ABB BALDOR RELIANCE

Customer information packet

D5040R

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

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10/31/2026 2:02:07 AM

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								

Parts List

Part number	Description	Quantity
SA297097	SA T25S1323	1.000 ea
AA016145	AA T25S1323	1.000 ea
000613006HP	NAMEPLATE - RPM III D-C MOTOR W/CSA LOGO	1.000 ea
000692000FP	NP, WARNING LIFT INSTRUCTIONS	1.000 ea
000692000FS	WARNING LABEL	1.000 ea
033775004EA	DRSCR #6-1/4 304 S.S.	6.000 ea
406770002	C/D TAG STAB SHUNT D.V.	1.000 ea
034182010GA	KEY 1/2 X 3/8 X 1.25"	1.000 ea
036600008AB	MFWSH M6 PLATED	1.000 ea
036000012HB	HHCS M6X12MM LONG PLATED	4.000 ea
036000020KB	MHHCS M10-1.5X20MM PLTD.	4.000 ea
036501008AB	KPNUT M6-1.0 ZINCPLTED	8.000 ea
036610010AB	MHSLW M10 PLATED	4.000 ea
419904-51AC	BRUSH EXTRUDER DUTY C	4.000 ea
419905003A	FLAT WASHER ROCKER RPM III RGG	4.000 ea
419905008A	HARDWARE	8.000 ea
706364051RCA	BRHLD METRIC SPRING CHG.	4.000 ea
706372011RE	ROCKR METRIC	1.000 ea
034693001AB	PPLG - G508- use 034692001AB	1.000 ea
034693001AB	PPLG - G508- use 034692001AB	1.000 ea
035000001A	ALFTG 1/8" 1610-BL	1.000 ea
035000001BB	GREASE FTG,GRS.IN	1.000 ea
036000060JB	M8-1.25 X 60MM HXHDCSCR	2.000 ea
036100070KA	METRIC HSHCS	3.000 ea
036500010AB	METRIC NUT M10-1.5PLTD400	4.000 ea
036500010AB	METRIC NUT M10-1.5PLTD400	4.000 ea
406055001B	GRFTG	1.000 ea
418150003A	GREASE FITTING CAP	2.000 ea
419912001A	WWSHR	1.000 ea
609830005T	TBOLT METRIC RP609830-	4.000 ea
801926052A	BRKT,ODE,C250 801926001WCC	1.000 ea

801927052A	BRKT,DE,C250	1.000 ea
032018004CK	HHCS 3/8-16X1/2L PLATED	4.000 ea
036000012HB	HHCS M6X12MM LONG PLATED	2.000 ea
036000045JB	M8-1.25 X 45MM HXHCS	4.000 ea
036620009AB	M8 EXTERNAL LK WASHER	1.000 ea
065564000B	GASK 250-280	1.000 ea
075453000A	CBOXC, PAINTED 250-280	1.000 ea
417733001D	GASKT	2.000 ea
418010006A	CAST,MPLATE,180-280,EX1,7BY	1.000 ea
418018074A	GROUND LABEL G100 METRIC 160 D.C.	1.000 ea
422919027	HHCVR KIT, C250, ODE, SOLID	1.000 ea
422919029	HHCVR KIT, C250, DE, LOUVERED	1.000 ea
422919029	HHCVR KIT, C250, DE, LOUVERED	1.000 ea
422919038	HHCVR KIT C250 ODE SOLID	1.000 ea
422919040	HHCVR KIT,C250,ODE,LOUVERED	1.000 ea
422919040	HHCVR KIT,C250,ODE,LOUVERED	1.000 ea
706305026A	GUARD,SHAFT	1.000 ea
706320005A	CONDUIT BOX	1.000 ea
000640000P	TAG WINDING THERMOST	1.000 ea
000692000NG	LABEL ;NP 4POLE METRIC LABEL	1.000 ea
034180024GA	KEY 1/2X1/2X3 L	1.000 ea

609950-001

INDUSTRIAL DIRECT CURRENT MOTORS AND GENERATORS – RPM III

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

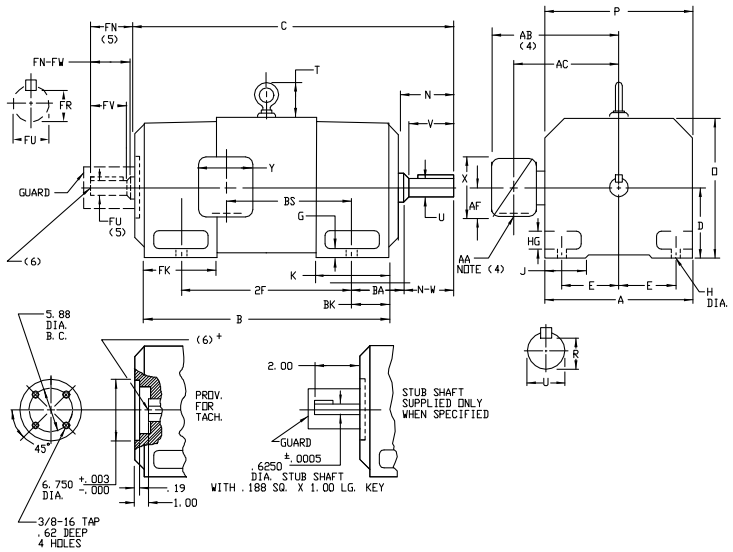
COOLING: SELF-VENTILATED NON-VENTILATED

MOUNTING:FOOT

METHOD OF DRIVE:COUPLED OR BELTED

ACCESSORIES: PROVISION FOR TACHOMETER MOUNTING ONLY WHEN SPECIFIED

FRAMES SC2113ATZ THRU LC2812ATZ



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

FRAME	A	D(1)	E	G	H	HG	J	O	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	C(7)	B	BS	2F	DRIVE END SHAFT AND KEY							OPPOSITE DRIVE END SHAFT AND KEY(5)							WT. LBS.
					N	N-W	U(2)	V	R(3)	SQ.	LGTH.	FN	FN-FW	FU(2)	FV	FR(3)	SQ.	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 '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 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 OPP. 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		
REV. LTR: –	VERSION: 00	TDR: 000000577407
FILE: \RGG\00015\543	REVISED: 10:21:19 01/26/2011	BY: RGGBG
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	MAX. AMPS	STEEL TERMINAL BOX DIMENSIONS																	
		STANDARD SIZE							ONE SIZE LARGER										
		AA(1)		AB	AC	AF	X	Y	PART NUMBER	AA(1)		AB	AC	AF	X	Y	PART NUMBER
C2113ATZ C2115ATZ (2)	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
	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
	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
C2512ATZ C2514ATZ C2515ATZ (2)	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
	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
	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
C2812ATZ C2813ATZ C2815ATZ	128	2"		14.03	10.53	4.25	8.44	7.25	74874-R	2" & 2-1/2		12.22	9.47	3.19	7.00	7.62	705030-1-R
	185	3"		14.47	11.22	4.25	8.44	7.25	74874-R	3"		14.47	11.22	4.25	8.44	7.25	74874-R
	269	4"		15.91	11.84	5.38	10.56	9.00	700308-3-R	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	702658-1-C

FRAME SIZE	MAX. AMPS	CAST IRON TERMINAL BOX DIMENSIONS																	
		STANDARD SIZE							ONE SIZE LARGER										
		AA(3)		AB	AC	AF	X	Y	PART NUMBER	AA(3)		AB	AC	AF	X	Y	PART NUMBER
C2113ATZ C2115ATZ	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
	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
	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
	208	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
C2512ATZ C2514ATZ C2515ATZ	18	1"		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
	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
	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
	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
C2812ATZ C2813ATZ C2815ATZ	128	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-RB
	185	3"		14.47	10.72	3.62	7.88	9.25	76700-RB	4"		15.78	11.59	4.12	9.50	10.50	76708-RR
	269	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	76870-S

CONDUIT BOX DIMENSIONS WITH TERMINAL BOARDS (IEC TYPE BOX)

FRAME SIZE	AMPS	STANDARD SIZE							ONE SIZE LARGER						
		AB	AC	AF	X	AA	Y	PART NUMBER	AB	AC	AF	X	Y	PART NUMBER	
C210	100	10.71	8.98	2.72	7.48	--	7.48	706310-56-A	10.03	8.03	2.50	5.00	5.75	706310-225-R	
	200	11.26	9.25	3.35	8.82	--	8.82	706310-56-B	11.09	9.09	2.50	5.00	5.75	706310-226-R	
C250	100	11.30	9.57	2.72	7.48	--	7.48	706310-56-A	11.09	9.09	2.50	5.00	5.75	706310-225-R	
	200	11.85	9.84	3.35	8.82	--	8.82	706310-56-B	12.22	9.47	3.19	7.00	7.62	706310-226-R	
	400	17.48	12.75	6.20	14.39	--	14.39	706310-63-B & 706310-63G	13.54	9.84	3.19	7.00	7.62	706310-63-B & 706310-63G	
	800	17.48	12.75	6.20	14.39	--	14.39	706310-63-B & 706310-63G	14.03	10.53	4.25	8.44	7.25	706310-63-B & 706310-63G	
C280	200	12.60	10.59	3.76	8.82	--	8.82	706310-56-B	13.54	9.84	3.19	7.00	7.62	706310-226-R	
	400	18.27	13.54	6.20	14.39	==	14.39	706310-63-B & 706310-63G	14.03	10.53	4.25	8.44	7.25	706310-63-B & 706310-63G	
	800	18.27	13.54	6.20	14.39	--	14.39	706310-63-B & 706310-63G	14.47	11.22	4.25	8.44	7.25	706310-63-B & 706310-63G	
	1600	18.27	13.54	7.68	15.35	--	15.35	706310-63-C	15.91	11.84	5.38	10.56	9.00	706310-63-C	

OPTIONAL AUXILIARY CONDUIT BOX DIMENSIONS (MAXIMUM)

FRAME SIZE	XAB	XX	XY	PART NUMBER
C210	7.38	4.25	4.25	602007-26-A
C250	8.44	4.25	4.25	602007-26-A
C280	9.12	4.25	4.25	602007-26-A

FRAME SIZE	XAB	XX	XY	PART NUMBER
C210	10.88	8.00	8.00	706310-3-B
C250	11.88	8.00	8.00	706310-3-B
C280	12.62	8.00	8.00	706310-3-B

(1) "AA" CONDUIT.
(2) STEEL TERMINAL BOX FOR C2113ATZ AND C2512ATZ FRAMES PROVIDED WITH DOUBLE KNOCKOUT.
(3) "AA" PIPE TAP.
(4) TERMINAL BOX 76870-S AND 76870-SR EXTENDS BELOW MOTOR FEET. 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. 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		
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

ARMATURE AND FIELD EXTERNAL CONNECTIONS
WARNING- SEE NOTE 8 FOR GROUNDING INSTRUCTIONS

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 _____ CUSTOMER ORDER NO. _____

RELIANCE S.O. 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