BALDOR • RELIANCE

Customer information packet

D5540R

40 1750/2300 MC3212ATZ TEFC 500V

4/1/2023 3:21:25 AM

Specifications

Enclosure	TEFC
Frame	MC3212ATZ
Frame Material	Exposed Laminations
Output Power	40.000 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	MC
Heater Indicator	No Heater
Lifting Lugs	Standard Lifting Lugs
Motor Standards	NEMA
Mounting Arrangement	F2
Overall Length	43.56 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.	G6318A B
Layout	609971-013
Eff. date	04-13-2015
CD Diagram	406770-002
Poles	00
Leads	
Proprietary	False
Created date	04-10-2015

Nameplate

000613006HP									
CAT.NO.	D5540R	**SPEC NO.**	T32S0301						
FR	MC 3212ATZ	**HP**	40	**DUTY**	CONT				
ENCL.	TEFC	**RPM**	1750/ 2300	**S.F.**	1.0				
ENCL MOD		**VOLTS**	500	**INSUL**	F				
MAX SAFE SPEED	3600	**AMPS**	65.00	**AMB.**	40				
	FIELD DATA	**SER.NO.**							
WINDING	STAB SHUNT	**POWER CODE**	C						
VOLTS	300	**D.E. BRG.**	70BC03J30X						
MAX AMPS @ 25 C	1.82	**O.D.E. BRG.**	60BC02J30X						
HOT AMPS	1.31/ .92	**MIN. AMB.**	0	**TYPE**	TR				
	BRUSH:419904052AJ; FLD. DATA								
	FOR HIGH VOLTS; FIELD VOLTS								

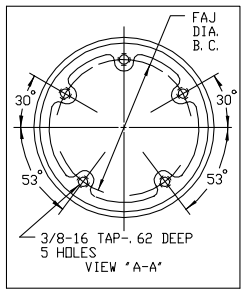
609971-013

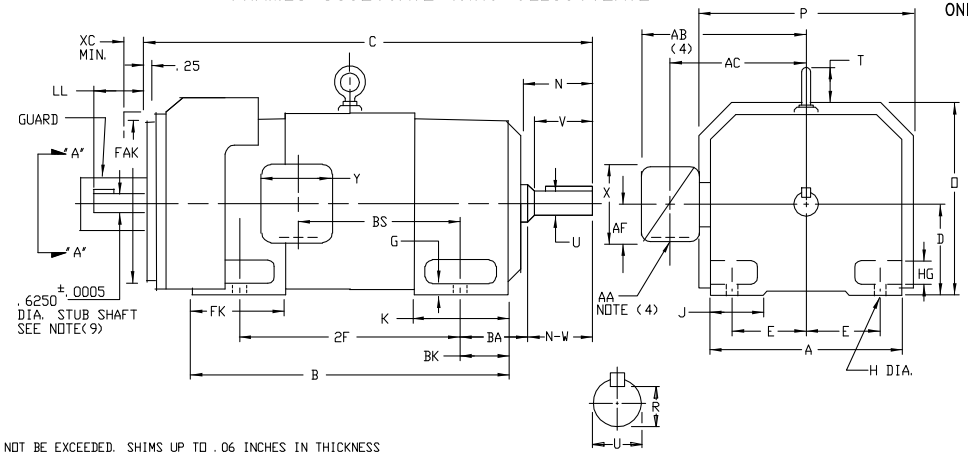
INDUSTRIAL DIRECT CURRENT MOTORS AND GENERATORS – RPM III

ENCLOSURE: TOTALLY ENCLOSED
MOUNTING:FOOT

COOLING: FAN COOLED
ACCESSORIES: PROVISION FOR TACHOMETER MOUNTING ONLY WHEN SPECIFIED

FRAMES SC3210ATZ THRU ULLC3612ATZ





TACHOMETER	LL
BC-42	4.25
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 ENCROACH ON AIR INLET SPACE 'XC'.
(8) 'FAK' VARIES +.000 -.005----FACE RUNOUT 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	D(1)	E	G	H	HG	J	O	P	T	BA	K	FK STD.	FK 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	C STD.	C LG.(5)	B STD.	B LG.(5)	BS	2F	DRIVE END SHAFT AND KEY N	N-W	U(2)	V	R(3)	SQ.	LGTH.	WT. LBS.
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	.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	.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	.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	.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	.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	.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	.750	5.00	1915

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

REV. DESC: CHANGE LAYOUT OF DRAWING		
REV. LTR: A	VERSION: 01	TDR: 000000767673
FILE: \RGG\00015\623	REVISED: 07:49:39 10/03/2012	BY: RGGWT
MTL: –		

BALDOR

DIMENSION DRAWING,SC3210ATZ – ULLC3612ATZ,TEFC,FOOT MTG
SH 1 of 1

609971-013

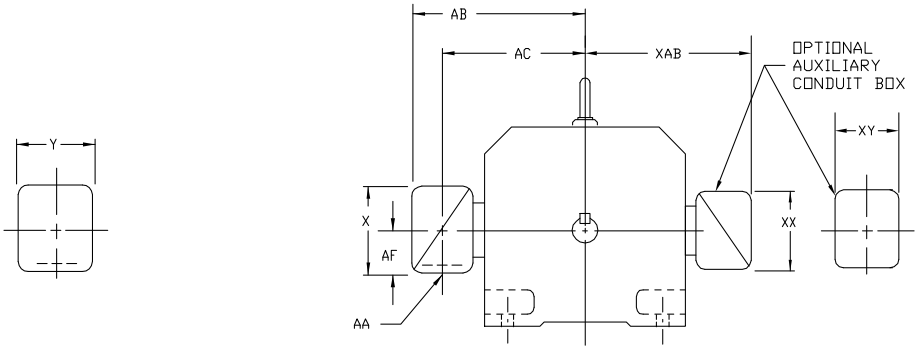
609979-001

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.

REV. DESC: LOAD TO BUS
REV. LTR: –
FILE: \RGG\000026\318
MTL: –

VERSION: 00
REVISED: 08:37:45 12/17/2015

TDR: 000000958110
BY: RGGWT

BALDOR

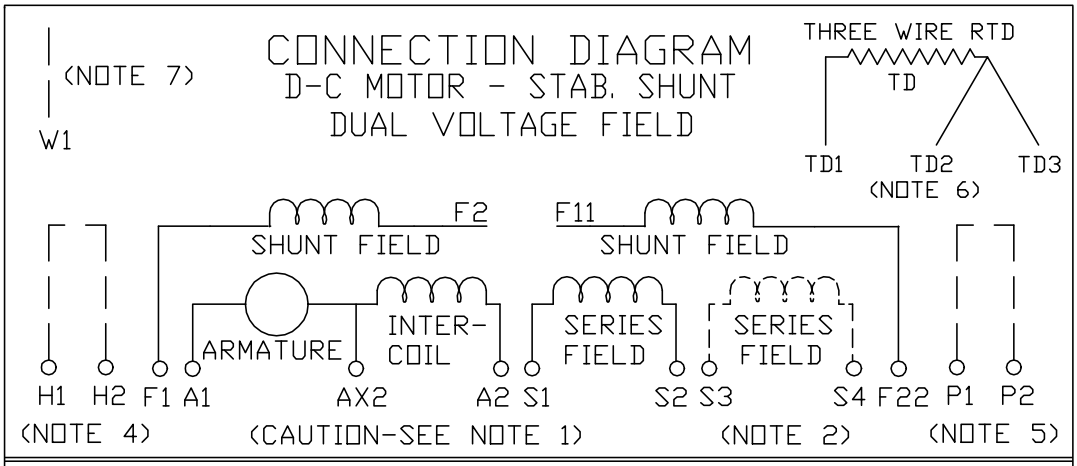
DIM SHT,C3210ATZ THRU C3613ATZ,W/AUX C/BOX
SH 1 of 1

100-676609

406770-002

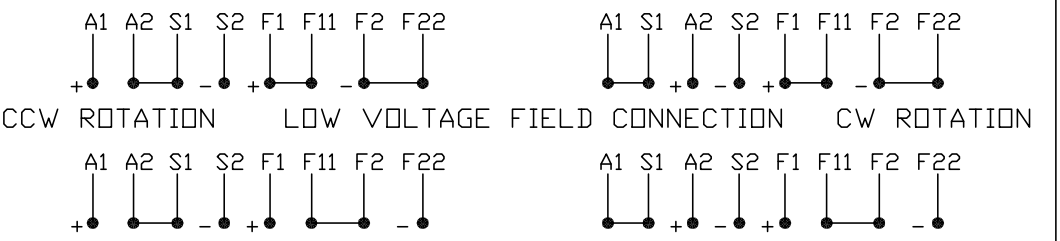
406770-002

CONNECTION DIAGRAM
D-C MOTOR - STAB. SHUNT
DUAL VOLTAGE FIELD



ARMATURE AND FIELD EXTERNAL CONNECTIONS

WARNING- SEE NOTE 8 FOR GROUNDING INSTRUCTIONS



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

CUSTOMER _____ CUSTOMER ORDER NO. _____ RELIANCE S.O. NO. _____

BALDOR

D-C MOTOR CONNECTION DIAGRAM STAB. SHUNT, DUAL VOLTAGE FIELD

SH 1 of 1

REV. DESC: UPDATE LOGO AND TITLEBLOCK: LOADED TO BUS		TDR: 000000781086	
REV. LTR: –	VERSION: 00	REVISED: 02:35:07 02/01/2013	BY: MGHPC
FILE: \RSN\00026\434			
MTL: –			