

BALDOR® • RELIANCE

Product Information Packet

D5540R

40 1750/2300 MC3212ATZ TEFC 500V

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Part Detail			
Type:	DC	Prod. Type:	TR
Power Code:	C	Weight:	1120
Frame Group:	MC 3212ATZ	Mounting Pos.:	F2
HP:	40	Enclosure:	TEFC
RPM:	1750/2300	Wound:	STAB SHUNT
Service Factor:	1.0	Arm V:	500
Arm A:	65.00	Field V:	300
Field A:	1.82	Field A Hot:	1.31/.92
Insulation Class:	F	Ambient:	40
Duty:	CONT	DE Bearing:	70BC03J30X
ODE Bearing:	60BC02J30X	Brushes:	419904-52AJ
Brush Qty.:			

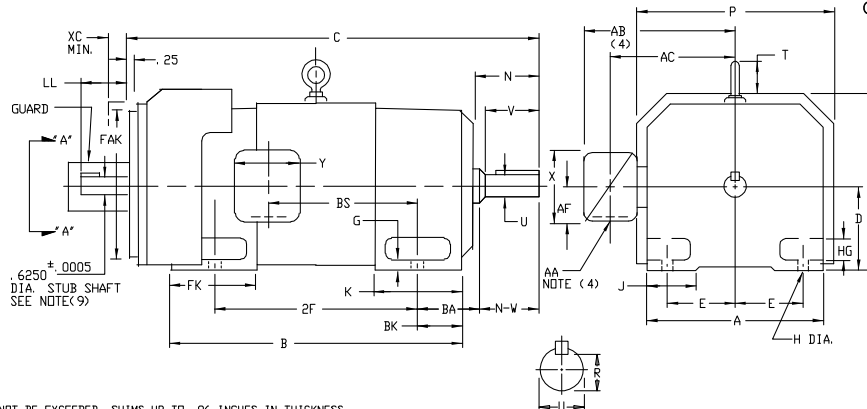
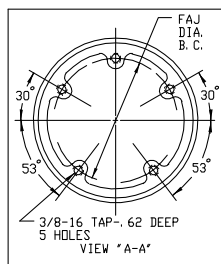
609971-013

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	4.25
BC-46	
RD-11	
RD-12	
RD-51	
RD-61	
RE-210	2.12
M627, M628	
M727, M737	
M738	
DYNAPAR 74S	2.12
RE-045G	
WITH K45M1000	
5PY	

- (1) "B" 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 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	DX(1)	E	G	H	HG	J	Q	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
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

FRAME	METHOD OF DRIVE	C	B	BS	2F	N	N-W	UX(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
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
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
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
LMC3612ATZ-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
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
ULLC3612ATZ-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

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

REV. DESC: CHANGE LAYOUT OF DRAWING	VERSION: 01	TDR: 00000767673
REV. LTR: A	REVISED: 07:49:39 10/03/2012	BY: RGGWT
FILE: \RGG\00015\623		
MTL: -		

BALDOR

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

609971-013

1
(NOTE 7)
W1

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

THREE WIRE RTD
TD
TD1 TD2 TD3
(NOTE 6)

SHUNT FIELD F2

ARMATURE INTER-COIL AX2

SHUNT FIELD F11

SERIES FIELD S2 S3

SERIES FIELD S4

F22 F11 F2 F22

F11 F1 F2 F22

P1 P2

(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

CCW ROTATION HIGH VOLTAGE FIELD CONNECTION

CCW ROTATION

CW ROTATION

CCW ROTATION

CW ROTATION

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 RTDS, 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 _____

ORDER NO. _____

S.D. NO. _____

RELIANCE
ELECTRIC

OK BY: N. JESCHKE
APP. BY: E. J. HINER
DATE: 5-5-69

CONNECTION
DIAGRAM

406770-2

ORIGINAL AT RCC

C/R 244907, 290048, 354478, 354480

REL. S.O.	FRAME	RATING	REM	ARM. VOLTS	ARM. AMPS
	MC3212AT	40.0HP	1750	500	65.0
WINDING TYPE					
	S.F.	ENCL.	AMB °C/INSUL	DUTY	FIELD VOLTS
STAB. SHUNT	1.0	TEFC	40/F	CONT	300
POWER CODE					
	TYPE	WK ² (LB-FT ²)	HOT ARM. CIR. RES.	FLD. AMPS@25 °C	HOT FIELD RES
C	TR	17.08	.350	1.82	227
ARM. CIR. IND. (mH)					
	FIELD IND. (H)	COOLING AIR (CFM/IN H 20)		TURNS PER COIL SHUNT/SERIES	TEST DATE
7.89	58.9	-/-		1200/2	-
LOAD PERFORMANCE					
LOAD	AMPERES	TORQUE IN LB.-FT.	OUTPUT IN HP	RPM	% EFFICIENCY
NO LOAD	1.8	0	0	1845	0
1/4	16	27.7	9.54	1810	75.6
2/4	33	59.1	20.0	1776	85.0
3/4	49	90.3	30.1	1751	87.5
4/4	65	121	39.9	1735	88.2
O.L.	98	178	58.7	1729	87.5
RPM VS. FIELD AMPS					
FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED	
1.31	1844	1735	472	450	
1.21	1985	1839	441	421	
1.11	2143	1963	408	390	
1.01	2333	2115	374	359	
.916	2568	2300	340	326	
REMARKS: TYPICAL DATA					
MAXIMUM SAFE SPEED = 3600 RPM					
RELIANCE 		DR. BY <u>B. GRANT</u> CK. BY <u>B. GRANT</u> APP. BY <u>T. EVON</u> DATE <u>8-6-85</u>		D-C MOTOR PERFORMANCE DATA D66318A ISSUE DATE 8-6-85	

