

BALDOR® • ***RELIANCE***

Product Information Packet

D5040R

40HP, 1750RPM, DC, 2512ATZ, DPG,

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Part Detail			
Type:	DC	Prod. Type:	TR
Power Code:	C	Weight:	605
Frame Group:	LC 2512ATZ	Mounting Pos.:	F2
HP:	40	Enclosure:	DPG
RPM:	1750/2300	Wound:	STAB SHUNT
Service Factor:	1.0	Arm V:	500
Arm A:	68.00	Field V:	300
Field A:	2.40	Field A Hot:	1.70/1.15
Insulation Class:	F	Ambient:	40
Duty:	CONT	DE Bearing:	60BC03J30X
ODE Bearing:	50BC02J30X	Brushes:	419904-51AC
Brush Qty.:			

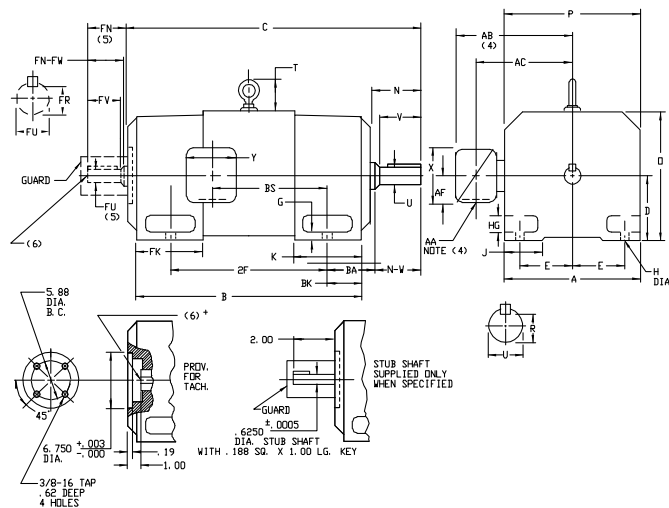
609950-001

INDUSTRIAL DIRECT CURRENT MOTORS AND GENERATORS - RPM III

ENCLOSURE: DRIP-PROOF FULLY-GUARDED, COOLING: SELF-VENTILATED
 SPLASHPROOF, TOTALLY ENCLOSED NON-VENTILATED

MOUNTING: FOOT ACCESSORIES: PROVISION FOR TACHOMETER MOUNTING
 METHOD OF DRIVE: COUPLED OR BELTED ONLY WHEN SPECIFIED

FRAMES SC2113ATZ THRU LC2812ATZ



DIMENSIONS ARE IN INCHES; SEE 609950-1M FOR DIMENSIONS IN MILLIMETERS

FRAME	A	B(1)	E	G	H	HG	J	D	P	T	BA	K	FK	BK
SC2113ATZ-LC2113ATZ	10.25	5.25	4.25	.44	.44	1.38	1.75	10.44	10.31	2.56	3.50	5.19	6.81	2.38
SC2512ATZ-LC2512ATZ	12.31	6.25	5.00	.50	.56	1.62	2.00	12.50	12.44	3.06	4.25	6.06	8.00	3.00
MC2812ATZ-LC2812ATZ	13.78	7.00	5.50	.62	.56	1.88	2.75	14.00	13.94	3.38	4.75	6.75	9.19	3.50

FRAME	C(7)	B	BS	2F	DRIVE END SHAFT AND KEY							OPPOSITE DRIVE END SHAFT AND KEYS					WT. LBS.		
					N	N-W	U(2)	V	R(2)	SO	LGTH	FN	FN-FV	FK(2)	FV	FR(2)		SO	LGTH
SC2113ATZ	28.38	22.50	11.38	18.00	4.00	3.75	1.875	3.50	1.591	.500	2.50	3.50	3.25	1.625	3.00	1.416	.375	2.25	315
MC2113ATZ	29.62	23.75	12.62	18.00	4.00	3.75	1.875	3.50	1.591	.500	2.50	3.50	3.25	1.625	3.00	1.416	.375	2.25	340
LC2113ATZ	31.25	25.38	14.25	18.00	4.00	3.75	1.875	3.50	1.591	.500	2.50	3.50	3.25	1.625	3.00	1.416	.375	2.25	370
SC2512ATZ	31.69	25.06	12.06	20.00	4.50	4.25	2.125	4.00	1.845	.500	3.00	4.00	3.75	1.875	3.50	1.591	.500	2.50	525
MC2512ATZ	33.19	26.56	13.56	20.00	4.50	4.25	2.125	4.00	1.845	.500	3.00	4.00	3.75	1.875	3.50	1.591	.500	2.50	540
LC2512ATZ	34.69	28.06	15.06	20.00	4.50	4.25	2.125	4.00	1.845	.500	3.00	4.00	3.75	1.875	3.50	1.591	.500	2.50	580
MC2812ATZ	37.38	29.94	14.25	22.00	5.00	4.75	2.375	4.50	2.021	.625	3.50	4.50	4.25	2.125	4.00	1.845	.500	3.00	775
LC2812ATZ	39.62	32.19	16.50	22.00	5.00	4.75	2.375	4.50	2.021	.625	3.50	4.50	4.25	2.125	4.00	1.845	.500	3.00	850

- (1) "B" DIMENSION WILL NOT BE EXCEEDED. SHIMS UP TO .03 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 N.P. FOR DIMENSIONS "AA", "AB", "AC", "AF", "X" AND "Y". REFER TO BOX D/S. CSTR. 609950-1. *APP. 609950-2. MILL. 609950-3
 - (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.
- TERMINAL BOX CAN BE ROTATED FOR LEAD OUTLET AT TOP, SIDES OR BOTTOM. TERMINAL BOX LOCATED ON OPPOSITE SIDE WHEN F-2, V-1, W-4, V-5, V-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.

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

REV. DESC: LOADED TO BUS	VERSION: 00	TDR: 00000577407
REV. LTR: -	REVISED: 10.21.19 01/26/2011	BY: RGGBG
FILE: \RGG\00015\543		
MTL: -		

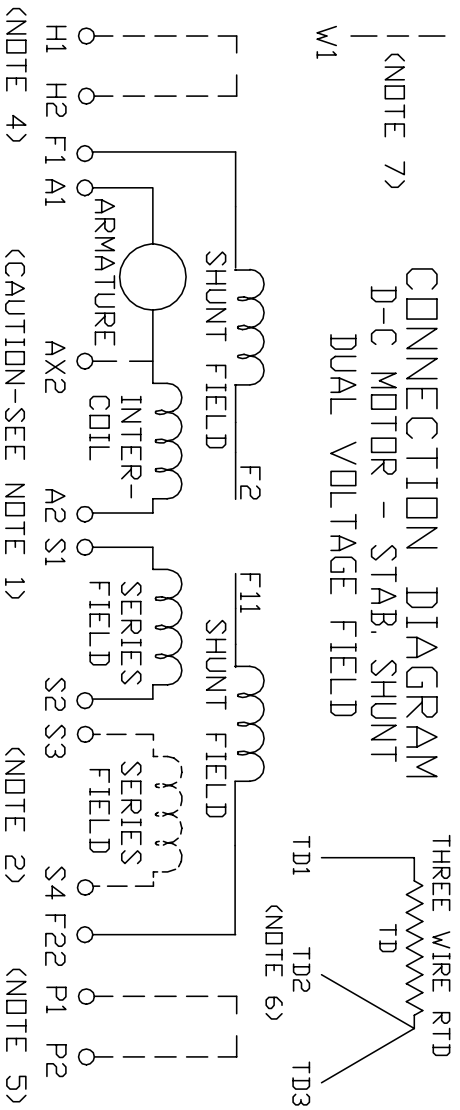
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DIMENSION DRAWING, SC2113ATZ - LC2812ATZ, DPP, TENV, FOOT MTG

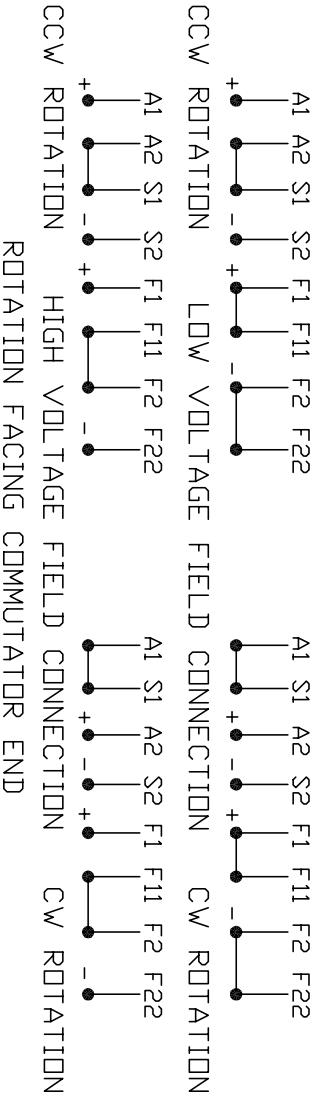
SH 1 of 1

100-056609

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



ARMATURE AND FIELD EXTERNAL CONNECTIONS
WARNING- SEE NOTE 8 FOR GROUNDING INSTRUCTIONS



- CAUTION** — ARMATURE AND SERIES FIELD MAY HAVE MULTIPLE LEADS. CONNECT ALL LUGS WITH THE SAME MARKING TOGETHER.
- 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.
- OPTIONAL CONTROL SIGNAL LEAD IS MARKED AX2. ALWAYS TAKE INTERPOLE DROP BETWEEN A2 AND AX2. NOTE: NEMA DESIGNATION FOR AX2 IS LETTER C.
- SPACE HEATERS, WHEN PROVIDED, WILL HAVE LEADS MARKED H1 AND H2, H3, H4, ETC.
- THERMAL PROTECTOR, WHEN PROVIDED, WILL HAVE LEADS MARKED P1 AND P2, P3, P4, ETC.
- WINDING RTDS, WHEN PROVIDED, WILL HAVE LEADS MARKED TD1, TD2, & TD3
- BRUSH WEAR SENSOR, WHEN PROVIDED, WILL HAVE LEAD MARKED W1.
- 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 _____ RELIANCE
ORDER NO. _____ S.D. NO. _____



Rev. BY N.L. EVANS
CHK BY N. JESCHKE
APP BY E. J. HINER
DATE 5-5-69

CONNECTION DIAGRAM
406770-2
ORIGINAL AT RRC

C/R 244907, 290048, 354478, 354480

REL. S.O.	FRAME	RATING	RPM	ARM. VOLTS	ARM. AMPS
	LC2512AT	40.0HP	1750	500	68.0
WINDING TYPE		S.F.	ENCL.	AMB °C/INSUL	DUTY
STAB. SHUNT		1.0	DPG	40/F	CONT
					300
POWER CODE	TYPE	WK ² (LB-FT ²)	HOT ARM. CIR. RES.	FLD. AMPS@25 °C	HOT FIELD RES
	TR	6.178	.610	2.40	175
ARM. CIR. IND. (mh)	FIELD IND. (H)	COOLING AIR (CFM/IN H 20)	TURNS PER COIL SHUNT/SERIES	TEST DATE	
9.36	32.5	-/-	1050/3	-	
LOAD PERFORMANCE					
LOAD	AMPERES	TORQUE IN LB.-FT.	OUTPUT IN HP	RPM	% EFFICIENCY
NO LOAD	1.5	0	0	1956	0
1/4	17	28.0	10.1	1902	83.1
2/4	34	58.6	20.7	1858	87.8
3/4	51	88.4	30.8	1829	87.9
4/4	68	117	40.3	1810	86.8
O.L.	102	169	57.7	1793	83.4
RPM VS. FIELD AMPS			Eg VS. FIELD AMPS		
FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED	
1.71	1956	1809	444	411	
1.57	2080	1899	420	388	
1.43	2221	2007	394	363	
1.29	2402	2138	364	335	
1.15	2636	2300	331	306	
REMARKS: TYPICAL DATA MAXIMUM SAFE SPEED = 4500 RPM					
RELIANCE ELECTRIC		DR. BY B. D. GRANT CK. BY R. D. GRANT APP. BY T. S. EVON DATE 06/10/85		D-C MOTOR PERFORMANCE DATA D66266A ISSUE DATE 06/06/85	

