ABB BALDOR RELIANCE

Customer information packet

D2010R-2

10HP, 1750RPM, DC, SC2113ATCZ, SPG

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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							

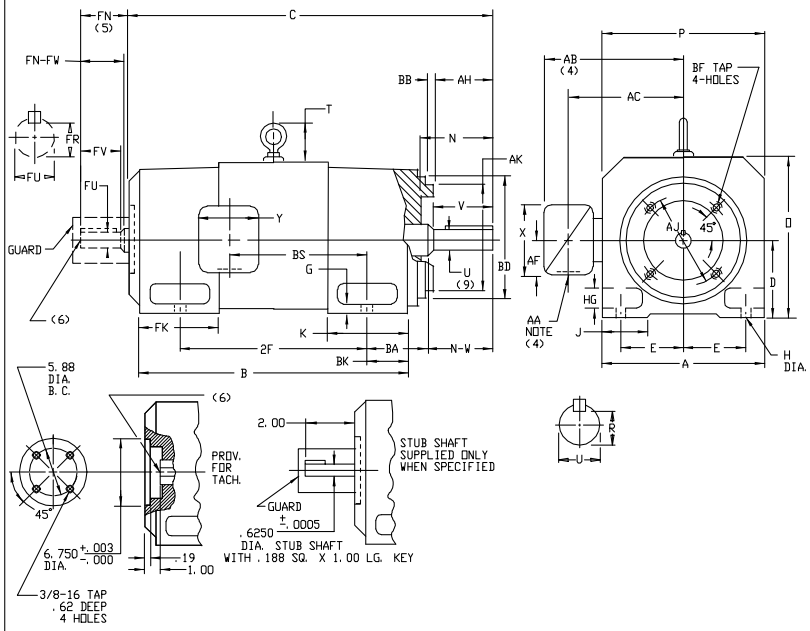
609950-023

INDUSTRIAL DIRECT CURRENT MOTORS AND GENERATORS – RPM III

ENCLOSURE: DRIP-PROOF FULLY-GUARDED, 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(8)
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	O	P	T	BA	K	FK	BK
SC2113ATCZ-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	2.38
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	3.00
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	3.50

FRAME	C(7)	B	BS	2F	DRIVE END SHAFT AND KEY (9) N	N-W	U(2)	AH	V	R(3)	SQ.	LGTH.	OPPOSITE DRIVE END SHAFT AND KEY(5) FN	FN-FW	FU(2)	FV	FR(3)	SQ.	LGTH.	WT. LBS.
SC2113ATCZ	28.00	22.50	11.38	18.00	3.62	3.38	1.3750	3.12	3.12	1.201	.312	2.38	3.50	3.25	1.625	3.00	1.416	.375	2.25	325
MC2113ATCZ	29.25	23.75	12.62	18.00	3.62	3.38	1.3750	3.12	3.12	1.201	.312	2.38	3.50	3.25	1.625	3.00	1.416	.375	2.25	350
LC2113ATCZ	30.88	25.38	14.25	18.00	3.62	3.38	1.3750	3.12	3.12	1.201	.312	2.38	3.50	3.25	1.625	3.00	1.416	.375	2.25	380
SC2512ATCZ	31.44	25.06	12.06	20.00	4.25	4.00	1.625	3.75	3.75	1.416	.375	2.88	4.00	3.75	1.875	3.50	1.591	.500	2.50	515
MC2512ATCZ	32.94	26.56	13.56	20.00	4.25	4.00	1.625	3.75	3.75	1.416	.375	2.88	4.00	3.75	1.875	3.50	1.591	.500	2.50	550
LC2512ATCZ	34.44	28.06	15.06	20.00	4.25	4.00	1.625	3.75	3.75	1.416	.375	2.88	4.00	3.75	1.875	3.50	1.591	.500	2.50	590
MC2812ATCZ	37.25	29.94	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	785
LC2812ATCZ	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	860

(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 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)
(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 DPP. DRIVE END, ADD .25 TO "C" DIM. FOR BRACKET COVER.
(8) "AK" VARIES +.000, -.003----FACE RUNOUT 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.
MOTOR WEIGHT MAY VARY FOR NON-STANDARD RATINGS AND/OR ACCESSORIES.
IF MOUNTING CLEARANCE DETAILS ARE REQUIRED, CONSULT FACTORY.
(10) 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.

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

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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

STEEL TERMINAL BOX DIMENSIONS

FRAME SIZE	MAX. AMPS	STANDARD SIZE AA(1)	AB	AC	AF	X	Y	PART NUMBER	ONE SIZE LARGER AA(1)	AB	AC	AF	X	Y	PART NUMBER
C2113ATZ C2115ATZ (2)	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
	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
	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
C2512ATZ C2514ATZ C2515ATZ (2)	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
	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
	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
C2812ATZ C2813ATZ C2815ATZ	128	2"	14.03	10.53	4.25	8.44	7.25	74874-R	2" & 2-1/2	12.22	9.47	3.19	7.00	7.62	705030-1-R
	185	3"	14.47	11.22	4.25	8.44	7.25	74874-R	3"	14.47	11.22	4.25	8.44	7.25	74874-R
	269	4"	15.91	11.84	5.38	10.56	9.00	700308-3-R	4"	15.91	11.84	5.38	10.56	9.00	700308-3-R
									5" (4)	18.72	13.47	7.00	12.75	15.00	702658-1-C

CAST IRON TERMINAL BOX DIMENSIONS

FRAME SIZE	MAX. AMPS	STANDARD SIZE AA(3)	AB	AC	AF	X	Y	PART NUMBER	ONE SIZE LARGER AA(3)	AB	AC	AF	X	Y	PART NUMBER
C2113ATZ C2115ATZ	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
	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
	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
	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
C2512ATZ C2514ATZ C2515ATZ	18	1"	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
	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
	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
	208	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
C2812ATZ C2813ATZ C2815ATZ	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-RB
	185	3"	14.47	10.72	3.62	7.88	9.25	76700-RB	4"	15.78	11.59	4.12	9.50	10.50	76708-RR
	269	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

CONDUIT BOX DIMENSIONS WITH TERMINAL BOARDS (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	706310-226-R
C250	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	706310-226-R
	400	17.48	12.75	6.20	14.39	--	14.39	706310-63-B & 706310-63G	706310-63-B & 706310-63G
	800	17.48	12.75	6.20	14.39	--	14.39	706310-63-B & 706310-63G	706310-63-B & 706310-63G
C280	200	12.60	10.59	3.76	8.82	--	8.82	706310-56-B	706310-226-R
	400	18.27	13.54	6.20	14.39	==	14.39	706310-63-B & 706310-63G	706310-63-B & 706310-63G
	800	18.27	13.54	6.20	14.39	--	14.39	706310-63-B & 706310-63G	706310-63-B & 706310-63G
	1600	18.27	13.54	7.68	15.35	--	15.35	706310-63-C	706310-63-C

OPTIONAL AUXILIARY CONDUIT BOX DIMENSIONS (MAXIMUM)

FRAME SIZE	XAB	XX	XY	PART NUMBER
C210	7.38	4.25	4.25	602007-26-A
C250	8.44	4.25	4.25	602007-26-A
C280	9.12	4.25	4.25	602007-26-A

FRAME SIZE	XAB	XX	XY	PART NUMBER
C210	10.88	8.00	8.00	706310-3-B
C250	11.88	8.00	8.00	706310-3-B
C280	12.62	8.00	8.00	706310-3-B

(1) "AA" CONDUIT.
(2) STEEL TERMINAL BOX FOR C2113ATZ AND C2512ATZ FRAMES PROVIDED WITH DOUBLE KNOCKOUT.
(3) "AA" PIPE TAP.
(4) TERMINAL BOX 76870-S AND 76870-SR EXTENDS BELOW MOTOR FEET. 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. 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		
REV. LTR: A	VERSION: 01	TDR: 000000816512
FILE: \RGG\00021\153		REVISED: 03:09:09 09/06/2013
MTL: –		BY: RGGWT

BALDOR

DIMENSION SHEET

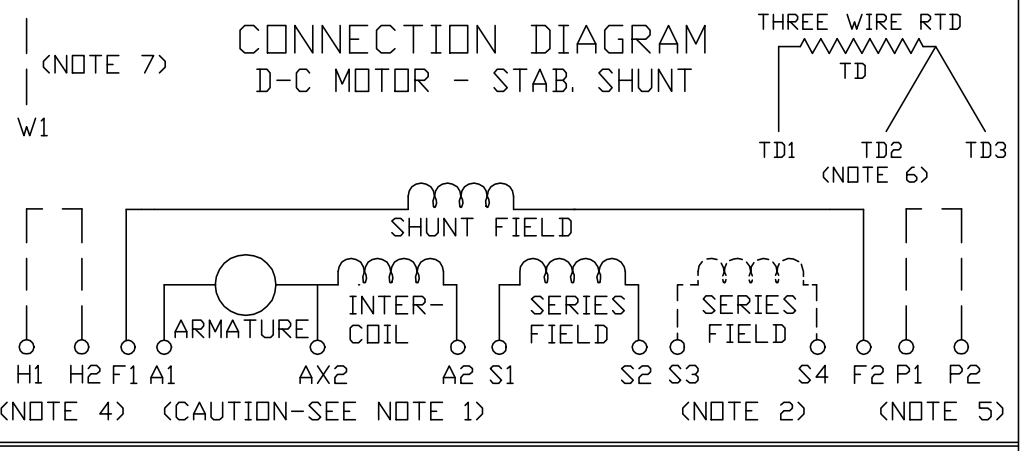
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609959-001

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 _____ CUSTOMER ORDER NO. _____ RELIANCE S.O. NO. _____

BALDOR

D-C MOTOR CONNECTION DIAGRAM STAB. SHUNT
SH 1 of 1

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: -