ABB BALDOR RELIANCE

Customer information packet

D50250RR-BV

250 1750 500A 300F DPGFV STR SNT

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11/28/2026 9:11:40 AM

Specifications

Enclosure	DP
Frame	ULC3612ATZ
Frame Material	Steel
Output Power	250.000 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	STR. SHUNT
Frame Prefix	ULC
Heater Indicator	No Heater
Lifting Lugs	Standard Lifting Lugs
Motor Standards	NEMA
Mounting Arrangement	F2
Overall Length	47.38 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.	G6130C B
Layout	616042-001
Eff. date	08-11-2017
CD Diagram	406770-006
Poles	00
Leads	
Proprietary	False
Created date	04-09-2015

Nameplate

000613006HP								
CAT.NO.	D50250RR-BV	**SPEC NO.**	T36S1318					
FR	ULC 3612ATZ	**HP**	250	**DUTY**	CONT			
ENCL.	DP	**RPM**	1750/2000	**S.F.**	1.0			
ENCL MOD	FORCE VENT	**VOLTS**	500	**INSUL**	F			
MAX SAFE SPEED	2150	**AMPS**	405.00	**AMB.**	40			
	FIELD DATA	**SER.NO.**						
WINDING	STR. SHUNT	**POWER CODE**	C					
VOLTS	300	**D.E. BRG.**	95RU02M30X26					
MAX AMPS @ 25 C	8.87	**O.D.E. BRG.**	80BC02J30X					
HOT AMPS	5.91/5.38	**MIN. AMB.**	0	**TYPE**	TR			
	BRUSH:419904052AB							

616042-001

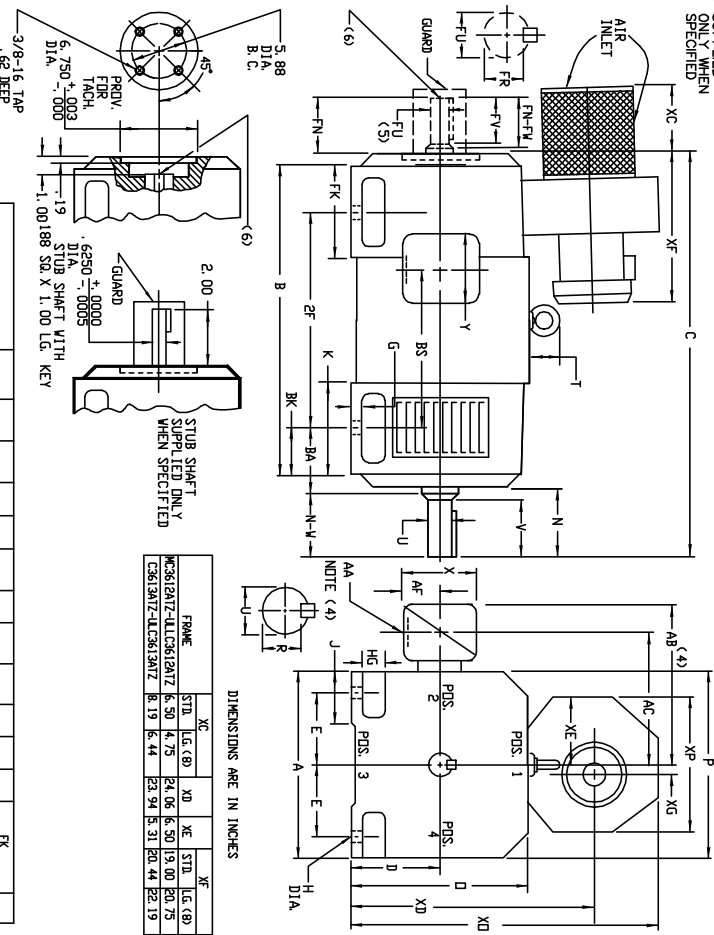
INDUSTRIAL DIRECT CURRENT MOTORS AND GENERATORS - RPM III

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

COOLING: FORCE VENTILATED WITH INTEGRAL BLOWER AND MOTOR AIR FILTERED

ACCESSORIES: PROVISION FOR TACHOMETER MOUNTING ONLY WHEN SPECIFIED

FRAMES MC3612ATZ THRU ULC3613ATZ



DIMENSIONS ARE IN INCHES

FRAME	XC		XD	XE	XF		XG	XO	XP
	STD.	LG.(8)			STD.	LG.(8)			
MC3612ATZ-ULC3613ATZ	6.50	4.75	24.06	6.50	19.00	20.75	(9)	29.75	13.00
C3613ATZ-ULC3613ATZ	8.19	6.44	23.94	5.31	20.44	22.19	3.38	31.50	15.12

FRAME	A	BK(1)	E	G	H	HG	J	D	P	T	BA	K	FK		BK
													STD.	LG.(8)	
MC3612ATZ-ULC3613ATZ	17.50	9.00	7.00	.88	.81	2.62	3.50	17.81	17.62	3.54	5.88	7.25	8.56	10.31	4.62

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) FH	FH-FU	FW(2)	FV	FRK(3)	SQ.	LGTH.	WT. LBS.
MC3612ATZ-UMC3612ATZ	COUPLED	42.88	44.62	34.44	36.19	18.12	28.00	6.00	5.75	2.875	5.50	2.450	750	4.25	6.00	5.75	2.875	5.50	2.450	750	4.25	1685
UMC3612ATZ-ULMC3612ATZ	BELTED	43.62	45.38	34.44	36.19	18.12	28.00	6.75	6.50	3.250	6.25	2.831	750	5.00	6.00	5.75	2.875	5.50	2.450	750	4.25	1695
LC3612ATZ-LLC3612ATZ	COUPLED	46.62	48.38	38.19	39.94	21.88	28.00	6.00	5.75	2.875	5.50	2.450	750	4.25	6.00	5.75	2.875	5.50	2.450	750	4.25	1850
LC3612ATZ-ULLC3612ATZ	BELTED	47.38	49.12	38.19	39.94	21.88	28.00	6.75	6.50	3.250	6.25	2.831	750	5.00	6.00	5.75	2.875	5.50	2.450	750	4.25	1860
C3613ATZ-LC3613ATZ	COUPLED	50.12	51.88	41.69	43.44	25.38	32.00	6.00	5.75	2.875	5.50	2.450	750	4.25	6.00	5.75	2.875	5.50	2.450	750	4.25	2010
C3613ATZ-ULC3613ATZ	BELTED	50.88	52.62	41.69	43.44	25.38	32.00	6.75	6.50	3.250	6.25	2.831	750	5.00	6.00	5.75	2.875	5.50	2.450	750	4.25	2020

(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", 60979-2, AND 60979-3 REFER TO BOX D'S. (STD. 60979-1, OPPOSITE DRIVE END SHAFT SUPPLIED ONLY WHEN SPECIFIED.
(5) MOTOR SHAFT TAPPED FOR SCREW IN STUB SHAFT.
(6) 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 LMC, LLC, LC3613ATZ, ULMC, ULLC OR ULC3613ATZ.
(9) "XG" DIMENSION IS NOT APPLICABLE TO "C3612ATZ" FRAMES (BLOWER MOTOR IS CENTERED ON SHAFT C/L)
(10) SHAFT RUNOUT .003 MAX. T.I.R.

TERMINAL BOX CAN BE ROTATED FOR LEAD OUTLET AT TERMINAL SIDES LOCATED ON OPPOSITE SIDE WHEN F-2, V-1, V-4, V-5, V-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. CLEARANCE DETAILS ARE REQUIRED, CONSULT FACTORY.

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

REV. DESC: ADD SHAFT RUNOUT NOTE		
REV. LTR: B	VERSION: 02	TDR: 000001186744
FILE: \RGG\00016\063	REVISED: 03:32:04 03/02/2022	BY: RGGNAS
MTL: -		

BALDOR - RELIANCE®

DIMENSION DRAWING,MC3612ATZ - ULC3613ATZ,DPP,FOOT MTG

SH 1 of 1

616042-001

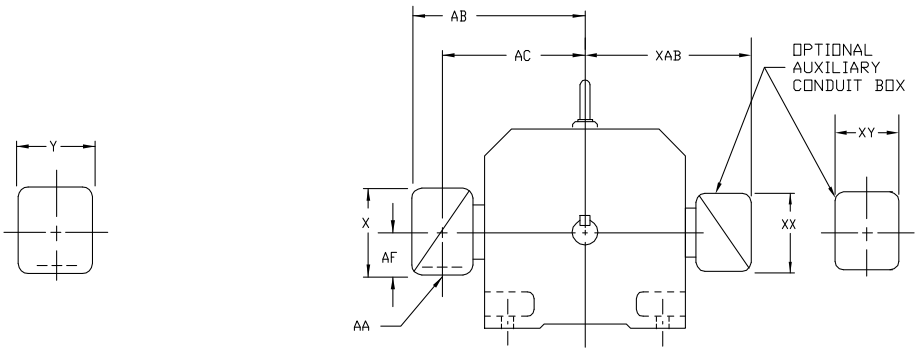
609979-001

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

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

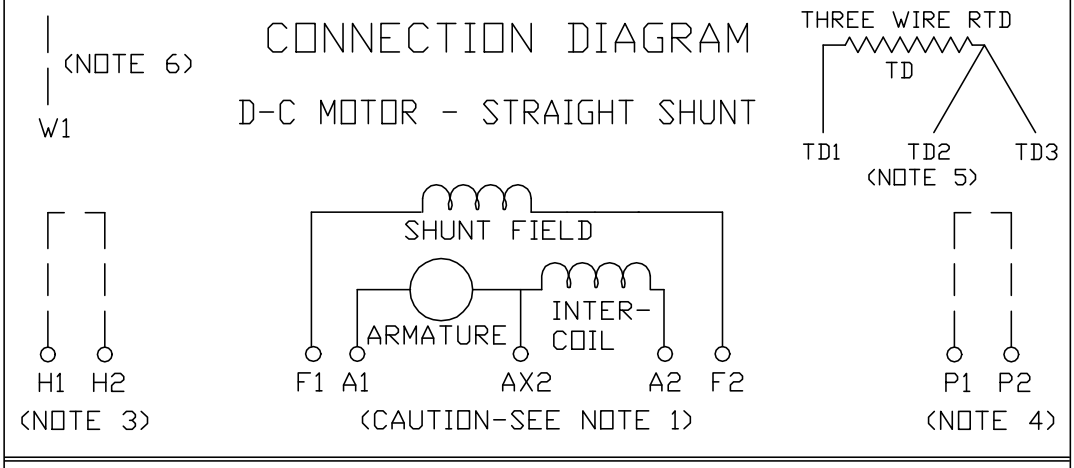
100-676609

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