

BALDOR® • RELIANCE

Product Information Packet

D5505R

5HP,1750RPM,DC,2113ATY,TENV,

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Part Detail			
Type:	DC	Prod. Type:	TR
Power Code:	C	Weight:	320
Frame Group:	SC 2113ATZ	Mounting Pos.:	F1
HP:	5	Enclosure:	TENV
RPM:	1750/2300	Wound:	STAB SHUNT
Service Factor:	1.0	Arm V:	500
Arm A:	9.00	Field V:	300
Field A:	1.06	Field A Hot:	.71/.51
Insulation Class:	F	Ambient:	40
Duty:	CONT	DE Bearing:	50BC03J30X
ODE Bearing:	45BC02J30X	Brushes:	419904-51F
Brush Qty.:			

INDUSTRIAL DIRECT CURRENT MOTORS AND GENERATORS - RPM III

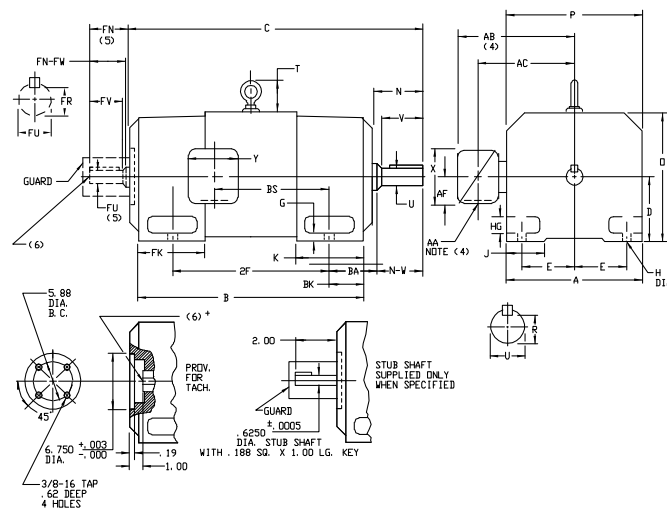
ENCLOSURE: DRIP-PROOF FULLY-GUARDED,
SPLASHPROOF, TOTALLY ENCLOSED

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	CUT	DRIVE AND SHAFT KEYS										OPPOSITE DRIVE SHAFT AND KEYS										LBS.
		B	S	F	N	W	V	R	D	S	LGTH.	FN	FN+V	FND	FV	FRD	S	LGTH.	W	LGTH.		
SC211317	28.38	22.0	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	3.75	2.25	500	2.50	315	
SC211317	28.38	23.75	12.38	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	3.75	2.25	500	2.50	315	
SC211317	28.38	25.50	13.38	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	3.75	2.25	500	2.50	315	
SC211317	28.38	27.25	14.38	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	3.75	2.25	500	2.50	315	
SC211317	28.38	29.00	15.38	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	3.75	2.25	500	2.50	315	
SC211317	28.38	30.75	16.38	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	3.75	2.25	500	2.50	315	
SC211317	28.38	32.50	17.38	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	3.75	2.25	500	2.50	315	
SC211317	28.38	34.25	18.38	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	3.75	2.25	500	2.50	315	
SC211317	28.38	36.00	19.38	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	3.75	2.25	500	2.50	315	
SC211317	28.38	37.75	20.38	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	3.75	2.25	500	2.50	315	
SC211317	28.38	39.50	21.38	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	3.75	2.25	500	2.50	315	
SC211317	28.38	41.25	22.38	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	3.75	2.25	500	2.50	315	
SC211317	28.38	43.00	23.38	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	3.75	2.25	500	2.50	315	
SC211317	28.38	44.75	24.38	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	3.75	2.25	500	2.50	315	
SC211317	28.38	46.50	25.38	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	3.75	2.25	500	2.50	315	
SC211317	28.38	48.25	26.38	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	3.75	2.25	500	2.50	315	
SC211317	28.38	50.00	27.38	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	3.75	2.25	500	2.50	315	
SC211317	28.38	51.75	28.38	18.00	4.00	3.75	1.875	3.50														

- (1) "Z" DIMENSION WILL NOT BE EXCEEDED. SHIPS UP TO .03 INCHES IN THICKNESS ARE USUALLY REQUIRED FOR COUPLED OR GEARED MACHINES.
- (2) "R" AND "F" VARY-----, 000 - .001
- (3) "I" AND "F" VARY-----, 000 - .001
- (4) TERMINAL BOX VARIES WITH H.P. OR MOTOR DIMENSIONS "AA", "AB", "AC", "X", "X" AND "Y". REFER TO BOX D/S (STB. 609959-1, "X/P" 609959-2, MILL 609959-3)
- (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 DPT, 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: RGGGB
MTL: -		

BALDOR

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

SH 1 of 1

THREE WIRE RTD
TD
TD1 TD2 TD3
(NOTE 6)

CONNECTION DIAGRAM
D-C MOTOR - STAB. SHUNT
DUAL VOLTAGE FIELD
W1
(NOTE 7)

SHUNT FIELD F2 F11 SHUNT FIELD
ARMATURE INTER-COIL SERIES FIELD SERIES FIELD
H1 H2 F1 A1 AX2 A2 S1 S2 S3 S4 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 CW ROTATION
A1 A2 S1 S2 F1 F11 F2 F22 A1 S1 A2 S2 F1 F11 F2 F22
CCW ROTATION HIGH VOLTAGE FIELD CONNECTION CW ROTATION
A1 A2 S1 S2 F1 F11 F2 F22 A1 S1 A2 S2 F1 F11 F2 F22

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 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 _____
RELANCE
ORDER NO. _____ S.D. NO. _____

RELANCE
ELECTRIC
CLEVELAND, OHIO 44117 U.S.A.

DR. 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	REM	ARM. VOLTS	ARM. AMPS
	SC2113AT	5.00HP	1750	500	9.00
WINDING TYPE					
	S.F.	ENCL.	AMB °C/INSUL	DUTY	FIELD VOLTS
STAB. SHUNT	1.0	TENV	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	2.329	3.48	1.05	425
ARM. CIR. IND. (mH)					
	FIELD IND. (H)	COOLING AIR (CFM/IN H 20)		TURNS PER COIL SHUNT/SERIES	TEST DATE
35.9	58.7	-/-		1700/1	-
LOAD PERFORMANCE					
LOAD	AMPERES	TORQUE IN LB.-FT.	OUTPUT IN HP	REM	% EFFICIENCY
NO LOAD	.61	0	0	1894	0
1/4	2.2	3.04	1.08	1870	59.4
2/4	4.5	7.16	2.51	1845	75.4
3/4	6.8	11.2	3.89	1822	80.4
4/4	9.0	15.2	5.22	1802	82.1
O.L.	14	22.9	7.70	1767	82.2
RPM VS. FIELD AMPS					
FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED	
.705	1893	1801	460	451	
.657	1999	1892	437	429	
.609	2117	2003	413	405	
.561	2259	2137	387	379	
.513	2433	2300	359	352	
REMARKS: TYPICAL DATA					
MAXIMUM SAFE SPEED = 4500 RPM					
RELIANCE 		DR. BY <u>B. GRANT</u> CK. BY <u>B. GRANT</u> APP. BY <u>T. EVON</u> DATE <u>7-19-85</u>		D-C MOTOR PERFORMANCE DATA D66082C ISSUE DATE 7-19-85	

