

# **BALDOR**® • *RELIANCE*

## Product Information Packet

# CD2105R

5 1750 DC2112ATCZ TENV

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Part Detail			
Type:	DC	Prod. Type:	TR
Power Code:	2/2-230-60-0	Weight:	334
Frame Group:	DC 2112ATCZ	Mounting Pos.:	F3
HP:	5	Enclosure:	TENV
RPM:	1750	Wound:	STR. SHUNT
Service Factor:	1.0	Arm V:	180
Arm A:	23.00	Field V:	200
Field A:	1.34	Field A Hot:	.87
Insulation Class:	F	Ambient:	40
Duty:	CONT	DE Bearing:	30BC02JPP30A
ODE Bearing:	30BC02JPG30A	Brushes:	419904-50A
Brush Qty.:			

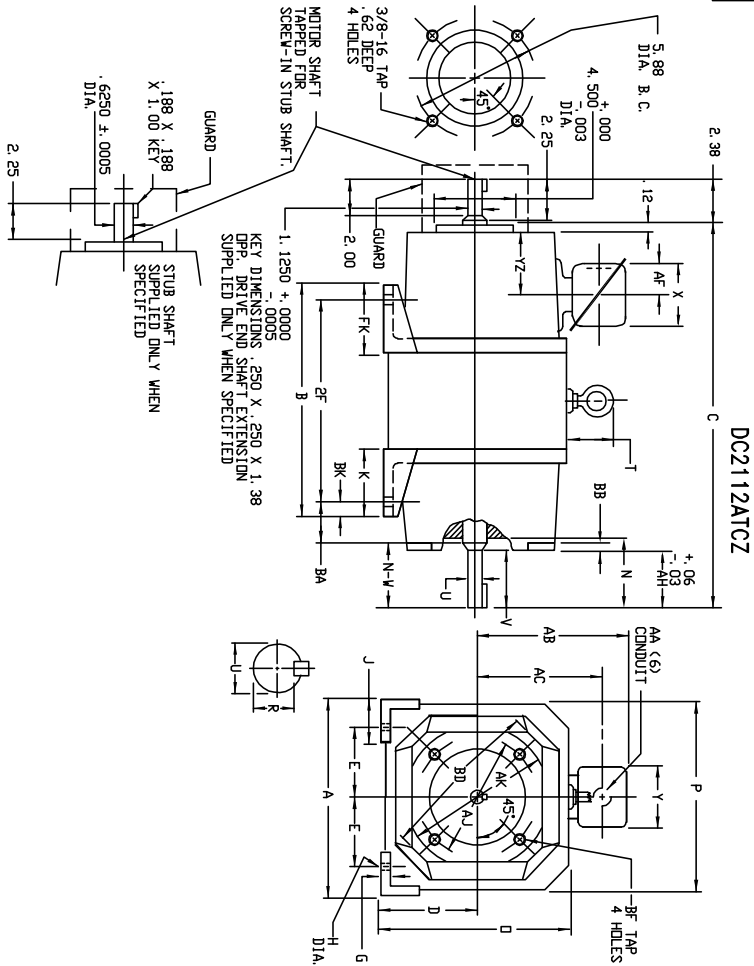
609958-001

**INDUSTRIAL DIRECT CURRENT MOTORS  
AND GENERATORS - RPM III**

ENCLOSURE:DRIP-PROOF FULLY-GUARDED  
FLASHPROOF, TOTALLY ENCLOSED  
MOUNTING:FOOT, C' FACE  
METHOD OF DRIVE:COUPLED OR BELTED

COOLING:SELF-VENTILATED  
NON-VENTILATED  
ACCESSORIES:PROVISIONS FOR  
TACHOMETER MOUNTING  
ONLY WHEN SPECIFIED

609958-001



DIMENSIONS ARE IN INCHES

FRAME	A	IX(L)	E	G	H	J	K	FK	BK	D	P	T	BA	BB	BD	BF TAP	AJ	AK(4)
DC2112ATCZ	10.31	5.25	4.25	4.41	1.62	4.44	3.56	.62	10.44	10.31	1.88	3.50	.53	8.75	1/2-13	.88	7.25	8.500

FRAME	C(S)	B	2F	N	N-H	U(2)	V	AA	AA (6) CONDUIT	AB	AC	P	Y	J	H	G	D	4 HOLES
DC2112ATCZ	17.22	17.23	16.00	3.04	2.88	1.1250	2.64	2.64	2.64	2.64	2.64	2.64	2.64	2.64	2.64	2.64	2.64	2.64

- (1) P, DIMENSION WILL NOT BE EXCEEDED. SHIM UP TO COMPLETE END DIMENSIONS.
- (2) U VARIES +.0000, -.0005
- (3) V VARIES +.0000, -.015
- (4) P VARIES +.000, -.003

- (5) WHEN THE MOTOR APPLICATION DOES NOT REQUIRE THE USE OF TERMINAL BOX AND COVER, THE TERMINAL BOX CAN BE OMITTED TO REDUCION CONDUIT IF MOUNTING CLEARANCE DETAILS ARE REQUIRED CONSULT FACTORY.
- (6) MOTOR HEIGHT MAY VARY 15% FOR NON-STANDARD RATINGS AND/OR ACCESSORIES.

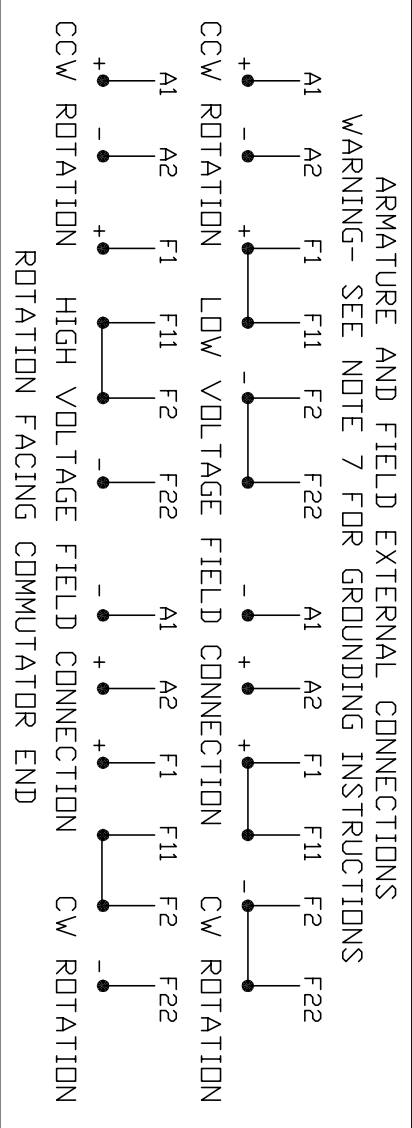
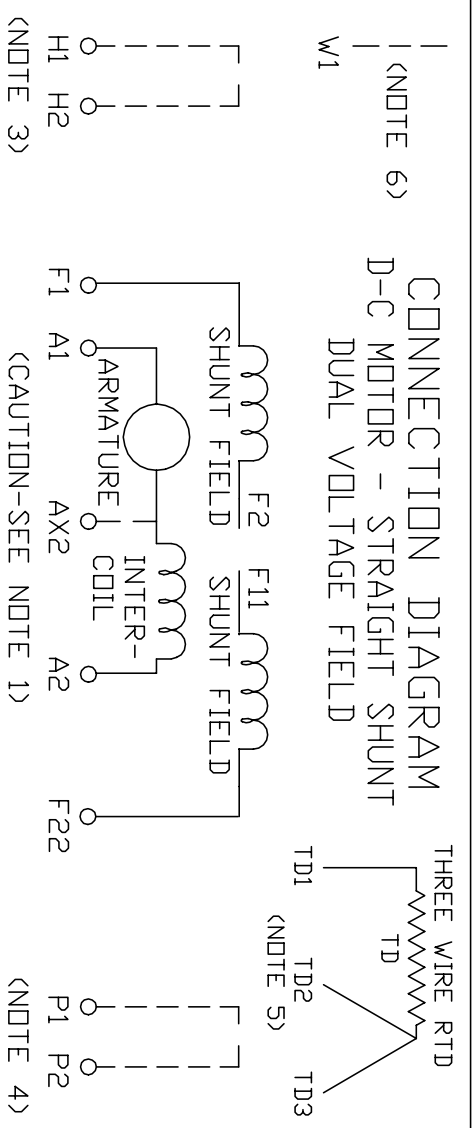
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION.

REV. DESC: ADD TOLERANCE TO "AH" DIM.	VERSION: 00	TDR: 000000538174
REV. LTR: -	FILE: \RGG\00007\015	REVISED: 01:16:40 04/26/2010
MTL: -	BY: RGGWT	

**BALDOR**

DIMENSION SHEET DC2112ATCZ

SH 1 of 1



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 SENSOR, 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.D. NO. \_\_\_\_\_

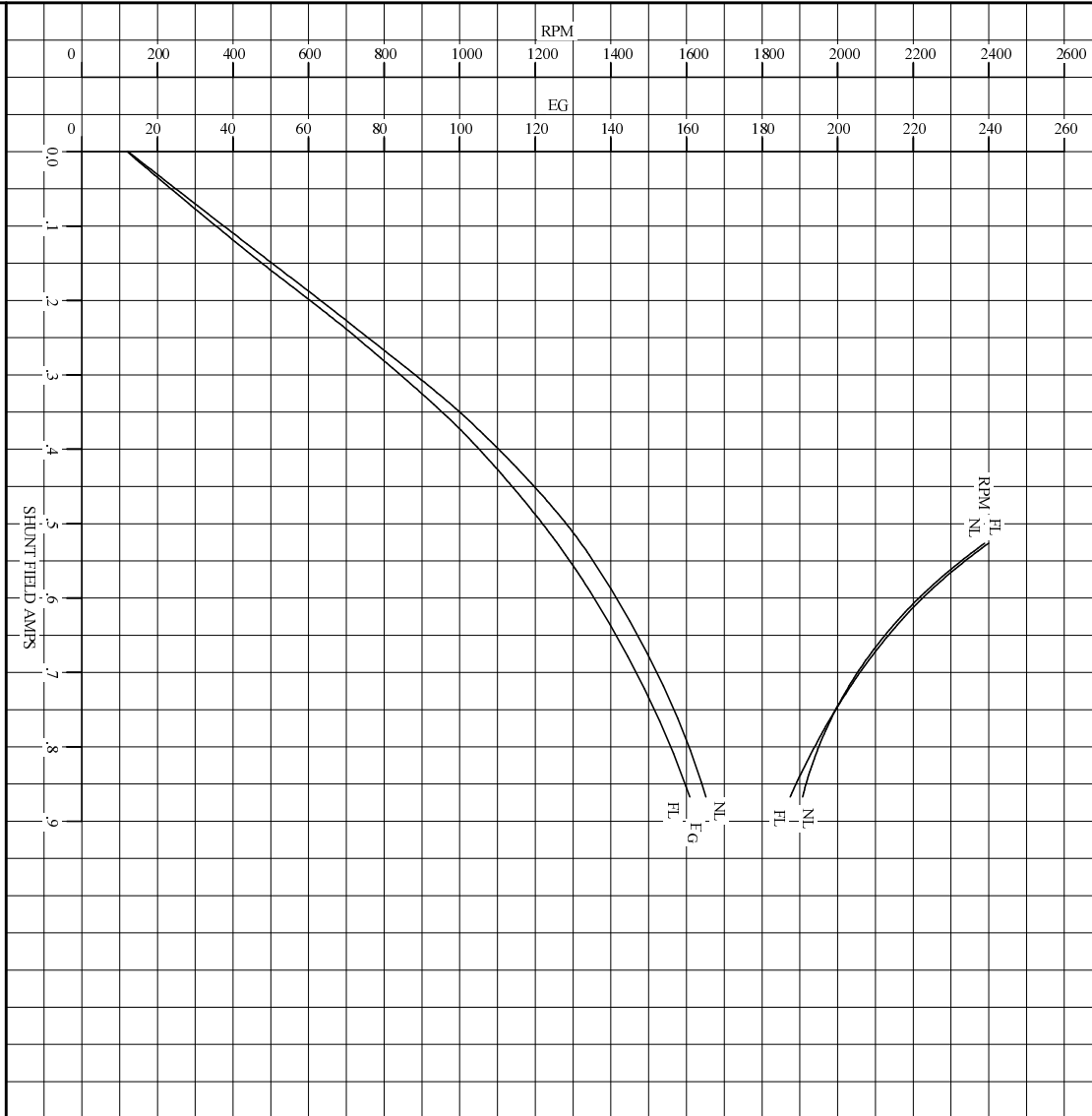
DR. BY N.L. EVANS  
CHK BY N. JESCHKE  
APP. BY E. J. HINER  
DATE 5-5-69

**CONNECTION DIAGRAM 406770-7**  
ORIGINAL AT RCC

C/R 244907, 290048, 354478, 354480



REF. S.O.	FRAME	RATING	BASE SPEED	WINDING TYPE
DC2112AT	5.00HP	1750	STRAIGHT SHUNT	
S.F. ENCL.	AMB°C/INSUL	DUTY	POWER CODE/FORM FACTOR	TYPE
1.0 TENV	4.0/F	CONT	2/2 230-60-0	TR
COOLING AIR (CFM/IN H <sub>2</sub> O)	$\bar{R}$ (sec)	$\bar{R}$ (hot)	$T_m$	BASIC RPM
-/-	.792	.0444	.0352	2050
				MAX CONT RPM
				2400
				WINDER RPM
				4500
WINDING	VOLTS	RESISTANCE		INDUCTANCE
		25°C	HOT	PER COIL
ARM CIRCUIT	180	.148	.219	3.64 mH
SERIES S1-S2	-	-	-	-
SHUNT F1-F2	200	1.54	231	64.5 H
			1.30	1800



REMARKS: TYPICAL DATA SPEED REGULATOR REQUIRED FOR STABILITY  
CURVES VALID FOR NAMEPLATE SPEED RANGE ONLY

	DR. BY	R. REILACHER	<b>D-C</b> <b>APPLICATION</b> <b>DATA</b>	SC7197A ISSUE DATE 02-02-90
	APP. BY	T. SIMON		
DATE		06-6888		

C/R


REL. S.O.	FRAME	RATING	RPM	ARM. VOLTS	ARM. AMPS
	DC2112AT	5.00HP	1750	180	23.0
WINDING TYPE		S.F.	ENCL.	AMB °C/INSUL	DUTY
STRAIGHT SHUNT		1.0	TENV	40/F	CONT
					200
POWER CODE	TYPE	WK 2 (LB-FT 2)	HOT ARM. CIR. RES.	FLD. AMPS@25 °C	HOT FIELD RES
2/2 230-60-0	TR	2.093	.218	1.30	230

ARM. CIR. IND. (mh)	FIELD IND. (H)	COOLING AIR (CFM/IN H 20)	TURNS PER COIL SHUNT/SERIES	TEST DATE
3.63	64.4	-/-	1800/.00000	

LOAD PERFORMANCE					
LOAD	AMPERES	TORQUE IN LB.-FT.	OUTPUT IN HP	RPM	% EFFICIENCY
NO LOAD	1.2	0	0	1895	0
1/4	5.8	3.00	1.07	1883	64.3
2/4	12	6.75	2.41	1875	76.9
3/4	17	10.4	3.71	1871	80.7
4/4	23	14.0	4.98	1871	82.0
O.L.	35	20.7	7.42	1884	82.1

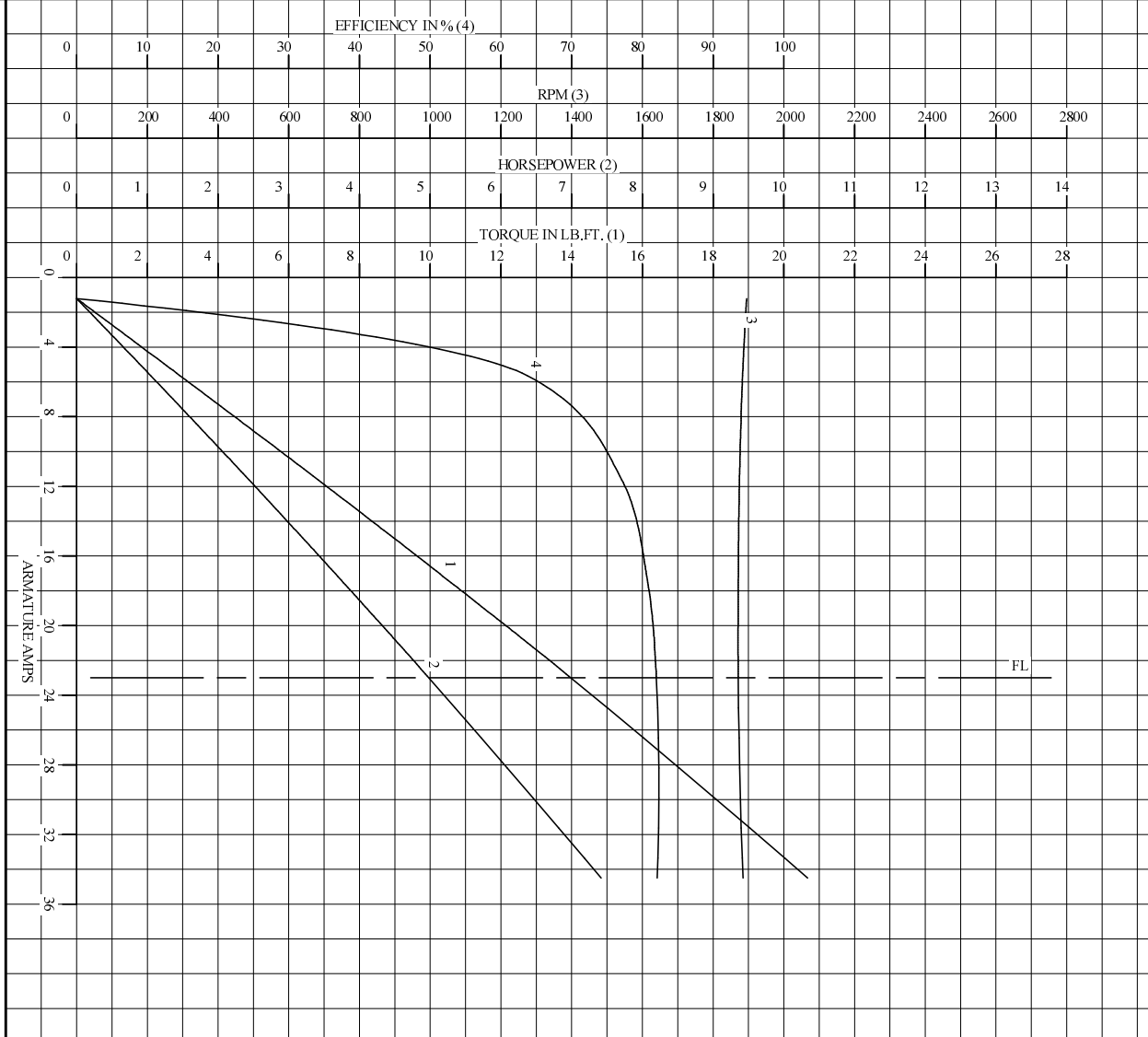
RPM VS. FIELD AMPS			Eg VS. FIELD AMPS		
FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED	
.867	1894	1871	165	160	
.782	1964	1958	159	153	
.696	2057	2063	151	146	
.611	2192	2202	143	136	
.526	2389	2400	131	125	

REMARKS: TYPICAL DATA  
 MAXIMUM SAFE SPEED = 4500 RPM  
 SPEED REGULATOR REQUIRED FOR STABILITY

	DR. BY R. BRÄGGER	<b>D-C MOTOR PERFORMANCE DATA</b> DG7197A ISSUE DATE 02-02-90
	CK. BY R. BRÄGGER APP. BY T.S. EVON DATE 08-08-88	

C/R -

REL. S.O.	DC2112AT	DUTY CONT	TYPE TR	S.F.	1.0
FRAME	5.00HP	ENCL. TENV	WK <sup>2</sup> (LB-FT <sup>2</sup> )	FLD.AMPS@25 °C	1.30
HP/KW	1750	AMB °C INSL.	HOT ARM. CIR. RES.	FIELD IND (H)	64.4
RPM	180	ARM. AMPS	ARM. CIRCUIT IND(ohm)	CFM/IN. H <sub>2</sub> O	-/-
ARM. VOLTS	180	FIELD VOLTS	HOT FIELD RES.	TEST S.O.	-
MDG. TYPE	STRAIGHT SHUNT	POWER CODE	2/2 230-60-0	TEST DATE	-



<b>BALDOR</b>	DR. BY RREILACHER	<b>D-C</b>
<b>RELIANCE</b>	CK. BY RREILACHER	<b>PERFORMANCE</b>
	APP. BY T.S.MON	<b>CURVES</b>
	DATE 06-88	ISSUE DATE 02-02-90

C/R