



Customer information packet

D5510R

10HP, 1750RPM, DC, 2113ATY, TEFC,

Specifications

Enclosure	TEFC
Frame	MC2113ATZ
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	MC
Heater Indicator	No Heater
Lifting Lugs	Standard Lifting Lugs
Motor Standards	NEMA
Mounting Arrangement	F1
Overall Length	33.44 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.	G6142B A
Layout	609951-013
Eff. date	04-13-2015
CD Diagram	406770-002
Poles	00
Leads	
Proprietary	False
Created date	04-10-2015

Nameplate

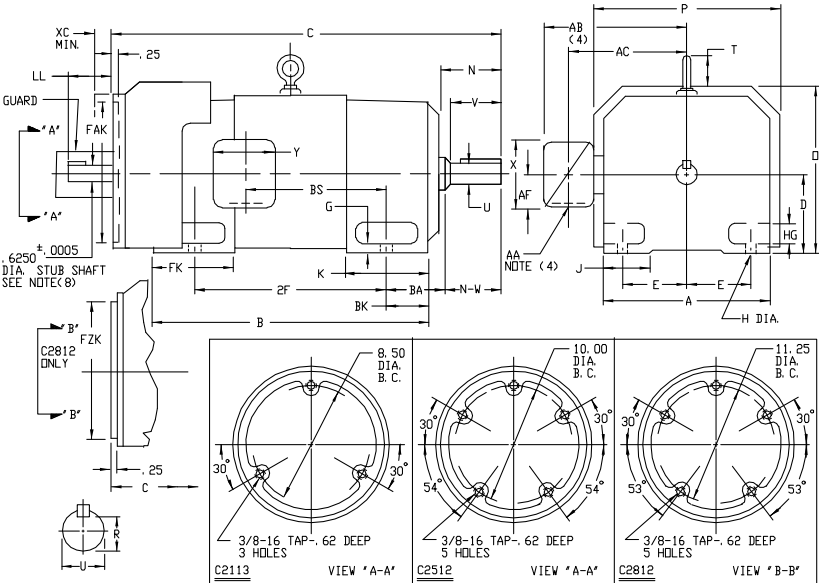
000613006HP									
CAT.NO.	D5510R	SPEC NO.		T21S0304					
FR	MC 2113ATZ	HP	10		DUTY		CONT		
ENCL.	TEFC	RPM	1750/ 2300		S.F.		1.0		
ENCL MOD		VOLTS		500		INSUL		F	
MAX SAFE SPEED	4500	AMPS	17.50		AMB.		40		
FIELD DATA		SER.NO.							
WINDING	STAB SHUNT	POWER CODE		C					
VOLTS	300	D.E. BRG.		50BC03J30X					
MAX AMPS @ 25 C	1.55	O.D.E. BRG.		45BC02J30X					
HOT AMPS	1.06/ .76	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	1.25
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	1.25
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	U(2)	V	R(3)	SR	
SC2113ATZ	32.19	22.50	11.38	18.00	4.00	3.75	1.875	3.50	1.591	500	2.50 355
MC2113ATZ	33.44	23.75	12.62	18.00	4.00	3.75	1.875	3.50	1.591	500	2.50 380
LC2113ATZ	35.06	25.38	14.25	18.00	4.00	3.75	1.875	3.50	1.591	500	2.50 410
SC2512ATZ	35.94	25.06	12.06	20.00	4.50	4.25	2.125	4.00	1.845	500	3.00 555
MC2512ATZ	37.44	26.56	13.56	20.00	4.50	4.25	2.125	4.00	1.845	500	3.00 590
LC2512ATZ	38.94	28.06	15.06	20.00	4.50	4.25	2.125	4.00	1.845	500	3.00 630
MC2812ATZ	41.62	29.94	14.25	22.00	5.00	4.75	2.375	4.50	2.021	625	3.50 835
LC2812ATZ	43.88	32.19	16.50	22.00	5.00	4.75	2.375	4.50	2.021	625	3.50 900

- (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-----+ .000 - .001
(3) "2F" VARIES-----+ .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	4.25
BC-46	
RD-11	
RD-12	
RD-51	
RD-61	3.80 1.12
RE-62	
M627, M628	
M727, M737	SEE NOTE (9)
M738	
DYNAPAR 74S	
RE-045	3.80 1.12
SPY	

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: -		

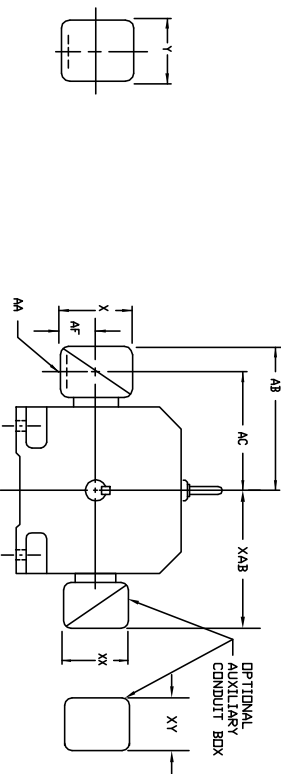
BALDOR
DIMENSION DRAWING, SC2113ATZ - LC2812ATZ, TEFC, FOOT MTG
SH 1 of 1

609951-013

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

TERMINAL BOX DIMENSIONS

STANDARD SIZE AND ONE SIZE LARGER
FRAMES C2113A17 THRU C2815A17



DIMENSIONS ARE IN INCHES

FRAME SIZE	MAX. AMS	AK(1)	STANDARD SIZE						STEEL TERMINAL BOX DIMENSIONS						ONE SIZE LARGER						PART NUMBER					
			AB	AC	AF	X	Y	NUMBER	AK(1)	AB	AC	AF	X	Y	NUMBER	AK(1)	AB	AC	AF	X	Y	NUMBER				
C21.3A1Z	9/4	3/4 & 1"	8.97	7.47	1.94	4.38	5.0	705028-1-R	1-1/4	& -1/2	11.03	8.43	5.50	5.50	6.2	705039-1-R	1-1/4	& -1/2	11.03	8.43	5.50	5.50	6.2	705039-1-R		
C21.3A1Z	9/4	1-1/4 & -1/2	10.03	8.03	2.52	5.50	6.12	705029-1-R	2"	& -2-1/2	11.16	8.31	3.19	7.00	7.62	705030-1-R	2"	& -2-1/2	11.16	8.31	3.19	7.00	7.62	705030-1-R		
C21.3A1Z (2)	208	2" & 1"	11.16	8.43	3.19	7.00	7.62	705030-1-R	2"	& -2-1/2	11.16	8.43	3.19	7.00	7.62	705030-1-R	2"	& -2-1/2	11.16	8.43	3.19	7.00	7.62	705030-1-R		
C23.1A1Z	40	3/4 & 1"	10.03	8.53	1.94	4.38	5.0	705028-1-R	1-1/4	& -1/2	11.09	9.09	5.50	5.50	6.12	705030-1-R	1-1/4	& -1/2	11.09	9.09	5.50	5.50	6.12	705030-1-R		
C23.1A1Z (2)	96	1-1/4 & -1/2	11.09	9.09	2.19	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		
C28.1A1Z	208	2" & 2-1/2	12.82	9.47	3.19	7.00	7.62	705030-1-R	2"	& 2-1/2	14.42	11.22	4.23	8.44	7.62	705030-1-R	2"	& 2-1/2	14.42	11.22	4.23	8.44	7.62	705030-1-R		
C28.1A1Z	185	3"	14.47	11.82	4.23	8.44	7.62	70487-24-R	3"		15.91	11.84	5.38	10.56	9.47	70487-24-R	3"		15.91	11.84	5.38	10.56	9.47	70487-24-R		
C28.1A1Z	169	4"	15.91	11.82	5.38	10.56	9.47	70488-3-R	5"	(4)	18.72	13.47	7.00	12.75	11.50	704658-1-C	5"	(4)	18.72	13.47	7.00	12.75	11.50	704658-1-C		

CAST IRON TERNAL BOX DIMENSIONS																		
FRAME SIZE	MAX. AMPS	AA(3)	STANDARD SIZE						PART NUMBER		DNE SIZE LARGER						PART NUMBER	
			AB	AC	AD	X	Y			AA(3)	AB	AC	AD	X	Y			
C2113A1Z	18	3/4	10.03	8.03	6.50	5.00	5.75	705028-2-S		1"-	10.03	8.03	6.50	5.00	5.75	705028-2-T		
C2113A1Z	40	1"	10.03	8.03	6.50	5.00	5.75	705028-2-T		1-1/2	10.97	8.53	6.30	6.00	7.00	705029-2-S		
C2113A1Z	96	1-1/2	10.97	8.53	6.30	6.00	7.00	705029-2-R		2-1/2	12.66	8.53	6.30	6.00	7.25	705030-2-S		
C2512A1Z	18	3/4	11.09	9.09	6.50	5.00	5.75	705028-2-S		1"	11.09	9.09	6.50	5.00	5.75	705028-2-T		
C2512A1Z	40	1"	11.09	9.09	6.50	5.00	5.75	705028-2-T		1-1/2	12.03	9.59	6.30	6.00	7.00	705029-2-R		
C2514A1Z	96	1-1/2	12.03	9.59	6.30	6.00	7.00	705029-2-R		2"	12.03	9.59	6.30	6.00	7.00	705029-2-S		
C2514A1Z	208	2"	12.03	9.59	6.30	6.00	7.00	705029-2-S		2-1/2	13.47	9.57	6.32	7.88	9.25	705030-2-R		
C2813A1Z	128	2"	12.78	10.34	6.30	6.00	7.00	754501-T		3"	14.47	10.72	6.32	7.88	9.25	767000-R		
C2813A1Z	185	3"	14.47	10.72	6.32	7.88	9.25	767000-R		3-1/2	15.78	11.59	6.42	7.88	9.25	767008-R		
C2813A1Z	269	4"	15.78	11.59	6.42	9.50	10.50	767008-R		5" (4)	18.59	13.94	6.40	12.75	15.00	768070-R		

CONDUIT BOX DIMENSIONS WITH TERMINAL BOARDS (IEC TYPE BOX)									
STANDARD SIZE									
FRAME SIZE	AMP'S	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
	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
C250	800	17.48	12.75	6.20	14.39	--	14.39	706310-63-B & 706310-63G	706310-63-B & 706310-63G
	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	6.20	14.39	--	15.35	706310-63-C	706310-63-C

POTENTIAL AUXILIARY CONDUIT BOX DIMENSIONS (MAXIMUM)							
FRAME SIZE	X/AB	XY	PART NUMBER	FRAME SIZE	X/AB	XY	PART NUMBER
C210	7.38	4.25	602007-26-A	C210	10.88	8.00	706310-3-3
C230	8.44	4.25	602007-26-A	C230	11.88	8.00	706310-3-3
C280	9.12	4.25	602007-26-A	C280	12.62	8.00	706310-3-3

- (1) *AW CONDUIT.
(2) *TE TERMINAL BOX FOR CELL19A17Z AND C6519A17Z
(3) FRAMES PROVIDED WITH DOUBLE KNUCKOUT.
(4) *AW PIPE TAP.
(5) TERMINAL BOX 76870-5 AND 76870-9 EXTENDS BELOW MOTOR FEE.
(6) TERMINAL BOX CAN BE ROTATED FOR LEAD OUTLET AT TOP. SEE DR BOTTOM
(7) TERMINAL BOX LOCATED ON OPPOSITE SIDE WHEN F-2, W-1, W-4, W-5, W-7,
(8) OR C-1 MOUNTING IS SPECIFIED. BOX LOCATED ON TOP WHEN SPECIFIED.
(9) W-7 TERMINAL BOX DIMENSIONS SEE 606995-2
(10) FOR MILL TYPE TERMINAL BOX DIMENSIONS SEE 606995-3.

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

SH 1 of 1

406770-002

406770-002

CONNECTION DIAGRAM

D-C MOTOR - STAB. SHUNT

DUAL VOLTAGE FIELD

W1

(NOTE 7)

SHUNT FIELD

F2

INTER-COIL

ARMATURE

AX2

A2 S1

S2 S3

S4 F22 P1 P2

TD1

TD2

TD3

(NOTE 6)

SHUNT FIELD

F11

SERIES FIELD

SERIES FIELD

H1 H2 F1 A1

(NOTE 4)

AX2

A2 S1

S2 S3

S4 F22 P1 P2

(NOTE 5)

(NOTE 2)

ARMATURE AND FIELD EXTERNAL CONNECTIONS

WARNING- SEE NOTE 8 FOR GROUNDING INSTRUCTIONS

CCW ROTATION

LOW VOLTAGE FIELD CONNECTION

CW ROTATION

A1 A2 S1 S2 F1 F11 F2 F22

A1 S1 A2 S2 F1 F11 F2 F22

CCW ROTATION

HIGH VOLTAGE FIELD CONNECTION

CW ROTATION

AX2

AX2

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 LEAD MARKED W1.

7. BRUSH WEAR SENSOR, WHEN PROVIDED, WILL HAVE LEAD MARKED TD1, TD2, & TD3

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 MOTOR GROUNDING. GROUND LEAD, WHEN PROVIDED, WILL BE GREEN.

CUSTOMER

CUSTOMER

ORDER NO.

S.D. NO.

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

G6142B A: Electrical Design

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