

BALDOR® • RELIANCE™

Customer information packet

CD2105R

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

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

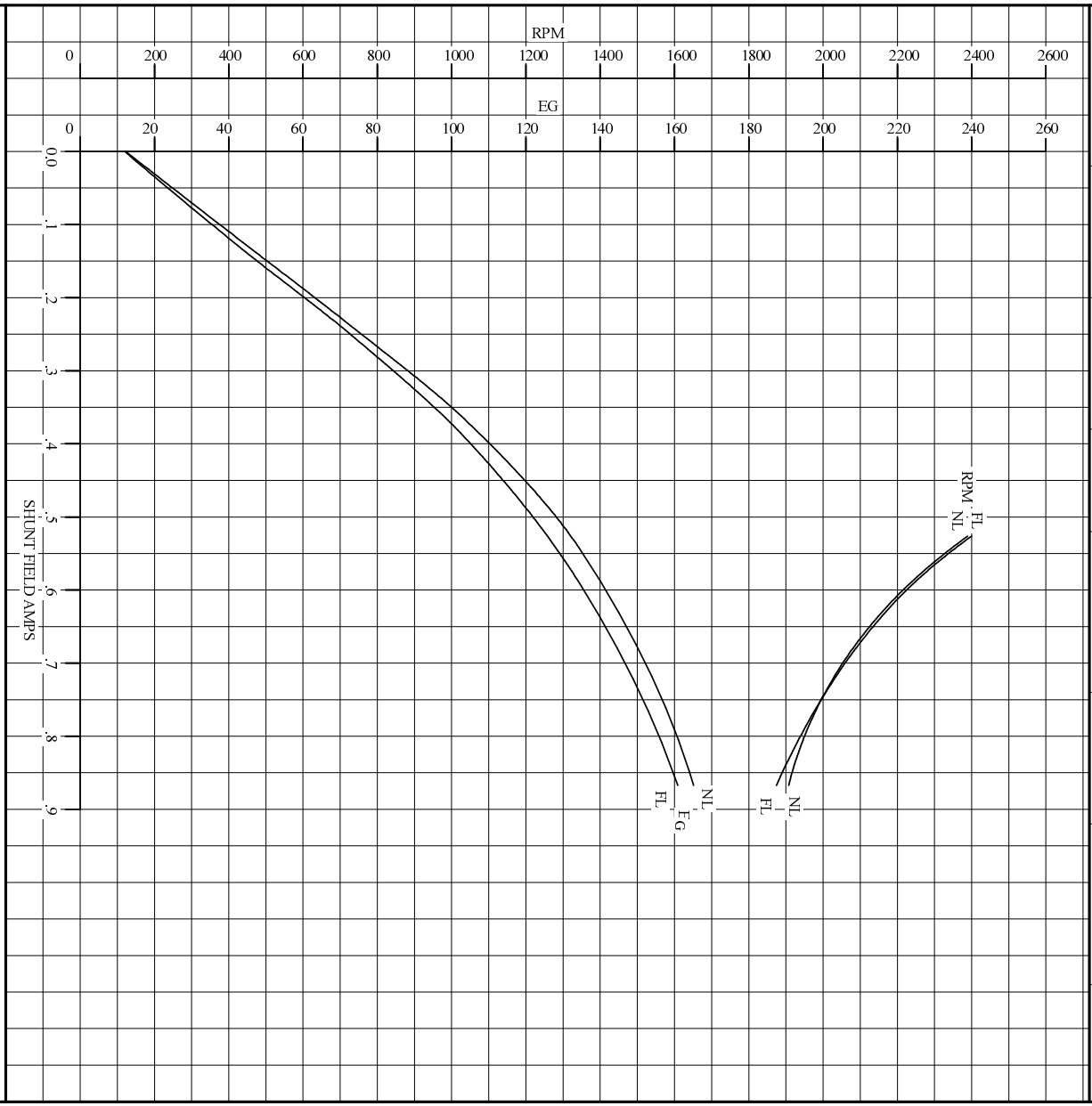
Part detail

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				

REL S.O.	FRAME DC2112AT	RATING 5.00HP	BASE SPEED 1750	WINDING TYPE STRAIGHT SHUNT
S.F. 1.0	ENCL. TENV	AMB ^{OC} /INSUL 40/F	DUTY CONT	POWER CODE/FORM FACTOR 2/2 230-60-0
COOLING AIR (CFM/IN H ₂ O) -/-	\bar{R} (sec) .792	\bar{R} (hot) .0444	T_e .0109	T_m .0352
WINDING	VOLTS	RESISTANCE		BASIC RPM 2050
ARM CIRCUIT	180	25 ^{OC}	HOT	MAX CONT RPM 2400
SERIES S1-S2	-	.148	.219	WINDER RPM -
SHUNT F1-F2	200	154	231	MAX. SAFE 4500
		1.30	.867	
				INDUCTANCE 3.64 mH
				TURNS PER COIL -
				1800



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

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BALDOR

DR. BY RERLACHER
CK. BY RERLACHER
APP. BY T.SEVON
DATE 08-08-88

D-C APPLICATION DATA

SG7197A
ISSUE DATE 02-02-90

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	FIELD VOLTS
STRAIGHT SHUNT					
	1.0	TENV	40/F	CONT	200
POWER CODE					
	TYPE	WK ² (LB-FT ²)	HOT ARM.CTR.RES.	FLD. AMPS@25 °C	HOT FIELD RES
2/2 230-60-0	TR	2.093	.218	1.30	230

ARM. CIR. IND. (mb)	FIELD IND. (H)	COOLING AIR(CFM/IN H ² O)	TURNS PER COIL SHUNT/SERIES	TEST DATE
3.63	64.4	-/-	1800/.00000	

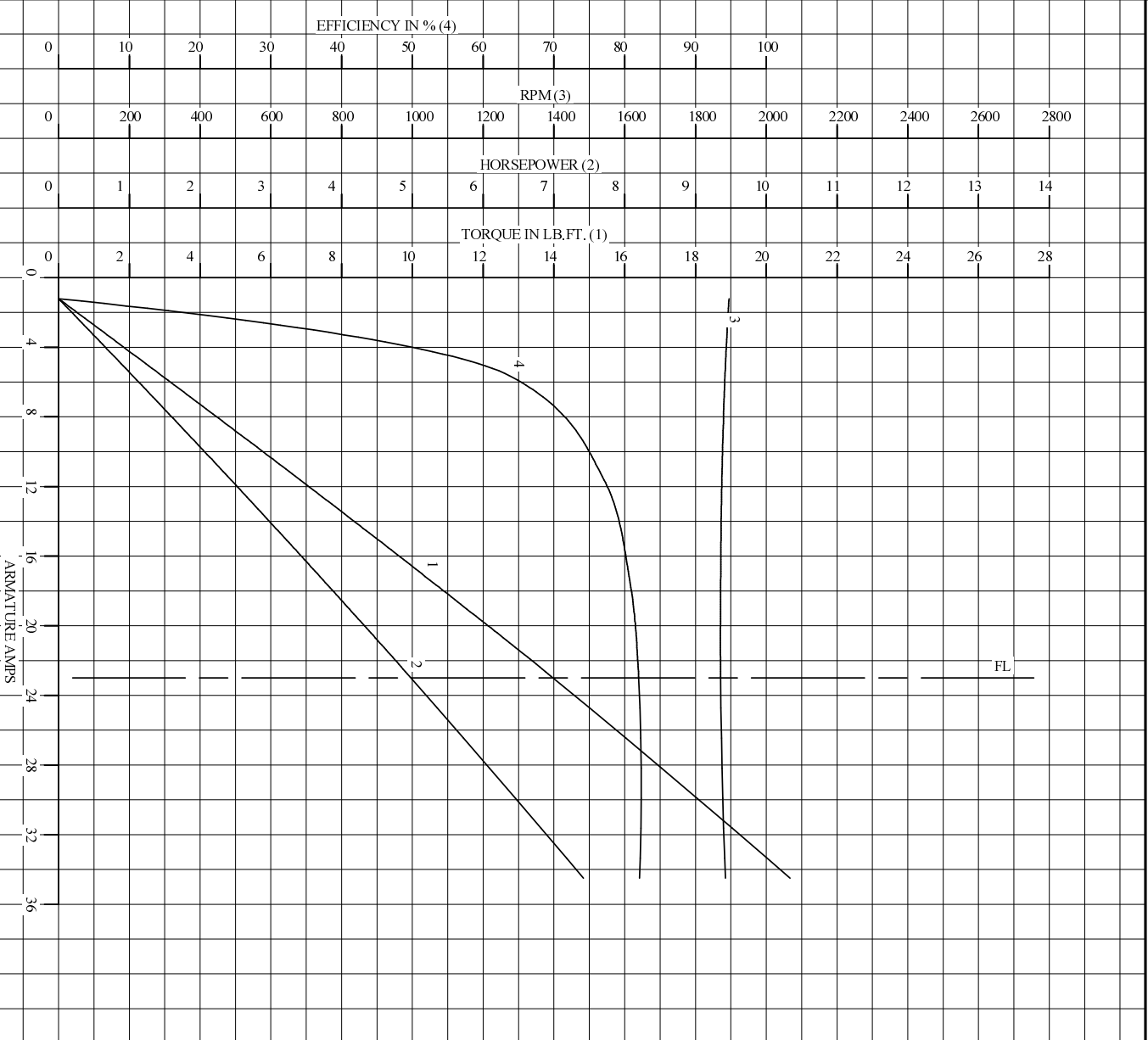
LOAD PERFORMANCE					
LOAD	AMPERES	TORQUE IN LB.-FT.	OUTPUT IN HP	RPM	% EFFICIENCY
NO LOAD	1.2	0	0	1895	0
1/4	5.8	3.00	1.07	1883	64.3
2/4	12	6.75	2.41	1875	76.9
3/4	17	10.4	3.71	1871	80.7
4/4	23	14.0	4.98	1871	82.0
O.L.	35	20.7	7.42	1884	82.1

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. ERLACHER	D-C MOTOR DG7197A PERFORMANCE DATA ISSUE DATE 02-02-90
	CK. BY T.S. EVON APP. BY T.S. EVON DATE 08-08-88	

REL. S.O.	DC2112AT	DUTY CONT	TYPE TR	S.F.	1.0	
FRAME	5.00HP	ENCL. TENV	WK ² (LB-FT ²)	2.093	FLD. AMPS@25 °C	1.30
HP/KW	1750	AMB °C INST.	HOT ARM. CIR. RES.	.218	FIELD IND (H)	64.4
RPM	180	ARM. AMPS	ARM. CIRCUIT IND(mA)	3.63	CFM/IN. H ₂ O	-/-
ARM. VOLTS	STRAIGHT SHUNT	FIELD VOLTS	HOT FIELD RES.	230	TEST S.O.	-
WDG. TYPE		POWER CODE	2/2 230-60-0	TEST DATE	-	



REMARKS: TYPICAL DATA SPEED REGULATOR REQUIRED FOR STABILITY



DR. BY RERLACHER
 CK. BY RERLACHER
 APP. BY T. SEYON
 DATE 08-08-88

D-C PERFORMANCE CURVES PG7197A
 ISSUE DATE 02-02-90

C/R

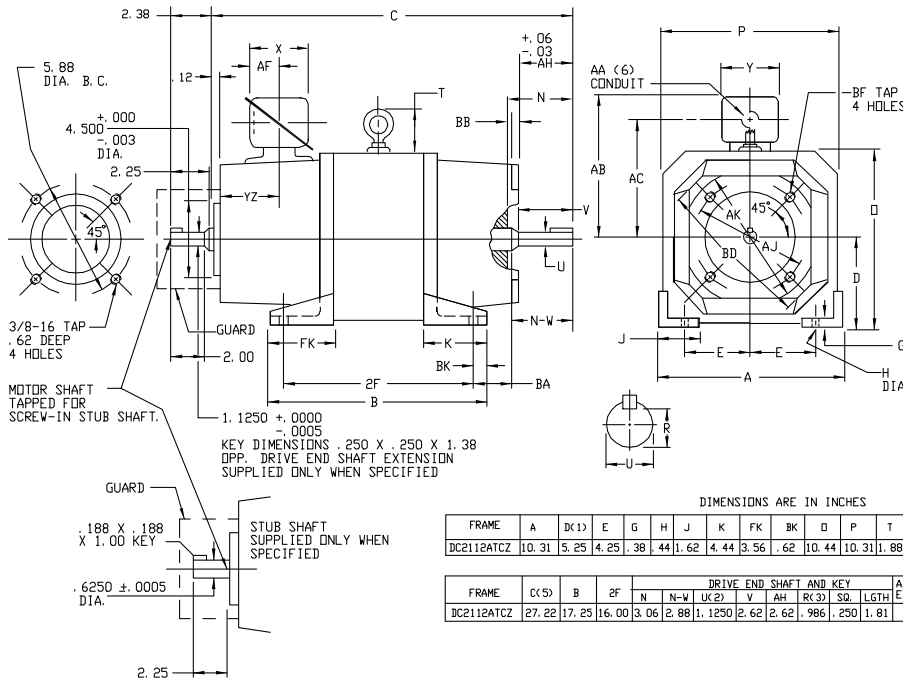
609958-001

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 RUNDOUT 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.

FRAME	A	B(1)	E	G	H	J	K	FK	BK	D	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		TERMINAL BOX DIMENSIONS					WT.				
				N	N-W	UK(2)	V	AH	RC(3)	SD	LGTH	EXT.	REF.	AA	AB	AC	AF	X	Y	YZ	LBS.
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.

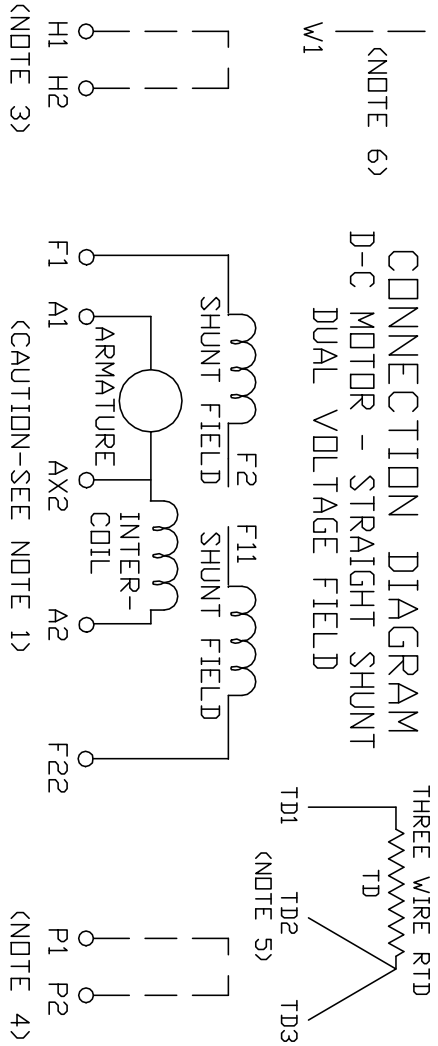
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REV. LTR: A	FILE: \RSN\00029\755	REVISD: 01:05:56 09/22/2014
MTL: -		BY: RSNDLB2

BALDOR
DIMENSION SHEET DC2112ATCZ
SH 1 of 1

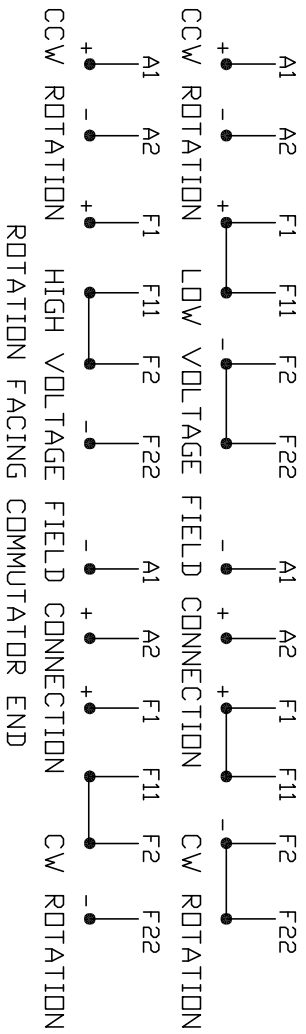
609958-001

406770-007

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



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



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 _____ ORDER NO. _____

CUSTOMER _____ RELIANCE _____

ORDER NO. _____ S.D. NO. _____

406770-007

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	BY: MGHPC
MTL: -		

BALDOR

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

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