ABB BALDOR RELIANCE

Customer information packet

D51100RB-1BV

C3214ATZ, 100HP, 1150RPM, 500, 300, , F2

Copyright © All product information within this document is subject to ABB Motors and Mechanical Inc. copyright © protection, unless otherwise noted.
11/15/2026 10:52:03 PM

Specifications

Armature Voltage	500 V
Base Speed	1150 rpm
Enclosure	DPG-FV
Field Voltage	300 V
Frame	C3214ATZ
Output Power	100.000 HP
Ambient Temperature	40 °C
Armature Current	163.0 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	C
Heater Indicator	No Heater
Insulation Class	F
IP Rating	IP23
Lifting Lugs	Standard Lifting Lugs
Motor Standards	NEMA
Mounting Arrangement	F1
Overall Length	46.25 IN
Service Factor	1.00
Shaft Diameter	2.624 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Slinger Indicator	No Slinger

Part Detail

Revision	-
Type	DC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	G8718A B
Layout	616032-001
Eff. date	01-29-2019
CD Diagram	406770-006
Poles	00
Leads	
Proprietary	False
Created date	01-24-2019

Nameplate

000613006HP								
CAT.NO.	D51100RB-1BV		**SPEC NO.**	D32-A000-0076				
FR	C3214ATZ	**HP**	100		**DUTY**	CONT		
ENCL.	DPG-FV	**RPM**	1150/2000		**S.F.**	1.00		
ENCL MOD		**VOLTS**	500		**INSUL**	F		
MAX SAFE SPEED	03600	**AMPS**	163.00		**AMB.**	40		
	FIELD DATA		**SER.NO.**					
WINDING	STR. SHUNT		**POWER CODE**	C				
VOLTS	300		**D.E. BRG.**	85BC02J30X				
MAX AMPS @ 25 C	8.37		**O.D.E. BRG.**	65BC02J30X				
HOT AMPS	5.96/2.79		**MIN. AMB.**	0		**TYPE**	TR	
	BRUSH:419904052AB							

616032-001

INDUSTRIAL DIRECT CURRENT MOTORS AND GENERATORS – RPM III

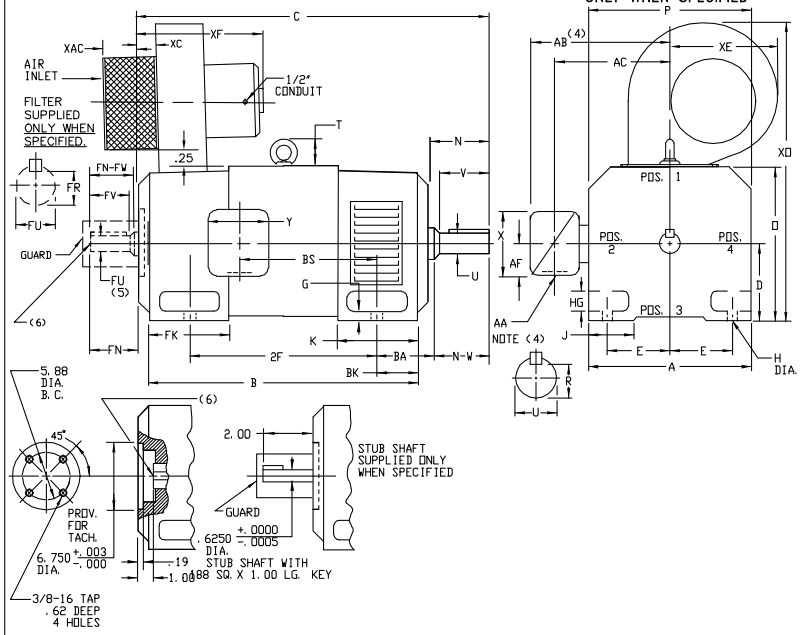
ENCLOSURE: DRIP-PROOF FULLY-GUARDED SPLASHPROOF

COOLING: FORCE VENTILATED WITH INTEGRAL BLOWER AND MOTOR

MOUNTING:FOOT

ACCESSORIES: PROVISION FOR TACHOMETER MOUNTING ONLY WHEN SPECIFIED

FRAMES SC3210ATZ THRU ULC3214ATZ



DIMENSIONS ARE IN INCHES

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

FRAME	A	D(1)	E	G	H	HG	J	O	P	T	BA	K	FK STD.	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) STD.	C(7) LG.(8)	B STD.	B LG.(8)	BS	2F	DRIVE END SHAFT AND KEY N	N-W	U(2)	V	R(3)	SQ.	LGTH.	OPPOSITE DRIVE END SHAFT AND KEY (5) FN	FN-FW	FU(2)	FV	FR(3)	SQ.	LGTH.	WT. LBS.
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	.625	4.00	4.75	4.50	2.250	4.25	1.972	.500	3.25	1115
USC3210ATZ-ULSC3210ATZ	BELTED	36.75	39.25	28.31	30.81	13.38	20.00	6.00	5.75	2.875	5.50	2.450	.750	4.25	4.75	4.50	2.250	4.25	1.972	.500	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	.625	4.00	4.75	4.50	2.250	4.25	1.972	.500	3.25	1210
UMC3212ATZ-ULMC3212ATZ	BELTED	39.75	42.25	31.31	33.81	16.38	25.00	6.00	5.75	2.875	5.50	2.450	.750	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	.625	4.00	4.75	4.50	2.250	4.25	1.972	.500	3.25	1290
ULC3212ATZ-ULLC3212ATZ	BELTED	41.75	44.25	33.31	35.81	18.38	25.00	6.00	5.75	2.875	5.50	2.450	.750	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	.625	4.00	4.75	4.50	2.250	4.25	1.972	.500	3.25	1470
UC3214ATZ- ULC3214ATZ	BELTED	46.75	49.25	38.31	40.81	23.38	32.00	6.00	5.75	2.875	5.50	2.450	.750	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' 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 OPP. 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) 'XG' DIMENSION IS NOT APPLICABLE TO 'C3214ATZ' FRAMES (BLOWER MOTOR IS CENTERED ON SHAFT C/L).

TERMINAL BOX CAN BE ROTATED FOR LEAD OUTLET AT TDP, 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		
REV. LTR: –	VERSION: 00	TDR: 000000578087
FILE: \RGG\00016\040	REVISED: 03:36:51 01/28/2011	BY: CONNAS
MTL: –		

BALDOR

DIMENSION DRAWING,SC3210ATZ – ULC3214ATZ,DPP,FOOT MTG

SH 1 of 1

616032-001

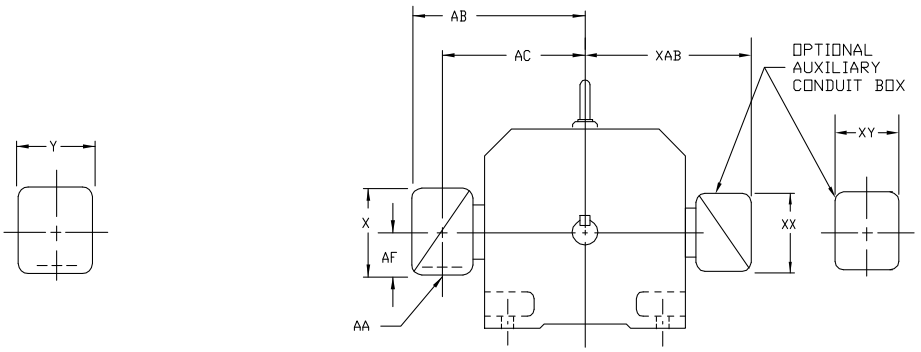
609979-001

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



DIMENSIONS ARE IN INCHES

STEEL TERMINAL BOX DIMENSIONS

FRAME SIZE	MAX. AMPS	STANDARD SIZE AA(1)	AB	AC	AF	X	Y	PART NUMBER	ONE SIZE LARGER AA(1)	AB	AC	AF	X	Y	PART NUMBER
C3210ATZ C3212ATZ C3214ATZ	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
	185	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
	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
	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
C3612ATZ C3613ATZ	128	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
	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
	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	702658-1-C
	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

CAST IRON TERMINAL BOX DIMENSIONS

FRAME SIZE	MAX. AMPS	STANDARD SIZE AA(2)	AB	AC	AF	X	Y	PART NUMBER	ONE SIZE LARGER AA(2)	AB	AC	AF	X	Y	PART NUMBER
C3210ATZ C3212ATZ C3214ATZ	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
	185	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
	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
	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
C3612ATZ C3613ATZ	128	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
	185	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
	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
	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

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
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

OPTIONAL AUXILIARY CONDUIT BOX DIMENSIONS (MAXIMUM)

FRAME SIZE	XAB	XX	XY	PART NUMBER	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.
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 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.

BALDOR

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

TDR: 000000958110
BY: RGGWT

REV. DESC: LOAD TO BUS
REV. LTR: –
VERSION: 00
FILE: \RGG\000026\318
REVISED: 08:37:45 12/17/2015
MTL: –

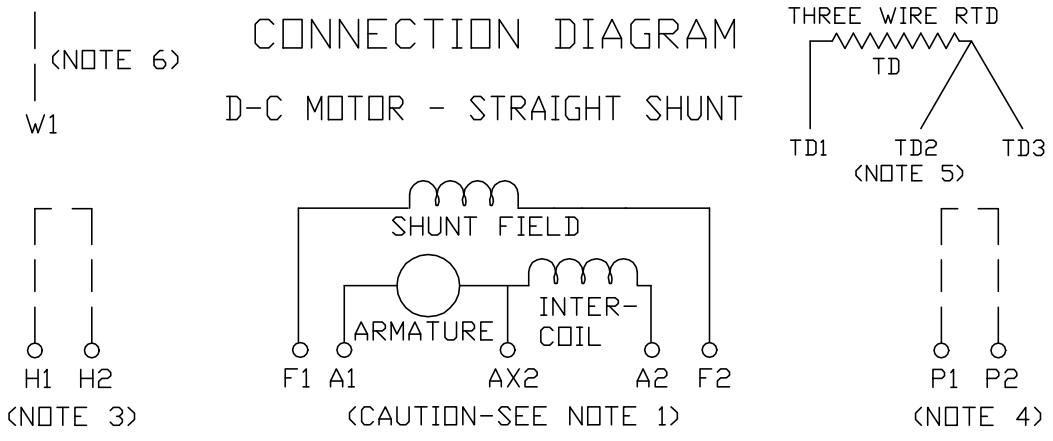
100-676609

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

1. CAUTION — ARMATURE MAY HAVE MULTIPLE LEADS. CONNECT ALL LUGS WITH THE SAME MARKING TOGETHER.
2. OPTIONAL CONTROL SIGNAL LEAD IS MARKED AX2. ALWAYS TAKE INTERPOLE DROP BETWEEN A2 AND AX2. NOTE: NEMA DESIGNATION FOR AX2 IS LETTER C.
3. SPACE HEATERS, WHEN PROVIDED, WILL HAVE LEADS MARKED H1 AND H2, H3, H4, ETC.
4. THERMAL PROTECTOR, WHEN PROVIDED, WILL HAVE LEADS MARKED P1 AND P2, P3, P4, ETC.
5. WINDING RTD'S, WHEN PROVIDED, WILL HAVE LEADS MARKED TD1, TD2, &TD3.
6. BRUSH WEAR SENSOR, WHEN PROVIDED, WILL HAVE LEAD MARKED W1.
7. 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. _____

BALDOR

D-C MOTOR CONNECTION DIAGRAM, STRAIGHT SHUNT

SH 1 of 1

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