



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

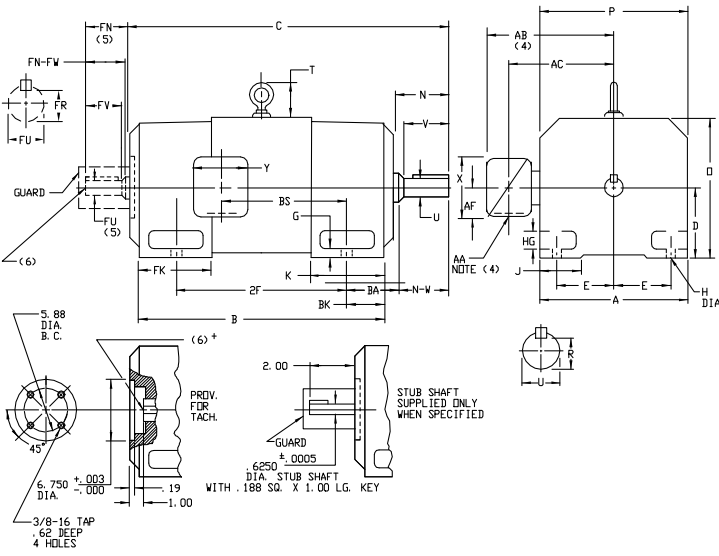
000613006HP									
CAT.NO.	D5040R	SPEC NO.		T25S1323					
FR	LC 2512ATZ	HP	40		DUTY		CONT		
ENCL.	DP	RPM	1750/ 2300		S.F.		1.0		
ENCL MOD	GUARDED	VOLTS		500		INSUL		F	
MAX SAFE SPEED	4500	AMPS	68.00		AMB.		40		
FIELD DATA		SER.NO.							
WINDING	STAB SHUNT	POWER CODE		C					
VOLTS	300	D.E. BRG.		60BC03J30X					
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, COOLING: SELF-VENTILATED
SPLASHPROOF, TOTALLY ENCLOSED 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	12.50	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	D(7)	B	BS	2F	N	N-W	UK(2)	V	UK(3)	SQ	LGTH.	FN	FN-FW	FK(2)	FV	FR(2)	VS	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	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	505
MC2512ATZ	33.19	26.56	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	540
LC2512ATZ	34.69	28.06	16.56	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	580
MC2812ATZ	37.38	29.94	18.45	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	20.70	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 "FU" VARY-----+ .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 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, V-1, W-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

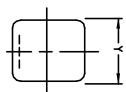
DIMENSION DRAWING, SC2113ATZ - LC2812ATZ, DPP, TENV, FOOT MTG
SH 1 of 1

609950-001

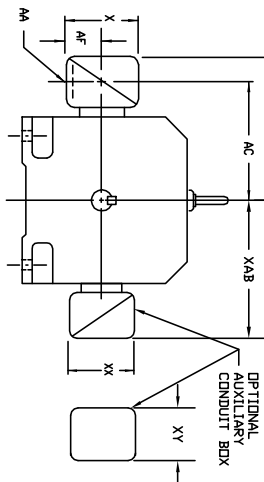
609959-001

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



STEEL TERMINAL BOX DIMENSIONS																	
FRAME SIZE	MAX. AMPS	STANDARD SIZE						PART NUMBER		ONE SIZE LARGER						PART NUMBER	
		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	5.30	6.12	705029-1-R	
C2115ATZ	96	1-1/4 & 1-1/2	10.03	8.03	2.50	5.30	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	5.30	6.12	705029-1-R	
C2514ATZ	96	1-1/4 & 1-1/2	11.09	9.09	2.50	5.30	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	155	3"	14.03	10.53	4.23	8.44	7.23	74874-R		4"	14.47	11.22	4.23	8.44	7.23	74874-24-R	
C2815ATZ	259	4"	14.47	11.22	4.23	8.44	7.23	74874-24-R		5" (4)	15.91	11.84	5.38	10.56	9.00	702508-3-R	
(2)	259	5" (4)	15.91	11.84	5.38	10.56	9.00	702508-3-R			16.72	13.47	7.00	12.75	15.00	702508-1-C	

CAST IRON TERMINAL BOX DIMENSIONS															
FRAME SIZE	MAX. AMPS	AK(3)	STANDARD SIZE					PART NUMBER	ONE SIZE LARGER					PART NUMBER	
			AB	AC	AF	X	Y		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"	10.97	8.53	3.00	6.00	7.00	705029-2-S
C2514ATZ	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
C2514ATZ	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
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	767000-R
C2813ATZ	155	3"	14.47	10.72	3.62	7.88	9.25	76700-R	4"	14.47	10.72	3.62	7.88	9.25	767008-R
C2815ATZ	259	4"	15.78	11.59	4.12	9.50	10.50	76708-R	5" (4)	15.78	11.59	4.12	9.50	10.50	76700-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	11.66	9.23	3.33	8.82	--	8.82	706310-56-B		706310-226-R	
	400	11.30	9.57	2.72	7.48	--	7.48	706310-56-A		706310-225-R	
C250	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	XY	PART NUMBER	FRAME SIZE	XAB	XY	PART NUMBER
C210	7.38	4.25	602007-26-A	C210	10.88	8.00	706310-3-B
C250	8.44	4.25	602007-26-A	C250	11.88	8.00	706310-3-B
C280	9.12	4.25	602007-26-A	C280	12.62	8.00	706310-3-B

(1) MAX CONDUIT
(2) RACEWAYS PROVIDED WITH DOUBLE KNUCKLE
(3) MAX 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" / "Y" 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

SH 1 of 1

609959-001

406770-002

406770-002

CONNECTION DIAGRAM
D-C MOTOR - STAB. SHUNT
DUAL VOLTAGE FIELD

W1

(NOTE 7)

THREE WIRE RTD
TD1 TD2 TD3
(NOTE 6)

SHUNT FIELD

F2

INTER-COIL

ARMATURE

SHUNT FIELD

F11

SERIES FIELD

S2 S3

SERIES FIELD

S4

F22

F11

F2

F22

H1 H2 F1 A1

AX2

A2 S1

S2 S3

S4 F22 P1 P2

(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

A1 A2 S1 S2 F1 F11 F2 F22

A1 S1 A2 S2 F1 F11 F2 F22

CCW ROTATION

HIGH VOLTAGE FIELD CONNECTION

CW ROTATION

A1 A2 S1 S2 F1 F11 F2 F22

A1 S1 A2 S2 F1 F11 F2 F22

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

CUSTOMER _____ ORDER NO. _____ S.D. NO. _____

CUSTOMER _____
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

G6266A A: Electrical Design

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