



Customer information packet

D5540R

40 1750/2300 MC3212ATZ TEFC 500V

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									

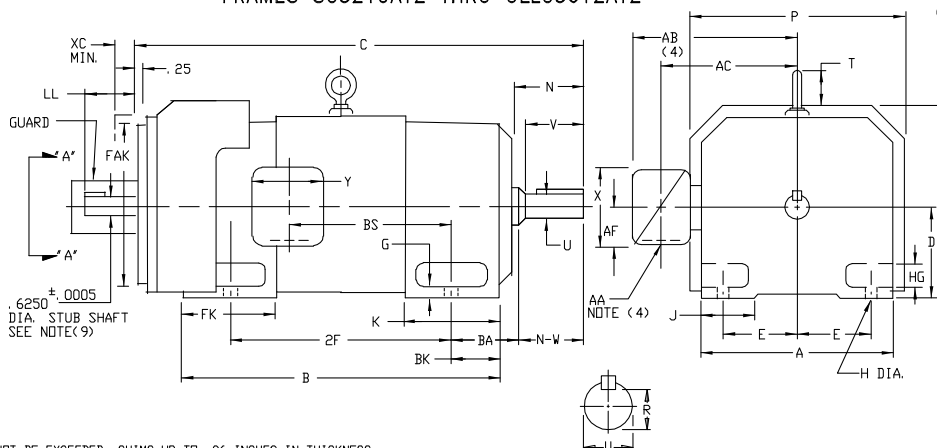
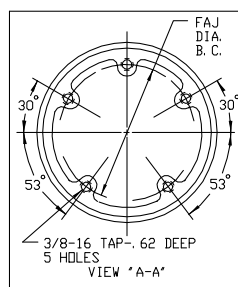
INDUSTRIAL DIRECT CURRENT MOTORS AND GENERATORS - RPM III

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		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		B		BS	2F	DRIVE END SHAFT AND KEY										WT. LBS.
		STD.	LG. (5)	STD.	LG. (5)			N	N-W	UK (2)	V	R (3)	SQ.	LGTH.				
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.

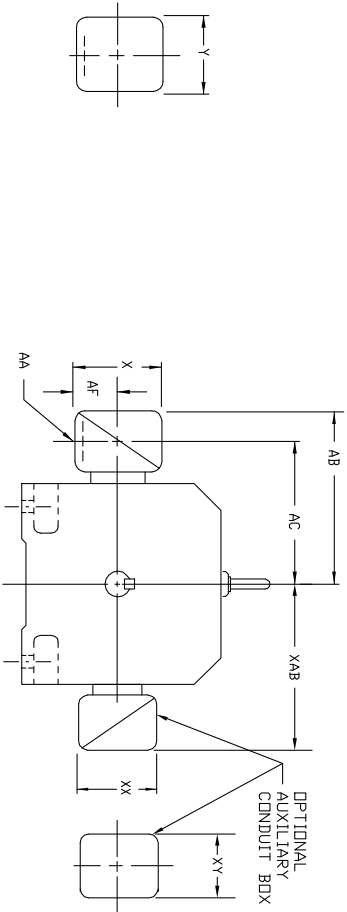
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REV. LTR: A	VERSION: 01	TDR: 0000007673
FILE: \RGG\00015\623	REVISED: 07:49:39 10/03/2012	BY: RGGWT
MTL: -		

DIMENSION DRAWING, SC3210ATZ - ULLC3612ATZ, TEFC, FOOT MTG

SH 1 of 1

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
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
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
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
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
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	702658-1-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					PART NUMBER	ONE SIZE LARGER					PART NUMBER		
		AA(2)	AB	AC	AF	X		Y	AA(2)	AB	AC	AF		X	Y
C3210ATZ	185	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
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
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
C3612ATZ	185	1-1/2	14.62	12.19	3.00	6.00	7.00	75460-R	4	17.62	13.44	4.12	9.50	10.50	76708-RR
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
	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

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) "AF" PIPE TAP.
- (3) CUSTOMER TO PROVIDE HOLE FOR CONDUIT.
- (4) 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.
- (5) "X/P" TERMINAL BOX DIMENSIONS SEE 609979-2.
- (6) 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

ARMATURE

H1 H2 F1 A1

AX2

A2 S1

SERIES FIELD

S2 S3

SERIES FIELD

S4 F22 P1 P2

TD1

TD2

TD3

(NOTE 6)

THREE WIRE RTD

TD

(NOTE 4)

(CAUTION-SEE NOTE 1)

(NOTE 2)

(NOTE 5)

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 LEAD MARKED W1.

7. BRUSH WEAR SENSOR, WHEN PROVIDED, WILL HAVE LEAD MARKED TD1, TD2, & TD3

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.

S.D. NO.

RELIANCE

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

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