

ABB BALDOR RELIANCE III

Customer information packet D1815R

1.50HP, 1750RPM, DC, 189ATY, TENV,

Specifications

Armature Voltage	180 V
Base Speed	1750 rpm
Enclosure	TENV
Field Voltage	200 V
Frame	DC0189ATY
Output Power	1.500 HP
Agency Approvals	CCSA US
Ambient Temperature	40 °C
Armature Current	7.2 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	21.19 IN
Service Factor	1.00
Shaft Diameter	0.875 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.	G4604A
Layout	609980-503
Eff. date	01-02-2020
CD Diagram	406770-007
Poles	00
Leads	
Proprietary	False
Created date	12-27-2019

Nameplate

000613006HP									
CAT.NO.			SPEC NO.		T18S1119				
FR	DC0189ATY		HP	1.5		DUTY		CONT	
ENCL.	TENV		RPM	1750		S.F.		1.0	
ENCL MOD			VOLTS		180		INSUL		F
MAX SAFE SPEED	04500		AMPS		7.20		AMB.		40
FIELD DATA			SER.NO.						
WINDING	STR. SHUNT		POWER CODE		2/2-230-60-0				
VOLTS	100/200		D.E. BRG.		30BC02JPP30A				
MAX AMPS @ 25 C	1.44/.72		O.D.E. BRG.		30BC02JPG30A				
HOT AMPS	1.10/.55		MIN. AMB.		0		TYPE		TR
BRUSH:419904050A									
SPLASHPROOF									

Parts List

Part number	Description	Quantity
SA377459	SA T18S1119	1.000 ea
AA018264	AA T18S1119	1.000 ea
000692000FP	NP, WARNING LIFT INSTRUCTIONS	1.000 ea
000692000FS	WARNING LABEL	1.000 ea
033775004EA	DRSCR #6-1/4 304 S.S.	8.000 ea
000613006HP	NAMEPLATE - RPM III D-C MOTOR W/CSA LOGO	1.000 ea
422908009B	SLVNG EXTRA SLVG LENGT	28.000 ea
609844002A	BALANCE RING	1.000 ea
036000012HB	HHCS M6X12MM LONG PLATED	1.000 ea
036010010GB	M5-.8 X 10 HXWHD SCREW	2.000 ea
610470003R	BRASY METRIC	1.000 ea
419904050A	BRUSH N	2.000 ea
801758061A	BRKT,ODE,DC180	1.000 ea
801759066AA	BRKT,DE,DC180	1.000 ea
004824015A	GREASE POLYREX EM	0.100 lb
036000050HB	MHHCS M6X50MM PLATED	2.000 ea
400638001C	WSHR	1.000 ea
036500009AB	METRIC NUTM8-1.25PLTD-360	4.000 ea
036500009AB	METRIC NUTM8-1.25PLTD-360	4.000 ea
609830005J	TBOLT METRC RP 609830-	4.000 ea
415000103A	T/LUG #14AWG-#4AWG W/HOLE FOR .250 BOLT	1.000 ea
033520003JE	SHWHS	1.000 ea
417733003A	GASKT	1.000 ea
418018074A	GROUND LABEL G100 METRIC 160 D.C.	1.000 ea
036620008AB	M6 METRIC EXT LOCKWASHER	1.000 ea
032018004CK	HHCS 3/8-16X1/2L PLATED	4.000 ea
422919199	CVRKT FE	1.000 ea
422919200	HHCVR KIT,DC180,ODE,SOLID	1.000 ea
422919200	HHCVR KIT,DC180,ODE,SOLID	1.000 ea
422919200	HHCVR KIT,DC180,ODE,SOLID	1.000 ea
706310300A	COND BOX	1.000 ea

06CB3500	BALDOR CONDUIT BOX LID	1.000 ea
06GS1001	BALDOR CONDUIT BOX GASKET	1.000 ea
033518006LB	HWHMS, .75IN 1/4-20	2.000 ea
036000010HB	MHHCS M6-1.0X10L PLATED	4.000 ea
406770007	C/D TAG	1.000 ea
706305020A	GUARD, SHAFT	1.000 ea
034180010CA	KEY 3/16X3X16X1-1/4 L	1.000 ea
000640000P	TAG WINDING THERMOST	1.000 ea
000692000NF	NP 2POLE METRIC LABEL	1.000 ea
004824007K	SPECIAL PAINT	0.100 ea

ABB BALDOR RELIANCE III

CUSTOMER INFORMATION
DC189AT

PACKET
1.50HP

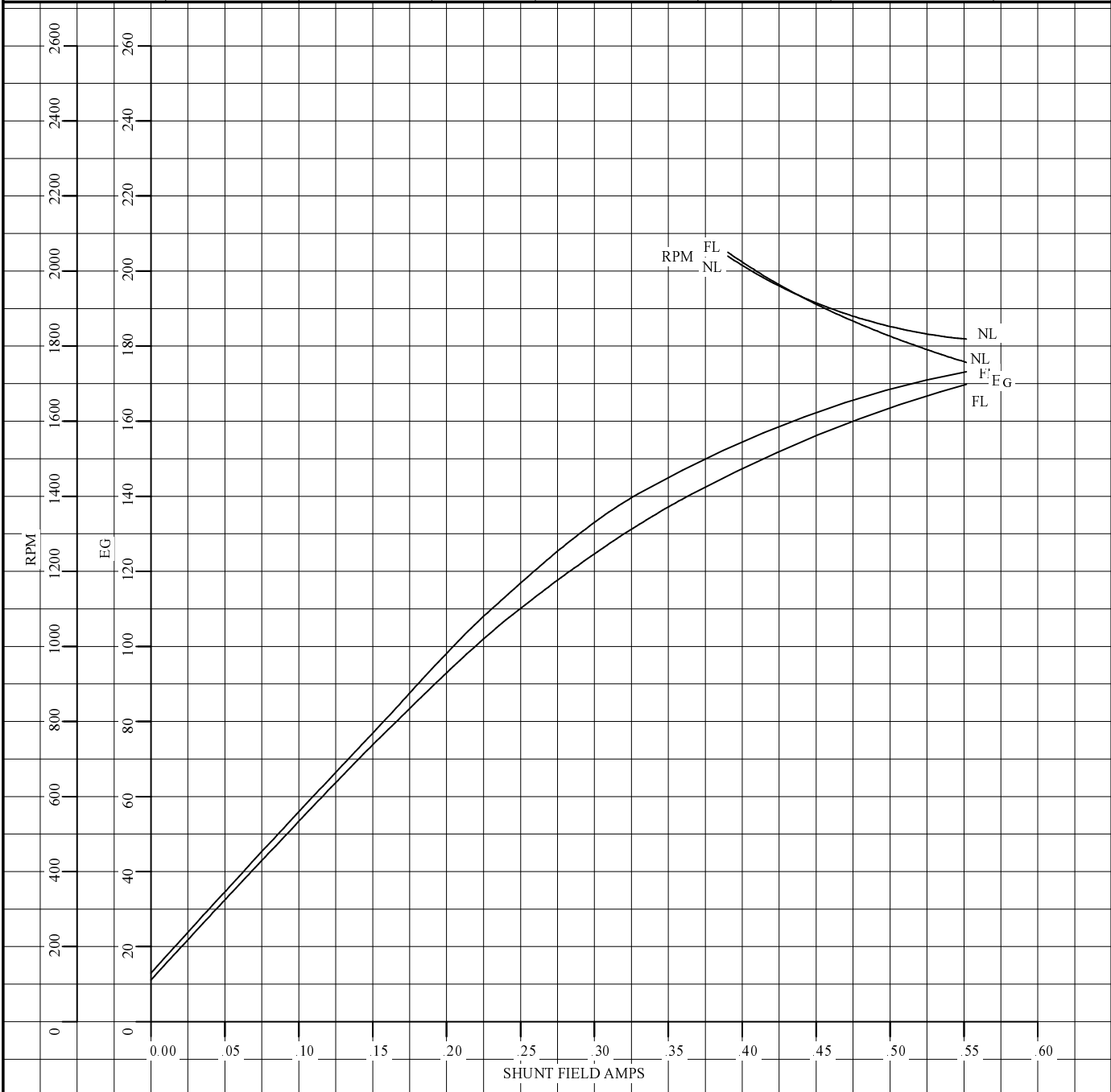
BASE SPEED
1750

WINDING TYPE
STRAIGHT SHUNT

S.F. 1.0	ENCL. TENV	AMB ⁰ C/INSUL 40/F	DUTY CONT	POWER CODE/FORM FACTOR 2/2 230-60-0	TYPE TR	WK ² (LB-FT ²) .6247
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COOLING AIR(CFM/IN H ₂ O) -/-	θ (sec) .788	R (hot) .0560	T _E .0109	T _M .0441	BASIC RPM 1950	MAX CONT RPM 2050	WINDER RPM -	MAX. SAFE 4500
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WINDING	VOLTS	RESISTANCE		CURRENT		INDUCTANCE	TURNS PER COIL
		25 ⁰ C	HOT	25 ⁰ C	HOT		
ARM CIRCUIT	180	.853	1.12	-	7.20	14.5 mH	-
SERIES S1-S2	-	-	-	-	-	-	-
SHUNT F1-F2	200	277	363	.722	.552	65.8 H	2500



REMARKS: TYPICAL DATA SPEED REGULATOR REQUIRED FOR STABILITY
CURVES VALID FOR NAMEPLATE SPEED RANGE ONLY



DR. BY	B. GRANT
CK. BY	B. GRANT
APP. BY	T. EVON
DATE	7-8-88

**D-C
APPLICATION
DATA**

SG4604A

ISSUE DATE 7-8-88

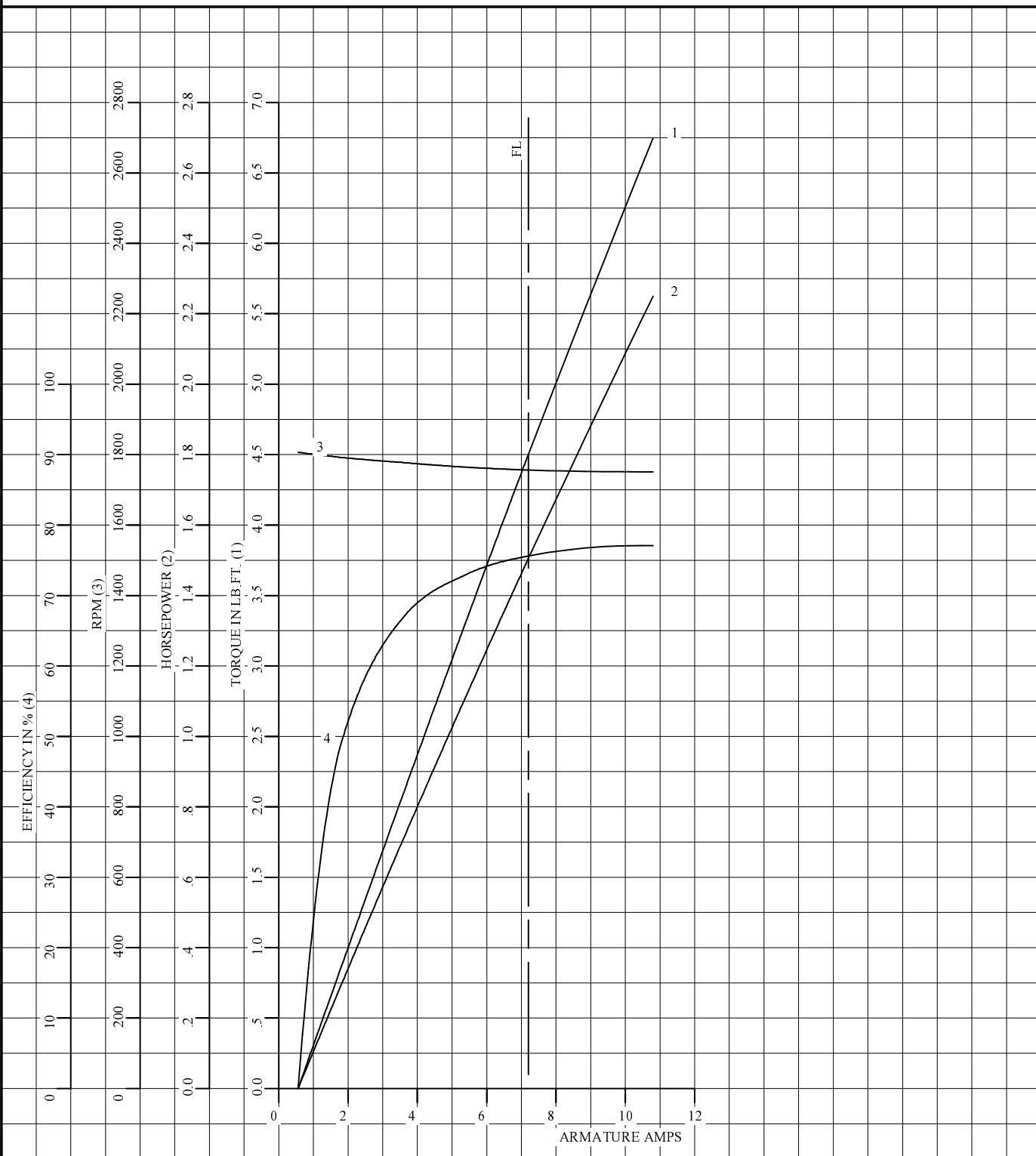
REL S.O.	FRAME	RATING	RPM	ARM. VOLTS	ARM. AMPS
	DC189AT	1.50HP	1750	180	7.20
WINDING TYPE		S.F.	ENCL.	AMB °C/INSUL	DUTY
STRAIGHT SHUNT		1.0	TENV	40/F	CONT
POWER CODE	TYPE	WK ² (LB-FT ²)	HOT ARM.CIR.RES.	FLD. AMPS@25 °C	HOT FIELD RES
2/2 230-60-0	TR	.6247	1.11	.721	362
ARM. CIR. IND. (mh)	FIELD IND. (H)	COOLING AIR(CFM/IN H ² 0)		TURNS PER COIL SHUNT/SERIES	TEST DATE
14.5	65.8	-/-		2500/.00000	-
LOAD PERFORMANCE					
LOAD	AMPERES	TORQUE IN LB.-FT.	OUTPUT IN HP	RPM	% EFFICIENCY
NO LOAD	.56	0	0	1807	0
1/4	1.8	.861	.294	1792	49.0
2/4	3.6	2.10	.710	1777	66.9
3/4	5.4	3.31	1.11	1764	73.0
4/4	7.2	4.50	1.50	1756	75.6
O.L.	11	6.75	2.25	1751	77.1
RPM VS. FIELD AMPS					
FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED	
.551	1806	1756	173	169	
.511	1842	1809	169	164	
.470	1885	1873	165	159	
.430	1949	1951	160	152	
.390	2039	2050	153	145	
REMARKS: TYPICAL DATA MAXIMUM SAFE SPEED = 4500 RPM SPEED REGULATOR REQUIRED FOR STABILITY					
		DR. BY <u>B. GRANT</u> CK. BY <u>B. GRANT</u> APP. BY <u>T. EVON</u> DATE <u>7-8-88</u>		D-C MOTOR PERFORMANCE DATA DG4604A ISSUE DATE 7-8-88	

HP/KW 1.50HP
RPM 1750
ARM. VOLTS 180
WDG. TYPE STRAIGHT SHUNT

ENCL. TENV
AMB °C INSL. 40/F
ARM. AMPS 7.20
FIELD VOLTS 200

WK2(LB-FT2) .6247
HOT ARM. CIR. RES. 1.11
ARM. CIRCUIT IND(mh) 14.5
HOT FIELD RES. 362
POWER CODE 2/2 230-60-0

FLD.AMPS@25 °C .721
FIELD IND (H) 65.8
CFM/IN. H₂O -/-
TEST S.O. -
TEST DATE -



REMARKS: TYPICAL DATA SPEED REGULATOR REQUIRED FOR STABILITY



DR. BY B. GRANT
CK. BY B. GRANT
APP. BY T. EVON
DATE 7-8-88

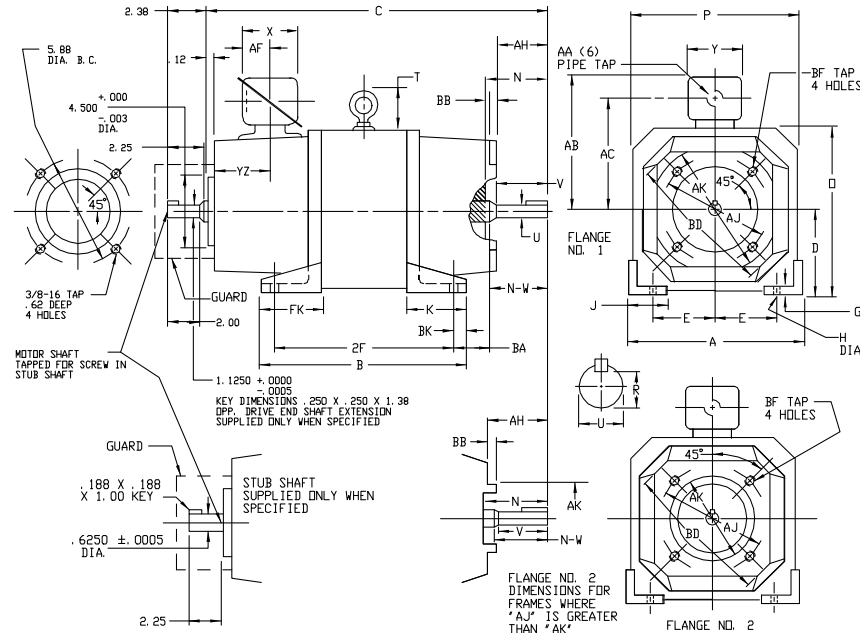
**D-C
PERFORMANCE
CURVES**

PG4604A

ISSUE DATE 7-8-88

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	3/8-13	.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	3/8-13	.62	7.25	8.500	180TC EXT.
DC181DATY	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.
DC181DATCZ	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	1/2-13	.88	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	1/2-13	.88	7.25	8.500	180TC EXT.

- (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 DPP, 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
BY: RGNAS	MTL: -	

BALDOR - RELIANCE®

DIMENSION DRAWING, DC180ATY - DC180ATCZ, DPP, TENV, FOOT MTG.

SH 1 of 1

609980-503

