

ABB BALDOR RELIANCE III

Customer information packet D5550R

50 1750/2300 LC3212ATZ TEFC 500V

Specifications

Enclosure	TEFC
Frame	LC3212ATZ
Frame Material	Exposed Laminations
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	CUST SUPPLIED/PROVISIONS
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	43.88 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Slinger Indicator	No Slinger

Part Detail

Revision	A
Type	DC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	G6296A B
Layout	609971-013
Eff. date	04-06-2021
CD Diagram	406770-002
Poles	00
Leads	
Proprietary	False
Created date	04-10-2015

Nameplate

000613006HP									
CAT.NO.	D5550R	SPEC NO.		T32S0302					
FR	LC 3212ATZ	HP	50		DUTY	CONT			
ENCL.	TEFC	RPM	1750/2300		S.F.	1.0			
ENCL MOD		VOLTS	500		INSUL			F	
MAX SAFE SPEED	2450	AMPS	84.00		AMB.	40			
FIELD DATA		SER.NO.							
WINDING	STAB SHUNT	POWER CODE		C					
VOLTS	300	D.E. BRG.		70BC03J30X					
MAX AMPS @ 25 C	1.98	O.D.E. BRG.		60BC02J30X					
HOT AMPS	1.37/.94	MIN. AMB.		0		TYPE		TR	
BRUSH:419904052AJ									
FLD. DATA FOR HIGH VOLTS;							300/150VF		

609971-013

INDUSTRIAL DIRECT CURRENT MOTORS AND GENERATORS - RPM III

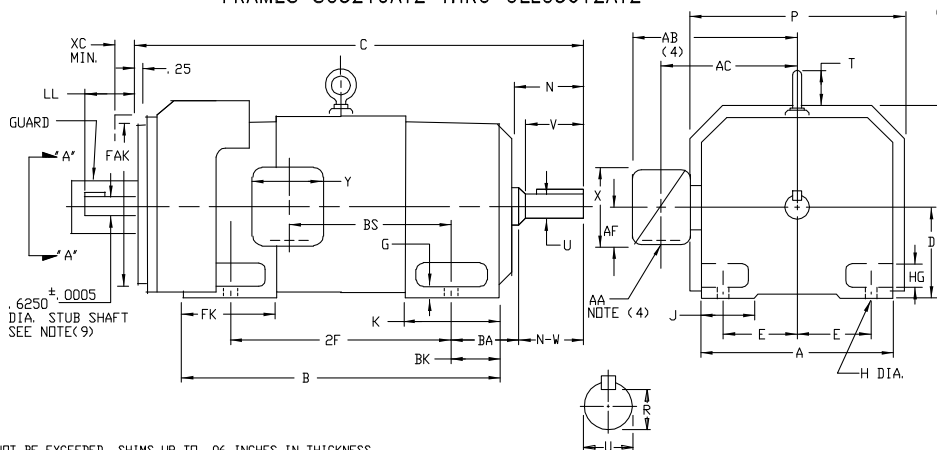
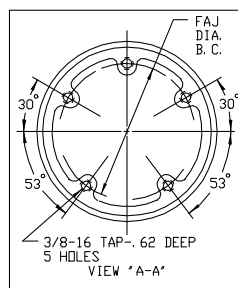
ENCLOSURE: TOTALLY ENCLOSED

MOUNTING: FOOT

FRAMES SC3210ATZ THRU ULLC3612ATZ

COOLING: FAN COOLED

ACCESSORIES: PROVISION FOR
TACHOMETER MOUNTING
ONLY WHEN SPECIFIED



TACHOMETER	LL
BC-42	
BC-46	
RD-11	
RD-12	
RD-51	
RD-61	
RD-62	
RE-210	
M627, M628	
M727, M737	
M738	
DYNAPAR 74S	
RE-045G	
WITH K45M1000	
5PY	2.12

- (1) "D" DIMENSION WILL NOT BE EXCEEDED. SHIMS UP TO .06 INCHES IN THICKNESS ARE USUALLY REQUIRED FOR COUPLED OR GEARED MACHINES.
- (2) "U" VARIES-----+.000 - .001
- (3) "R" VARIES-----+.000 - .015
- (4) TERMINAL BOX VARIES WITH H.P. FOR DIMENSIONS "AA", "AB", "AC", "AF", "X" AND "Y". SEE DRAWING NUMBER 609979-1.
- (5) DIMENSION FOR FRAMES WITH PREFIX LSC, LMC, LLC, ULMC, OR ULLC.
- (6) METHOD OF DRIVE: COUPLED OR BELTED.
- (7) WALLS OR OBSTRUCTIONS MUST NOT ENCRDACH ON AIR INLET SPACE "XC".
- (8) "FAK" VARIES +.000 - .005-----FACE ROUNDT AND ECCENTRICITY .007 MAX. T. I. R.
- (9) STUB SHAFT SUPPLIED ONLY WHEN SPECIFIED. KEY SIZE .188 X .188 X 1.00. 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.

DIMENSIONS ARE IN INCHES

FRAME	A	DK(1)	E	G	H	HG	J	D	P	T	BA	K	FK	STD.	LG. (5)	BK	FAJ	FAK(8)	XC(7)
SC3210ATZ-LLC3212ATZ	15.50	8.00	6.25	.75	.69	2.25	3.00	17.00	18.00	3.12	5.25	6.75	7.94	10.44	4.00	13.00	14.500	1.25	
SC3612ATZ-ULLC3612ATZ	17.50	9.00	7.00	.88	.81	2.62	3.50	19.00	20.00	3.12	5.88	7.25	8.56	10.31	4.62	15.25	16.750	1.25	

FRAME	METHOD OF DRIVE	DRIVE END SHAFT AND KEY											WT. LBS.		
		STD.	C	G. (°S)	B	L.G. (°S)	BS	2F	N	N-W	UK(2)	V		R(3)	SQ.
SC3210ATZ-LSC3210ATZ	(6)	40.56	43.06	28.31	30.81	13.38	20.00	5.50	5.25	2.625	5.00	2.275	1.625	4.00	1150
MC3212ATZ-LMC3212ATZ	(6)	43.56	46.06	31.31	33.81	16.38	25.00	5.50	5.25	2.625	5.00	2.275	1.625	4.00	1245
LC3212ATZ-LLC3212ATZ	(6)	45.56	48.06	33.31	35.81	18.38	25.00	5.50	5.25	2.625	5.00	2.275	1.625	4.00	1325
MC3612ATZ-LMC3612ATZ	COUPLED	47.69	49.44	34.44	36.19	18.12	28.00	6.00	5.75	2.875	5.50	2.450	1.750	4.25	1740
UMC3612ATZ-ULMC3612ATZ	BELTED	48.44	50.19	34.44	36.19	18.12	28.00	6.75	6.50	3.250	6.25	2.831	1.750	5.00	1750
LC3612ATZ-LLC3612ATZ	COUPLED	51.44	53.19	38.19	39.94	21.88	28.00	6.00	5.75	2.875	5.50	2.450	1.750	4.25	1905
ULC3612ATZ-ULLC3612ATZ	BELTED	52.19	53.94	38.10	39.94	21.88	28.00	6.75	6.50	3.250	6.25	2.831	1.750	5.00	1915

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

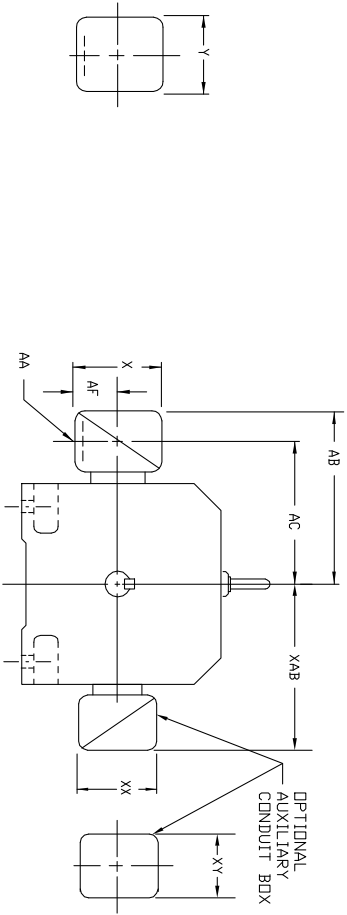
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MTL: -		

BALDOR
DIMENSION DRAWING, SC3210ATZ - ULLC3612ATZ, TEFC, FOOT MTG
SH 1 of 1

609971-013

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



DIMENSIONS ARE IN INCHES

STEEL TERMINAL BOX DIMENSIONS																													
FRAME SIZE	MAX. AMPS	STANDARD SIZE						PART NUMBER			ONE SIZE LARGER						PART NUMBER												
		AA(1)	AB	AC	AF	X	Y	AA(1)	AB	AC	AF	X	Y	AA(1)	AB	AC	AF	X	Y	AA(1)	AB	AC	AF	X	Y				
C3210ATZ	128	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	4	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
C3212ATZ	269	4	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	5	21.00	15.88	6.50	12.10	14.62	702658-1-C	5	21.00	15.88	6.50	12.10	14.62	702658-1-C
C3214ATZ	500	5	21.00	15.88	6.50	12.10	14.62	702658-1-C	5	21.00	15.88	6.50	12.10	14.62	702658-1-C	5	21.00	15.88	6.50	12.10	14.62	702658-1-C	5	21.00	15.88	6.50	12.10	14.62	702658-1-C
C3612ATZ	185	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	5	22.00	15.88	6.50	12.10	14.62	702658-3-R	5	22.00	15.88	6.50	12.10	14.62	702658-1-C
C3613ATZ	269	4	17.75	13.69	5.38	10.56	9.00	700308-3-R	5	22.00	15.88	6.50	12.10	14.62	702658-3-R	5	22.00	15.88	6.50	12.10	14.62	702658-3-R	5	22.00	15.88	6.50	12.10	14.62	702658-1-C
C3613ATZ	500	5	22.00	15.88	6.50	12.10	14.62	702658-1-C	5	22.00	15.88	6.50	12.10	14.62	702658-1-C	5	22.00	15.88	6.50	12.10	14.62	702658-1-C	5	22.00	15.88	6.50	12.10	14.62	702658-1-C

CAST IRON TERMINAL BOX DIMENSIONS																													
FRAME SIZE	MAX. AMPS	STANDARD SIZE						PART NUMBER			ONE SIZE LARGER						PART NUMBER												
		AA(2)	AB	AC	AF	X	Y	AA(2)	AB	AC	AF	X	Y	AA(2)	AB	AC	AF	X	Y	AA(2)	AB	AC	AF	X	Y				
C3210ATZ	128	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	4	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
C3210ATZ	185	3	15.31	11.56	3.62	7.88	9.25	76708-RR	4	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	5	19.44	14.19	7.00	12.75	15.00	76870-S
C3212ATZ	269	4	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	6	19.44	14.19	7.00	12.75	15.00	76870-R	6	19.44	14.19	7.00	12.75	15.00	76870-R
C3214ATZ	500	5	19.44	14.19	7.00	12.75	15.00	76870-S	6	19.44	14.19	7.00	12.75	15.00	76870-R	6	19.44	14.19	7.00	12.75	15.00	76870-R	6	19.44	14.19	7.00	12.75	15.00	76870-R
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	4	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
C3612ATZ	269	3	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	5	20.44	15.19	7.00	12.75	15.00	76870-S	5	20.44	15.19	7.00	12.75	15.00	76870-S
C3613ATZ	269	4	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	6	20.44	15.19	7.00	12.75	15.00	76870-R	6	20.44	15.19	7.00	12.75	15.00	76870-R
C3613ATZ	500	5	20.44	15.19	7.00	12.75	15.00	76870-S	6	20.44	15.19	7.00	12.75	15.00	76870-R	6	20.44	15.19	7.00	12.75	15.00	76870-R	6	20.44	15.19	7.00	12.75	15.00	76870-R

CONDUIT BOX DIMENSIONS WITH TERMINAL BOARDS (IEC TYPE BOX)											
STANDARD SIZE											
FRAME SIZE	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			
	400	20.00	15.28	6.20	14.39	---	14.39	706310-63-B			
C360	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			

OPTIONAL 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) 'AF' PIPE TAP.
- (3) CUSTOMER TO PROVIDE HOLE FOR CONDUIT.
- 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.

REV. DESC: LOAD TO BUS	VERSION: 00	TDR: 000000958110
REV. LTR: -	REVISED: 08:37:45 12/17/2015	BY: RGGWT
FILE: \RGG\00026\318		
MTL: -		

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

SH 1 of 1

406770-002			406770-002	
CONNECTION DIAGRAM D-C MOTOR - STAB. SHUNT DUAL VOLTAGE FIELD W1 (NOTE 7) SHUNT FIELD F2 INTER-COIL AX2 A2 S1 S2 S3 S4 F22 P1 P2 ARMATURE H1 H2 F1 A1 (NOTE 4) (CAUTION-SEE NOTE 1) (NOTE 2) (NOTE 5) THREE WIRE RTD TD TD1 TD2 TD3 (NOTE 6)				

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

CUSTOMER

CUSTOMER

ORDER NO.

S.D. 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