

BALDOR® • RELIANCE

Product Information Packet

D5020R

20HP,1750RPM,DC,2113ATZ,DPG,

Part Detail							
Revision:	-	Status:	PRD/A	Change #:		Proprietary:	No
Type:	DC	Prod. Type:		Elec. Spec:	G6060B A	CD Diagram:	406770-002
Enclosure:	DP	Mfg Plant:		Mech. Spec:		Layout:	609950-001
Frame:	MC211	Mounting:	F1	Poles:	00	Created Date:	04-09-2015
Base:		Rotation:	R	Insulation:	F	Eff. Date:	04-13-2015
Field Type:		Literature:		Elec. Diagram:		Replaced By:	

Specs			
Enclosure:	DP		
Frame:	MC2113ATZ		
Frame Material:	Steel		
Agency Approvals:	CCSA US		
Bearing Grease Type:	Polyrex EM (-20F +300F)		
Drip Cover:	No Drip Cover		
Duty Rating:	CONT		
Feedback Device:	NO FEEDBACK		
Field Winding Type:	STAB SHUNT		
Frame Prefix:	MC		
Heater Indicator:	No Heater		
Insulation Class:	F		
Lifting Lugs:	Standard Lifting Lugs		
Mounting Arrangement:	F1		
Shaft Extension Location:	Pulley End		
Shaft Ground Indicator:	No Shaft Grounding		

Shaft Slinger Indicator:	No Slinger		
Motor Standards:	NEMA		

Nameplate 000613006HP

CAT.NO.	D5020R	SPEC NO.	T21S1323		
FR	MC 2113ATZ	HP	20	DUTY	CONT
ENCL.	DP	RPM	1750/ 2300	S.F.	1.0
ENCL MOD	GUARDED	VOLTS	500	INSUL	F
MAX SAFE SPEED	4500	AMPS	35.00	AMB.	40
FIELD DATA		SER.NO.			
WINDING	STAB SHUNT	POWER CODE	C		
VOLTS	300	D.E. BRG.	50BC03J30X		
MAX AMPS @ 25 C	1.98	O.D.E. BRG.	45BC02J30X		
HOT AMPS	1.39/ .99	MIN. AMB.	0	TYPE	TR
BRUSH:419904051AB; FLD. DATA					
FOR HIGH VOLTS; FIELD VOLTS		150/300			

609950-001

INDUSTRIAL DIRECT CURRENT MOTORS
AND GENERATORS — RPM III

ENCLOSURE: DRIP-PROOF FULLY-GUARDED,
SPLASHPROOF, TOTALLY ENCLOSED

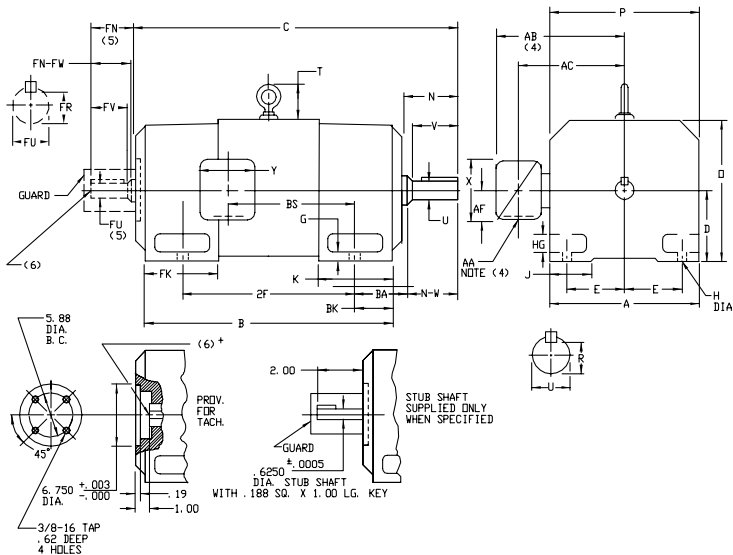
COOLING: SELF-VENTILATED
NON-VENTILATED

MOUNTING: FOOT

ACCESSORIES: PROVISION FOR
TACHOMETER MOUNTING
ONLY WHEN SPECIFIED

METHOD OF DRIVE: COUPLED OR BELTED

FRAMES SC2113ATZ THRU LC2812ATZ



DIMENSIONS ARE IN INCHES; SEE 609950-1M FOR DIMENSIONS IN MILLIMETERS

FRAME	A	B(1)	E	G	H	HG	J	D	P	T	BA	K	FK	BK
SC2113ATZ-LC2113ATZ	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
SC2512ATZ-LC2512ATZ	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
MC2812ATZ-LC2812ATZ	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	(1)	B	BS	2F	N	N-W	UK(2)	V	RC(3)	SD	LGTH.	FN	FN-FW	FK(2)	FV	FR(3)	SD	LGTH.	WT.
SC2113ATZ	28.38	22.50	11.38	18.00	4.00	3.75	1.875	3.50	1.591	.500	2.50	3.50	3.25	1.625	3.00	1.416	.375	2.25	315
MC2113ATZ	29.62	23.75	12.62	18.00	4.00	3.75	1.875	3.50	1.591	.500	2.50	3.50	3.25	1.625	3.00	1.416	.375	2.25	340
LC2113ATZ	31.25	25.38	14.25	18.00	4.00	3.75	1.875	3.50	1.591	.500	2.50	3.50	3.25	1.625	3.00	1.416	.375	2.25	370
SC2512ATZ	31.69	25.06	12.06	20.00	4.50	4.25	2.125	4.00	1.845	.500	3.00	4.00	3.75	1.875	3.50	1.591	.500	2.50	505
MC2512ATZ	33.19	26.56	13.56	20.00	4.50	4.25	2.125	4.00	1.845	.500	3.00	4.00	3.75	1.875	3.50	1.591	.500	2.50	540
LC2512ATZ	34.69	28.06	15.06	20.00	4.50	4.25	2.125	4.00	1.845	.500	3.00	4.00	3.75	1.875	3.50	1.591	.500	2.50	580
MC2812ATZ	37.38	29.94	14.25	22.00	5.00	4.75	2.375	4.50	2.021	.625	3.50	4.50	4.25	2.125	4.00	1.845	.500	3.00	775
LC2812ATZ	39.62	32.19	16.50	22.00	5.00	4.75	2.375	4.50	2.021	.625	3.50	4.50	4.25	2.125	4.00	1.845	.500	3.00	850

- (1) "P" 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-----4.000 - .001
- (3) "R" AND "FR" VARY-----4.000 - .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 DPG, DRIVE END, ADD .25 TO "C" DIM. FOR BRACKET COVER.
- TERMINAL BOX CAN BE ROTATED FOR LEAD OUTLET AT TOP, SIDES OR BOTTOM. TERMINAL BOX LOCATED ON OPPOSITE SIDE WHEN F-2, W-1, V-4, V-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.

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

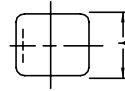
REV. DESC: LOADED TO BUS	VERSION: 00	TDR: 000000577407
REV. LTR: —	REVISED: 10:21:19 01/26/2011	BY: RGGBG
FILE: \RGG\00015\543		
MTL: —		

BALDOR
DIMENSION DRAWING, SC2113ATZ — LC2812ATZ, DPP, TENV, FOOT MTG
SH 1 of 1

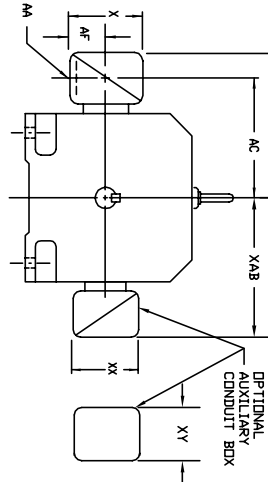
609950-001

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	STEEL TERMINAL BOX DIMENSIONS														
	MAX. AMP'S	AK (1)	STANDARD SIZE					PART NUMBER	AK (1)	DNE SIZE LARGER					PART NUMBER
AB			AC	AF	X	Y	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	5.50	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
(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
C2513ATZ	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
C2515ATZ	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)	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	128	2"	14.03	10.53	4.25	8.44	7.25	74874-2-R	3"	14.47	11.22	4.25	8.44	7.25	74874-2-R
C2815ATZ	185	3"	14.47	11.22	4.25	8.44	7.25	74874-2-R	4"	15.91	11.84	5.38	10.56	9.00	700308-3-R
(2)	269	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	70658-1-C

FRAME SIZE	CAST IRON TERMINAL BOX DIMENSIONS																
	MAX. AMPS	AK(3)	STANDARD SIZE					PART					DNE SIZE LARGER				
AB			AC	AF	X	Y	NUMBER	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		
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	6.00	7.00	705029-2-R		
C215ATZ	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		
C208	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	9.23	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		
C2515ATZ	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		
C2515ATZ	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"	12.03	9.59	3.00	6.00	7.00	705029-2-S	2-1/2	13.72	9.97	3.62	7.88	9.23	705030-2-R		
C2813ATZ	128	2"	12.78	10.34	3.00	6.00	7.00	76708-R	3"	14.47	10.72	3.62	7.88	9.23	76708-R		
C2815ATZ	185	3"	14.47	10.72	3.62	7.88	9.23	76708-R	4"	15.78	11.59	4.12	9.50	10.50	76708-R		
C2815ATZ	269	4"	15.78	11.59	4.12	9.50	10.50	76708-R	5" (4)	18.59	13.34	7.00	12.75	15.00	76870-S		

CONDUIT BOX DIMENSIONS WITH TERMINAL BOARDS (IEC TYPE BOX)

FRAME SIZE	STANDARD SIZE									
	AMP'S	AB	AC	AF	X	Y	AA	Y	PART NUMBER	PART NUMBER
C210	100	10.71	8.98	2.72	7.48	7.48	7.48	7.48	706310-56-A	706310-225-R
	200	11.26	9.25	3.35	8.82	8.82	8.82	8.82	706310-56-B	706310-225-R
	100	11.30	9.57	2.72	7.48	7.48	7.48	7.48	706310-56-A	706310-225-R
	200	11.65	9.84	3.35	8.82	8.82	8.82	8.82	706310-56-B	706310-225-R
C250	400	17.48	12.75	6.20	14.39	14.39	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	14.39	14.39	706310-63-B & 706310-63G	706310-63-B & 706310-63G
	200	12.60	10.99	3.76	8.82	8.82	8.82	8.82	706310-56-B	706310-225-R
	400	18.27	13.54	6.20	14.39	14.39	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	14.39	14.39	706310-63-B & 706310-63G	706310-63-B & 706310-63G
C280	1600	18.27	13.54	7.68	15.35	15.35	15.35	15.35	706310-63-C	706310-63-C

FRAME SIZE		OPTIONAL AUXILIARY CONDUIT BOX DIMENSIONS (MAXIMUM)									
	XAB	XX	XY	FRAME SIZE	XAB	XX	XY	PART NUMBER	PART NUMBER		
C210	7.38	4.25	4.25	602007-26-A	C210	10.88	8.00	8.00	706310-3-B		
C250	8.44	4.25	4.25	602007-26-A	C250	11.88	8.00	8.00	706310-3-B		
C280	9.12	4.25	4.25	602007-26-A	C280	12.62	8.00	8.00	706310-3-B		

- (1) "AA" CONDUIT
(2) STEEL TERMINAL BOX FOR C2113ATZ AND C251ATZ
(3) "AA" PIPE TAB.
(4) TERMINAL BOX 76870-S AND 76870-9R EXTENDS BELOW MOTOR FEET.
TERMINAL BOX CAN BE ROTATED FOR LEAD DRAINAGE AT TOP, SIDES OR BOTTOM.
TERMINAL BOX LOCATED ON OPPOSITE SIDE WHEN F-2, V-1, V-4, V-5, V-7,
OR C-1 MOUNTING IS SPECIFIED. BOX LOCATED ON TOP WHEN SPECIFIED.
FOR "X" TERMINAL BOX DIMENSIONS SEE 609959-2
FOR "Y" 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

SH 1 of 1

609959-001

406770-002		406770-002	
CONNECTION DIAGRAM D-C MOTOR - STAB. SHUNT DUAL VOLTAGE FIELD			
(NOTE 7) W1 THREE WIRE RTD TD1 TD2 TD3 (NOTE 6)			
(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			
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 OPPOSITE DRIVE END BRACKET, ADJACENT TO THE TERMINAL BOX FOR FOR MOTOR GROUNDING. GROUND LEAD, WHEN PROVIDED, WILL BE GREEN.			
CUSTOMER _____ ORDER NO. _____		CUSTOMER _____ RELIANCE S.D. NO. _____	

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