ABB BALDOR RELIANCE

Customer information packet

D2505R

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

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Specifications

Armature Voltage	240 V
Base Speed	1750 rpm
Enclosure	TEFC
Field Voltage	150 V
Frame	C1812ATZ
Output Power	5.000 HP
Agency Approvals	CCSA US
Ambient Temperature	40 °C
Armature Current	18.5 a
Drip Cover	No Drip Cover
Duty Rating	CONT
Feedback Device	NO FEEDBACK
Field Winding Type	STAB SHUNT
Frame Prefix	C
Heater Indicator	No Heater
Insulation Class	F
Lifting Lugs	Standard Lifting Lugs
Motor Standards	NEMA
Mounting Arrangement	F1
Overall Length	32.06 IN
Service Factor	1.00
Shaft Diameter	1.375 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.	G2107A B
Layout	609981-001
Eff. date	01-02-2020
CD Diagram	406770-001
Poles	00
Leads	
Proprietary	False
Created date	12-27-2019

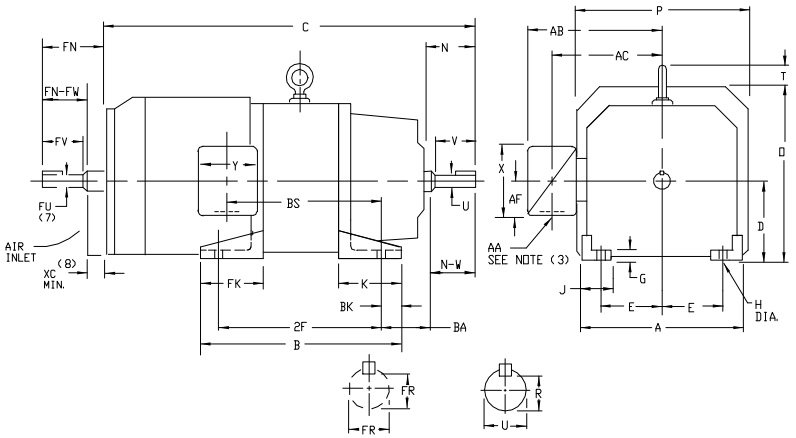
Nameplate

000613006HP								
CAT.NO.	D2505R	**SPEC NO.**	T18S1005					
FR	C1812ATZ	**HP**	5	**DUTY**	CONT			
ENCL.	TEFC	**RPM**	1750/2300	**S.F.**	1.0			
ENCL MOD		**VOLTS**	240	**INSUL**	F			
MAX SAFE SPEED	5000	**AMPS**	18.50	**AMB.**	40			
	FIELD DATA	**SER.NO.**						
WINDING	STAB SHUNT	**POWER CODE**	D-50/60					
VOLTS	150	**D.E. BRG.**	40BC02J30X					
MAX AMPS @ 25 C	1.80	**O.D.E. BRG.**	30BC02J30X					
HOT AMPS	1.27/.56	**MIN. AMB.**	0	**TYPE**	TR			
	BRUSH:419904051AB							

609981-001

INDUSTRIAL DIRECT CURRENT MOTORS AND GENERATORS – RPM III

ENCLOSURE: TOTALLY ENCLOSED COOLING: FAN COOLED
MOUNTING: FOOT
METHOD OF DRIVE:COUPLED OR BELTED FRAMES C180ATZ



DIMENSIONS ARE IN INCHES

FRAME	A	D(1)	E	G	H	J	O	P	T	BA	K	FK	BK	XC(8)
C1811ATZ-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

FRAME	C	B	BS	2F	DRIVE END SHAFT AND KEY							OPPOSITE DRIVE END SHAFT AND KEY (7)							WT.
					N	N-W	U(2)	V	R(4)	SQ.	LGTH	FN	FN-FW	FU(2)	FV	FR(4)	SQ.	LGTH	LBS.
C1811ATZ	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	.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	.250	1.38	235

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	
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

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	
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	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) "D" 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.
FOR "X/P" TERMINAL BOX DIMENSIONS SEE 609989-1.
FOR MILL TYPE TERMINAL BOX DIMENSIONS SEE 609989-2.
(4) "R" AND "FR" VARY +.000, -.015.
(5) AA CONDUIT, 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 ENCROACH ON AIR INLET SPACE "XC".

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: REVISED DRAWING VIEWS		
REV. LTR: A	VERSION: 01	TDR: 000000861772
FILE: \RSN\00029\605	REVISED: 12:42:36 08/15/2014	BY: RSNPSB
MTL: –		

BALDOR

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

609981-001

406770-001

406770-001

CONNECTION DIAGRAM
D-C MOTOR - STAB. SHUNT

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 RTD'S, 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 DRIVE END BRACKET, ADJACENT TO THE TERMINAL BOX FOR MOTOR GROUNDING. GROUND LEAD, WHEN PROVIDED, WILL BE GREEN.

CUSTOMER _____ CUSTOMER
ORDER NO. _____ S.O. NO. _____ RELIANCE

REV. DESC: DELETED DUPLICATE WORDS FROM NOTE 8		
REV. LTR: A	VERSION: 01	TDR: 000000970330
FILE: \RSN\00026\422	REVISED: 10:19:12 03/11/2016	BY: RAGTBM
MTL: -		

BALDOR

D-C MOTOR CONNECTION DIAGRAM STAB. SHUNT

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