

ABB BALDOR RELIANCE III

Customer information packet

D50125RS-BV

125HP, 1750RPM, DC, 3212ATZ, DPG-FV,

Specifications

Enclosure	DP
Frame	LC3212ATZ
Frame Material	Exposed Laminations
Output Power	125.000 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	41.50 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.	G7297B A
Layout	616032-034
Eff. date	04-13-2015
CD Diagram	406770-001
Poles	00
Leads	
Proprietary	False
Created date	04-09-2015

Nameplate

000613006LP									
CAT.NO.	D50125RS-BV	SPEC NO.		T32T1318					
FR	LC 3212ATZ	HP	125		DUTY		CONT		
ENCL.	DP	RPM	1750/ 2000			S.F.	1.0		
ENCL MOD	FORCE VENT	VOLTS		500		INSUL		F	
MAX SAFE SPEED	3600	AMPS		203.00		AMB.		40	
FIELD DATA		SER.NO.							
WINDING	STAB SHUNT	POWER CODE		C					
VOLTS	300	D.E. BRG.		70BC03J30X					
MAX AMPS @ 25 C	4.40	O.D.E. BRG.		60BC02J30X					
HOT AMPS	3.18/ 2.59	MIN. AMB.		0		TYPE		TR	
BRUSH:419904052Z; AIR BAFFLED									

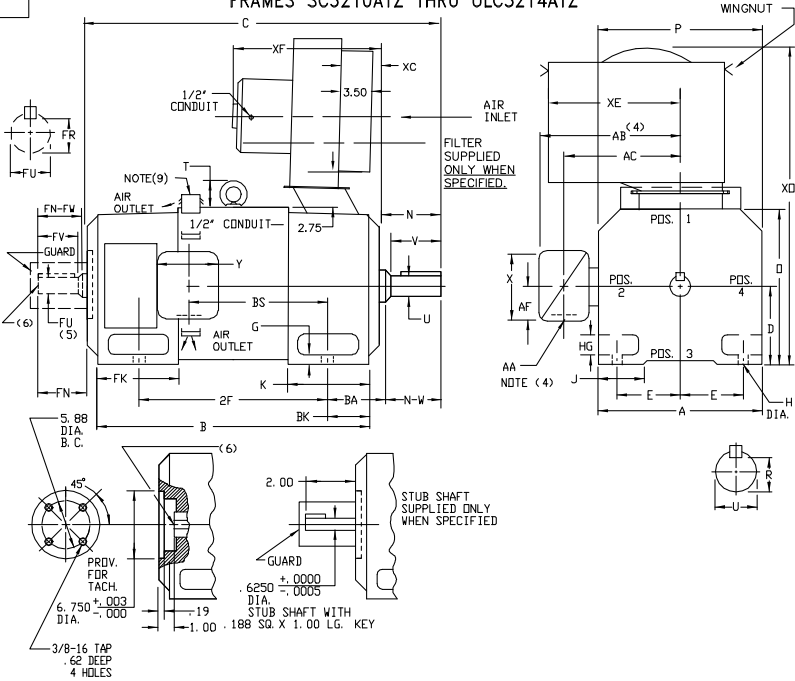
616032-034

ENCLOSURE: DRIP-PROOF FULLY-GUARDED
MOUNTING: FOOT

INDUSTRIAL DIRECT CURRENT MOTORS
AND GENERATORS - RPM III

COOLING: FORCE VENTILATED WITH
INTEGRAL BLOWER AND
MOTOR AIR FILTERED-
SPECIAL BAFFLE

FRAMES SC3210ATZ THRU ULC3214ATZ



DIMENSIONS ARE IN INCHES

FRAME	XC	XE	XF	XO
SC3210ATZ-ULC3214ATZ	4.00	10.00	20.25	31.12

FRAME	A	IK(1)	E	G	H	HG	J	D	P	T	BA	K	STB	LG.(8)	BK
SC3210ATZ-ULC3214ATZ	15.50	8.00	6.25	.75	.69	2.25	3.00	15.81	15.62	3.54	5.25	6.75	7.94	10.44	4.00

FRAME	METHOD OF DRIVE	METHOD OF DRIVE				DRIVE END SHAFT AND KEY										OPPOSITE DRIVE END SHAFT AND KEY										WT.
		C(7)	B	BS	2F	N	N-W	UK(2)	V	R(3)	SO	LGTH	FN	FN-FW	FUK(2)	FV	FR(3)	SO	LGTH							
SC3210ATZ- LSC3210ATZ	COUPLED	36.25	38.75	28.31	30.81	13.38	20.00	5.50	5.25	2.625	5.00	2.275	6.25	4.00	4.75	4.50	2.250	4.25	1.972	500	3.25	1115				
USC3210ATZ- ULC3210ATZ	COUPLED	36.75	39.25	28.31	30.81	13.38	20.00	6.00	5.75	2.875	5.50	2.450	7.50	4.25	4.75	4.50	2.250	4.25	1.972	500	3.25	1120				
MC3210ATZ- LMC3210ATZ	COUPLED	39.25	41.75	31.31	33.81	16.38	25.00	5.50	5.25	2.625	5.00	2.275	6.25	4.00	4.75	4.50	2.250	4.25	1.972	500	3.25	1210				
UMC3210ATZ- UMC3210ATZ	COUPLED	39.75	42.25	31.31	33.81	16.38	25.00	6.00	5.75	2.875	5.50	2.450	7.50	4.25	4.75	4.50	2.250	4.25	1.972	500	3.25	1215				
LC3212ATZ- LLC3212ATZ	COUPLED	41.25	43.75	33.31	35.81	18.38	25.00	5.50	5.25	2.625	5.00	2.275	6.25	4.00	4.75	4.50	2.250	4.25	1.972	500	3.25	1290				
ULC3212ATZ- ULC3212ATZ	COUPLED	41.75	44.25	33.31	35.81	18.38	25.00	6.00	5.75	2.875	5.50	2.450	7.50	4.25	4.75	4.50	2.250	4.25	1.972	500	3.25	1295				
C3214ATZ- LC3214ATZ	COUPLED	46.25	48.75	38.31	40.81	23.38	32.00	5.50	5.25	2.625	5.00	2.275	6.25	4.00	4.75	4.50	2.250	4.25	1.972	500	3.25	1470				
UC3214ATZ- ULC3214ATZ	COUPLED	46.75	49.25	38.31	40.81	23.38	32.00	6.00	5.75	2.875	5.50	2.450	7.50	4.25	4.75	4.50	2.250	4.25	1.972	500	3.25	1475				

- (1) "D" DIMENSION WILL NOT BE EXCEEDED. SHIMS UP TO .06 INCHES IN THICKNESS ARE USUALLY REQUIRED FOR COUPLED OR GEARED MACHINES.
(2) "U" & "FU" VARY----.000 ---.001
(3) "R" & "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. 699979-1, *X/p/ 609979-2, MILL 609979-3)
(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 DPP, DRIVE END, ADD .25 TO "C" DIM. FOR BRACKET COVER.
(8) DIMENSION FOR FRAMES WITH PREFIX LSC, LMC, LLC, LC, ULSC, ULMC, ULLC OR ULC.
(9) FOR HORIZONTAL APPLICATIONS ONLY.
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.
BLOWER ASSEMBLY CAN BE LOCATED AT POSITIONS 1, 2, OR 4, EXCEPT BLOWER ASSEMBLY AND TERMINAL BOX CAN NOT BE LOCATED AT THE SAME POSITION.
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: 000000578087
REV. LTR: -	REVISED: 03:52:44 01/28/2011	BY: CONNAS
MTL: -		

BALDOR

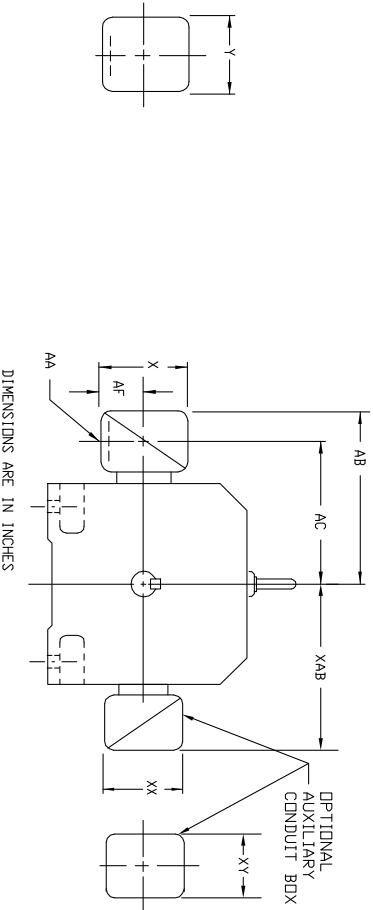
DIMENSION DRAWING, SC3210ATZ - ULC3214ATZ, DPP, FOOT MTG

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616032-034

INDUSTRIAL DIRECT CURRENT MOTORS
AND GENERATORS – RPM III

STEEL AND CAST IRON TERMINAL BOX DIMENSIONS
STANDARD SIZE AND ONE SIZE LARGER
FRAMES C3210ATZ THRU C3613ATZ



STEEL TERMINAL BOX DIMENSIONS

FRAME SIZE	MAX AMPS	AA(1)	AB	AC	AF	X	Y	PART NUMBER	AA(2)	AB	AC	AF	X	Y	PART NUMBER
C3210ATZ	185	2	14.88	11.38	4.25	8.44	7.25	74874-R	3	15.31	12.06	4.25	8.44	7.25	74874-24-R
C3212ATZ	269	3	15.31	12.06	4.25	8.44	7.25	74874-24-R	4	16.75	12.69	5.38	10.56	9.00	700308-3-R
C3214ATZ	500	5	16.75	12.69	5.38	10.56	9.00	700308-3-R	5	21.00	15.88	6.50	12.10	14.62	702658-1-C
C3612ATZ	185	2	21.00	15.88	6.50	12.10	14.62	702658-1-C	3	16.31	13.06	4.25	8.44	7.25	74874-24-R
C3613ATZ	269	3	16.31	13.06	4.25	8.44	7.25	74874-24-R	4	17.75	13.69	5.38	10.56	9.00	700308-3-R
	500	5	17.75	13.69	5.38	10.56	9.00	700308-3-R	5	22.00	15.88	6.50	12.10	14.62	702658-1-C

CAST IRON TERMINAL BOX DIMENSIONS

FRAME SIZE	MAX AMPS	AA(2)	AB	AC	AF	X	Y	PART NUMBER	AA(2)	AB	AC	AF	X	Y	PART NUMBER
C3210ATZ	185	1-1/2	13.62	11.19	3.00	6.00	7.00	75460-R	3	15.31	11.56	3.62	7.88	9.25	76700-RB
C3212ATZ	269	4	15.31	11.56	3.62	7.88	9.25	76700-RB	4	16.62	12.44	4.12	9.50	10.50	76708-RR
C3214ATZ	500	5	16.62	12.44	4.12	9.50	10.50	76708-RR	5	19.44	14.19	7.00	12.75	15.00	76870-S
C3612ATZ	185	1-1/2	14.62	12.19	3.00	6.00	7.00	75460-R	3	16.31	12.56	3.62	7.88	9.25	76700-RB
C3613ATZ	269	4	16.31	12.56	3.62	7.88	9.25	76700-RB	4	17.62	13.44	4.12	9.50	10.50	76708-RR
	500	5	17.62	13.44	4.12	9.50	10.50	76708-RR	5	20.44	15.19	7.00	12.75	15.00	76870-S

CONDUIT BOX DIMENSIONS WITH TERMINAL BOARDS (IEC TYPE BOX)

FRAME SIZE	MAX AMPS	AB	AC	AF	X	AA (3)	Y	PART NUMBER
C320	400	19.02	15.28	6.20	14.39	---	14.39	706310-63-B
	800	19.02	15.28	6.20	14.39	---	14.39	706310-63-B
	1600	19.02	15.28	7.68	15.35	---	15.35	706310-63-C
C360	400	20.00	15.28	6.20	14.39	---	14.39	706310-63-B
	800	20.00	15.28	6.20	14.39	---	14.39	706310-63-B
	1600	20.00	15.28	7.68	15.35	---	15.35	706310-63-C

OPTIMAL AUXILIARY CONDUIT BOX DIMENSIONS (MAXIMUM)									
FRAME SIZE	XAB	XX	XY	FRAME SIZE	XAB	XX	XY	PART NUMBER	
C320	10.00	4.25	4.25	602007-26-A	C320	13.50	8.00	8.00	706310-3-B
C360	11.00	4.25	4.25	602007-26-A	C360	14.50	8.00	8.00	706310-3-B

- (1) 'AA' CONDUIT.
(2) 'AA' PIPE TAP.
(3) CUSTOMER TO PROVIDE HOLE FOR CONDUIT.
(4) TERMINAL BOX LOCATED ON OPPOSITE SIDE WHEN F-2, V-1, V-4, V-5, W-7,
OR C-1 MOUNTING IS SPECIFIED. BOX LOCATED ON TOP WHEN SPECIFIED.
FOR 'X/P' TERMINAL BOX DIMENSIONS SEE 609979-2.
FOR MILL TYPE TERMINAL BOX DIMENSIONS SEE 609979-3.

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

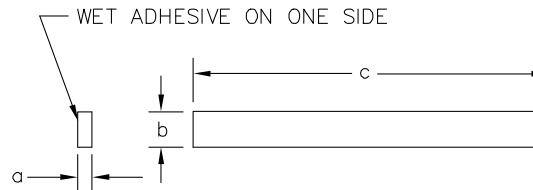
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BALDOR

DIM SHT,C3210ATZ THRU C3613ATZ,W/AUX C/BOX

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065564-004



SYM	MAKE FROM 065564-004	a	b	c	REMARKS
A	X	1/8	5/8	24*	TERMBX & CVR 180AT-250AT
B	X	1/8	5/8	37 1/2*	TERMBX & CVR 280AT-320AT
C	Y	1/4	5/8	44 1/2 Δ	FILTER TO HOUSING GASKET
D	X	1/8	5/8	170"	TEAO HEAT EXCH.
E	Y	1/4	5/8	72" Δ	TERMBX & CVR

SYM	MAT'L SPEC	a	b	c
X	46024-XV	1/8	5/8	* 50' ROLL; WET ADHESIVE ON ONE SIDE
Y	46024-XV	1/4	5/8	* 50' ROLL; WET ADHESIVE ON ONE SIDE

Δ RELIANCE WILL CUT AND MOUNT ON FILTER HOUSING PER ASSEMBLY DRAWING 603989-2.

* PROD. NOTE: WHEN ORDERING THRU PURCHASING ORDER AS 50 FT. ROLLS, WET ADHESIVE ON ONE SIDE. RELIANCE WILL CUT AND MOUNT ON COVER. PER INSTRUCTIONS ON COVER DRAWINGS.

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

REV. DESC: CHANGE DESCRIPTION ON TITLE BLOCK		
REV. LTR: C	VERSION: 03	TDR: 000000571980
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MTL: -		

BALDOR
GASKET,STRIP,CLOSED CELL NEOPRENE
SH 1 of 1

065564-004

406770-001			406770-001	
406770-001 CONNECTION DIAGRAM D-C MOTOR - STAB. SHUNT W1 (NOTE 7) SHUNT FIELD INTER-COIL AX2 A2 S1 SERIES FIELD S2 S3 (NOTE 2) S4 F2 P1 P2 (NOTE 5) THREE WIRE RTD TD1 TD2 TD3 (NOTE 6)				

ARMATURE AND FIELD EXTERNAL CONNECTIONS

WARNING- SEE NOTE 8 FOR GROUNDING INSTRUCTIONS

CCW ROTATION

A1 A2 S1 S2 F1 F2

CW ROTATION

A1 S1 A2 S2 F1 F2

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 DRIVE END BRACKET, ADJACENT TO THE TERMINAL BOX FOR MOTOR GROUNDING. GROUND LEAD, WHEN PROVIDED, WILL BE GREEN.

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

RELIANCE
CUSTOMER

REV. DESC: DELETED DUPLICATE WORDS FROM NOTE 8

REV. LTR: A

FILE: \RSN\00026\422

MTL: —

VERSION: 01

REVISED: 10:19:12 03/11/2016

TDR: 000000970330

BY: RAGTBM

BALDOR

D-C MOTOR CONNECTION DIAGRAM STAB. SHUNT

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