

ABB BALDOR RELIANCE III

Customer information packet

D5175R-1BV

MC3212ATZ, 75HP, 1150RPM, 500, 300, , F2

Specifications

Armature Voltage	500 V
Base Speed	1150 rpm
Enclosure	DPG-FV
Field Voltage	300 V
Frame	LC3212ATZ
Output Power	75.000 HP
Ambient Temperature	40 °C
Armature Current	125.0 a
Bearing Grease Type	Polyrex EM (-20F +300F)
Drip Cover	No Drip Cover
Duty Rating	CONT
Feedback Device	NO FEEDBACK
Field Winding Type	STR. SHUNT
Frame Prefix	LC
Heater Indicator	No Heater
Insulation Class	F
IP Rating	IP23
Lifting Lugs	Standard Lifting Lugs
Motor Standards	NEMA
Mounting Arrangement	F1
Overall Length	41.25 IN
Service Factor	1.00
Shaft Diameter	2.624 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Slinger Indicator	No Slinger

Part Detail

Revision	B
Type	DC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	G6152D A
Layout	616032-001
Eff. date	01-30-2019
CD Diagram	406770-006
Poles	00
Leads	
Proprietary	False
Created date	01-22-2019

Nameplate

000613006HP					
CAT.NO.	D5175R-1BV	SPEC NO.	D32-A000-0074		
FR	MC3212ATZ	HP	75	DUTY	CONT
ENCL.	DPG-FV	RPM	1150/2000	S.F.	1.00
ENCL MOD		VOLTS	500	INSUL	F
MAX SAFE SPEED	03600	AMPS	128.00	AMB.	40
	FIELD DATA	SER.NO.			
WINDING	STR. SHUNT	POWER CODE	C		
VOLTS	300	D.E. BRG.	70BC03J30X		
MAX AMPS @ 25 C	6.34	O.D.E. BRG.	60BC02J30X		
HOT AMPS	4.28/2.00	MIN. AMB.	0	TYPE	TR
	BRUSH:419904052AJ				

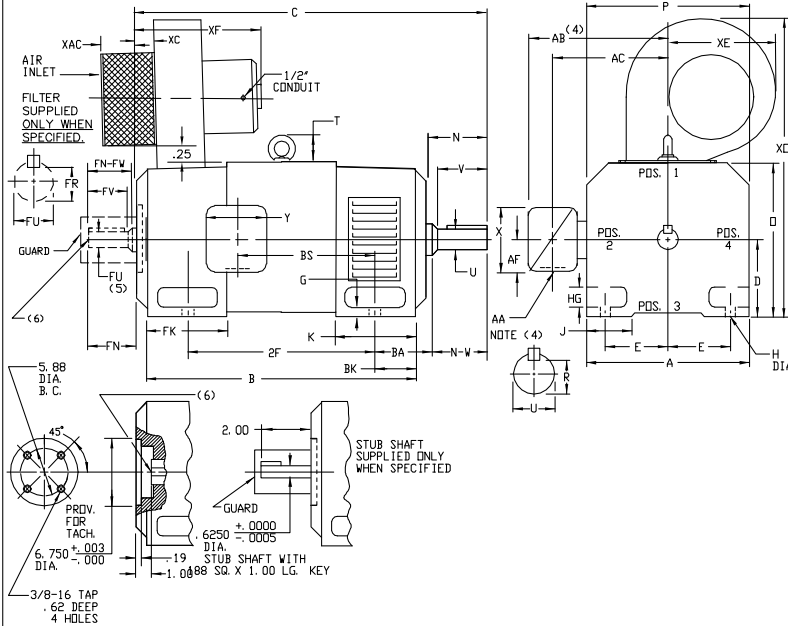
616032-001

INDUSTRIAL DIRECT CURRENT MOTORS AND GENERATORS - RPM III

ENCLOSURE: DRIP-PROOF FULLY-GUARDED
SPLASHPROOF
MOUNTING: FOOT

COOLING: FORCE VENTILATED
WITH INTEGRAL
BLOWER AND MOTOR

FRAMES SC3210ATZ THRU ULC3214ATZ
ACCESSORIES: PROVISION FOR TACHOMETER MOUNTING ONLY WHEN SPECIFIED



DIMENSIONS ARE IN INCHES

FRAME	XAC	XC	XE	XF	XO
SC3210ATZ-ULC3214ATZ	6.75	3.25	8.50	19.25	28.00

FRAME	A	B(1)	E	G	H	HG	J	O	P	T	BA	K	FK	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	C(7)		B	BS	DRIVE END SHAFT AND KEY					OPPOSITE DRIVE END SHAFT AND KEY					WT. LBS.						
		STD.	LG.(8)			N	N-W	U(2)	V	R(3)	ISO	LGTH.	FN	FN-FW	FU(2)		FV	FR(3)	SO	LGTH.		
SC3210ATZ-ULC3210ATZ	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	5.00	3.25	1115
USC3210ATZ-ULC3210ATZ	BELTED	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	5.00	3.25	1120
MC3212ATZ-LMC3212ATZ	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	5.00	3.25	1210
UMC3212ATZ-LMC3212ATZ	BELTED	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	5.00	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	5.00	3.25	1290
ULC3212ATZ-LLC3212ATZ	BELTED	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	5.00	3.25	1295
C3214ATZ-UC3214ATZ	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	5.00	3.25	1470
UC3214ATZ-UC3214ATZ	BELTED	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	5.00	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" 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. 609979-1, "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) "XE" DIMENSION IS NOT APPLICABLE TO "C3214ATZ" FRAMES (BLOWER MOTOR IS CENTERED ON SHAFT C/L).
- 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. DR 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.

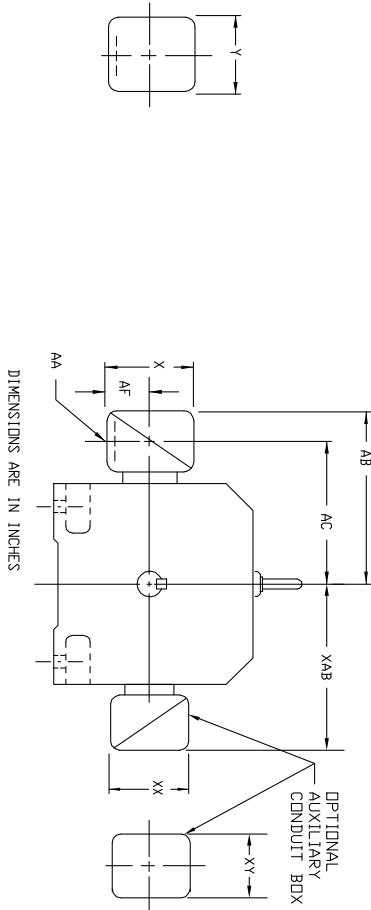
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BALDOR
DIMENSION DRAWING, SC3210ATZ - ULC3214ATZ, DPP, FOOT MTG
SH 1 of 1

616032-001

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



FRAME SIZE	MAX AMPS	STANDARD SIZE						STEEL TERMINAL BOX DIMENSIONS						ONE SIZE LARGER						PART NUMBER		
		AA(2)	AB	AC	AF	X	Y	AA(1)	AB	AC	AF	X	Y	AA(2)	AB	AC	AF	X	Y			
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	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	4	16.75	12.69	5.38	10.56	9.00	700308-3-R
C3214ATZ	500	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
C3612ATZ	185	2	15.88	12.38	4.25	8.44	7.25	74874-R	3	16.31	13.06	4.25	8.44	7.25	74874-24-R	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	4	17.75	13.69	5.38	10.56	9.00	700308-3-R
	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

FRAME SIZE	MAX AMPS	STANDARD SIZE						CAST IRON TERMINAL BOX DIMENSIONS						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			
C3210ATZ	185	3	15.31	11.19	3.00	6.00	7.00	75460-R	3	15.31	11.19	3.00	6.00	7.00	75460-R	3	15.31	11.19	3.00	6.00	7.00	75460-R
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	5	19.44	14.19	7.00	12.75	15.00	76870-S
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-S	6	19.44	14.19	7.00	12.75	15.00	76870-S
C3612ATZ	185	3	16.31	12.56	3.62	7.88	9.25	75460-R	3	16.31	12.56	3.62	7.88	9.25	75460-R	3	16.31	12.56	3.62	7.88	9.25	75460-R
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	5	20.44	15.19	7.00	12.75	15.00	76870-S
	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-S	6	20.44	15.19	7.00	12.75	15.00	76870-S

FRAME SIZE	AMPS	STANDARD SIZE						OPTIONAL AUXILIARY CONDUIT BOX DIMENSIONS (MAXIMUM)						PART NUMBER		
		AB	AC	AF	X	AA (3)	Y	XAB	XX	XY	XY	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								

FRAME SIZE	XAB	XX	XY	XY	FRAME SIZE	XAB	XX	XY	XY	FRAME SIZE	XAB	XX	XY	XY	FRAME SIZE	XAB	XX	XY	XY
C320	10.00	4.25	4.25	602007-26-A	C320	13.50	8.00	8.00	706310-3-B	C360	14.50	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.
- TERMINAL BOX LOCATED ON OPPOSITE SIDE WHEN F-2, V-1, V-4, W-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
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FILE: \RGG\00026\318		
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BALDOR

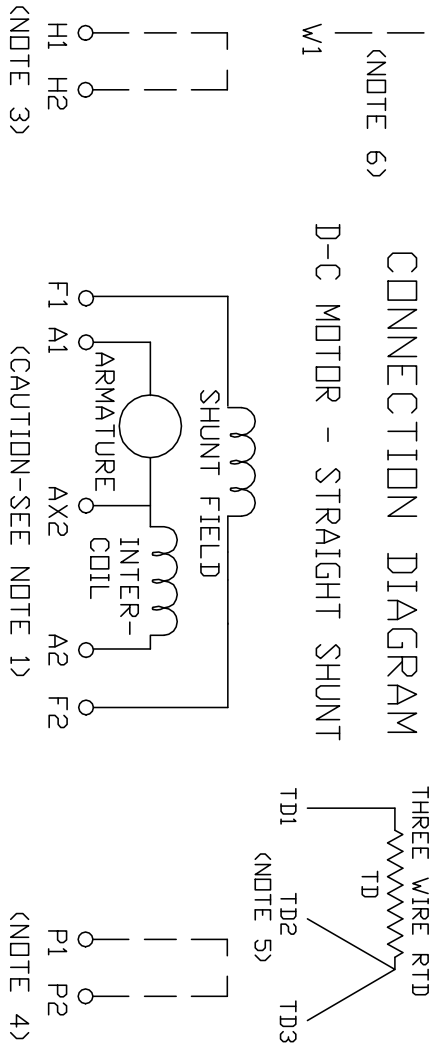
DIM SHT,C3210ATZ THRU C3613ATZ,W/AUX C/BOX
SH 1 of 1

406770-006

406770-006

CONNECTION DIAGRAM

D-C MOTOR - STRAIGHT SHUNT



ARMATURE AND FIELD EXTERNAL CONNECTIONS
WARNING- SEE NOTE 7 FOR GROUNDING INSTRUCTIONS



ROTATION FACING COMMUTATOR END

- CAUTION** — ARMATURE MAY HAVE MULTIPLE LEADS. CONNECT ALL LUGS WITH THE SAME MARKING TOGETHER.
- OPTIONAL CONTROL SIGNAL LEAD IS MARKED AX2. ALWAYS TAKE INTERPOLE DROP BETWEEN A2 AND AX2. NOTE: NEMA DESIGNATION FOR AX2 IS LETTER C.
- SPACE HEATERS, WHEN PROVIDED, WILL HAVE LEADS MARKED H1 AND H2, H3, H4, ETC.
- THERMAL PROTECTOR, WHEN PROVIDED, WILL HAVE LEADS MARKED P1 AND P2, P3, P4, ETC.
- WINDING RTD'S, WHEN PROVIDED, WILL HAVE LEADS MARKED TD1, TD2, & TD3.
- BRUSH WEAR SENSOR, WHEN PROVIDED, WILL HAVE LEAD MARKED W1.
- 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 _____ RELIANCE
ORDER NO. _____ S.D. NO. _____

REV. DESC: UPDATE LOGO AND TITLEBLOCK: LOADED TO BUS		
REV. LTR: -	VERSION: 00	TDR: 000000781086
FILE: \RSN\00026\515	REVISED: 02:41:08 02/01/2013	
MTL: -	BY: MGHPC	

BALDOR

D-C MOTOR CONNECTION DIAGRAM, STRAIGHT SHUNT

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