



Customer information packet

CD1805R

5HP, 1750RPM, DC, 1810ATCZ, DPG,

Specifications

Armature Voltage	180 V
Base Speed	1750 rpm
Enclosure	DP
Field Voltage	200 V
Frame	DC1810ATCZ
Output Power	5.000 HP
Agency Approvals	CCSA US
Ambient Temperature	40 °C
Armature Current	24.0 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	21.94 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	-
Type	DC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	G4611A
Layout	609980-503
Eff. date	12-13-2019
CD Diagram	406770-007
Poles	00
Leads	
Proprietary	False
Created date	12-12-2019

Nameplate

000613006HP									
CAT.NO.	CD1805R	SPEC NO.		T18S1105					
FR	DC1810ATCZ	HP	5		DUTY		CONT		
ENCL.	DP	RPM	1750		S.F.		1.0		
ENCL MOD	GUARDED	VOLTS		180		INSUL		F	
MAX SAFE SPEED	04500	AMPS	24.00		AMB.		40		
FIELD DATA		SER.NO.							
WINDING	STR. SHUNT	POWER CODE		2/2-230-60-0					
VOLTS	200/100	D.E. BRG.		30BC02JPP30A					
MAX AMPS @ 25 C	1.68	O.D.E. BRG.		30BC02JPG30A					
HOT AMPS	1.30	MIN. AMB.		0		TYPE		TR	
BRUSH:419904050A									
FLD. DATA FOR HIGH VOLTS									

REL. S.O.	FRAME	RATING	RPM	ARM. VOLTS	ARM. AMPS
	DC1810ATZ	5,00HP	1750	180	24.0
WINDING TYPE	S.F.	ENCL.	AMB°C/INSUL	DUTY	FIELD VOLTS
STRAIGHT SHUNT	1.0	DPG	40/F	CONT	200
POWER CODE	TYPE	WK(LB-FT ³)	HOT ARM. CIR. RES.	FLD. AMPS@25°C	HOT FIELD RES
2/2 230-60-0	TR	.6800	.591	1.67	153
ARM. CIR. IND. (mH)	FIELD IND. (H)	COOLING AIR (CFM/IN H ₂ O)	TURNS PER COIL SHUNT/SERIES	TEST DATE	
8.76	14.1	-/-	1600/0		-
LOAD PERFORMANCE					
LOAD	AMPERES	TORQUE IN LB.-FT.	OUTPUT IN HP	RPM	PERCENT EFFICIENCY
NO LOAD	.77	0	0	1950	0
1/4	6.0	3.34	1.22	1921	65.6
2/4	12	7.13	2.56	1887	75.3
3/4	18	10.8	3.83	1860	77.5
4/4	24	14.4	5.03	1841	77.7
O.L.	36	20.6	7.22	1836	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	
1.30	1950	1840	160	155	
1.21	1960	1870	156	152	
1.13	1970	1920	153	148	
1.05	1990	1970	149	144	
.977	2030	2050	146	139	
REMARKS: TYPICAL DATA MAXIMUM SAFE SPEED = 4500 RPM					
		DRAWN BY: R.ERLACHER CHECKED BY: R.ERLACHER APPROVED BY: T.SEYON DATE: 08-05-88		DC MOTOR PERFORMANCE DATA	DC4611A
				DATE ISSUED 03-10-92	

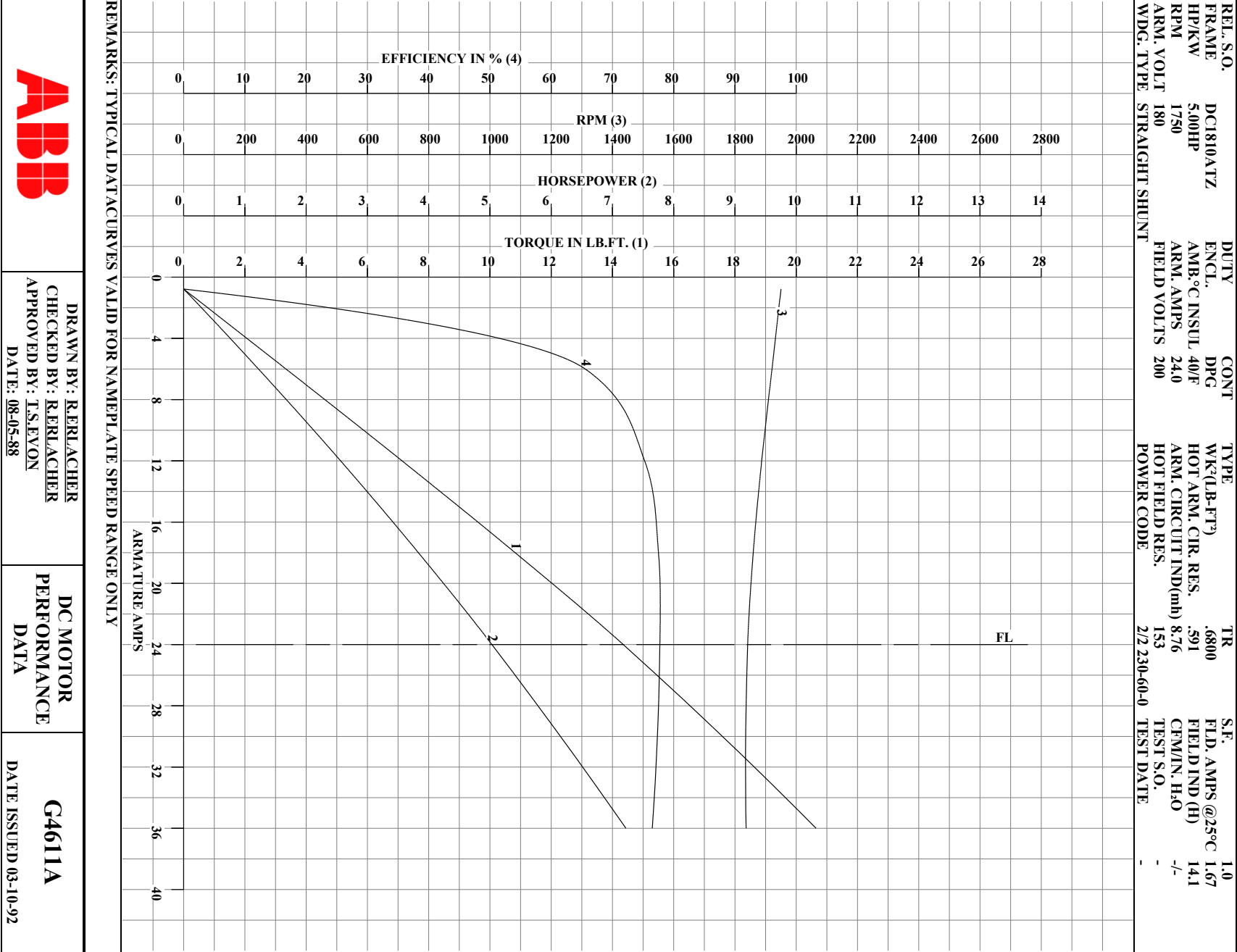
USBAGRA

Printed on 11/23/2020 1:17 PM

REL.S.O.		FRAME		RATING		BASE SPEED		WINDING TYPE	
		DC1810ATZ		5,00HP		1750		STRAIGHT SHUNT	
S.F.	ENCL.	AMB°C/INSUL		DUTY		POWER CODE/FORM FACTOR		TYPE	
1.0	DPG	40/F		CONT		2/2 230-60-0		TR	
WK²(LB-FT²) .6800									
COOLING AIR (CFM/IN H₂O)									
J(sec)		R (ho)		T E		T M		BASIC RPM	
.257		.102		.0125		.0264		1950	
								MAX CONT	
								WINDER RPM	
								MAX. SAFE SPEED	
								4500	

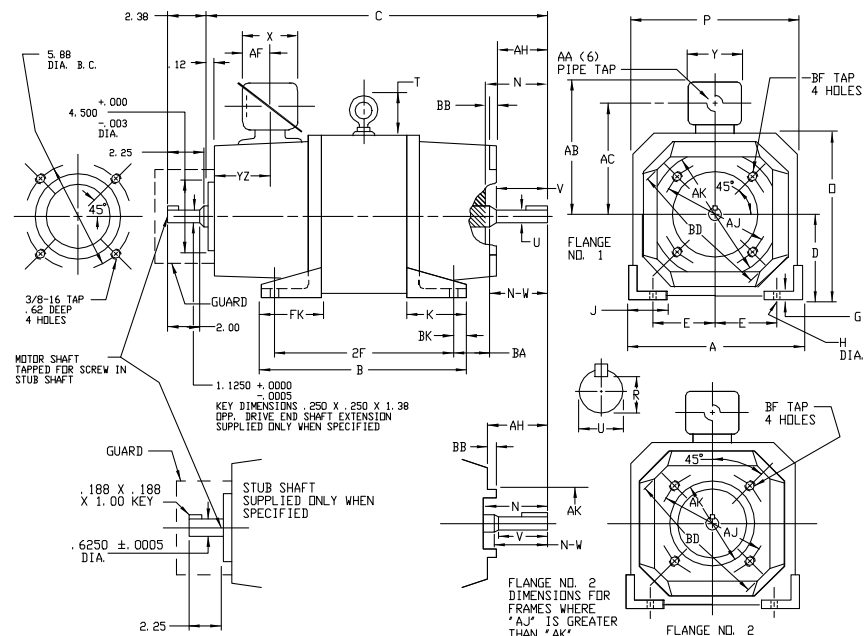
USBAGRA

Printed on 11/23/2020 1:17 PM



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	3/8-16	.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	3/8-16	.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	N	N-W	UK(2)	Y	AH	R(3)	SD	LGTH	AA	AB	AC	AF	X	Y	YZ	WT. LBS.
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 $\pm$.00/.06.
- (2) "U" VARIES $\pm$.0000, $\pm$.0005.
- (3) "R" VARIES $\pm$.000, $\pm$.015.
- (4) "AK" VARIES $\pm$.000, $\pm$.003.
- FACE RUNDUT AND ECCENTRICITY .004 MAX. T. I. R.

- (5) WHEN THE MOTOR APPLICATION DOES NOT REQUIRE THE USE OF DPG, 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, DPG, 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>

THREE WIRE RTD

TD1

TD2

TD3

<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

A1

A2

F1

F11

F2

F22

CCW ROTATION

HIGH VOLTAGE FIELD CONNECTION

CW ROTATION

A1

A2

F1

F11

F2

F22

A1

A2

F1

F11

F2

F22

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

G4611A: Electrical Design

Page 8 of 8