

BALDOR® • RELIANCE™

Customer information packet

D5040R

40HP, 1750RPM, DC, 2512ATZ, DPG,

Specifications

Enclosure	DP
Frame	LC2512ATZ
Frame Material	Steel
Output Power	40.000 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	LC
Heater Indicator	No Heater
Lifting Lugs	Standard Lifting Lugs
Motor Standards	NEMA
Mounting Arrangement	F2
Overall Length	34.69 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.	G6266A A
Layout	609950-001
Eff. date	04-13-2015
CD Diagram	406770-002
Poles	00
Leads	
Proprietary	False
Created date	04-09-2015

Nameplate

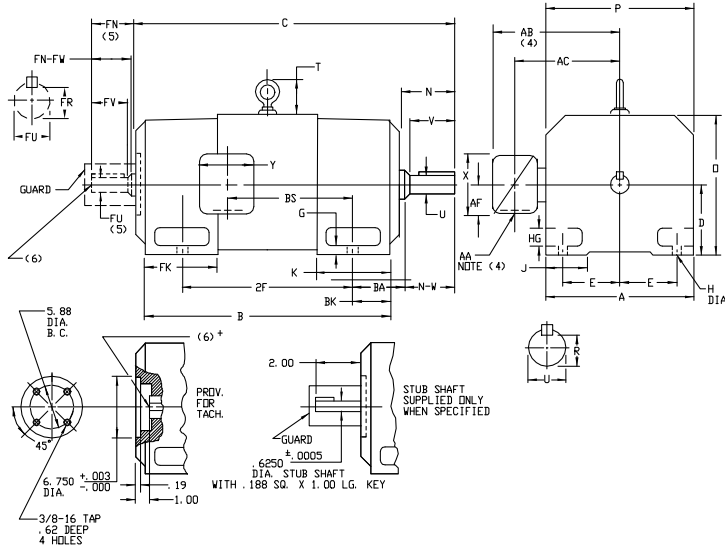
000613006HP					
CAT.NO.	D5040R	SPEC NO.	T25S1323		
FR	LC 2512ATZ	HP	40	DUTY	CONT
ENCL.	DP	RPM	1750/ 2300	S.F.	1.0
ENCL MOD	GUARDED	VOLTS	500	INSUL	F
MAX SAFE SPEED	4500	AMPS	68.00	AMB.	40
	FIELD DATA	SER.NO.			
WINDING	STAB SHUNT	POWER CODE	C		
VOLTS	300	D.E. BRG.	60BC03J30X		
MAX AMPS @ 25 C	2.40	O.D.E. BRG.	50BC02J30X		
HOT AMPS	1.70/ 1.15	MIN. AMB.	0	TYPE	TR
	BRUSH:419904051AC; FLD. DATA				
	FOR HIGH VOLTS; FV 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
 METHOD OF DRIVE: COUPLED OR BELTED ONLY WHEN SPECIFIED

FRAMES SC2113ATZ THRU LC2812ATZ



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

FRAME	A	X(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	12.90	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	C(7)	B	BS	2F	DRIVE END SHAFT AND KEY					OPPOSITE DRIVE END SHAFT AND KEY(S)					WT.				
					N	N-W	U(2)	V	X(3)	SS	LGTH.	FN	FN-FW	FK(2)		FV	FK(3)	SS	LGTH.
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) "D" DIMENSION WILL NOT BE EXCEEDED. SHIMS UP TO .03 INCHES IN THICKNESS ARE USUALLY REQUIRED FOR COUPLED OR GEARED MACHINES.
 - (2) "U" AND "V" VARY-----+ .000 - .015
 - (3) "R" AND "FR" VARY-----+ .000 - .015
 - (4) TERMINAL BOX VARIES WITH N.P. FOR DIMENSIONS "AA", "AB", "AC", "AF", "X" AND "Y". REFER TO BDX D/S. (STD. 609959-1, "X/P" 609959-2, MILL 609959-3)
 - (5) OPPOSITE DRIVE END SHFT SUPPLIED ONLY WHEN SPECIFIED.
 - (6) MOTOR SHFT TAPPED FOR SCREW-IN STUB SHFT.
 - (7) WHEN THE MOTOR APPLICATION DOES NOT REQUIRE THE USE OF DPP, 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, 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. 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

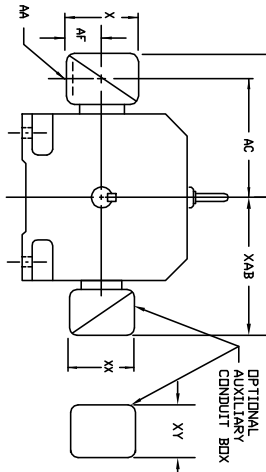
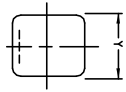
DIMENSION DRAWING, SC2113ATZ - LC2812ATZ, DPP, TENV, FOOT MTG

SH 1 of 1

609950-001

609959-001

INDUSTRIAL DIRECT CURRENT MOTORS
AND GENERATORS - RPM III
STANDARD SIZE AND ONE SIZE LARGER
TERMINAL BOX DIMENSIONS
FRAMES C2113ATZ THRU C2815ATZ



DIMENSIONS ARE IN INCHES

FRAME SIZE	MAX. AMPS	STANDARD SIZE						STEEL TERMINAL BOX DIMENSIONS						ONE SIZE LARGER								
		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	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" & 2-1/2	11.16	8.41	3.19	7.00	7.62	705030-1-R
C2115ATZ (C)	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	2" & 2-1/2	11.16	8.41	3.19	7.00	7.62	705030-1-R
C2815ATZ	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	1-1/4 & 1-1/2	11.09	9.09	2.50	5.50	6.12	705029-1-R
C2815ATZ (C)	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" & 2-1/2	12.22	9.47	3.19	7.00	7.62	705030-1-R
C2815ATZ (C)	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	2" & 2-1/2	12.22	9.47	3.19	7.00	7.62	705030-1-R
C2815ATZ	188	2"	14.03	10.53	4.25	8.44	7.25	7487-4-R	3"	14.47	11.22	4.25	8.44	7.25	7487-4-R	3"	14.47	11.22	4.25	8.44	7.25	7487-4-R
C2815ATZ	188	3"	14.47	11.22	4.25	8.44	7.25	7487-4-R	3"	14.47	11.22	4.25	8.44	7.25	7487-4-R	3"	14.47	11.22	4.25	8.44	7.25	7487-4-R
C2815ATZ	259	4"	15.91	11.84	5.38	10.56	9.00	706308-3-R	5" (4)	18.59	13.34	7.00	12.75	15.00	706589-1-C	5" (4)	18.59	13.34	7.00	12.75	15.00	706589-1-C

FRAME SIZE	MAX. AMPS	STANDARD SIZE						CAST IRON TERMINAL BOX DIMENSIONS						ONE SIZE LARGER								
		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	1-1/2	10.97	8.53	3.00	6.00	7.00	705029-2-S
C2113ATZ	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-S	2"	12.66	8.91	3.62	7.88	9.25	705030-2-R
C2115ATZ	96	1-1/2	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	3"	14.47	10.72	3.62	7.88	9.25	76700-4-R
C2815ATZ	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	1-1/2	12.03	9.59	3.00	6.00	7.00	705029-2-S
C2815ATZ	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	2-1/2	13.72	9.97	3.62	7.88	9.25	705030-2-R
C2815ATZ	208	2"	12.78	10.34	3.00	6.00	7.00	75460-T	3"	14.47	10.72	3.62	7.88	9.25	76700-4-R	4"	15.78	11.59	4.12	9.50	10.50	76708-RR
C2815ATZ	188	3"	14.47	10.72	3.62	7.88	9.25	76700-4-R	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	76970-S
C2815ATZ	259	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	76970-S							

FRAME SIZE	AMPS	STANDARD SIZE						OPTIONAL AUXILIARY CONDUIT BOX DIMENSIONS (IEC TYPE BOX)										
		AB	AC	AF	X	AA	Y	AB	AC	AF	X	Y	AB	AC	AF	X	Y	
C210	100	10.71	8.98	2.72	7.48	---	7.48	706310-56-A	7.48	706310-56-A	7.48	706310-56-A	7.48	706310-56-A	7.48	706310-56-A	7.48	706310-56-A
C210	200	11.66	9.25	3.35	8.82	---	8.82	706310-56-B	8.82	706310-56-B	8.82	706310-56-B	8.82	706310-56-B	8.82	706310-56-B	8.82	706310-56-B
C210	100	11.30	9.57	2.72	7.48	---	7.48	706310-56-A	7.48	706310-56-A	7.48	706310-56-A	7.48	706310-56-A	7.48	706310-56-A	7.48	706310-56-A
C250	200	11.85	9.84	3.35	8.82	---	8.82	706310-56-B	8.82	706310-56-B	8.82	706310-56-B	8.82	706310-56-B	8.82	706310-56-B	8.82	706310-56-B
C250	400	17.48	12.75	6.20	14.39	---	14.39	706310-63-B & 706310-63G	14.39	706310-63-B & 706310-63G	14.39	706310-63-B & 706310-63G	14.39	706310-63-B & 706310-63G	14.39	706310-63-B & 706310-63G	14.39	706310-63-B & 706310-63G
C250	800	17.48	12.75	6.20	14.39	---	14.39	706310-63-B & 706310-63G	14.39	706310-63-B & 706310-63G	14.39	706310-63-B & 706310-63G	14.39	706310-63-B & 706310-63G	14.39	706310-63-B & 706310-63G	14.39	706310-63-B & 706310-63G
C280	200	12.60	10.59	3.76	8.82	---	8.82	706310-56-B	8.82	706310-56-B	8.82	706310-56-B	8.82	706310-56-B	8.82	706310-56-B	8.82	706310-56-B
C280	400	18.27	13.54	6.20	14.39	---	14.39	706310-63-B & 706310-63G	14.39	706310-63-B & 706310-63G	14.39	706310-63-B & 706310-63G	14.39	706310-63-B & 706310-63G	14.39	706310-63-B & 706310-63G	14.39	706310-63-B & 706310-63G
C280	800	18.27	13.54	6.20	14.39	---	14.39	706310-63-B & 706310-63G	14.39	706310-63-B & 706310-63G	14.39	706310-63-B & 706310-63G	14.39	706310-63-B & 706310-63G	14.39	706310-63-B & 706310-63G	14.39	706310-63-B & 706310-63G
C280	1600	18.27	13.54	7.68	15.35	---	15.35	706310-63-C	15.35	706310-63-C	15.35	706310-63-C	15.35	706310-63-C	15.35	706310-63-C	15.35	706310-63-C

FRAME SIZE	XAB	XY	PART NUMBER		XAB	XY	XAB	XY	PART NUMBER
			C210	C250					
C210	7.38	4.25	602007-26-A	C210	10.88	8.00	8.00	8.00	706310-3-B
C250	8.44	4.25	602007-26-A	C250	11.88	8.00	8.00	8.00	706310-3-B
C280	9.12	4.25	602007-26-A	C280	12.62	8.00	8.00	8.00	706310-3-B

- (1) 44" CONDUIT
- (2) 44" CONDUIT
- (3) 44" PIPE
- (4) TERMINAL BOX 76970-S AND 76970-R EXTENDS BELOW MOTOR FEET

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: 00000816512
REV. LTR: A	FILE: \RGG\00021\153	REVISED: 03: 09: 09 09/06/2013
MTL: -		BY: RGGWT



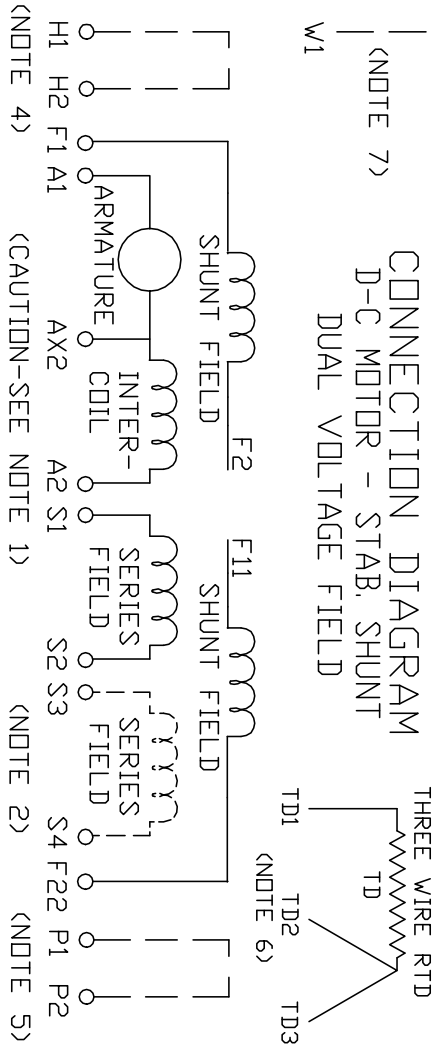
DIMENSION SHEET
SH 1 of 1

609959-001

406770-002

406770-002

**CONNECTION DIAGRAM
D-C MOTOR - STAB, SHUNT
DUAL VOLTAGE FIELD**



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

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

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