-R	2" & 2-1/2	11.16	8.41	3.19	7.00	7.62	705030-1-R												
C2115ATZ (C)	208	2" & 2-1/2	11.16	8.41	3.19	7.00	7.62	705030-1-R	2" & 2-1/2	11.16	8.41	3.19	7.00	7.62	705030-1-R												
C2513ATZ	40	3/4 & 1"	10.03	8.53	1.94	4.38	5.00	705029-1-R	1-1/4 & 1-1/2	11.09	9.09	2.50	5.50	6.12	705029-1-R												
C2513ATZ (C)	96	1-1/4 & 1-1/2	11.09	9.09	2.50	5.50	6.12	705029-1-R	2" & 2-1/2	12.22	9.47	3.19	7.00	7.62	705030-1-R												
C2515ATZ	208	2" & 2-1/2	12.22	9.47	3.19	7.00	7.62	705030-1-R	2" & 2-1/2	12.22	9.47	3.19	7.00	7.62	705030-1-R												
C2813ATZ	188	2"	14.03	10.53	4.25	8.44	7.25	7487-4-R	2" & 2-1/2	14.47	11.22	4.25	8.44	7.25	7487-4-R												
C2813ATZ (C)	188	2"	14.03	10.53	4.25	8.44	7.25	7487-4-R	2" & 2-1/2	14.47	11.22	4.25	8.44	7.25	7487-4-R												
C2815ATZ	188	3"	14.47	11.22	4.25	8.44	7.25	7487-4-R	3"	15.91	11.84	5.38	10.56	9.00	706308-3-R												
C2815ATZ (C)	259	4"	15.91	11.84	5.38	10.56	9.00	706308-3-R	5" (4)	18.59	13.34	7.00	12.75	15.00	706589-1-C												

FRAME SIZE	MAX. AMPS	STANDARD SIZE						CAST IRON TERMINAL BOX DIMENSIONS						ONE SIZE LARGER												
		AK(3)	AB	AC	AF	X	Y	AK(3)	AB	AC	AF	X	Y	AK(3)	AB	AC	AF	X	Y	AK(3)	AB	AC	AF	X	Y	
C2113ATZ	18	3/4	10.03	8.03	2.50	5.00	5.75	705028-2-S	1"	10.03	8.03	2.50	5.00	5.75	705028-2-T											
C2113ATZ (C)	40	1"	10.03	8.03	2.50	5.00	5.75	705028-2-T	1-1/2	10.97	8.53	3.00	6.00	7.00	705029-2-S											
C2115ATZ	96	1-1/2	10.97	8.53	3.00	6.00	7.00	705029-2-R	2"	10.97	8.53	3.00	6.00	7.00	705029-2-S											
C2115ATZ (C)	208	2"	10.97	8.53	3.00	6.00	7.00	705029-2-S	2-1/2	12.66	8.91	3.62	7.88	9.25	705030-2-R											
C2513ATZ	18	3/4	11.09	9.09	2.50	5.00	5.75	705028-2-S	1"	11.09	9.09	2.50	5.00	5.75	705028-2-T											
C2513ATZ (C)	96	1-1/2	12.03	9.59	3.00	6.00	7.00	705029-2-R	2"	12.03	9.59	3.00	6.00	7.00	705029-2-S											
C2515ATZ	208	2"	12.78	10.34	3.00	6.00	7.00	75460-T	3"	13.72	9.97	3.62	7.88	9.25	705030-2-R											
C2813ATZ	188	2"	14.47	10.72	3.62	7.88	9.25	76700-4R	4"	14.47	10.72	3.62	7.88	9.25	76700-4R											
C2813ATZ (C)	188	3"	14.47	10.72	3.62	7.88	9.25	76700-4R	4"	15.78	11.59	4.12	9.50	10.50	76708-RR											
C2815ATZ	259	4"	15.78	11.59	4.12	9.50	10.50	76708-RR	5" (4)	18.59	13.34	7.00	12.75	15.00	76870-S											

FRAME SIZE	AMPS	STANDARD SIZE						OPTIONAL AUXILIARY CONDUIT BOX DIMENSIONS (MAXIMUM)																		
		AB	AC	AF	X	AA	Y	AK(1)	AB	AC	AF	X	Y	AK(1)	AB	AC	AF	X	Y							
C210	100	10.71	8.98	2.72	7.48	---	7.48	706310-25-A																		
	200	11.66	9.25	3.35	8.82	---	8.82	706310-25-B																		
	100	11.30	9.57	2.72	7.48	---	7.48	706310-25-A																		
C250	200	11.85	9.84	3.35	8.82	---	8.82	706310-25-B																		
	400	17.48	12.75	6.20	14.39	---	14.39	706310-63-B & 706310-63G																		
	800	17.48	12.75	6.20	14.39	---	14.39	706310-63-B & 706310-63G																		
	200	12.60	10.59	3.76	8.82	---	8.82	706310-25-B																		
	400	18.27	13.54	6.20	14.39	---	14.39	706310-63-B & 706310-63G																		
	800	18.27	13.54	6.20	14.39	---	14.39	706310-63-B & 706310-63G																		
C280	1600	18.27	13.54	7.68	15.35	---	15.35	706310-63-C																		

- (1) 44" CONDUIT
- (2) RACEWAY TERMINAL BOX FOR C2113ATZ AND C2513ATZ
- (3) RACEWAY TERMINAL BOX WITH MODULE KNOWNDON
- (4) 44" PIPE

- (1) 44" CONDUIT
- (2) RACEWAY TERMINAL BOX FOR C2113ATZ AND C2513ATZ
- (3) RACEWAY TERMINAL BOX WITH MODULE KNOWNDON
- (4) 44" PIPE

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: 00000816512
FILE: \RGG\00021\153	REVISED: 03: 09: 09 09/06/2013		
MTL: -	BY: RGGWT		



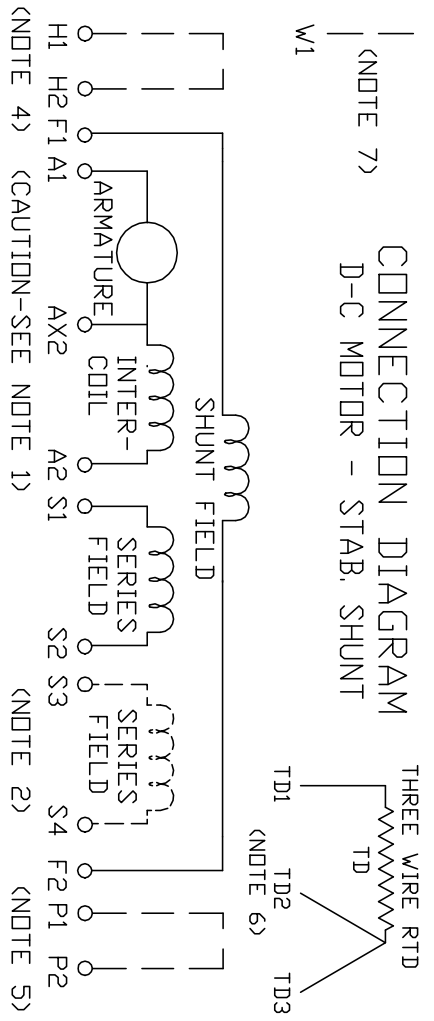
DIMENSION SHEET
SH 1 of 1

609959-001

406770-001

406770-001

**CONNECTION DIAGRAM
D-C MOTOR - STAB. SHUNT**



ARMATURE AND FIELD EXTERNAL CONNECTIONS
WARNING- SEE NOTE 8 FOR GROUNDING INSTRUCTIONS



ROTATION FACING COMMUTATOR END

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. _____
CUSTOMER _____ RELIANCE _____

REV. DESC: DELETED DUPLICATE WORDS FROM NOTE 8

REV. LTR: A

VERSION: 01

TDR: 00000970330

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