

ABB BALDOR RELIANCE III

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

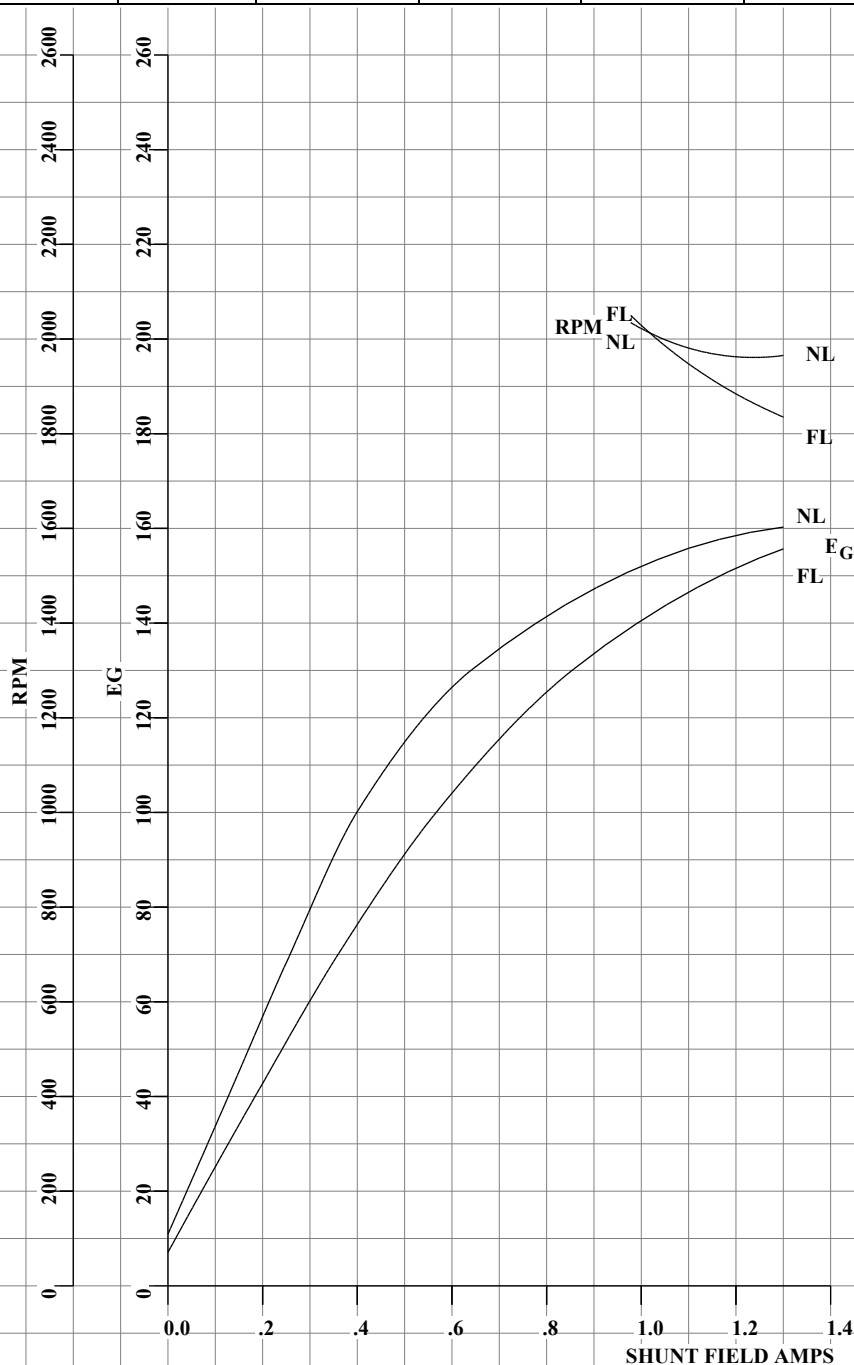
Revision	-
Type	DC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	G4611A
Layout	609980-503
Eff. date	12-13-2019
CD Diagram	406770-007
Poles	00
Leads	
Proprietary	False
Created date	12-12-2019

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									

ABB BALDOR RELIANCE III REL. S.O.		CUSTOMER INFORMATION PACKET				CD1805R - 5HP, 1750RPM, DC, 1810ATCZ, DPG,					
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		WK²(LB-FT²)		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 H₂O)		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: <u>R.ERLACHER</u> CHECKED BY: <u>R.ERLACHER</u> APPROVED BY: <u>T.S.EVON</u> DATE: <u>08-05-88</u>				DC MOTOR PERFORMANCE DATA		DG4611A DATE ISSUED 03-10-92			

CUSTOMER INFORMATION		PACKET		CIRCUIT TYPE 1750RPM, DC, 181VATG3-1PG		WINDING TYPE	
FRAME		RATING		BASE SPEED		STRAIGHT SHUNT	
S.F.	ENCL.	AMB°C/INSUL	DUTY	POWER CODE/FORM FACTOR		TYPE	WK ² (LB-FT ²)
1.0	DPG	40/F	CONT	2/2 230-60-0		TR	.6800
COOLING AIR (CFM/IN H ₂ O)		J (sec)	R (hot)	T E	T M	BASIC RPM	MAX CONT
-/-		.257	.102	.0125	.0264	1950	2050
						WINDER RPM	MAX. SAFE SPEED
						-	4500
WINDING	VOLTS	RESISTANCE		CURRENT		INDUCTANCE	TURNS PER C
		25°C	HOT	25°C	HOT		
ARM CIRCUIT	180	.461	.592	-	24.0	8.77	-
SERIES S1-S2	-	-	-	-	-	-	-
SHUNT F1-F2	200	119	154	1.68	1.30	14.1	1600



REMARKS: TYPICAL DATACURVES VALID FOR NAMEPLATE SPEED RANGE ONLY

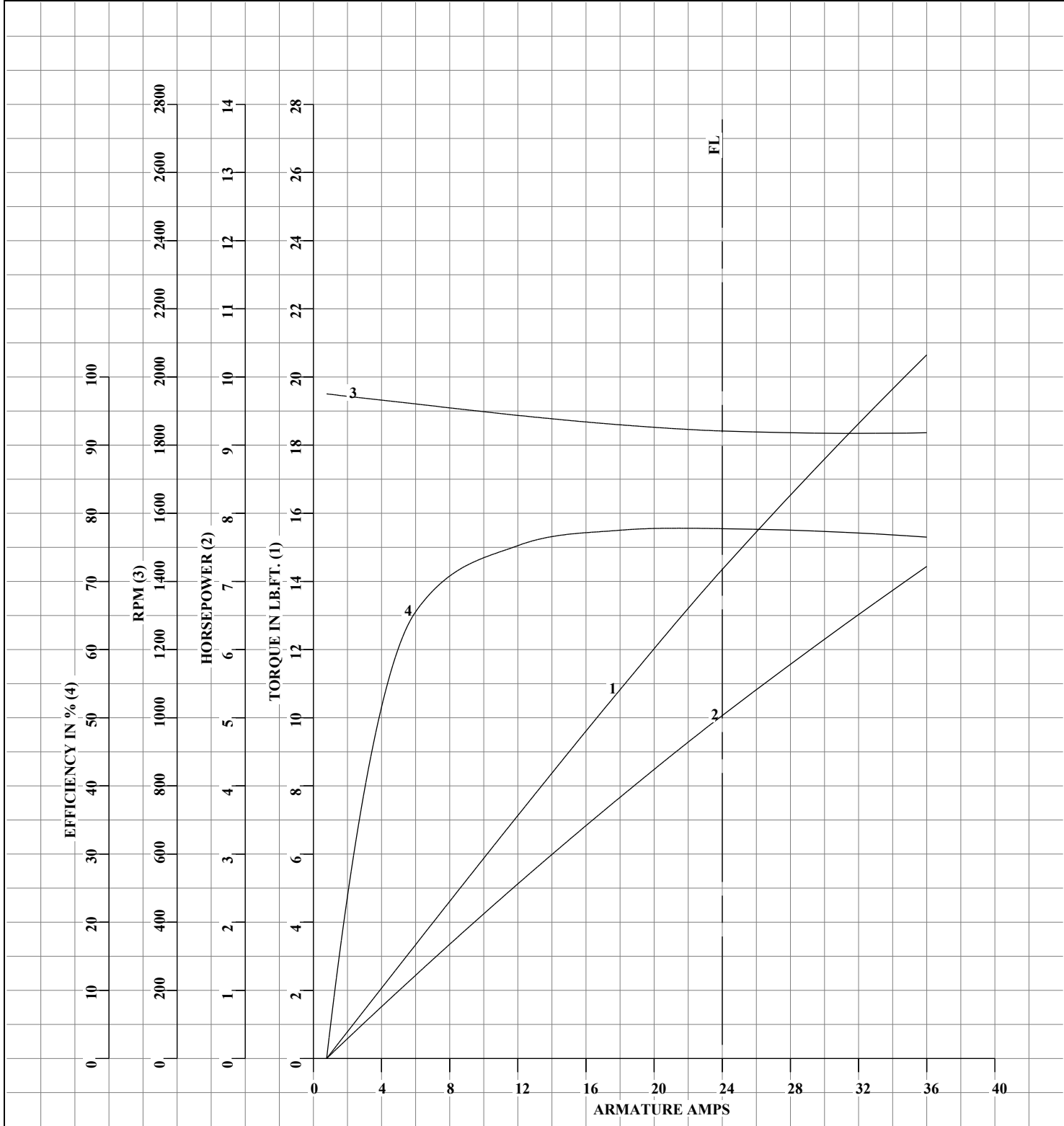


DRAWN BY: R.ERLACHER
 CHECKED BY: R.ERLACHER
 APPROVED BY: T.S.EVON
 DATE: 08-05-88

DC MOTOR
APPLICATION
DATA

G4611A
 ISSUE DATE 03-10-92

ABB BALDOR RELIANCE II				CUSTOMER INFORMATION PACKET				CD1800E - 5HP, 1750RPM, DC, 1810ATCZ, DPG, S.F.			
FRAME	DC1810ATZ	ENCL.	DPG	TYPE	WK ² (LB-FT ²)	TR	.6800	FLD. AMPS @25°C	1.0		
HP/KW	5.00HP	AMB.°C INSUL	40/F	HOT ARM. CIR. RES.	.591	FIELD IND (H)	14.1				
RPM	1750	ARM. AMPS	24.0	ARM. CIRCUIT IND(mh)	8.76	CFM/IN. H ₂ O	-/-				
ARM. VOLT	180	FIELD VOLTS	200	HOT FIELD RES.	153	TEST S.O.	-				
WDG. TYPE	STRAIGHT SHUNT			POWER CODE	2/2 230-60-0	TEST DATE	-				

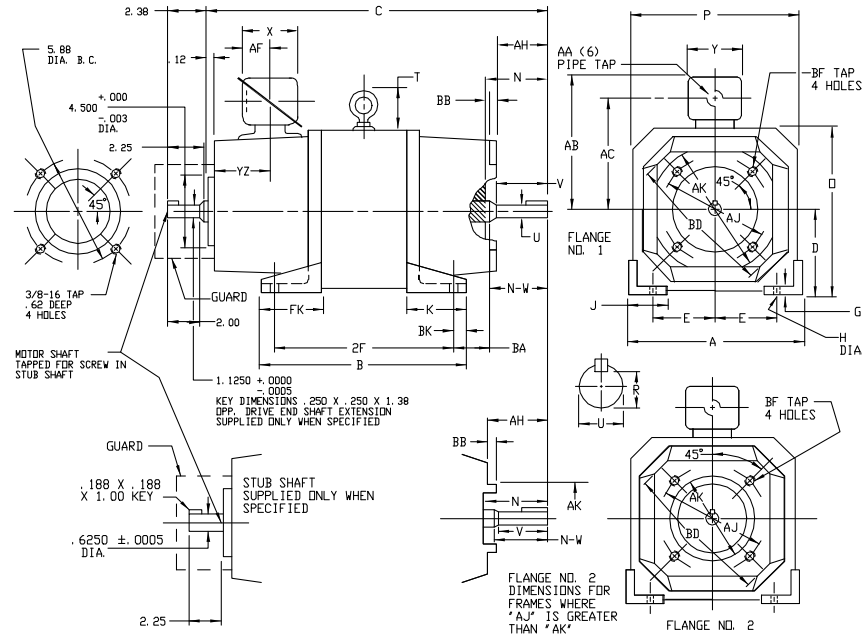


REMARKS: TYPICAL DATA CURVES VALID FOR NAMEPLATE SPEED RANGE ONLY

	DRAWN BY: <u>R.ERLACHER</u>	DC MOTOR PERFORMANCE DATA	G4611A
	CHECKED BY: <u>R.ERLACHER</u>		
	APPROVED BY: <u>T.S.EVON</u>		
	DATE: <u>08-05-88</u>		
			DATE ISSUED 03-10-92

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	DRIVE END SHAFT AND KEY										TERMINAL BOLT DIMENSIONS							WT. LBS.
					N	N-W (X/2)	V	AA	RC(3)	SO	LGTH	AA	AB	AC	AF	X	Y	YZ				
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 +.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 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

