

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

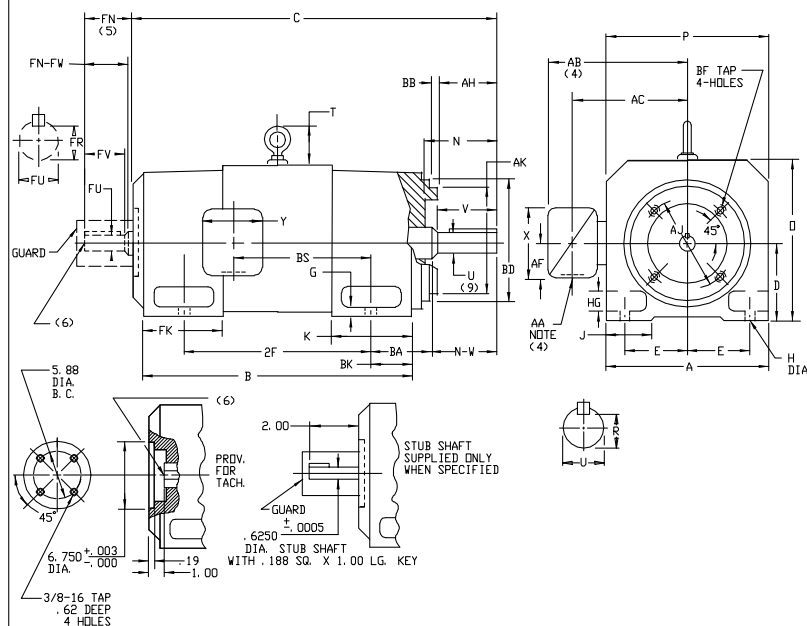
Nameplate

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									

ENCLOSURE: DRIP-PROOF FULLY-GUARDED,
SPLASHPROOF, TOTALLY ENCLOSED
MOUNTING: FOOT, NEMA "C" FACE
METHOD OF DRIVE: COUPLED OR BELTED

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-C2131ATCZ	10.25	5.25	4.25	44	44	1.38	1.75	10.44	10.31	2.56	3.50	5.19	6.81	2.30
SC2512ATCZ-C21821ATCZ	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
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	3.38

FRAME	C(7)	DRIVE END SHAFT AND KEY (9)										OPPOSITE DRIVE END SHAFT AND KEY (9)									
		B	BS	2F	N	N-W	UX2	FN	RC	SO	LOTH	FN	RC	SO	LOTH						
SCG113ATC2	26.00	22.50	11.39	18.00	3.62	3.38	1.9750	3.12	3.12	1.201	3.12	2.38	3.50	3.25	1.625	3.00	1.116	3.75	2.23		
SCG125ATC2	29.25	23.75	12.62	18.00	3.62	3.38	1.9750	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	30.88	25.38	14.25	18.00	3.62	3.38	1.9750	3.12	3.12	1.201	3.12	2.38	3.50	3.25	1.625	3.00	1.116	3.75	2.23		
SCG125ATC3	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		
MC251ATC2	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		
LCG125ATC2	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		
MC251ATC3	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		
LCG251ATC3	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 + .0000, - .0001.
- (3) "R" AND "FR" VARY----+ .000, - .015
- (4) "A" AND "FA" BOX VARIES WITHIN 1/8" DIMENSIONS "AA", "AB", "AC", "AD", "AE", "AF" AND "AG" REFER TO BOX DVS. (C-12 609959-1, X/SP 609959-2, M/SP 609959-3)
- (5) OPPOSITE DRIVE END TAPPED ONLY WHEN SPECIFIED.
- (6) MOTOR SHAFT TAPPED FOR SCREW-IN STUD SHAFT.
- (7) WHEN THE MOTOR APPLICATION DOES NOT REQUIRE THE USE OF SCREW DRIVE END, AND 25 TO 1/2" 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.
- 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.
- TERMINAL WEIGHT MOTOR FOR NON-STANDARD RATINGS AND OVERSIZES.
- IF MOUNTING LOCATION DETAILS ARE REQUIRED, CONSULT FACTORY.
- (10) SHAFT RUNOUT .002 MAX. T. I. R.

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

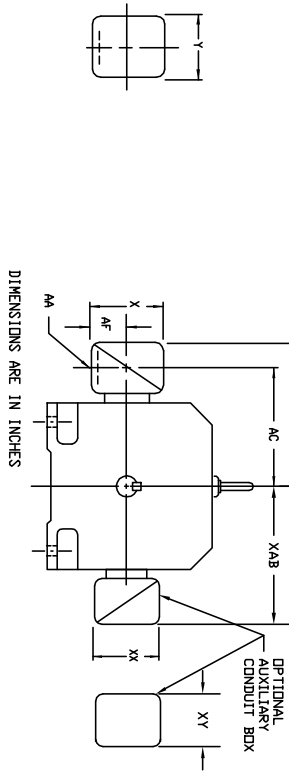
REV. DESC: ADD SHAFT RUNOUT NOTE		
REV. LTR: A	VERSION: 01	TDR: 000001187063
FILE: \\RGG\00015\549	REVISED: 09:10:20 03/10/2022	BY: RGGNAS
MTL: -		

BALDOR - RELIANCE®

DIMENSION DRAWING,SC2113ATCZ – LC2812ATCZ,DPP,TENV,FOOT MTG

SH 1 of 1

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	MAX. AMPS	STANDARD SIZE						STEEL TERMINAL BOX DIMENSIONS						ONE SIZE LARGER					
		AK(1)	AB	AC	AF	X	Y	NUMBER	AK(1)	AB	AC	AF	X	Y	NUMBER	AK(1)	AB	AC	AF
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	5.50	6.12	705029-1-R	1-1/4 & 1-1/2	10.03	8.03	2.50
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	2" & 2-1/2	11.16	8.41	3.19
(2)	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	2" & 2-1/2	11.16	8.41	3.19
C2516ATZ	40	3/4 & 1"	10.03	8.53	1.94	4.38	5.00	705028-1-R	1-1/4 & 1-1/2	11.09	9.09	2.50	5.50	6.12	705029-1-R	1-1/4 & 1-1/2	11.09	9.09	2.50
C2514ATZ	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	2" & 2-1/2	12.22	9.47	3.19
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	2" & 2-1/2	12.22	9.47	3.19
(2)	128	2"	14.03	10.53	4.25	8.44	7.25	74874-R	3"	14.47	11.22	4.25	8.44	7.25	74874-R	3"	14.47	11.22	4.25
C2816ATZ	185	3"	14.47	11.22	4.25	8.44	7.25	74874-24-R	4"	15.91	11.84	5.38	10.56	9.00	706308-3-R	4"	15.91	11.84	5.38
C2815ATZ	269	4"	15.91	11.84	5.38	10.56	9.00	706308-3-R	5" (4)	18.72	13.47	7.00	12.75	15.00	706589-1-C	5" (4)	18.72	13.47	7.00

FRAME SIZE	MAX. AMPS	STANDARD SIZE						CAST IRON TERMINAL BOX DIMENSIONS						ONE SIZE LARGER					
		AK(3)	AB	AC	AF	X	Y	NUMBER	AK(3)	AB	AC	AF	X	Y	NUMBER	AK(3)	AB	AC	AF
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	1-1/2	10.97	8.53	3.00
C2115ATZ	40	1"	10.03	8.03	2.50	5.00	5.75	705028-2-T	1-1/2	10.97	8.53	3.00	5.00	5.75	705029-2-R	2"	10.97	8.53	3.00
C2115ATZ	96	1-1/2	10.97	8.53	3.00	6.00	7.00	705029-2-R	2"	12.66	8.91	3.62	7.88	9.25	705030-2-R	2-1/2	12.66	8.91	3.62
(2)	208	2"	10.97	8.53	3.00	6.00	7.00	705029-2-S	2-1/2	11.09	9.09	2.50	5.00	5.75	705028-2-S	1"	11.09	9.09	2.50
C2516ATZ	40	3/4	11.09	9.09	2.50	5.00	5.75	705028-2-S	1"	12.03	9.59	3.00	6.00	7.00	705029-2-R	1-1/2	12.03	9.59	3.00
C2514ATZ	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	2"	13.72	9.97	3.62
C2515ATZ	208	2"	12.78	10.34	3.00	6.00	7.00	75460-T	3"	14.47	10.72	3.62	7.88	9.25	705030-2-R	3"	14.47	10.72	3.62
C2813ATZ	185	3"	14.47	10.72	3.62	7.88	9.25	76700-R	4"	15.78	11.59	4.12	9.50	10.50	76700-R	5"	18.59	13.34	7.00
C2815ATZ	269	4"	15.78	11.59	4.12	9.50	10.50	76700-R	5" (4)	18.59	13.34	7.00	12.75	15.00	76870-S	5" (4)	18.59	13.34	7.00

CONDUIT BOX DIMENSIONS WITH TERMINAL BOARDS (IEC TYPE BOX)

FRAME SIZE	AMPS	STANDARD SIZE						OPTIONAL AUXILIARY CONDUIT BOX DIMENSIONS (MAXIMUM)					
		AB	AC	AF	X	AA	Y	FRAME SIZE	AB	AC	AF	X	Y
C210	100	10.71	8.98	2.72	7.48	---	7.48	C210	10.86	8.00	8.00	8.00	706310-3-B
	200	11.66	9.25	3.35	8.82	---	8.82	C250	11.88	8.00	8.00	8.00	706310-3-B
	100	11.30	9.57	2.72	7.48	---	7.48	C280	12.62	8.00	8.00	8.00	706310-3-B
C250	200	11.85	9.84	3.35	8.82	---	8.82						
	400	17.48	12.75	6.20	14.39	---	14.39						
	800	17.48	12.75	6.20	14.39	---	14.39						
	200	12.60	10.59	3.76	8.82	---	8.82						
	400	18.27	13.54	6.20	14.39	---	14.39						
	800	18.27	13.54	6.20	14.39	---	14.39						
C280	1600	18.27	13.54	7.68	15.35	---	15.35						

FRAME SIZE	AMPS	STANDARD SIZE						OPTIONAL AUXILIARY CONDUIT BOX DIMENSIONS (MAXIMUM)					
		AB	AC	AF	X	AA	Y	FRAME SIZE	AB	AC	AF	X	Y
C210	100	10.71	8.98	2.72	7.48	---	7.48	C210	10.86	8.00	8.00	8.00	706310-3-B
	200	11.66	9.25	3.35	8.82	---	8.82	C250	11.88	8.00	8.00	8.00	706310-3-B
	100	11.30	9.57	2.72	7.48	---	7.48	C280	12.62	8.00	8.00	8.00	706310-3-B
C250	200	11.85	9.84	3.35	8.82	---	8.82						
	400	17.48	12.75	6.20	14.39	---	14.39						
	800	17.48	12.75	6.20	14.39	---	14.39						
	200	12.60	10.59	3.76	8.82	---	8.82						
	400	18.27	13.54	6.20	14.39	---	14.39						
	800	18.27	13.54	6.20	14.39	---	14.39						
C280	1600	18.27	13.54	7.68	15.35	---	15.35						

(1) 1/4" CONDUIT.
(2) RACEWAYS PROVIDED WITH DOUBLE KNUCKLE.
(3) 1/4" PIPE LAP.(4) TERMINAL BOX 76870-S AND 76870-98 EXTENDS BELOW MOTOR FEET.
TERMINAL BOX 76870-S AND 76870-98 EXTENDS BELOW MOTOR FEET.
DR - C-1 MOUNTING IS SPECIFIED. BOX LOCATED IN TOP WHEN SPECIFIED.
FOR "X"/P/TERMINAL BOX DIMENSIONS SEE 609959-2.
FOR MILL TYPE 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

BALDOR

DIMENSION SHEET

SH 1 of 1

609959-001

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

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. _____

REL
CUM
BY: RAGTBM

REV. DESC: DELETED DUPLICATE WORDS FROM NOTE 8

REV. LTR: A

FILE: \RSN\00026\422

MTL: —

VERSION: 01

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

TDR: 000000970330

BY: RAGTBM

BALDOR

D-C MOTOR CONNECTION DIAGRAM STAB. SHUNT

SH 1 of 1