

BALDOR® • RELIANCE

Product Information Packet

D2010R

10 1750 5 DPG C1812ATZ

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Part Detail			
Type:	DC	Prod. Type:	TR
Power Code:	D	Weight:	233
Frame Group:	C 1812ATZ	Mounting Pos.:	F1
HP:	10.	Enclosure:	DPG
RPM:	1750/2300	Wound:	STAB SHUNT
Service Factor:	1.0	Arm V:	240
Arm A:	37.00	Field V:	150
Field A:	2.13	Field A Hot:	1.51/.82
Insulation Class:	F	Ambient:	40
Duty:	CONT	DE Bearing:	40BC02J30X
ODE Bearing:	30BC02J30X	Brushes:	419904-51AC
Brush Qty.:			

609980-001

INDUSTRIAL DIRECT CURRENT MOTORS AND GENERATORS - RPM III

ENCLOSURE: DRIP-PROOF FULLY-GUARDED
SPLASHPROOF, TOTALLY ENCLOSED

MOUNTING: FOOT
METHOD OF DRIVE: COUPLED OR BELTED

COOLING: SELF-VENTILATED
NON-VENTILATED

ACCESSORIES: PROVISION FOR
TACHOMETER MOUNTING
ONLY WHEN SPECIFIED

FRAMES C180ATZ

DIMENSIONS ARE IN INCHES

FRAME	A	BK (1)	E	G	H	J	D	P	T	BA	K	FK	BK
C1811ATZ-C1812ATZ	9.00	4.50	3.75	.31	1.44	1.50	8.88	8.75	1.88	2.75	4.38	4.38	1.50

FRAME	C (8)	B	BS	2F	N	N-W	LK (2)	V	R (4)	SD	LGTH	FN	FN-FW	FUC (2)	FV	FR (4)	SD	LGTH	LBS.
C1811ATZ	23.94	14.00	11.00	12.50	3.00	2.75	1.3750	2.50	1.201	.312	1.75	2.44	2.25	1.1250	2.00	.986	2.50	1.38	175
C1812ATZ	25.44	15.50	12.50	14.00	3.00	2.75	1.3750	2.50	1.201	.312	1.75	2.44	2.25	1.1250	2.00	.986	2.50	1.38	175

FRAME	MAX AMPS	AA (5)	AB	AC	AF	X	Y	PART NUMBER	ONE SIZE LARGER PART NUMBER
C180ATZ	40	3/4 & 1"	7.31	5.75	1.94	4.38	5.00	705028-1-R	1-1/4 & 1-1/2 8.31 6.31 2.50 5.50 6.12 705029-1-R
	96	1-1/4 & 1-1/2"	8.31	6.31	2.50	5.00	6.12	705029-1-R	2" & 2-1/2" 9.44 6.69 3.19 7.00 7.62 705030-1-R

FRAME	MAX AMPS	AA (6)	AB	AC	AF	X	Y	PART NUMBER	ONE SIZE LARGER PART NUMBER
C180ATZ	18	3/4	9.38	7.38	2.50	5.00	5.75	705028-2-S	7 9.38 7.38 2.50 5.00 5.75 705028-2-T
	40	1	9.38	7.38	2.50	5.00	5.75	705028-2-T	1-1/2 10.31 7.88 3.00 6.00 7.00 705029-2-R
	96	1-1/2	10.31	7.88	3.00	6.00	7.00	705029-2-R	2 10.31 7.88 3.00 6.00 7.00 705029-2-S

3/8-16 TAP
75 DEEP
4 HOLES

4.500 +.000
-.003
DIA.

45°

5.88
DIA.
B.C.

MOTOR SHAFT
TAPPED FOR SCREW
IN STUB SHAFT

2.25

.188 X .188
X 1.00 KEY

.6250 ±.0005
DIA.
STUB SHAFT SUPPLIED
ONLY WHEN SPECIFIED

GUARD

AA SEE NOTE (3)

H DIA.

(1) 'B' DIMENSION WILL NOT BE EXCEEDED. SHIMS UP TO .03 INCHES IN THICKNESS ARE USUALLY REQUIRED FOR COUPLED OR GEARED MACHINES.

(2) 'U' AND 'FU' VARY +.0000 - .0005

(3) TERMINAL BOX CAN BE ROTATED FOR LEAD OUTLET AT TOP, SIDES OR BOTTOM.

(4) 'R' AND 'FR' VARY +.000, -.015

(5) AA CONDUIT, TERMINAL BOX PROVIDED WITH DOUBLE KNOCKOUT.

(6) AA PIPE TAP

(7) OPPOSITE DRIVE END SHAFT SUPPLIED ONLY WHEN SPECIFIED.

(8) WHEN THE MOTOR APPLICATION DOES NOT REQUIRE THE USE OF OPP. DRIVE END, ADD .25 TO 'C' DIM. FOR BRACKET COVER.

TERMINAL BOX LOCATED ON OPPOSITE SIDE WHEN F-2, W-1, W-4, W-5, W-7 OR C-1 MOUNTING IS SPECIFIED. BOX LOCATED ON TOP WHEN SPECIFIED.

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

IF MOUNTING CLEARANCE DETAILS ARE REQUIRED, CONSULT FACTORY.

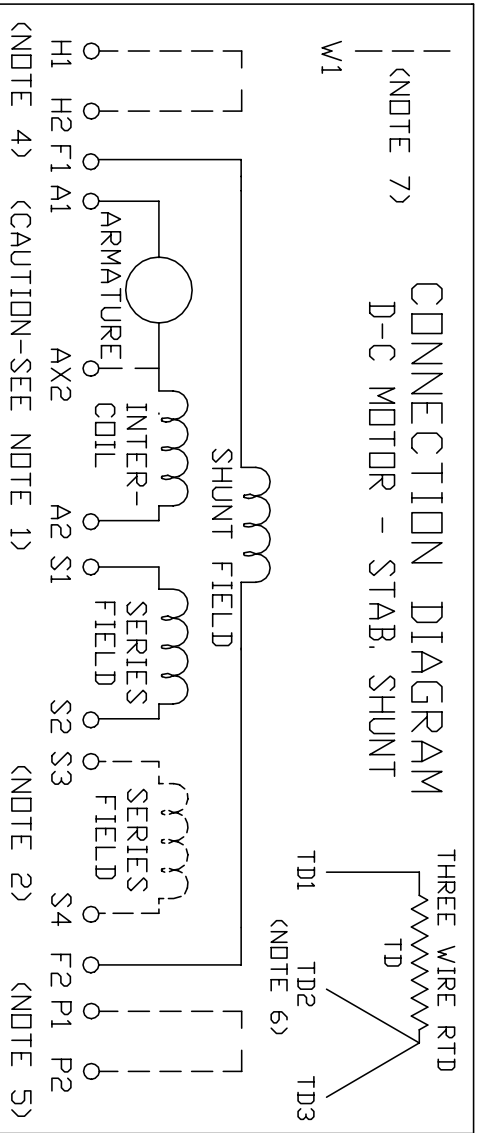
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION.

REV. DESC: LOADED TO BUS	VERSION: 00	TDR: 000000577407
REV. LTR: -	REVISED: 01:47:13 01/26/2011	BY: CONNAS
MTL: -		

DIMENSION DRAWING, C180ATZ, DPP, TENV, FOOT MTG.

SH 1 of 1

100-066600



ARMATURE AND FIELD EXTERNAL CONNECTIONS
WARNING- SEE NOTE 8 FOR GROUNDING INSTRUCTIONS



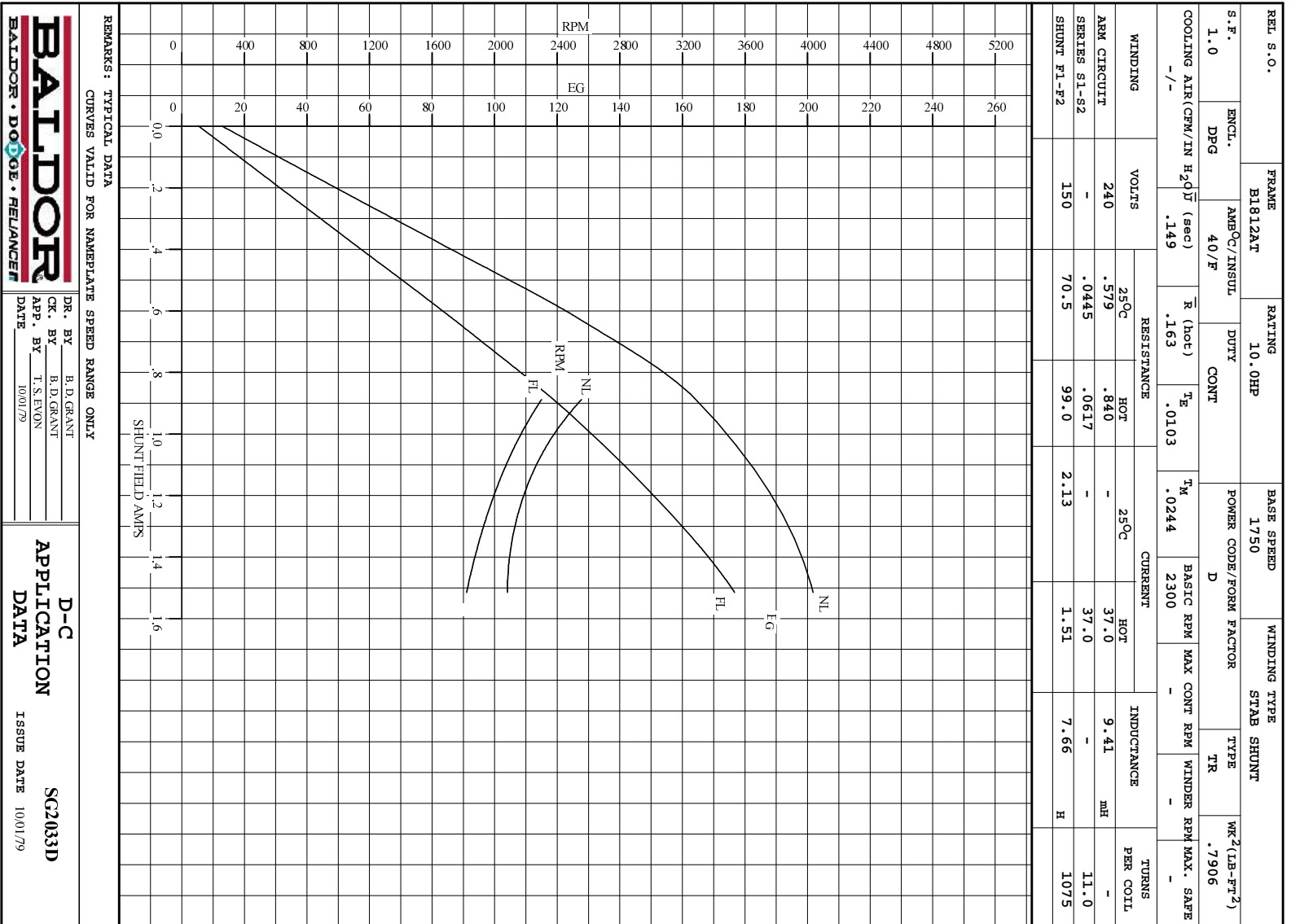
ROTATION FACING COMMUTATOR END

1. **CAUTION** — ARMATURE AND SERIES FIELD MAY HAVE MULTIPLE LEADS. CONNECT ALL LUGS WITH THE SAME MARKING TOGETHER.
2. OPTIONAL SERIES FIELD IS MARKED S3 AND S4. FOR CUMULATIVE SERIES FIELD, CONNECT S3 TO S2 AND CONNECT S4 TO NEGATIVE. FOR DIFFERENTIAL SERIES FIELD CONNECT S4 TO S2 AND S3 TO NEGATIVE.
3. OPTIONAL CONTROL SIGNAL LEAD IS MARKED AX2. ALWAYS TAKE INTERPOLE DROP BETWEEN A2 AND AX2. NOTE: NEMA DESIGNATION FOR AX2 IS LETTER C.
4. SPACE HEATERS, WHEN PROVIDED, WILL HAVE LEADS MARKED H1 AND H2, H3, H4, ETC.
5. THERMAL PROTECTOR, WHEN PROVIDED, WILL HAVE LEADS MARKED P1 AND P2, P3, P4, ETC.
6. WINDING RTDS, WHEN PROVIDED, WILL HAVE LEADS MARKED TD1, TD2, & TD3
7. BRUSH WEAR SENSOR, WHEN PROVIDED, WILL HAVE LEAD MARKED W1.
8. **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. _____

<p>RELIANCE ELECTRIC CLEVELAND, OHIO 44117 U.S.A.</p>	<p>Rev. by <u>N.L. EVANS</u> Chk. by <u>N. JESCHKE</u> App. by <u>E. J. HINER</u> DATE <u>5-5-69</u></p>
<p>CONNECTION DIAGRAM</p>	<p>406770-1</p>
<p>ORIGINAL AT RCC</p>	

C/R 290048, 354478, 354480




REL. S.O.	FRAME	RATING	RPM	ARM. VOLTS	ARM. AMPS
	B1812AT	10.0HP	1750	240	37.0
WINDING TYPE		S.F.	ENCL.	AMB °C/INSUL	DUTY
STAB. SHUNT		1.0	DRG	40/F	CONT
					150
POWER CODE	TYPE	WK ² (LB-FT ²)	HOT ARM. CIR. RES.	FLD. AMPS@25 °C	HOT FIELD RES
D	TR	.7906	.839	2.12	99.0

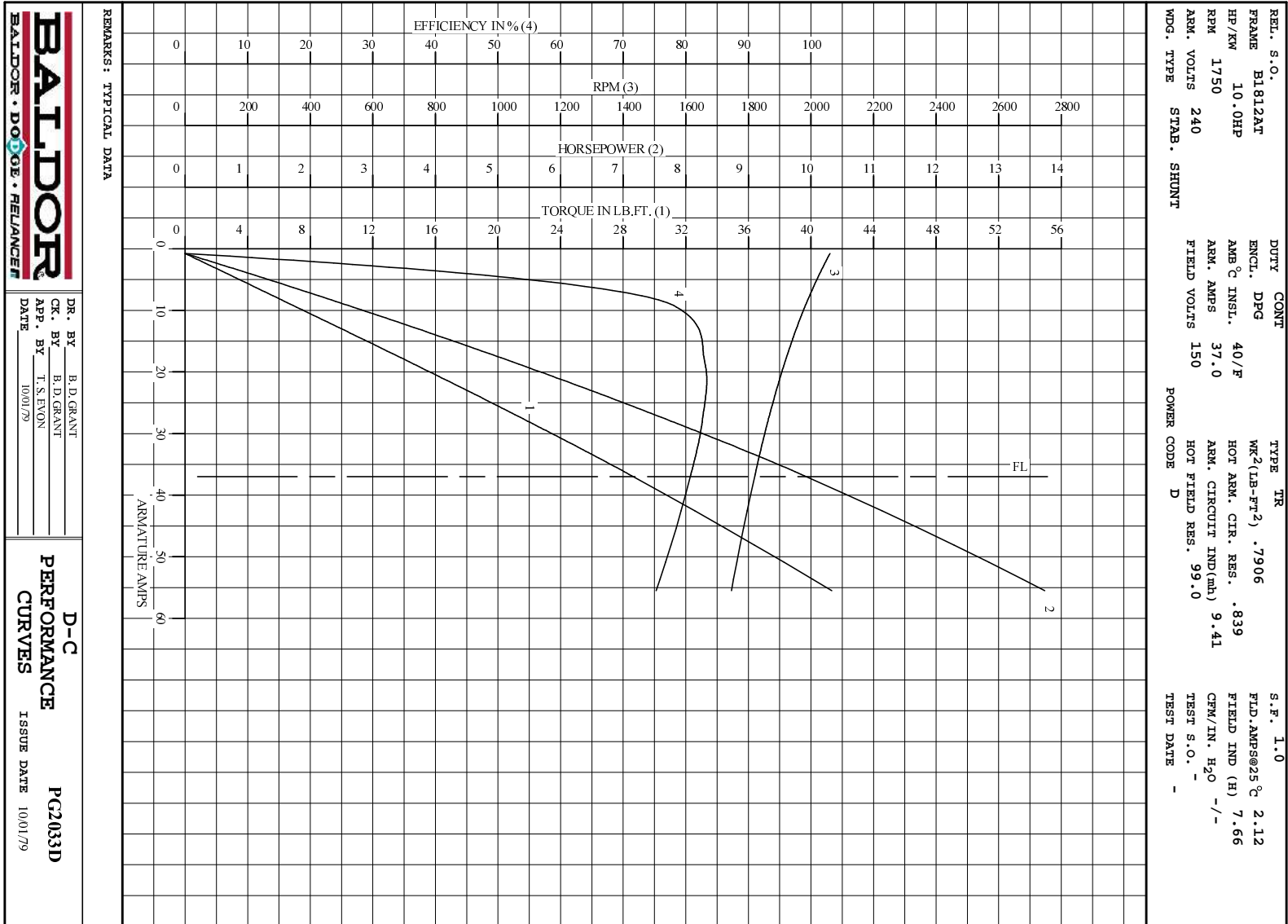
ARM. CIR. IND. (mh)	FIELD IND. (H)	COOLING AIR(CFM/IN H 20)	TURNS PER COIL SHUNT/SERIES	TEST DATE
9.41	7.66	-/-	1075/11	-

LOAD PERFORMANCE					
LOAD	AMPERES	TORQUE IN LB.-FT.	OUTPUT IN HP	RPM	% EFFICIENCY
NO LOAD	.76	0	0	2061	0
1/4	9.2	6.94	2.62	1982	78.1
2/4	19	14.4	5.27	1916	83.1
3/4	28	21.7	7.71	1864	82.7
4/4	37	28.7	9.93	1820	80.7
O.L.	56	41.3	13.7	1746	75.3

RPM VS. FIELD AMPS			Eg VS. FIELD AMPS		
FIELD AMPS	RPM N.L.L.	RPM F.L.L.	Eg N.L.L. @ BASE SPEED	Eg F.L.L. @ BASE SPEED	
1.51	2060	1820	201	176	
1.35	2106	1895	198	164	
1.20	2184	1994	191	151	
1.04	2325	2123	180	135	
.887	2554	2300	164	118	

REMARKS: TYPICAL DATA

	DR. BY B. D. GRANT	D-C MOTOR PERFORMANCE DATA DG2033D ISSUE DATE 10/01/79
	CK. BY B. D. GRANT APP. BY T. S. EVON DATE 10/01/79	



DR. BY B.D. GRANT
CK. BY B.D. GRANT
APP. BY T.S. EVON
DATE 10/01/79

D-C
PERFORMANCE
CURVES ISSUE DATE 10/01/79
PC2033D