

ABB BALDOR RELIANCE III

Customer information packet D5050R

50 1750 MC2812ATZ DPG 500V

Specifications

Enclosure	DP
Frame	MC2812ATZ
Frame Material	Steel
Output Power	50.000 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	F2
Overall Length	37.38 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Slinger Indicator	No Slinger

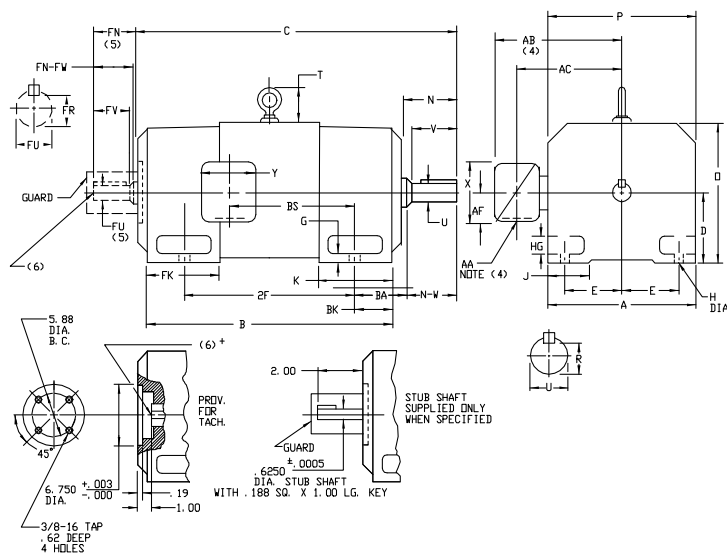
Part Detail

Revision	-
Type	DC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	G6185B A
Layout	609950-001
Eff. date	04-13-2015
CD Diagram	406770-002
Poles	00
Leads	
Proprietary	False
Created date	04-09-2015

Nameplate

000613006HP									
CAT.NO.	D5050R	SPEC NO.		T28S1313					
FR	MC 2812ATZ	HP	50		DUTY		CONT		
ENCL.	DP	RPM	1750/ 2300			S.F.	1.0		
ENCL MOD	GUARDED	VOLTS		500		INSUL		F	
MAX SAFE SPEED	4500	AMPS		85.00		AMB.		40	
FIELD DATA		SER.NO.							
WINDING	STAB SHUNT	POWER CODE		C					
VOLTS	300	D.E. BRG.		65BC03J30X					
MAX AMPS @ 25 C	2.02	O.D.E. BRG.		55BC02J30X					
HOT AMPS	1.44/ .95	MIN. AMB.		0		TYPE		TR	
BRUSH:419904051AB; FLD. DATA									
FOR HIGH VOLTS; FIELD VOLTS									
150/300									

FRAMES SC2113ATZ THRU LC2812ATZ



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

FRAME	A	D(1)	E	G	H	HG	J	D	P	T	BA	K	FK	BA
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	2.31
SC2512ATZ-LC2512ATZ	12.31	6.25	5.00	.50	.56	1.62	2.00	12.50	12.44	3.06	4.25	6.08	8.00	3.33
MC2812ATZ-LC2812ATZ	13.78	7.00	5.00	.62	.56	1.88	2.75	14.00	13.94	3.38	4.75	6.75	9.19	3.33

FRAME	DC7	IRV-E END SHIRT AND KEY				FN FN-FV FV-DZ FV SHY FV FR-DZ												
		B	BS	ZF	N	N	UK-D	V	R-DZ	SD	LGTH	SD	LGTH	SD	LGTH			
SC21312AT	28.68	22.50	11.18	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
MC21312AT	29.26	23.75	12.36	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
SC21322AT	31.69	25.66	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
MC21322AT	31.39	25.36	13.36	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
LC25312AT	34.69	28.15	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
MC25312AT	37.24	29.94	14.44	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
LC25322AT	37.24	29.94	15.06	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
MC25322AT	39.39	32.16	15.36	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

- (1) "P" DIMENSION WILL NOT EXCEED SHIMS UP TO .03 INCHES IN THICKNESS ARE USUALLY REQUIRED FOR COUPLED OR GEARED MACHINES.
- (2) "U" AND "F" VARY----- 000 - .001
- (3) "R" AND "FR" VARY----- 000 - .015
- (4) TERMINAL BOX VARIES WITH H. FOR DIMENSIONS "AA", "AB", "AC", "AD", "AE", "X" AND "Y", REFER TO BOX D/S (STB. 609599-1, X/P. 609599-2, MILL 609599-3)
- (5) OPPOSITE DRIVE END SHAFT SUPPLIED ONLY WHEN SPECIFIED.
- (6) SHAFT END TAPPED FOR SCREW-IN STUB SHAFT.
- (7) IF THE MOTOR APPLICATION DOES NOT REQUIRE THE USE OF DPE, DRIVE END, AND P.S. 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, 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.

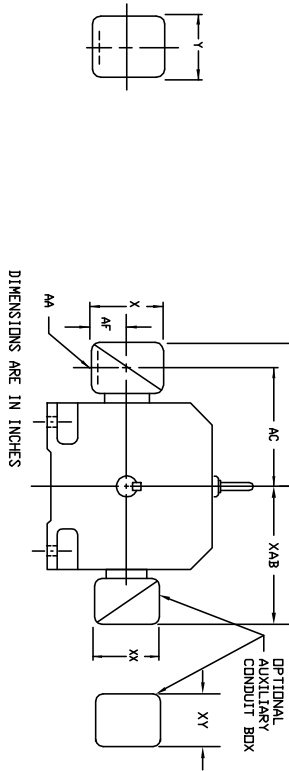
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION

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

DIMENSION DRAWING: SC2113ATZ - LC2812ATZ.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

FRAME SIZE	MAX. AMPS	STANDARD SIZE						STEEL TERMINAL BOX DIMENSIONS						ONE SIZE LARGER						PART NUMBER
		AK(1)	AB	AC	AF	X	Y	AK(1)	AB	AC	AF	X	Y	AK(1)	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					
C2514ATZ	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					
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)	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					
C2815ATZ	128	2"	14.03	10.53	4.25	8.44	7.25	74874-R		14.47	11.22	4.25	8.44	7.25	74874-R					
C2815ATZ	185	3"	14.47	11.22	4.25	8.44	7.25	74874-R		15.91	11.84	5.38	10.56	9.00	706308-3-R					
(2)	269	4"	15.91	11.84	5.38	10.56	9.00	706308-3-R		18.72	13.47	7.00	12.75	15.00	706589-1-C					

FRAME SIZE	MAX. AMPS	STANDARD SIZE						CAST IRON TERMINAL BOX DIMENSIONS						ONE SIZE LARGER						PART NUMBER
		AK(3)	AB	AC	AF	X	Y	AK(3)	AB	AC	AF	X	Y	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					
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)	208	2"	12.66	8.91	3.62	7.88	9.25	705030-2-R	2-1/2	11.09	9.09	2.50	5.00	5.75	705028-2-T					
C2514ATZ	40	3/4	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					
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					
C2514ATZ	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					
C2813ATZ	128	2"	12.78	10.34	3.00	6.00	7.00	75460-T		14.47	10.72	3.62	7.88	9.25	76708-R					
C2813ATZ	185	3"	14.47	10.72	3.62	7.88	9.25	76708-R		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		18.59	13.34	7.00	12.75	15.00	76870-S					

CONDUIT BOX DIMENSIONS WITH TERMINAL BOARDS (IEC TYPE BOX)

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 & 706310-63G	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				
	200	12.60	10.59	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 & 706310-63G	706310-63-B & 706310-63G				
C280	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				

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

(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

406770-002			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 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. S.D. ND. RELIANCE				
REV. DESC: UPDATE LOGO AND TITLEBLOCK: LOADED TO BUS		BALDOR		
REV. LTR: -	VERSION: 00	TDR: 000000781086	D-C MOTOR CONNECTION DIAGRAM STAB. SHUNT, DUAL VOLTAGE FIELD	
FILE: \RSN\00026\434		REVISED: 02: 35: 07 02/01/2013	SH 1 of 1	
MTL: -		BY: MGHPC		