

BALDOR® • *RELIANCE*

Product Information Packet

D5010R

10 1750 C1812ATZ DPG

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Part Detail			
Type:	DC	Prod. Type:	TR
Power Code:	D	Weight:	227
Frame Group:	C 1812ATZ	Mounting Pos.:	F1
HP:	10	Enclosure:	DPG
RPM:	1750/2300	Wound:	STAB SHUNT
Service Factor:	1.0	Arm V:	500
Arm A:	17.40	Field V:	300
Field A:	1.09	Field A Hot:	.77/.41
Insulation Class:	F	Ambient:	40
Duty:	CONT	DE Bearing:	40BC02J30X
ODE Bearing:	30BC02J30X	Brushes:	419904-51G
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

100-066600

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

DIMENSIONS ARE IN INCHES

FRAME	A	B(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

STEEL TERMINAL BOX DIMENSIONS															
FRAME	MAX AMPS	STANDARD SIZE	PART NUMBER			ONE SIZE LARGER				PART NUMBER					
	AA(5)	AB	AC	AF	X	Y	AA(5)	AB	AC	AF	X	Y	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

CAST IRON TERMINAL BOX DIMENSIONS															
FRAME	MAX AMPS	STANDARD SIZE	PART NUMBER			ONE SIZE LARGER				PART NUMBER					
	AA(6)	AB	AC	AF	X	Y	AA(6)	AB	AC	AF	X	Y	NUMBER		
C180ATZ	18	3/4	9.38	7.38	2.50	5.00	5.75	705028-2-S	1	9.38	7.38	2.50	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

(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 +.0000 - .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.

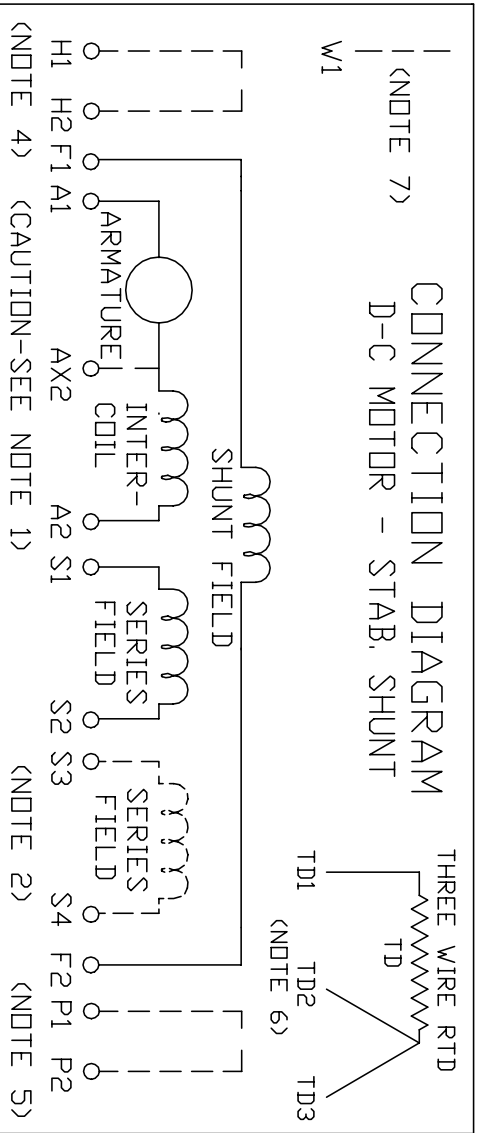
MOTOR WEIGHT MAY VARY 15% FOR NON-STANDARD RATINGS AND/OR ACCESSORIES.

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



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



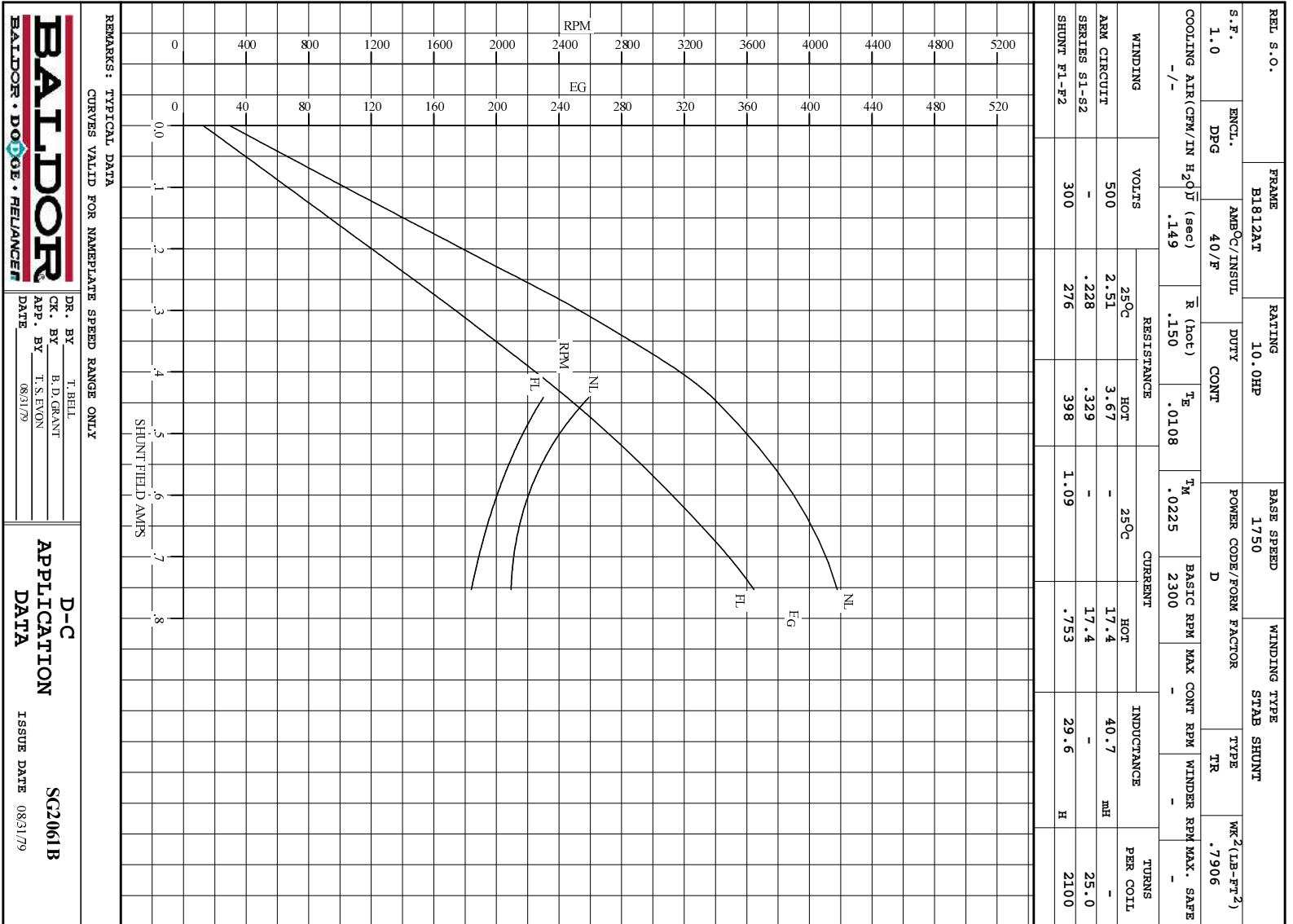
ROTATION FACING COMMUTATOR END

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> Ck. 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	500	17.4
WINDING TYPE		S.F.	ENCL.	AMB °C/INSUL	DUTY
STAB. SHUNT		1.0	DRG	40/F	CONT
					300
POWER CODE	TYPE	WK ² (LB-FT ²)	HOT ARM.CIR.RES.	FLD. AMPS@25 °C	HOT FIELD RES
D	TR	.7906	3.66	1.08	398

ARM. CIR. IND. (mh)	FIELD IND. (H)	COOLING AIR(CFM/IN H 20)	TURNS PER COIL SHUNT/SERIES	TEST DATE
40.7	29.6	-/-	2100/25	-

LOAD PERFORMANCE					
LOAD	AMPERES	TORQUE IN LB.-FT.	OUTPUT IN HP	RPM	% EFFICIENCY
NO LOAD	.38	0	0	2078	0
1/4	4.3	6.74	2.57	2000	78.3
2/4	8.7	14.1	5.19	1935	83.6
3/4	13	21.2	7.60	1883	83.4
4/4	17	28.1	9.82	1838	81.6
O.L.	26	40.7	13.7	1762	76.5

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	
.753	2078	1838	417	364	
.675	2125	1912	409	340	
.597	2208	2007	394	312	
.519	2355	2132	370	280	
.441	2591	2300	337	244	

REMARKS: TYPICAL DATA

	DR. BY T. BELT	D-C MOTOR PERFORMANCE DATA DG2061B ISSUE DATE 08/31/79
	CK. BY B. D. GRANT	
	APP. BY T. S. EVON DATE 08/31/79	

