



Customer information packet

CD1803R

DC1811ATCZ, 3HP, 1750RPM, 180, 200, TENV, F3

Specifications

Armature Voltage	180 V
Base Speed	1750 rpm
Enclosure	TENV
Field Voltage	200 V
Frame	DC1811ATCZ
Output Power	3.000 HP
Agency Approvals	CCSA US
Ambient Temperature	40 °C
Armature Current	14.1 a
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	21.69 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

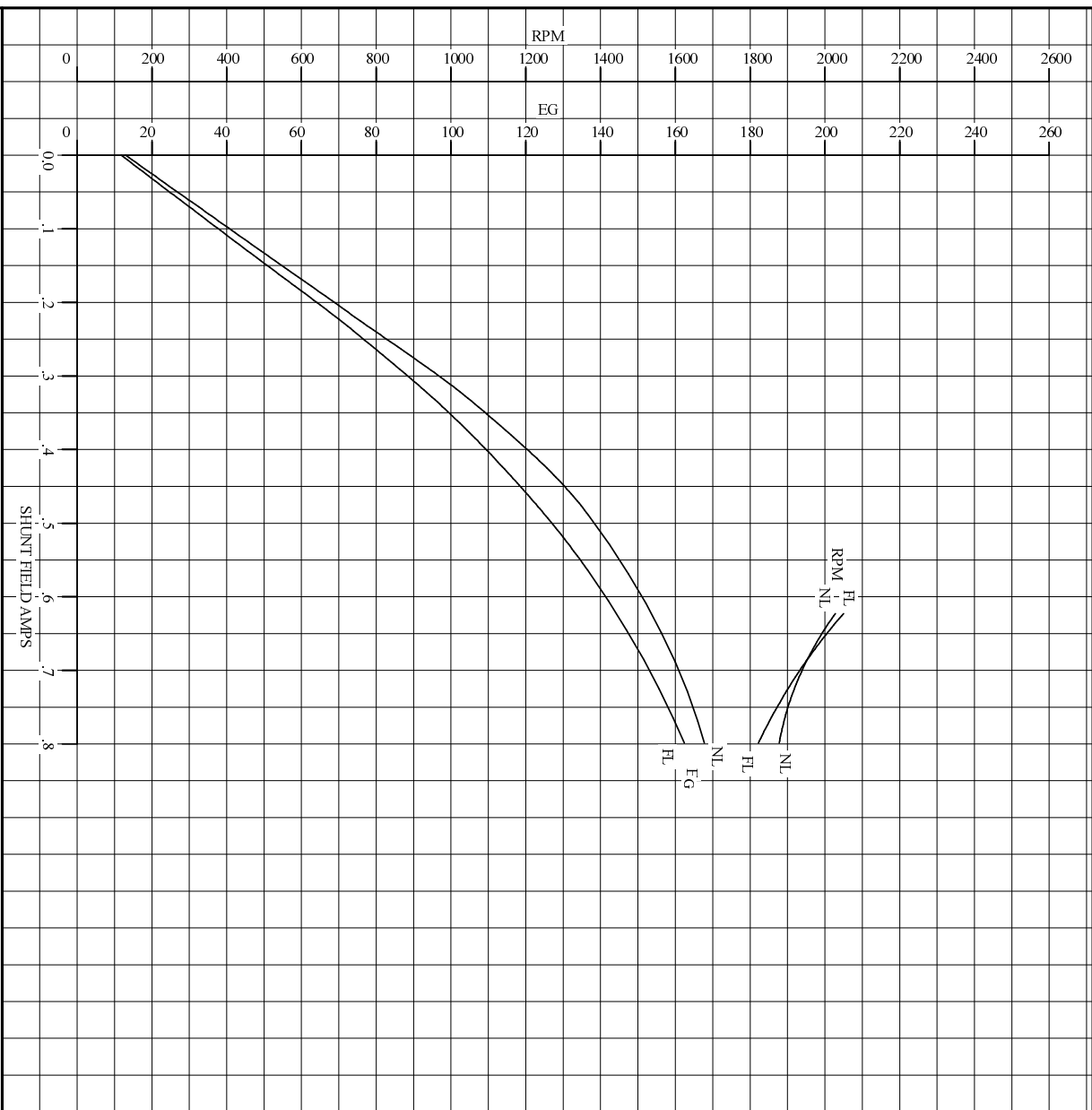
Part detail

Revision	B
Type	DC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	G4610A
Layout	609980-503
Eff. date	08-30-2024
CD Diagram	406770-007
Poles	00
Leads	
Proprietary	False
Created date	11-12-2019

Nameplate

000613006HP									
CAT.NO.	CD1803R	SPEC NO.		T18S1102					
FR	DC1811ATCZ	HP	3		DUTY		CONT		
ENCL.	TENV	RPM	1750		S.F.		1.0		
ENCL MOD		VOLTS	180		INSUL		F		
MAX SAFE SPEED	04500	AMPS	14.10		AMB.		40		
FIELD DATA		SER.NO.							
WINDING	STR. SHUNT	POWER CODE		K					
VOLTS	200/100	D.E. BRG.		30BC02JPP30A					
MAX AMPS @ 25 C	1.17	O.D.E. BRG.		30BC02JPG30A					
HOT AMPS	.80	MIN. AMB.		0		TYPE		TR	
BRUSH:419904050A					SPLASHPROOF				
FLD. DATA FOR HIGH VOLTS									

REL. S.O.		FRAME	RATING		BASE SPEED		WINDING TYPE	
		DC1811AT	3.00HP		1750		STRAIGHT SHUNT	
S.F.	ENCL.	AMB ^{OC} /INSUL	DUTY		POWER CODE/FORM FACTOR		TYPE	WK ² (LB.-FT ²)
1.0	TENV	40/F	CONT		2/2 230-60-0		TR	.7906
COOLING AIR(CFM/IN H ₂ O)		$\bar{R}$ (sec)	T_E	T_M	BASIC RPM	MAX CONT RPM	WINDER RPM	MAX. SAFE
-/-		.498	.0645	.0122	.0322	1950	2050	4500
WINDING		VOLTS		RESISTANCE		CURRENT		INDUCTANCE
				25 ^{OC}	HOT	25 ^{OC}	HOT	PER COIL
ARM CIRCUIT	180			.428	.639	-	14.1	9.48 mH
SERIES SL-S2	-			-	-	-	-	-
SHUNT FL-F2	200			171	250	1.17	.799	40.2 H



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



BALDOR
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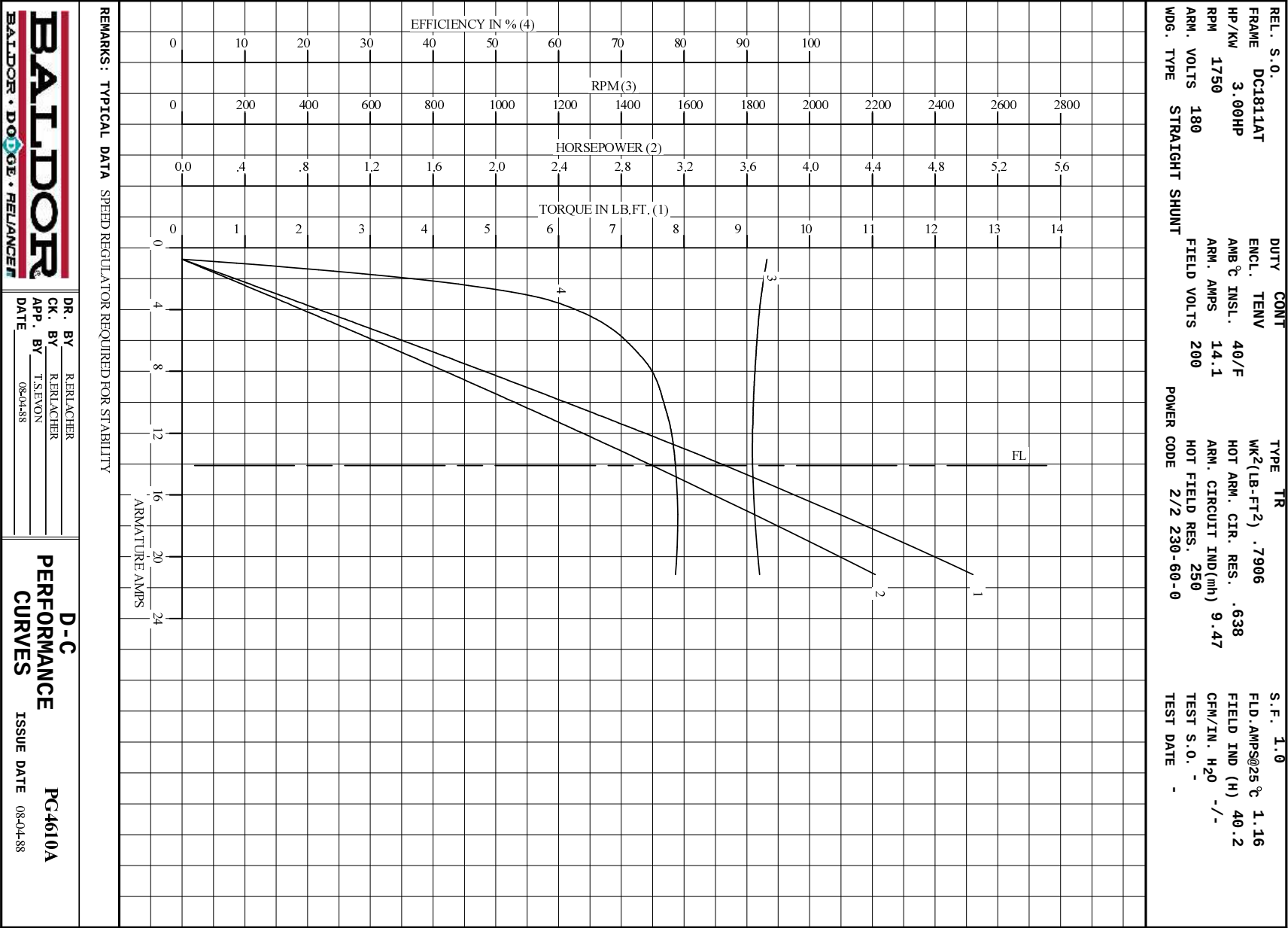
DR. BY R.ERLACHER
CK. BY R.ERLACHER
APP. BY T.SEVON
DATE 08-04-88

D-C **SC4610A**
APPLICATION
DATA **ISSUE DATE** 08-04-88

C/R

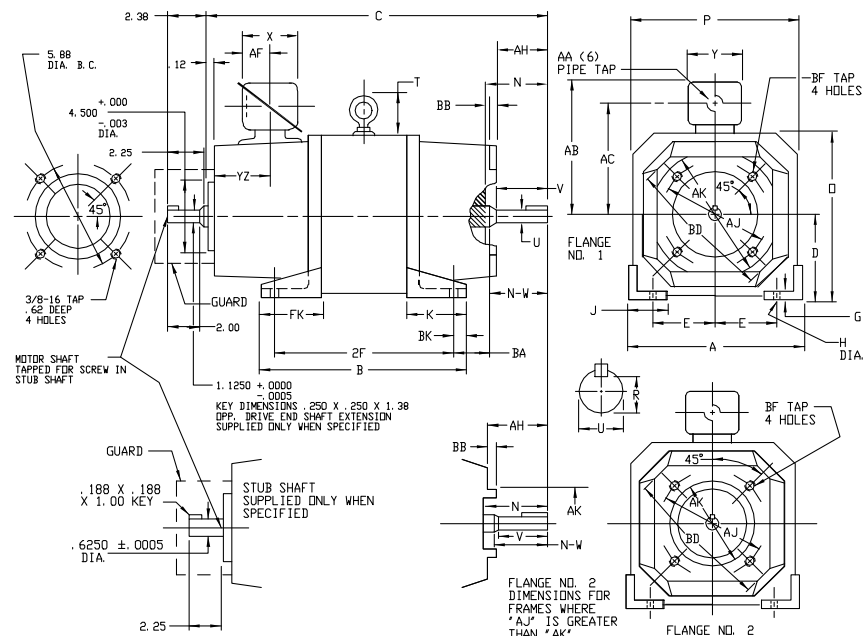
REL S. O.	FRAME	RATING	RPM	ARM. VOLTS	ARM. AMPS
	DC1811AT	3.00HP	1750	180	14.1
WINDING TYPE	S. F.	ENCL.	AMB °C/INSUL	DUTY	FIELD VOLTS
STRAIGHT SHUNT	1.0	TENV	40/F	CONT	200
POWER CODE	TYPE	WK ² (LB-FT ²)	HOT ARM.CIR.RES.	FLD. AMPS@25 °C	HOT FIELD RES
2/2 230-60-0	TR	.7906	.638	1.16	250
ARM. CIR. IND. (mH)	FIELD IND. (H)	COOLING AIR(CFM/IN H 20)	TURNS PER COIL SHUNT/SERIES	TEST DATE	
9.47	40.2	-/-	1650/.00000	-	
LOAD PERFORMANCE					
LOAD	AMPERES	TORQUE IN LB.-FT.	OUTPUT IN HP	RPM	% EFFICIENCY
NO LOAD	.75	0	0	1865	0
1/4	3.5	1.87	.656	1843	59.6
2/4	7.0	4.20	1.46	1829	73.2
3/4	11	6.48	2.24	1820	77.2
4/4	14	8.66	3.00	1818	78.6
0.L.	21	12.6	4.42	1841	78.6
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	
.798	1864	1818	167	162	
.754	1898	1867	165	158	
.710	1929	1918	161	154	
.666	1972	1979	158	149	
.622	2027	2050	154	144	
REMARKS: TYPICAL DATA MAXIMUM SAFE SPEED = 4500 RPM SPEED REGULATOR REQUIRED FOR STABILITY					
		DR. BY R. ERLACHER CK. BY R. ERLACHER APP. BY T.S.EYON DATE 08-04-88		D-C MOTOR D64610A PERFORMANCE DATA ISSUE DATE 08-04-88	

C/R -



609980-503

INDUSTRIAL DIRECT CURRENT MOTORS AND GENERATORS — RPM III
ENCLOSURE: DRIP-PROOF FULLY-GUARDED MOUNTING: FOOT, "C" FACE COOLING: SELF-VENTILATED ACCESSORIES: PROVISIONS FOR
SPLASHPROOF, TOTALLY ENCLOSED METHOD OF DRIVE: COUPLED OR BELTED NON-VENTILATED TACHOMETER MOUNTING
ONLY WHEN SPECIFIED
DC180ATY-DC180ATCZ



DIMENSIONS ARE IN INCHES

FRAME	FLANGE	A	DC1	E	G	H	J	K	FK	BK	D	P	T	BA	BB(7)	BD	BF TAP	BF TAP DEPTH	AJ	AK(4)	A.C. SHAFT EXT. REF.
DC189ATY	ND. 2	9.00	4.50	3.75	.31	.44	1.50	3.56	3.56	.50	8.88	8.75	1.88	2.75	.12	8.75	3/8-13	.62	5.88	4.500	140TC EXT.
DC189ATCZ	ND. 1	9.00	4.50	3.75	.31	.44	1.50	3.56	3.56	.50	8.88	8.75	1.88	2.75	.12	8.75	3/8-13	.62	7.25	8.500	180TC EXT.
DC1810ATY	ND. 2	9.00	4.50	3.75	.31	.44	1.50	3.56	3.56	.50	8.88	8.75	1.88	2.75	.12	8.75	3/8-16	.62	5.88	4.500	140TC EXT.
DC1810ATCZ	ND. 1	9.00	4.50	3.75	.31	.44	1.50	3.56	3.56	.50	8.88	8.75	1.88	2.75	.12	8.75	3/8-16	.62	7.25	8.500	180TC EXT.
DC1811ATY	ND. 2	9.00	4.50	3.75	.31	.44	1.50	3.56	3.56	.50	8.88	8.75	1.88	2.75	.12	8.75	3/8-16	.62	5.88	4.500	140TC EXT.
DC1811ATCZ	ND. 1	9.00	4.50	3.75	.31	.44	1.50	3.56	3.56	.50	8.88	8.75	1.88	2.75	.12	8.75	3/8-16	.62	7.25	8.500	180TC EXT.

FRAME	FLANGE	C(5)	B	2F	DRIVE END SHAFT AND KEY										TERMINAL BOX DIMENSIONS							WT. LBS.
					N	N-W	UK(2)	V	AA	R(3)	SO	LGTH	AA	AB	AC	AF	X	Y	Y7			
DC189ATY	ND. 2	18.81	11.62	10.00	2.44	2.25	.8750	2.00	2.12	.771	.188	1.38	1.00	7.30	6.11	2.19	4.38	3.75	3.25	130		
DC189ATCZ	ND. 1	19.44	11.62	10.00	3.06	2.88	1.1250	2.62	2.62	.986	.250	1.81	1.00	7.30	6.11	2.19	4.38	3.75	3.25	130		
DC1810ATY	ND. 2	19.56	12.38	11.00	2.44	2.25	.8750	2.00	2.12	.771	.188	1.38	1.00	7.30	6.11	2.19	4.38	3.75	3.25	155		
DC1810ATCZ	ND. 1	20.19	12.38	11.00	3.06	2.88	1.1250	2.62	2.62	.986	.250	1.81	1.00	7.30	6.11	2.19	4.38	3.75	3.25	155		
DC1811ATY	ND. 2	21.06	13.88	12.50	2.44	2.25	.8750	2.00	2.12	.771	.188	1.38	1.00	7.30	6.11	2.19	4.38	3.75	3.25	185		
DC1811ATCZ	ND. 1	21.69	13.88	12.50	3.06	2.88	1.1250	2.62	2.62	.986	.250	1.81	1.00	7.30	6.11	2.19	4.38	3.75	3.25	185		

- (1) "D" DIMENSION WILL NOT BE EXCEEDED. SHIMS UP TO .06 INCHES IN THICKNESS ARE USUALLY REQUIRED FOR COUPLED OR GEARED MACHINES. TOLERANCE +.00/- .06.
(2) "U" VARIES +.0000, -.0005.
(3) "R" VARIES +.000, -.015.
(4) "AK" VARIES +.000, -.003.
FACE RUNDUT AND ECCENTRICITY .004 MAX. T. I. R.

- (5) WHEN THE MOTOR APPLICATION DOES NOT REQUIRE THE USE OF DPP, 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.
(7) "BB" OF .25 IS A MINIMUM VALUE.

MOTOR WEIGHT 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: REVISE "D" DIM TOLERANCE	VERSION: 04	TDR: 000001148815
REV. LTR: D	FILE: \RGG\00030\373	REVISED: 03:18:10 09/15/2020
MTL: -	BY: RGNAS	

BALDOR - RELIANCE®

DIMENSION DRAWING, DC180ATY — DC180ATCZ, DPP, TENV, FOOT MTG.

SH 1 of 1

609980-503

406770-007

CONNECTION DIAGRAM

D-C MOTOR - STRAIGHT SHUNT

DUAL VOLTAGE FIELD

W1

<NOTE 6>

SHUNT FIELD

SHUNT FIELD

INTER-COIL

ARMATURE

H1

H2

F1

A1

AX2

A2

F22

P1

P2

<NOTE 3>

<CAUTION-SEE NOTE 1>

<NOTE 4>

THREE WIRE RTD

TD

TD1

TD2

TD3

<NOTE 5>

ARMATURE AND FIELD EXTERNAL CONNECTIONS

WARNING- SEE NOTE 7 FOR GROUNDING INSTRUCTIONS

CCW ROTATION

LOW VOLTAGE FIELD CONNECTION

CW ROTATION

CCW ROTATION

HIGH VOLTAGE FIELD CONNECTION

CW ROTATION

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.

S.D. NO.

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

BALDOR

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

SH 1 of 1

G4610A: Electrical Design

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