

BALDOR® • RELIANCE

Product Information Packet

D5050R

50 1750 MC2812ATZ DPG 500V

Part Detail			
Type:	DC	Prod. Type:	TR
Power Code:	C	Weight:	766
Frame Group:	MC 2812ATZ	Mounting Pos.:	F2
HP:	50	Enclosure:	DPG
RPM:	1750/2300	Wound:	STAB SHUNT
Service Factor:	1.0	Arm V:	500
Arm A:	85.00	Field V:	300
Field A:	2.02	Field A Hot:	1.44/.95
Insulation Class:	F	Ambient:	40
Duty:	CONT	DE Bearing:	65BC03J30X
ODE Bearing:	55BC02J30X	Brushes:	419904-51AB
Brush Qty.:			

INDUSTRIAL DIRECT CURRENT MOTORS AND GENERATORS - RPM III

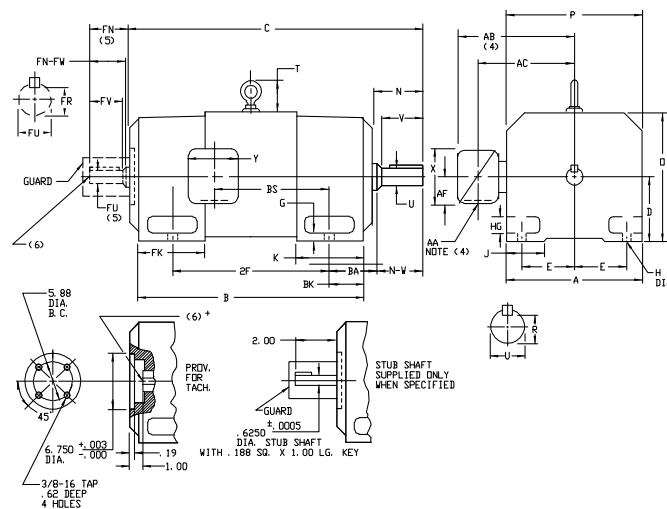
ENCLOSURE: DRIP-PROOF FULLY-GUARDED,
SPLASHPROOF, TOTALLY ENCLOSED

COOLING: SELF-VENTILATED
NON-VENTILATED

MOUNTING:FOOT
METHOD OF DRIVE:COUPLED OR BELTED

ACCESSORIES: PROVISION FOR
TACHOMETER MOUNTING
ONLY WHEN SPECIFIED

FRAMES SC2113ATZ THRU LC2812ATZ



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

FRAME	A	D(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)	DRIVE D(2) SHAF AND KEY										OPPOSITE DRIVE D(2) SHAF AND KEYS										LBS.
		B	BS	2F	N	N-W	U	W	R	D(2)	SH	FN	FN-FV	FV	FN	FN(2)	SH	LGTH.	HTS.			
SC211317	28	22.50	11.30	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	3.75	2.50	2.50	2.50	313	
SC211317	28	22.50	11.30	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	3.75	2.50	2.50	2.50	313	
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SC211317	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	2.50	2.50	540	
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SC211317	31.																					

- (1) "Y" DIMENSION WILL NOT BE EXCEEDED. SHIMS UP TO .03 INCHES IN THICKNESS ARE USUALLY REQUIRED FOR COUPLED OR GEARED MACHINES.
- (2) "U" AND "F" VARY-----, 0.00 - .001
- (3) "P" AND "R" VARY-----, 0.00 - .015
- (4) TERMINAL BOX VARIES WITH "H" FOR DIMENSIONS "AA", "AB", "AC", "AD", "AE" AND "AF". REFER TO BOX D/S. (STB. 609959-1, "X/P" 609959-2, MILL 609959-3)
- (5) OPPOSITE DRIVE END SHAFT SUPPLIED WHEN SPECIFIED.
- (6) MOTOR SHAFT TAPPED FOR SCREW-IN STUB SHAFT.
- (7) USE OF THE MOTOR APPLICATION DOES NOT REQUIRE THE USE OF O.P.P. 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, 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.

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

REV. DESC: LOADED TO BUS		
REV. LTR: -	VERSION: 00	TDR: 000000577407
FILE: \RGG\00015\543	REVISED: 10: 21:19 01/26/2011	BY: RGGBG
MTL: -		

BALDOR

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

SERIES FIELD

F11

SHUNT FIELD

F11

SERIES FIELD

S2 S3

SERIES FIELD

S4 F22

P1

P2

TD1

TD2

TD3

(NOTE 6)

THREE WIRE RTD

TD

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 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.

CUSTOMER RELIANCE S.D. NO.

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

SH 1 of 1

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BALDOR
A MEMBER OF THE ABB GROUP

REL. S.O.	FRAME	RATING	REM	ARM. VOLTS	ARM. AMPS
	MC2812AT	50.0HP	1750	500	85.0
WINDING TYPE					
	S.F.	ENCL.	AMB °C/INSUL	DUTY	FIELD VOLTS
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
C	TR	8.469	.497	2.01	209
ARM. CIR. IND. (mh)					
	FIELD IND. (H)	COOLING AIR (CFM/IN H 20)		TURNS PER COIL SHUNT/SERIES	TEST DATE
9.53	42.1	-/-		1100/3	-
LOAD PERFORMANCE					
LOAD	AMPERES	TORQUE IN LB.-FT.	OUTPUT IN HP	RPM	% EFFICIENCY
NO LOAD	1.6	0	0	1974	0
1/4	21	35.6	12.9	1900	86.3
2/4	43	74.7	26.1	1835	89.5
3/4	64	113	38.6	1789	89.0
4/4	85	150	50.5	1763	87.6
O.L.	128	217	72.1	1749	83.7
RPM VS. FIELD AMPS					
FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED	
1.43	1973	1762	440	403	
1.31	2138	1861	409	376	
1.19	2322	1980	376	347	
1.07	2550	2124	342	317	
.961	2842	2300	307	285	
REMARKS: TYPICAL DATA					
MAXIMUM SAFE SPEED = 4500 RPM					
RELIANCE 		DR. BY <u>B. D. GRANT</u> CK. BY <u>B. D. GRANT</u> APP. BY <u>T. S. EVON</u> DATE <u>06/10/85</u>		D-C MOTOR D66185B PERFORMANCE DATA ISSUE DATE 06/06/85	

