



Customer information packet

D1803R

3HP, 1750RPM, DC, 189ATY, DPG,

Specifications

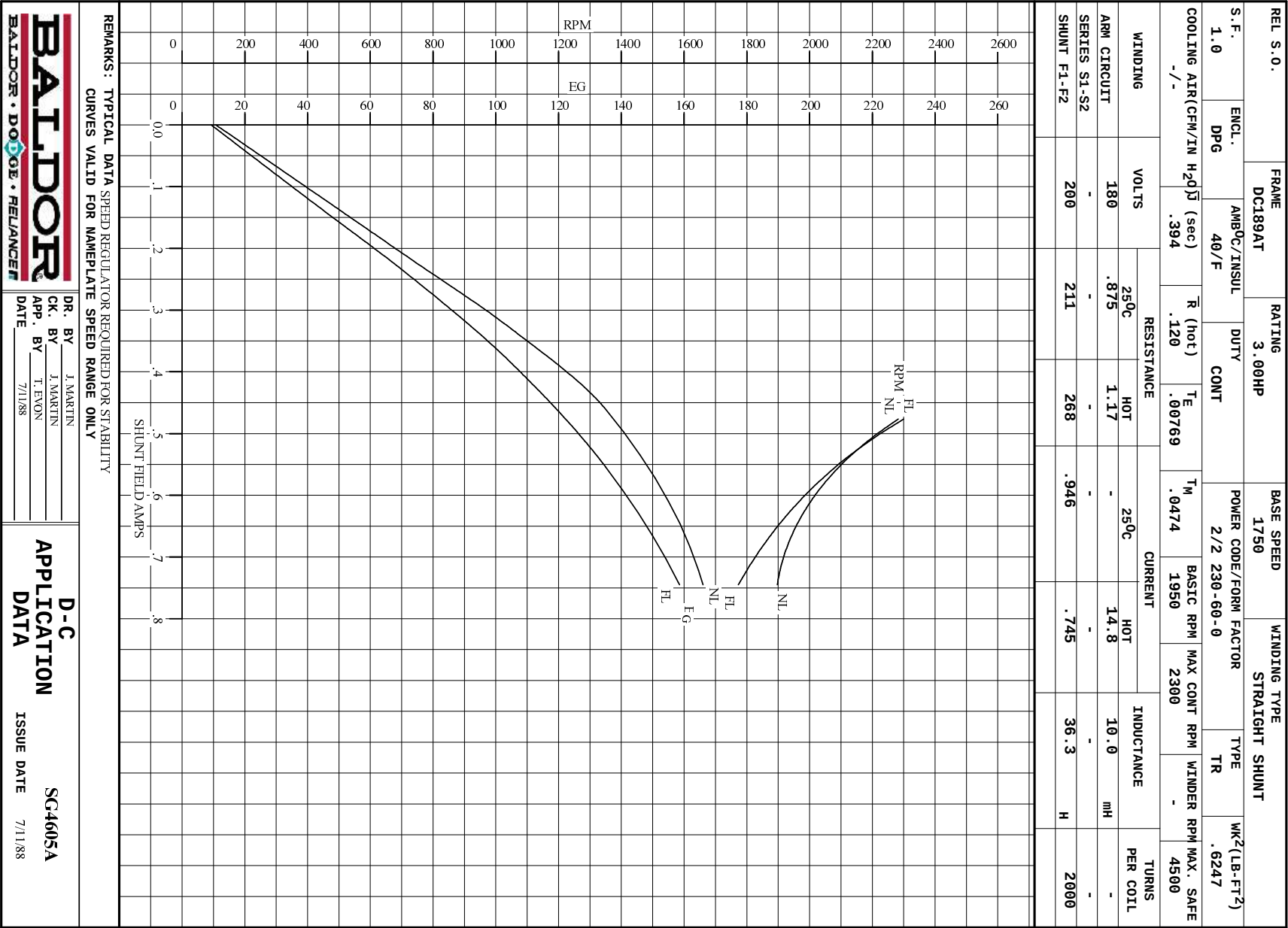
Armature Voltage	180 V
Base Speed	1750 rpm
Enclosure	DP
Frame	DC0189ATY
Output Power	3.000 HP
Agency Approvals	CCSA US
Ambient Temperature	40 °C
Armature Current	14.8 a
Drip Cover	No Drip Cover
Duty Rating	CONT
Feedback Device	NO FEEDBACK
Field Winding Type	STR. SHUNT
Frame Prefix	DC
Heater Indicator	No Heater
Insulation Class	F
Lifting Lugs	Standard Lifting Lugs
Motor Standards	NEMA
Mounting Arrangement	F3
Overall Length	21.19 IN
Service Factor	1.00
Shaft Diameter	0.875 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Slinger Indicator	No Slinger
Thermal Device - Bearing	None

Part detail

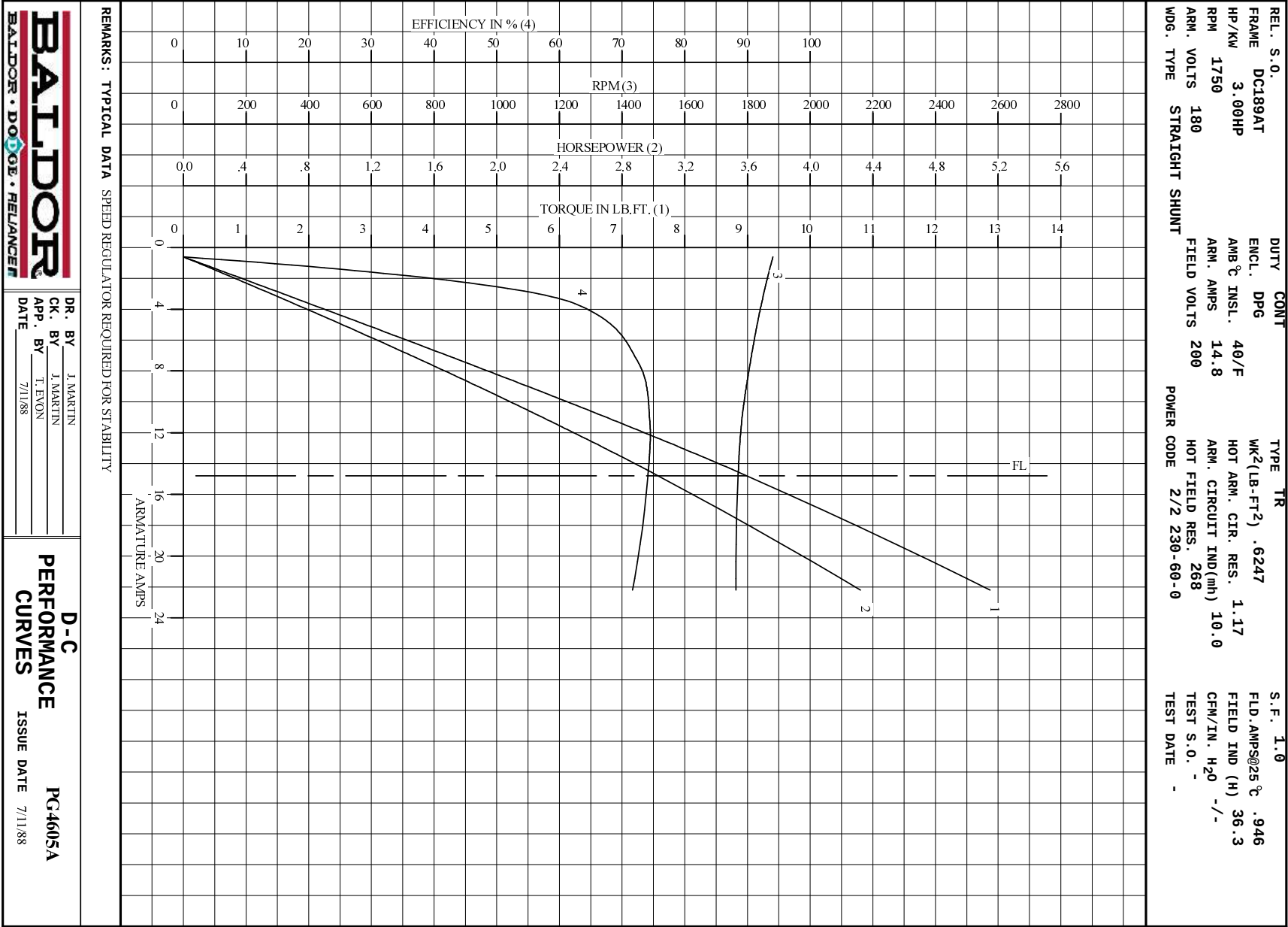
Revision	-
Type	DC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	G4605A
Layout	609980-503
Eff. date	01-06-2020
CD Diagram	406770-007
Poles	00
Leads	
Proprietary	False
Created date	12-27-2019

Nameplate

000613006HP									
CAT.NO.	D1803R	SPEC NO.		T18S1118					
FR	DC0189ATY	HP	3	DUTY		CONT			
ENCL.	DP	RPM	1750	S.F.		1.0			
ENCL MOD		VOLTS	180	INSUL		F			
MAX SAFE SPEED	04500	AMPS	14.80	AMB.		40			
FIELD DATA		SER.NO.							
WINDING	STR. SHUNT	POWER CODE		2/2-230-60-0					
VOLTS	200	D.E. BRG.		30BC02JPP30A					
MAX AMPS @ 25 C	1.90/.95	O.D.E. BRG.		30BC02JPG30A					
HOT AMPS	.73	MIN. AMB.		0		TYPE		TR	
BRUSH:419904050A									
SPLASHPROOF									

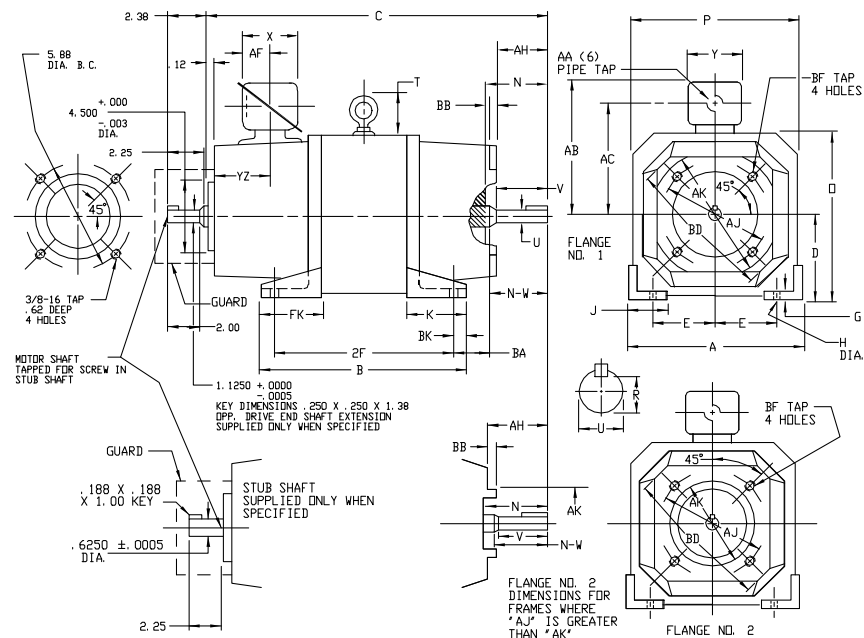


REL S. O.	FRAME	RATING	RPM	ARM. VOLTS	ARM. AMPS
	DC189AT	3.00HP	1750	180	14.8
WINDING TYPE	S. F.	ENCL.	AMB °C/INSUL	DUTY	FIELD VOLTS
STRAIGHT SHUNT	1.0	DPG	40/F	CONT	200
POWER CODE	TYPE	WK ² (LB-FT ²)	HOT ARM.CIR.RES.	FLD. AMPS@25 °C	HOT FIELD RES
2/2 230-60-0	TR	.6247	1.17	.946	268
ARM. CIR. IND. (mh)	FIELD IND. (H)	COOLING AIR(CFM/IN H 20)	TURNS PER COIL SHUNT/SERIES	TEST DATE	
10.0	36.3	-/-	2000/.00000	-	
LOAD PERFORMANCE					
LOAD	AMPERES	TORQUE IN LB.-FT.	OUTPUT IN HP	RPM	% EFFICIENCY
NO LOAD	.60	0	0	1881	0
1/4	3.7	2.06	.722	1844	62.9
2/4	7.4	4.47	1.54	1810	72.5
3/4	11	6.81	2.31	1783	74.4
4/4	15	8.99	3.03	1770	74.1
0.L.	22	12.9	4.32	1763	71.7
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	
.745	1881	1770	166	158	
.678	1932	1856	162	151	
.610	2002	1965	157	143	
.543	2114	2107	148	133	
.476	2282	2300	138	122	
REMARKS: TYPICAL DATA MAXIMUM SAFE SPEED = 4500 RPM SPEED REGULATOR REQUIRED FOR STABILITY					
		DR. BY J. MARTIN CK. BY J. MARTIN APP. BY T. EVON DATE 7/11/88		D-C MOTOR Dg4605A PERFORMANCE DATA ISSUE DATE 7/11/88	



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 TACHOMETER MOUNTING ONLY WHEN SPECIFIED SPLASHPROOF, TOTALLY ENCLOSED METHOD OF DRIVE: COUPLED OR BELTED NON-VENTILATED DC180ATY-DC180ATCZ



DIMENSIONS ARE IN INCHES

FRAME	FLANGE	A	D(1)	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.
DC181DATY	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.
DC181DATCZ	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	1/2-13	.88	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	1/2-13	.88	7.25	8.500	180TC EXT.

- (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

406770-007

CONNECTION DIAGRAM

D-C MOTOR - STRAIGHT SHUNT

DUAL VOLTAGE FIELD

W1

<NOTE 6>

TD1

TD2

TD3

TD

<NOTE 5>

H1

H2

F1

A1

AX2

A2

F22

P1

P2

SHUNT FIELD

ARMATURE

INTER-COIL

SHUNT FIELD

<NOTE 3>

<CAUTION-SEE NOTE 1>

<NOTE 4>

ARMATURE AND FIELD EXTERNAL CONNECTIONS

WARNING- SEE NOTE 7 FOR GROUNDING INSTRUCTIONS

CCW ROTATION

LOW VOLTAGE FIELD CONNECTION

CW ROTATION

A1

A2

F1

F11

F2

F22

A1

A2

F1

F11

F2

F22

CCW ROTATION

HIGH VOLTAGE FIELD CONNECTION

CW ROTATION

A1

A2

F1

F11

F2

F22

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.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

G4605A: Electrical Design

Page 8 of 8