

ABB BALDOR RELIANCE III

Customer information packet D5507R

7.50HP, 1750RPM, DC, 2113ATY, TEFC,

Specifications

Enclosure	TEFC
Frame	SC2113ATZ
Frame Material	Exposed Laminations
Output Power	7.500 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	32.19 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.	G6145B A
Layout	609951-013
Eff. date	04-13-2015
CD Diagram	406770-002
Poles	00
Leads	
Proprietary	False
Created date	04-10-2015

Nameplate

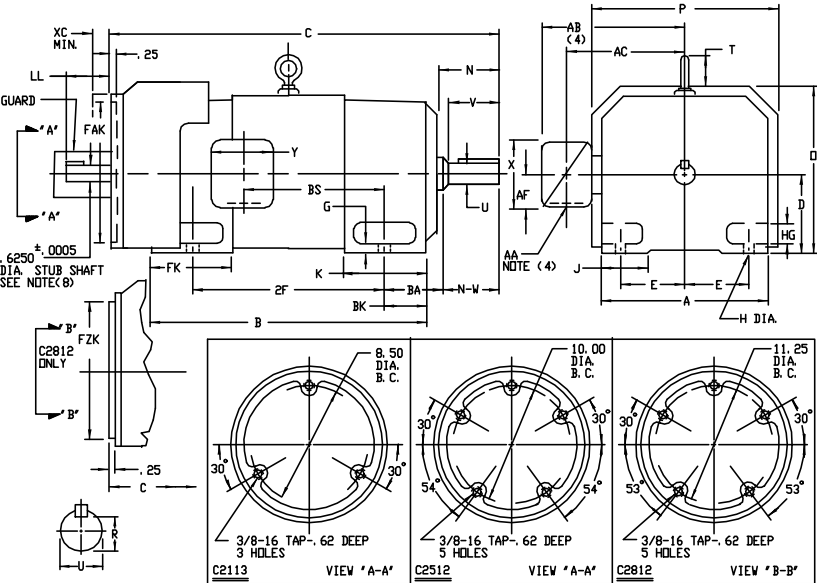
000613006HP									
CAT.NO.		SPEC NO.	T21S0302						
FR	SC 2113ATZ	HP	7.5	DUTY		CONT			
ENCL.	TEFC	RPM	1750/ 2300		S.F.	1.0			
ENCL MOD		VOLTS	500		INSUL		F		
MAX SAFE SPEED	4500	AMPS	13.50		AMB.		40		
FIELD DATA		SER.NO.							
WINDING	STAB SHUNT	POWER CODE	D						
VOLTS	300	D.E. BRG.	50BC03J30X						
MAX AMPS @ 25 C	1.41	O.D.E. BRG.	45BC02J30X						
HOT AMPS	1.01/ .67	MIN. AMB.	0		TYPE		TR		
BRUSH:419904051E; FLD. DATA									
FOR HIGH VOLTS; FIELD VOLTS									
150/300									

609951-013

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

ENCLOSURE: TOTALLY ENCLOSED
MOUNTING: FOOT
METHOD OF DRIVE: COUPLED OR BELTED
COOLING: FAN COOLED
ACCESSORIES: PROVISION FOR
TACHOMETER MOUNTING
ONLY WHEN SPECIFIED

FRAMES SC2113ATZ THRU LC2812ATZ



DIMENSIONS ARE IN INCHES																
FRAME	A	BC (1)	E	G	H	HG	J	D	P	T	BA	K	FK	BK	FAK (6)	FZK (7)
SC2113ATZ-LC2113ATZ	10.25	5.25	4.25	.44	.44	1.38	1.75	11.62	12.75	1.38	3.50	5.19	6.81	2.38	9.750	N/A
SC2512ATZ-LC2512ATZ	12.31	6.25	5.00	.50	.56	1.62	2.00	13.62	14.75	1.94	4.25	6.06	8.00	3.00	11.250	N/A
MC2812ATZ-LC2812ATZ	13.78	7.00	5.50	.62	.56	1.88	2.75	15.06	16.12	2.31	4.75	6.75	9.19	3.50	N/A	12.500

FRAME	C	B	BS	2F	DRIVE END SHAFT AND KEY					WT. LBS.
					N	N-V	UK2	V	RK3	
SC2113ATZ	32.19	22.50	11.38	18.00	4.00	3.75	1.875	3.50	1.591	500
MC2113ATZ	33.44	23.75	12.62	18.00	4.00	3.75	1.875	3.50	1.591	500
LC2113ATZ	35.06	25.38	14.25	18.00	4.00	3.75	1.875	3.50	1.591	500
SC2512ATZ	35.94	25.06	12.06	20.00	4.50	4.25	2.125	4.00	1.845	500
MC2512ATZ	37.44	26.56	13.56	20.00	4.50	4.25	2.125	4.00	1.845	500
LC2512ATZ	38.94	28.06	15.06	20.00	4.50	4.25	2.125	4.00	1.845	500
MC2812ATZ	41.62	29.94	14.25	22.00	5.00	4.75	2.375	4.50	2.021	625
LC2812ATZ	43.88	32.19	16.50	22.00	5.00	4.75	2.375	4.50	2.021	625

- (1) "B" DIMENSION WILL NOT BE EXCEEDED. SHIMS UP TO .03 INCHES IN THICKNESS ARE USUALLY REQUIRED FOR COUPLED OR GEARED MACHINES.
(2) "U" VARIES-----4.000 - .001
(3) "R" VARIES-----4.000 - .015
(4) TERMINAL BOX VARIES WITH H.P. FOR DIMENSIONS "AA", "AB", "AC", "AF", "X" AND "Y". SEE DRAWING NUMBER 609959-1.
(5) WALLS OR OBSTRUCTIONS MUST NOT ENCRDACH ON AIR INLET SPACE "XC".
(6) "FAK" VARIES +.005 -.000-----FACE RUNOUT AND ECCENTRICITY .007 MAX. T.I.R.
(7) "FZK" VARIES +.000 -.005-----FACE RUNOUT AND ECCENTRICITY .007 MAX. T.I.R.
(8) STUB SHAFT SUPPLIED ONLY WHEN SPECIFIED. KEY SIZE .188 X .188 X 1.00
(9) FOR RE-045 OR SPY PROVISIONS ON "C2812" ADD 1.00 TO "LL" DIMENSION.
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. 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.

TACHOMETER	LL
BC-42 BC-46 RD-11 RD-12 RD-51 RD-61 RD-62 RE-210 M627, M628 M727, M737 M738 DYNAPAR 74S RE-045 SPY	4.25 3.80 1.12 SEE NOTE (9)

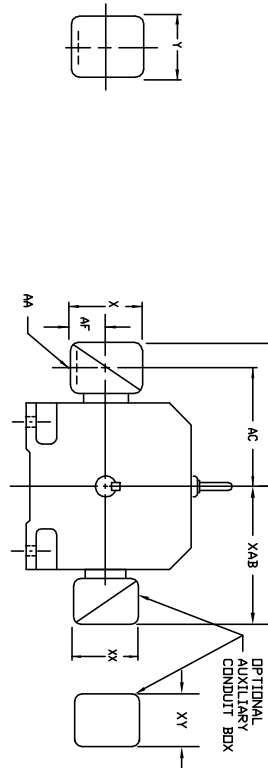
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION.

REV. DESC: LOADED TO BUS	VERSION: 00	TDR: 000000577407
REV. LTR: -	REVISED: 11:02:01 01/26/2011	BY: CONNAS
FILE: \RGG\00015\557		
MTL: -		

BALDOR
DIMENSION DRAWING, SC2113ATZ - LC2812ATZ, TEFC, FOOT MTG
SH 1 of 1

609951-013

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

FRAME SIZE	MAX. AMPS	STANDARD SIZE						STEEL TERNAL BOX DIMENSIONS						ONE SIZE LARGER									
		AA(1)	AB	AC	AF	Y	PART NUMBER	AA(1)	AB	AC	AF	Y	PART NUMBER	AA(1)	AB	AC	AF	Y	PART NUMBER				
C2113A17	96	4/3 & 1/4	1-1/2	8.97	7.47	1.94	4.38	5.00	705029-1-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	11.16	8.41	3.19	7.00	7.62	705030-1-R
C2113B12	96	1-1/4 & 1-1/2	1-1/2	8.03	6.03	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	7.00	7.62	705030-1-R
C2113C12	208	2" & 2-1/2	1-1/2	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	7.00	7.62	705030-1-R
C2114A17	40	3/4 & 1/4	1-1/2	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	1-1/4 & 1-1/2	11.09	9.09	2.50	5.50	6.12	705029-1-R
C2114B12	96	1-1/4 & 1-1/2	1-1/2	11.09	9.09	2.50	5.50	6.12	705029-1-R	2" & 2-1/2	12.82	9.47	3.19	7.00	7.62	705030-1-R	2" & 2-1/2	12.82	9.47	3.19	7.00	7.62	705030-1-R
C2114C12	208	2" & 2-1/2	1-1/2	12.82	9.47	3.19	7.00	7.62	705030-1-R	2" & 2-1/2	12.82	9.47	3.19	7.00	7.62	705030-1-R	2" & 2-1/2	12.82	9.47	3.19	7.00	7.62	705030-1-R
C2115A17	128	1/4	10.03	10.53	4.25	8.44	7.25	74874-R	3"	14.47	11.82	4.25	8.44	7.25	74874-R	3"	14.47	11.82	4.25	8.44	7.25	74874-R	
C2115B12	195	3"	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	3"	15.91	11.82	4.25	8.44	7.25	74874-R	
C2115C12	263	4"	15.91	11.84	5.38	10.56	9.00	700308-3-R	5" (4)	18.72	13.47	7.00	12.75	11.50	700308-3-R	5" (4)	18.72	13.47	7.00	12.75	11.50	700308-3-R	

CAST IRON TERMINAL BOX DIMENSIONS															
FRAME SIZE	MAX. AMPS	STANDARD SIZE					ONE SIZE LARGER								
		AB	AC	AF	X	Y	AB	AC	AF	X	Y				
						NUMBER					NUMBER				
		MAC3					MAC3								
C5115M17	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-R
C5115M17	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-R
C5115M17	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
C5115M17	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
	18	3/4	11.09	9.09	2.50	5.00	5.75	705028-2-T	1"	11.09	9.09	2.50	5.00	5.75	705028-2-R
C5121M17	40	1"	11.09	9.09	2.50	5.00	5.75	705028-2-T	1-1/2	12.03	9.59	3.00	6.00	7.00	705029-2-R
C5131M17	96	1-1/2	12.03	9.59	3.00	6.00	7.00	705029-2-S	2-1/2	13.72	9.97	3.62	7.88	9.25	705030-2-R
C5131M17	208	2"	12.03	9.59	3.00	6.00	7.00	705029-2-S	2"	13.72	9.97	3.62	7.88	9.25	705030-2-R
C5181M17	128	2"	12.78	10.34	3.00	6.00	7.00	75640-T	3"	14.47	10.72	3.62	7.88	9.25	76700-2-R
C5181M17	165	3"	14.47	10.72	3.62	7.88	9.25	76700-4R	3"	15.78	11.59	4.12	8.50	10.50	76700-4R
C5181M17	265	4"	15.78	11.59	4.12	8.50	10.50	76700-4R	5" (4)	18.59	13.34	5.17	10.75	13.50	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 TAP.
- (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-1, 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

BALDOR

DIMENSION SHEET

SH 1 of 1

406770-002			406770-002	
CONNECTION DIAGRAM D-C MOTOR - STAB. SHUNT DUAL VOLTAGE FIELD (NOTE 7) W1 (NOTE 4) (CAUTION-SEE NOTE 1) (NOTE 2) (NOTE 5)				
ARMATURE AND FIELD EXTERNAL CONNECTIONS WARNING- SEE NOTE 8 FOR GROUNDING INSTRUCTIONS CCW ROTATION LOW VOLTAGE FIELD CONNECTION CW ROTATION CCW ROTATION HIGH VOLTAGE FIELD CONNECTION CW ROTATION				
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. S.D. ND. 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 SH 1 of 1				