ABB BALDOR RELIANCE

Customer information packet

CD2105R

DC2112ATCZ, 5HP, 1750RPM, 180, 200, TENV, F3

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Specifications

Armature Voltage	180 V
Base Speed	1750 rpm
Enclosure	TENV
Field Voltage	200 V
Frame	DC2112ATCZ
Output Power	5.000 HP
Agency Approvals	CCSA US
Ambient Temperature	40 °C
Armature Current	23.0 a
Base Indicator	Rigid
Drip Cover	No Drip Cover
Duty Rating	CONT
Feedback Device	NO FEEDBACK
Field Winding Type	STR. SHUNT
Frame Prefix	DC
Heater Indicator	No Heater
Insulation Class	F
Lifting Lugs	Standard Lifting Lugs
Motor Standards	NEMA
Mounting Arrangement	F3
Overall Length	27.22 IN
Service Factor	1.00
Shaft Diameter	1.125 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Slinger Indicator	No Slinger
Thermal Device - Bearing	None

Part Detail

Revision	-
Type	DC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	G7197A
Layout	609958-001
Eff. date	11-15-2019
CD Diagram	406770-007
Poles	00
Leads	
Proprietary	False
Created date	11-13-2019

Nameplate

000613006HP								
CAT.NO.	CD2105R		**SPEC NO.**	T21T1101				
FR	DC2112ATCZ	**HP**	5		**DUTY**	CONT		
ENCL.	TENV	**RPM**	1750		**S.F.**	1.0		
ENCL MOD		**VOLTS**	180		**INSUL**	F		
MAX SAFE SPEED	04500	**AMPS**	23.00		**AMB.**	40		
	FIELD DATA	**SER.NO.**						
WINDING	STR. SHUNT	**POWER CODE**	2/2-230-60-0					
VOLTS	200/100	**D.E. BRG.**	30BC02JPP30A					
MAX AMPS @ 25 C	1.34	**O.D.E. BRG.**	30BC02JPG30A					
HOT AMPS	.87	**MIN. AMB.**	0		**TYPE**	TR		
	BRUSH:419904050A							
	FLD. DATA FOR HIGH VOLTS							

ABB BALDOR RELIANCE

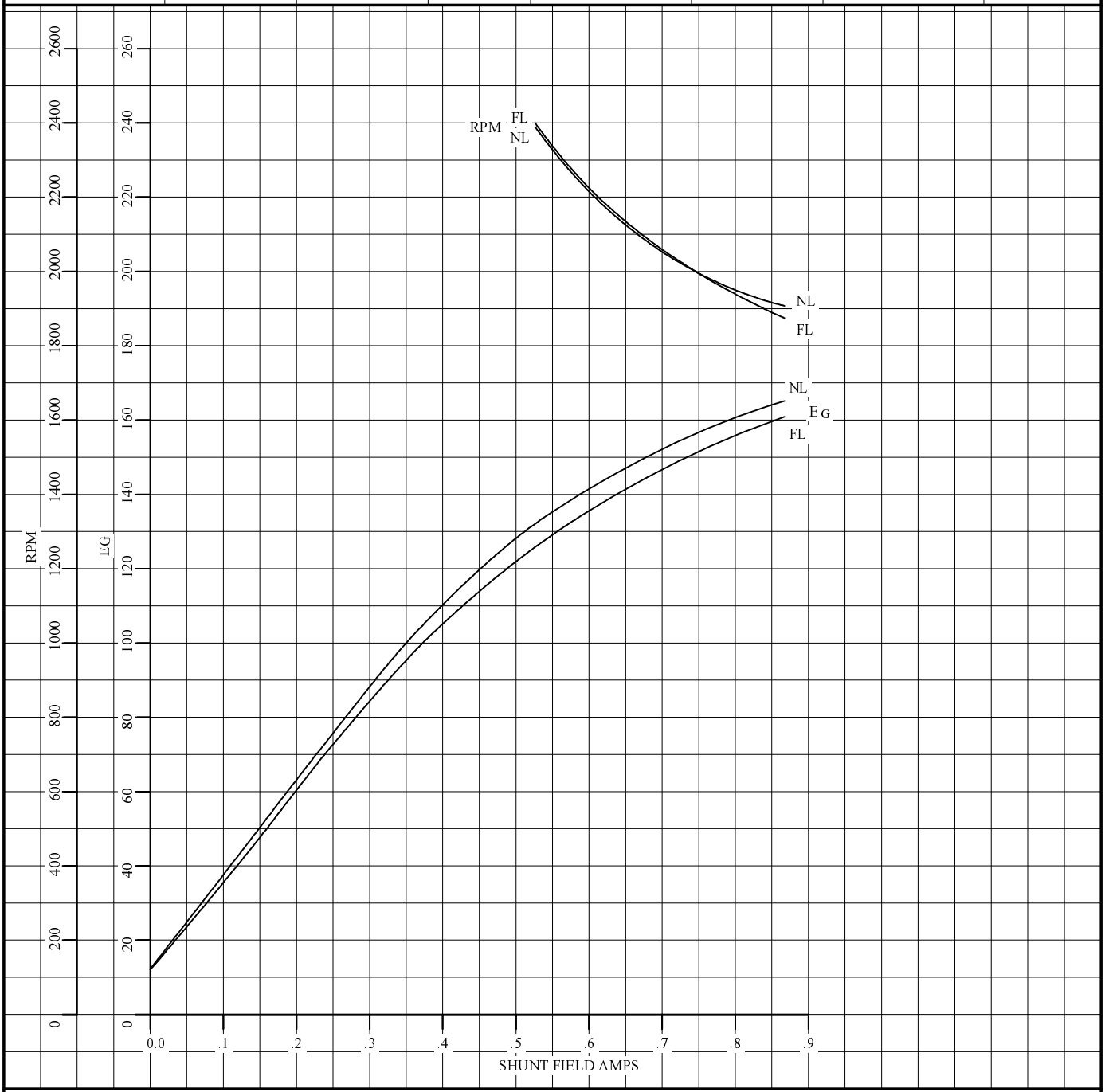
CUSTOMER INFORMATION PACKET

FRAME	RATING	BASE SPEED	WINDING TYPE
DC2112AT	5.00HP	1750	STRAIGHT SHUNT

S.F.	ENCL.	AMB°C/INSUL	DUTY	POWER CODE/FORM FACTOR	TYPE	WK^2(LB-FT^2)
1.0	TENV	40/F	CONT	2/2 230-60-0	TR	2.093

COOLING AIR(CFM/IN H_2O)	$\bar{J}$ (sec)	$\bar{R}$ (hot)	T_E	T_M	BASIC RPM	MAX CONT RPM	WINDER RPM	MAX. SAFE
-/-	.792	.0444	.0109	.0352	2050	2400	-	4500

WINDING	VOLTS	RESISTANCE		CURRENT		INDUCTANCE	TURNS PER COIL
		25°C	HOT	25°C	HOT		
ARM CIRCUIT	180	.148	.219	-	23.0	3.64 mH	-
SERIES S1-S2	-	-	-	-	-	-	-
SHUNT F1-F2	200	154	231	1.30	.867	64.5 H	1800



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

BALDOR · DODGE · RELIANCE

DR. BY R.ERLACHER
CK. BY R.ERLACHER
APP. BY T.S.EVON
DATE 08-08-88

D-C APPLICATION DATA

SG7197A

ISSUE DATE 02-02-90

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	FIELD VOLTS
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_2O)	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

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DR. BY R.ERLACHER
CK. BY R.ERLACHER
APP. BY T.S.EVON
DATE 08-08-88

D-C MOTOR PERFORMANCE DATA

DG7197A

ISSUE DATE 02-02-90

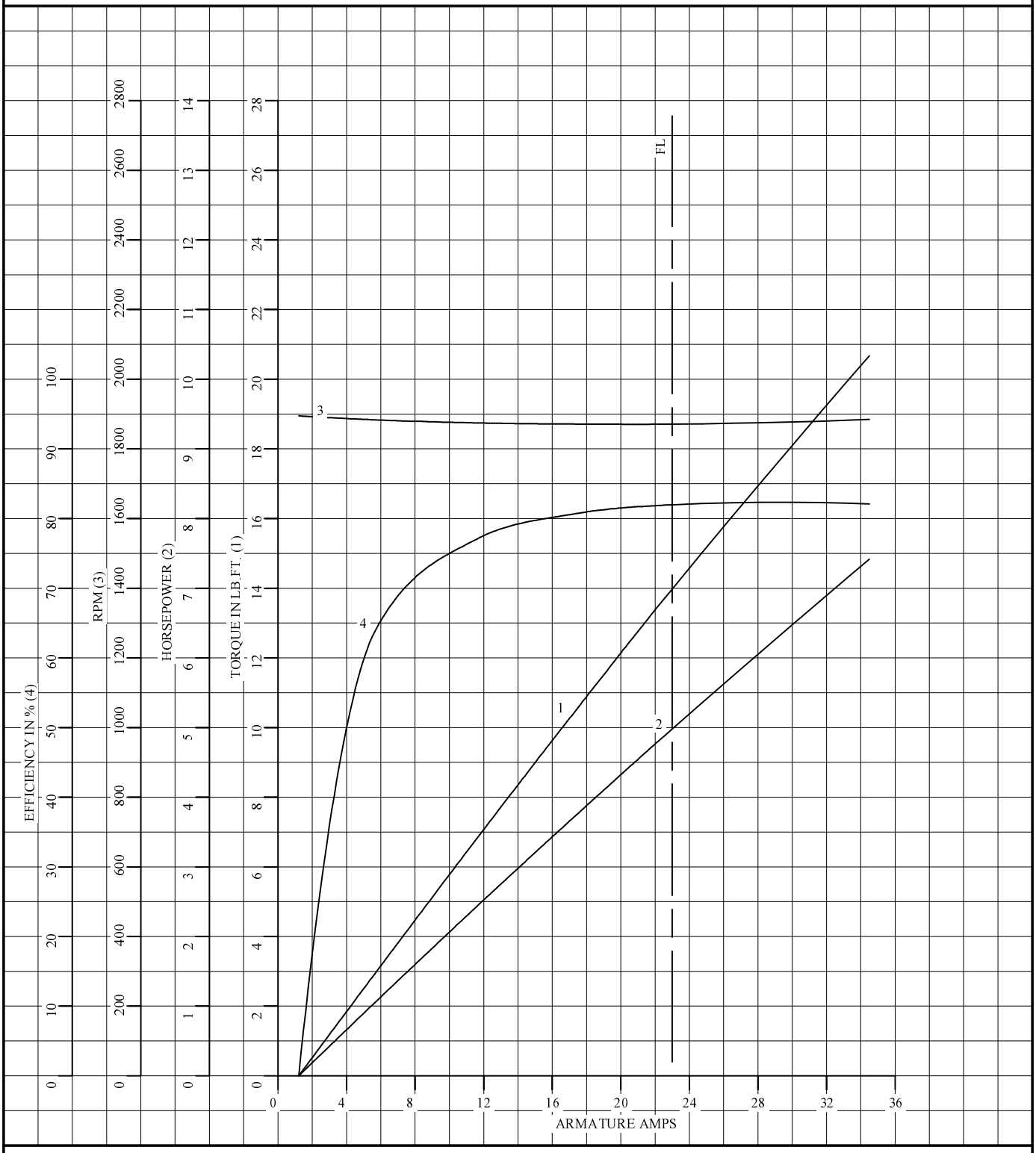
C/R -

ABB BALDOR RELIANCE III

CUSTOMER INFORMATION PACKET TYPE TR SF 1.0

GTD05R - DC2112ATCZ, 5HP, 1750RPM, 180, 200, TENV, F3

FRAME	DC2112AT	ENCL.	TENV	WK^2(LB-FT^2)	2.093	FLD.AMPS@25°C	1.30
HP/KW	5.00HP	AMB°C INSL.	40/F	HOT ARM. CIR. RES.	.218	FIELD IND (H)	64.4
RPM	1750	ARM. AMPS	23.0	ARM. CIRCUIT IND(mh)	3.63	CFM/IN. H_2O	-/-
ARM. VOLTS	180	FIELD VOLTS	200	HOT FIELD RES.	230	TEST S.O.	-
WDG. TYPE	STRAIGHT SHUNT			POWER CODE	2/2 230-60-0	TEST DATE	-



REMARKS: TYPICAL DATA SPEED REGULATOR REQUIRED FOR STABILITY

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DR. BY R.ERLACHER
CK. BY R.ERLACHER
APP. BY T.S.EVON
DATE 08-08-88

D-C PERFORMANCE CURVES

PG7197A

ISSUE DATE 02-02-90

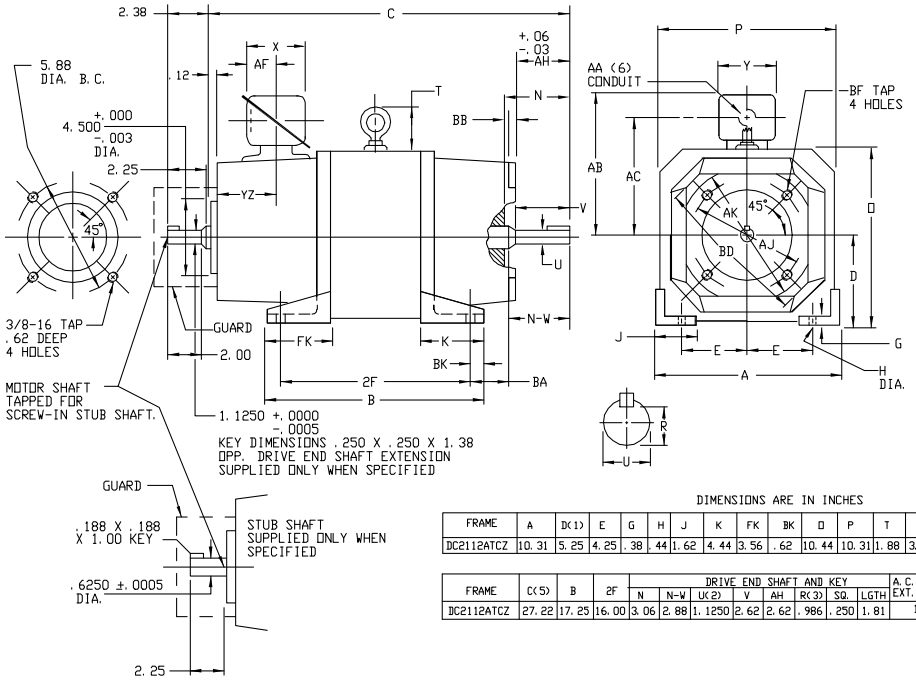
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INDUSTRIAL DIRECT CURRENT MOTORS AND GENERATORS – RPM III

ENCLOSURE:DRIP-PROOF FULLY-GUARDED
SPLASHPROOF, 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

DC2112ATCZ



(1) "D" DIMENSION WILL NOT BE EXCEEDED. SHIMS UP TO .03 INCHES IN THICKNESS ARE USUALLY REQUIRED FOR COUPLED OR GEARED MACHINES.
(2) "U" VARIES +.0000, -.0005.
(3) "R" VARIES +.000, -.015.
(4) "AK" VARIES +.000, -.003.
FACE RUNOUT AND ECCENTRICITY .004 MAX. T.I.R.
(5) WHEN THE MOTOR APPLICATION DOES NOT REQUIRE THE USE OF OPP. DRIVE END, ADD .25 TO "C" DIM. FOR BRACKET COVER.
(6) TERMINAL BOX CAN BE ROTATED TO REPOSITION CONDUIT CONNECTION.
IF MOUNTING CLEARANCE DETAILS ARE REQUIRED CONSULT FACTORY.

MOTOR WEIGHT MAY VARY 15% FOR NON-STANDARD RATINGS AND/OR ACCESSORIES.

DIMENSIONS ARE IN INCHES

FRAME	A	D(1)	E	G	H	J	K	FK	BK	O	P	T	BA	BB	BD	BF TAP	BF TAP "DEPTH"	AJ	AK(4)
DC2112ATCZ	10.31	5.25	4.25	.38	.44	1.62	4.44	3.56	.62	10.44	10.31	1.88	3.50	.25	8.75	1/2-13	.88	7.25	8.500

FRAME	C(5)	B	2F	DRIVE END SHAFT AND KEY							A.C. SHAFT EXT. REF.	TERMINAL BOX DIMENSIONS							WT. LBS.
				N	N-W	U(2)	V	AH	R(3)	SQ.	LGTH		AA	AB	AC	AF	X	Y	YZ	
DC2112ATCZ	27.22	17.25	16.00	3.06	2.88	1.1250	2.62	2.62	.986	.250	1.81	180T	3/4	6.88	5.56	1.69	3.38	3.88	3.25	350

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

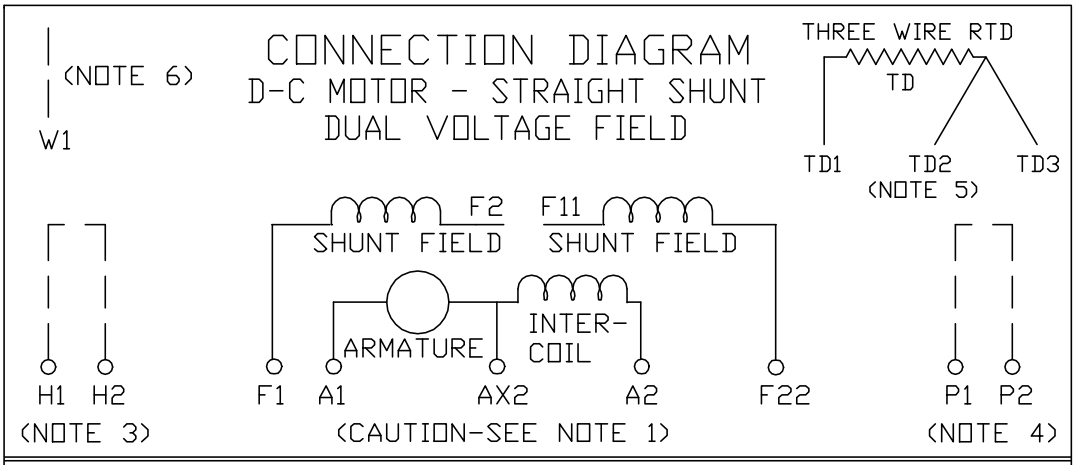
REV. DESC: CHANGE LAB OFFICE TO 015 FROM 018		BALDOR
REV. LTR: A	VERSION: 01	TDR: 000000872511
FILE: \RSN\00029\755	REVISED: 01:05:56 09/22/2014	BY: RSNDLB2
MTL: –		DIMENSION SHEET DC2112ATCZ SH 1 of 1

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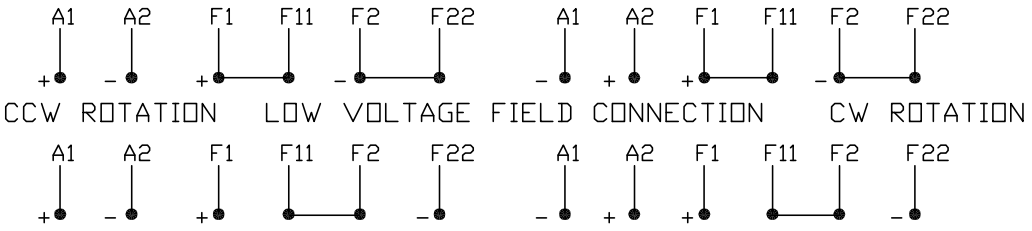
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CONNECTION DIAGRAM
D-C MOTOR - STRAIGHT SHUNT DUAL VOLTAGE FIELD



ARMATURE AND FIELD EXTERNAL CONNECTIONS
WARNING- SEE NOTE 7 FOR GROUNDING INSTRUCTIONS



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 RTD'S, WHEN PROVIDED, WILL HAVE LEADS MARKED TD1, TD2, &TD3.
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 _____ CUSTOMER ORDER NO. _____ RELIANCE S.O. NO. _____

BALDOR

D-C MOTOR CONNECTION DIAGRAM, STR. SHUNT, DUAL VOLTAGE FIELD
SH 1 of 1

REV. DESC: UPDATE LOGO AND TITLEBLOCK: LOADED TO BUS
REV. LTR: - | VERSION: 00 | TDR: 000000784225
FILE: \MGA\00001\391 | REVISED: 02:50:46 02/01/2013
MTL: - | BY: MGHPC