

BALDOR® • RELIANCE

Product Information Packet

D5020R-BV

20HP, 1750RPM, DC, 2113ATZ, DPG-FV,

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Part Detail			
Type:	DC	Prod. Type:	TR
Power Code:	C	Weight:	345
Frame Group:	SC 2113ATZ	Mounting Pos.:	F1
HP:	20	Enclosure:	DPFV
RPM:	1750/2300	Wound:	STR SHUNT
Service Factor:	1.0	Arm V:	500
Arm A:	37.00	Field V:	300
Field A:	3.04	Field A Hot:	2.17/1.45
Insulation Class:	F	Ambient:	40
Duty:	CONT	DE Bearing:	50BC03J30X
ODE Bearing:	45BC02J30X	Brushes:	419904-51AB
Brush Qty.:			

616002-001

INDUSTRIAL DIRECT CURRENT MOTORS AND GENERATORS - RPM III

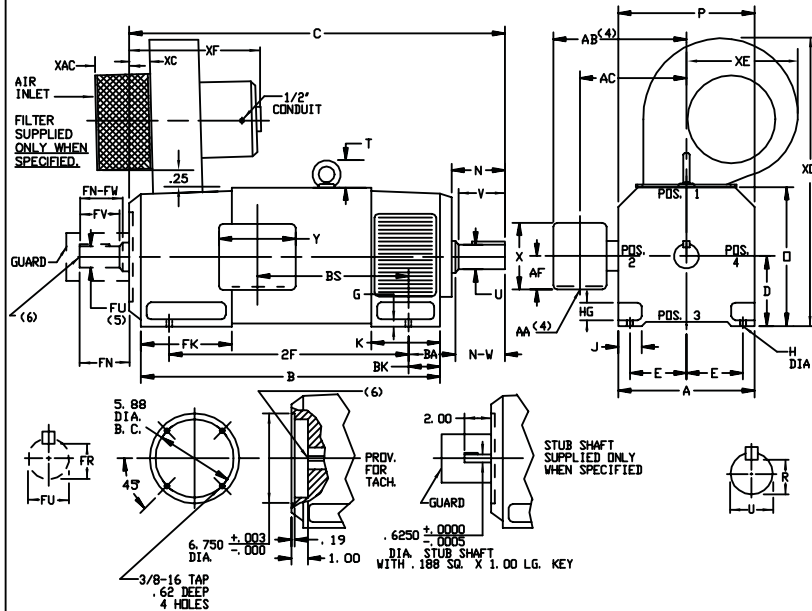
ENCLOSURE: DRIP-PROOF FULLY-GUARDED,
SPLASHPROOF

COOLING: FORCE VENTILATED
WITH INTEGRAL
BLOWER AND MOTOR

MOUNTING: FOOT
METHOD OF DRIVE: COUPLED OR BELTED

ACCESSORIES: PROVISION FOR
TACHOMETER MOUNTING
ONLY WHEN SPECIFIED

FRAMES SC2113ATZ THRU LC2115ATZ



DIMENSIONS ARE IN INCHES

FRAME	XAC	XC	XE	XF	XO
SC2113ATZ-LC2115ATZ	7.75	2.25	10.00	16.00	22.75

FRAME	A	D(1)	E	G	H	HG	J	O	P	T	BA	K	FK	BK
SC2113ATZ-LC2115ATZ	10.25	5.25	4.25	.44	.44	1.38	1.75	10.44	10.31	2.08	3.50	5.19	6.81	2.38

FRAME	C(7)	B	BS	2F	DRIVE END SHAFT AND KEY					OPPOSITE DRIVE END SHAFT AND KEY(S)					VT.				
					N	N-W	U(2)	V	R(3)	SQ.	LGTH	FN	FN-FW	FU(2)		FV	FR(3)	SQ.	LGTH
SC2113ATZ	28.38	22.50	11.38	18.00	4.00	3.75	1.875	3.50	1.991	.500	2.50	3.50	3.25	1.625	3.00	1.416	.375	2.25	345
MC2113ATZ	29.62	23.75	12.62	18.00	4.00	3.75	1.875	3.50	1.991	.500	2.50	3.50	3.25	1.625	3.00	1.416	.375	2.25	370
LC2113ATZ	31.25	25.38	14.25	18.00	4.00	3.75	1.875	3.50	1.991	.500	2.50	3.50	3.25	1.625	3.00	1.416	.375	2.25	400
MC2115ATZ	32.50	26.62	15.50	22.00	4.00	3.75	1.875	3.50	1.991	.500	2.50	3.50	3.25	1.625	3.00	1.416	.375	2.25	425
LC2115ATZ	35.25	29.38	18.25	22.00	4.00	3.75	1.875	3.50	1.991	.500	2.50	3.50	3.25	1.625	3.00	1.416	.375	2.25	480

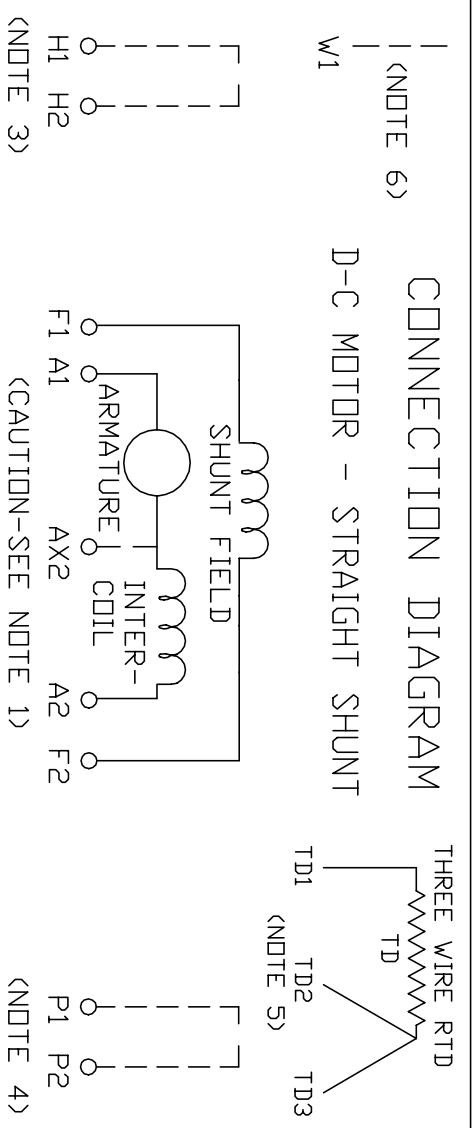
- (1) "D" DIMENSION WILL NOT BE EXCEEDED. SHIMS UP TO .03 INCHES IN THICKNESS ARE USUALLY REQUIRED FOR COUPLED OR GEARED MACHINES.
- (2) "U" AND "FU" VARY----+.000 - .001
- (3) "R" AND "FR" VARY----+.000 - .015
- (4) TERMINAL BOX VARIES WITH H.P. FOR DIMENSIONS "AA", "AB", "AC", "AF", "X" AND "Y". REFER TO BOX D/S. (STD. 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 OPP. DRIVE END, ADD .25 TO "C" DIM. FOR BRACKET COVER. TERMINAL BOX CAN BE ROTATED FOR LEAD OUTLET AT TOP, SIDES OR BOTTOM OR C-1 MOUNTING IS SPECIFIED. BOX LOCATED ON TOP WHEN SPECIFIED. BLOWER ASSEMBLY CAN BE LOCATED AT POSITIONS 1, 2, OR 4, EXCEPT BLOWER ASSEMBLY AND TERMINAL BOX CAN NOT BE LOCATED AT THE SAME POSITION. 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: 000000578087
REV. LTR: -	REVISED: 08:22:49 01/28/2011	BY: CONNAS
FILE: \RGG\00015\944		
MTL: -		

BALDOR
DIMENSION DRAWING: SC2113ATZ - LC2115ATZ, DPP, FOOT MTG
SH 1 of 1

616002-001



ROTATION FACING COMMUTATOR END

1. **CAUTION** — ARMATURE MAY HAVE MULTIPLE LEADS. CONNECT ALL LUGS WITH THE SAME MARKING TOGETHER.
2. OPTIONAL CONTROL SIGNAL LEAD IS MARKED AX2. ALWAYS TAKE INTERPOLE DROP BETWEEN A2 AND AX2. NOTE: NEMA DESIGNATION FOR AX2 IS LETTER C.
3. SPACE HEATERS, WHEN PROVIDED, WILL HAVE LEADS MARKED H1 AND H2, H3, H4, ETC.
4. THERMAL PROTECTOR, WHEN PROVIDED, WILL HAVE LEADS MARKED P1 AND P2, P3, P4, ETC.
5. WINDING WEAR RTD'S, WHEN PROVIDED, WILL HAVE LEAD MARKED W1.
6. BRUSH WEAR SENSOR, WHEN PROVIDED, WILL HAVE LEAD MARKED W1.
7. **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.

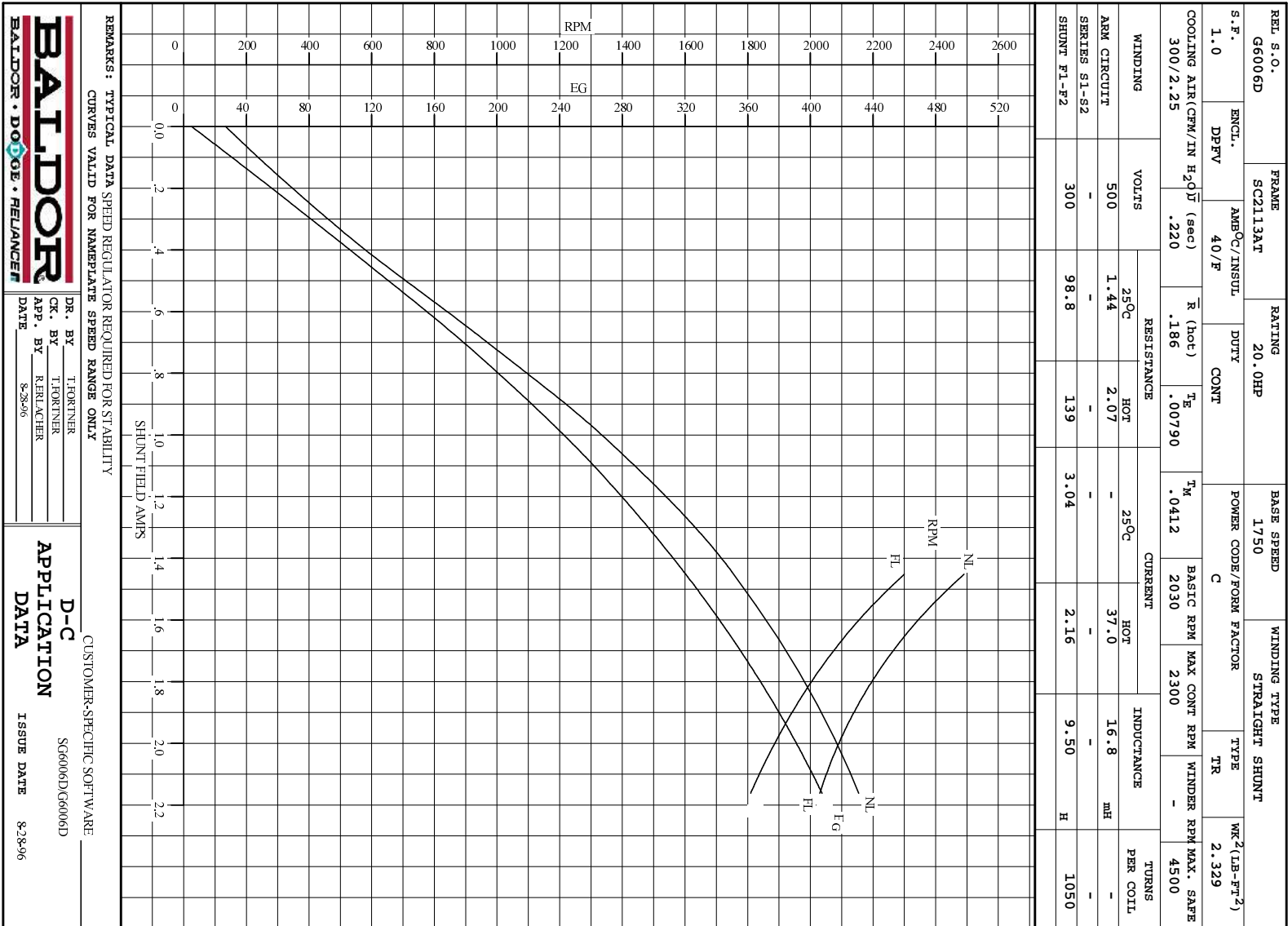
CUSTOMER _____ RELIANCE _____
 ORDER NO. _____ S.O. NO. _____

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

APPROVED BY: N. L. EVANS
 DATE: 5-5-69

CONNECTION DIAGRAM **406770-6**
 ORIGINAL AT RCC

C/R 244907, 290048, 354478, 354480




REL S.O.	FRAME	RATING	RPM	ARM. VOLTS	ARM. AMPS
G6006D	SC2113AT	20.0HP	1750	500	37.0
WINDING TYPE		S.F.	ENCL.	AMB °C/INSUL	DUTY
STRAIGHT SHUNT		1.0	DPFV	40/F	CONT
					300
POWER CODE		TYPE	WK 2 (LB-FT 2)	HOT ARM. CIR. RES.	FLD. AMPS@25 °C
C		TR	2.329	2.06	3.03
					138
ARM. CIR. IND. (mh)		FIELD IND. (H)	COOLING AIR (CFM/IN H 20)		TURNS PER COIL SHUNT/SERIES
16.8		9.49	300/2.25		1050/.00000
					TEST DATE

LOAD PERFORMANCE

LOAD	AMPERES	TORQUE IN LB.-FT.	OUTPUT IN HP	RPM	% EFFICIENCY
NO LOAD	.87	0	0	2017	0
1/4	9.2	14.4	5.35	1956	74.9
2/4	19	29.9	10.8	1899	81.0
3/4	28	44.8	15.8	1848	80.6
4/4	37	58.8	20.2	1806	78.5
O.L.	56	83.6	27.6	1733	72.3

RPM VS. FIELD AMPS		Eg VS. FIELD AMPS	
FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED
2.16	2017	1805	430
1.98	2097	1894	415
1.80	2191	1999	397
1.62	2319	2130	376
1.45	2490	2300	351

REMARKS: TYPICAL DATA
 SPEED REGULATOR REQUIRED FOR STABILITY
 CUSTOMER-SPECIFIC SOFTWARE
 MAXIMUM SAFE SPEED = 4500 RPM

	DR. BY T. FORNBER	D-C MOTOR PERFORMANCE DATA D66006D/66006D ISSUE DATE 8-28-96
	CK. BY R. RELANCHER APP. BY R. RELANCHER DATE 8-28-96	

