

BALDOR® • RELIANCE

Product Information Packet

D2505R

5HP,1750RPM,DC,1812ATY,TEFC,

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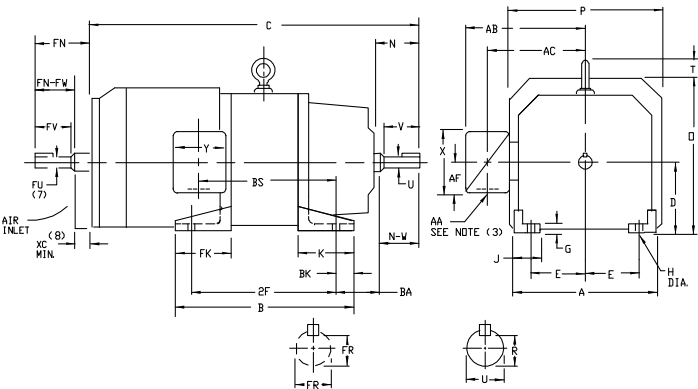
Part Detail			
Type:	DC	Prod. Type:	TR
Power Code:	D-50/60	Weight:	251
Frame Group:	C 1812ATZ	Mounting Pos.:	F1
HP:	5	Enclosure:	TEFC
RPM:	1750/2300	Wound:	STAB SHUNT
Service Factor:	1.0	Arm V:	240
Arm A:	18.50	Field V:	150
Field A:	1.80	Field A Hot:	1.27/.56
Insulation Class:	F	Ambient:	40
Duty:	CONT	DE Bearing:	40BC02J30X
ODE Bearing:	30BC02J30X	Brushes:	419904-51AB
Brush Qty.:			

609981-001

INDUSTRIAL DIRECT CURRENT MOTORS
AND GENERATORS — RPM III

ENCLOSURE: TOTALLY ENCLOSED
MOUNTING: FOOT
METHOD OF DRIVE: COUPLED OR BELTED
COOLING: FAN COOLED

FRAMES C180ATZ



DIMENSIONS ARE IN INCHES																
FRAME	A	BC(1)	E	G	H	J	D	P	T	BA	K	FK	BK	XC(8)		
C181ATZ-C1812ATZ	9.00	4.50	3.75	.31	.44	1.50	9.50	10.00	1.88	2.75	4.38	4.38	.50	1.00		

DRIVE END SHAFT AND KEY														OPPOSITE DRIVE END SHAFT AND KEY (7)				WT.
FRAME	C	B	BS	2F	N	N-W	UX(2)	V	IR(4)	SD	LGTH	FW	FR-FV	FK(4)	SD	LGTH	LBS.	
C181ATZ	27.31	14.00	11.00	12.50	3.00	2.75	1.3750	2.50	1.201	.312	1.75	3.25	2.25	1.1250	2.00	.986	1.250	1.38 200
C1812ATZ	28.81	15.50	12.50	14.00	3.00	2.75	1.3750	2.50	1.201	.312	1.75	3.25	2.25	1.1250	2.00	.986	1.250	1.38 235

STEEL TERMINAL BOX DIMENSIONS														ONE SIZE LARGER				PART
FRAME	MAX. AMPS	AA(5)	AB	AC	AF	X	Y	PART NUMBER		AA(5)	AB	AC	AF	X	Y	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	5.50	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														ONE SIZE LARGER				PART
FRAME	MAX. AMPS	AA(6)	AB	AC	AF	X	Y	PART NUMBER		AA(6)	AB	AC	AF	X	Y	PART 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	5.00	5.75	705028-2-T		
	40	1	9.38	7.38	2.50	5.00	5.75	705029-2-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 - .0003
(3) TERMINAL BOX CAN BE ROTATED FOR LEAD OUTLET AT TOP, SIDES OR BOTTOM.
FOR "KVP" TERMINAL BOX DIMENSIONS SEE 609989-1.
FOR "MVP" TERMINAL BOX DIMENSIONS SEE 609989-2.
(4) "R" AND "FR" VARY +.000 - .015
(5) AA CIRCUIT TERMINAL BOX PROVIDED WITH DOUBLE KNOCKOUT.
(6) AA PIPE TAP
(7) OPPOSITE DRIVE END SHAFT SUPPLIED ONLY WHEN SPECIFIED.
- (8) WALLS OR OBSTRUCTIONS MUST NOT ENCRDACH ON AIR INLET SPACE "XC".
TERMINAL BOX LOCATED ON OPPOSITE SIDE WHEN F-2, V-1, W-4, V-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.

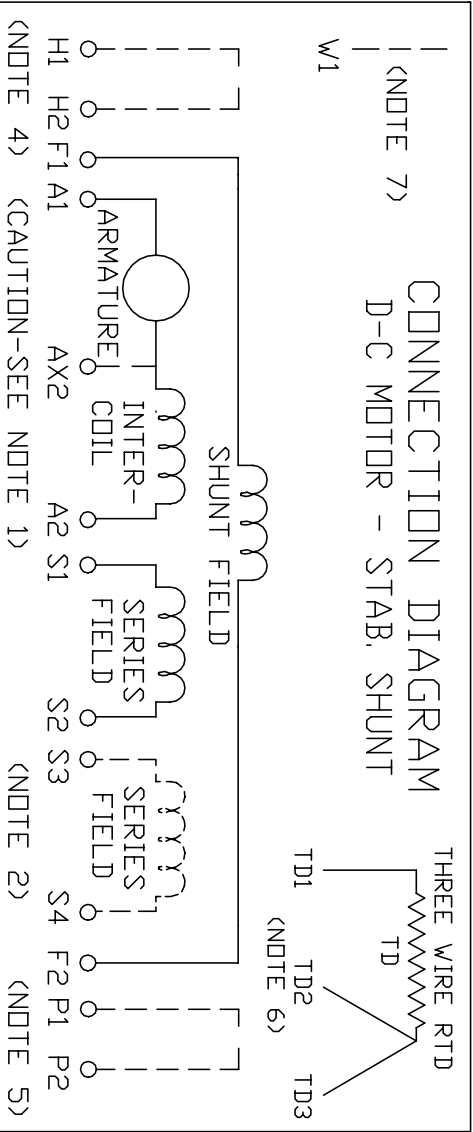
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION.

REV. DESC: LOADED TO BUS	VERSION: 00	TDR: 000000577407
REV. LTR: —	REVISD: 02:46:24 01/26/2011	BY: CONNAS
MTL: —		

BALDOR

DIMENSION DRAWING, C180ATZ, TEFC, FOOT MTG.
SH 1 of 1

100-186609



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



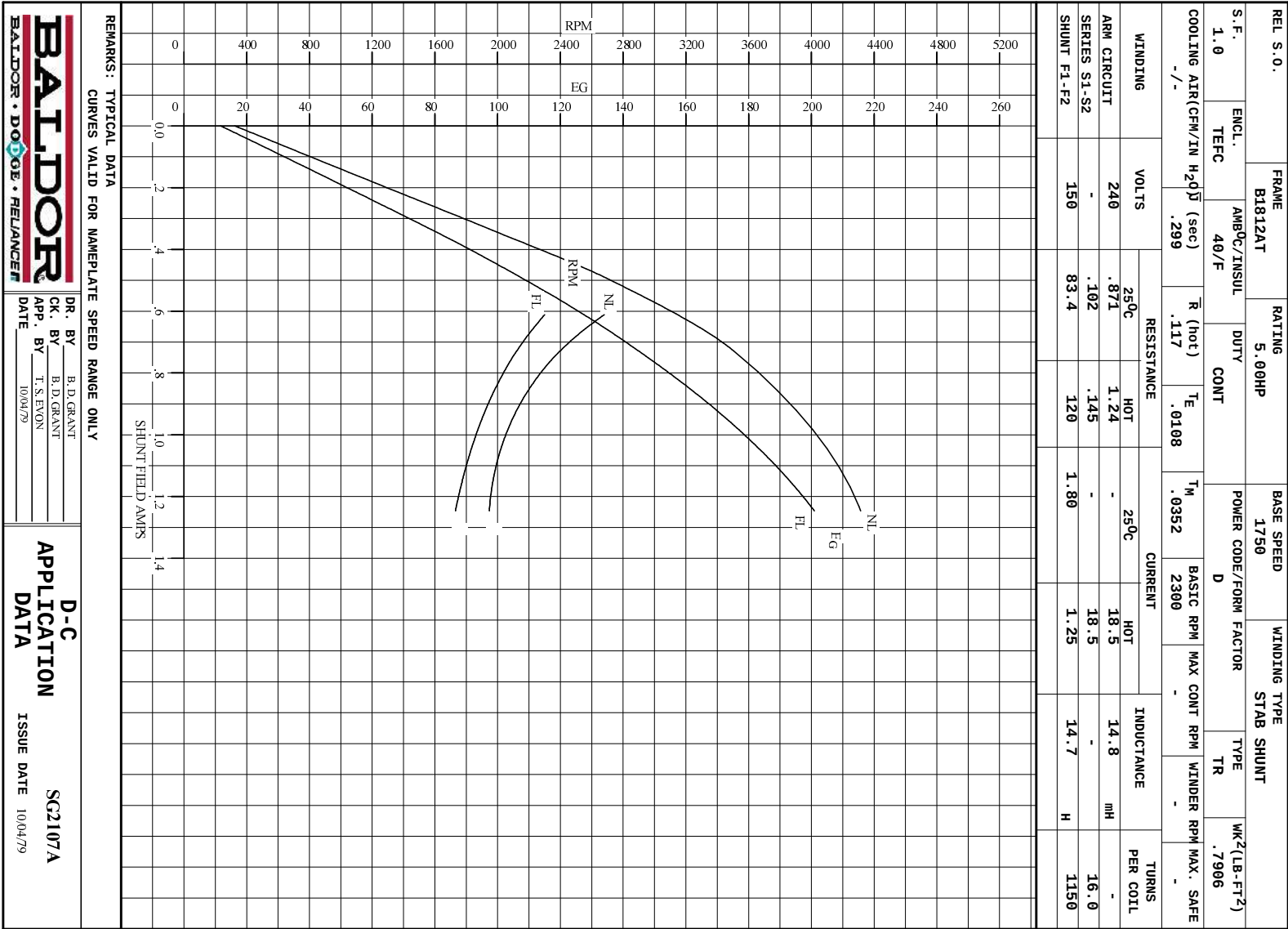
ROTATION FACING COMMUTATOR END

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 _____
ORDER NO. _____
S.D. NO. _____

RELIANCE ELECTRIC CLEVELAND, OHIO 44117 U.S.A.	DR. BY <u>N.L. EVANS</u>	CONNECTION DIAGRAM 406770-1 ORIGINAL AT RCC
	CHK. BY <u>N. JESCHKE</u> APP. BY <u>E. J. HINER</u> DATE <u>5-5-69</u>	

C/R 290048, 354478, 354480



REL S. O.	FRAME	RATING	RPM	ARM. VOLTS	ARM. AMPS
	B1812AT	5.00HP	1750	240	18.5
WINDING TYPE					
	S. F.	ENCL.	AMB °C/INSUL	DUTY	FIELD VOLTS
STAB. SHUNT	1.0	TEFC	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	1.23	1.79	120
ARM. CIR. IND. (mh)					
	FIELD IND. (H)	COOLING AIR(CFM/IN H 20)		TURNS PER COIL SHUNT/SERIES	
14.7	14.6	-/-		1150/16	
LOAD PERFORMANCE					
LOAD	AMPERES	TORQUE IN LB.-FT.	OUTPUT IN HP	RPM	% EFFICIENCY
NO LOAD	.99	0	0	1930	0
1/4	4.6	3.20	1.14	1873	64.3
2/4	9.2	7.26	2.52	1820	76.6
3/4	14	11.3	3.81	1773	79.9
4/4	19	15.2	5.02	1730	80.3
0.L.	28	22.7	7.20	1663	78.0
RPM VS. FIELD AMPS					
FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED	
1.24	1929	1729	215	200	
1.08	1995	1807	207	187	
.929	2113	1915	196	170	
.770	2322	2070	180	150	
.611	2679	2300	157	127	
REMARKS: TYPICAL DATA					

		DR. BY B. D. GRANT CK. BY B. D. GRANT APP. BY T. S. EVON DATE 10/04/79	D-C MOTOR PERFORMANCE DATA D62107A ISSUE DATE 10/04/79
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