



Customer information packet

D2020R-BV

20HP, 1750RPM, DC, 2113ATZ, DPG-FV,

Specifications

Enclosure	DP
Frame	SC2113ATZ
Frame Material	Steel
Output Power	20.000 HP
Agency Approvals	CCSA US
Ambient Temperature	40 °C
Bearing Grease Type	Polyrex EM (-20F +300F)
Drip Cover	No Drip Cover
Feedback Device	NO FEEDBACK
Field Winding Type	STR. SHUNT
Frame Prefix	SC
Heater Indicator	No Heater
Lifting Lugs	Standard Lifting Lugs
Motor Standards	NEMA
Mounting Arrangement	F1
Overall Length	28.38 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Slinger Indicator	No Slinger

Part detail

Revision	-
Type	DC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	G6339B B
Layout	616002-001
Eff. date	04-13-2015
CD Diagram	406770-006
Poles	00
Leads	
Proprietary	False
Created date	04-09-2015

Nameplate

000613006HP

CAT.NO.	D2020R-BV	SPEC NO.	T21T1363		
FR	SC 2113ATZ	HP	20	DUTY	CONT
ENCL.	DP	RPM	1750/ 2300	S.F.	1.0
ENCL MOD	FORCE VENT	VOLTS	240	INSUL	F
MAX SAFE SPEED	4500	AMPS	76.50	AMB.	40
	FIELD DATA	SER.NO.			
WINDING	STR. SHUNT	POWER CODE	D		
VOLTS	150	D.E. BRG.	50BC03J30X		
MAX AMPS @ 25 C	7.12	O.D.E. BRG.	45BC02J30X		
HOT AMPS	5.07/ 3.32	MIN. AMB.	0	TYPE	TR
	BRUSH:419904051AC				

INDUSTRIAL DIRECT CURRENT MOTORS AND GENERATORS - RPM III

ENCLOSURE: DRIP-PROOF FULLY-GUARDED,
SPLASHPROOF

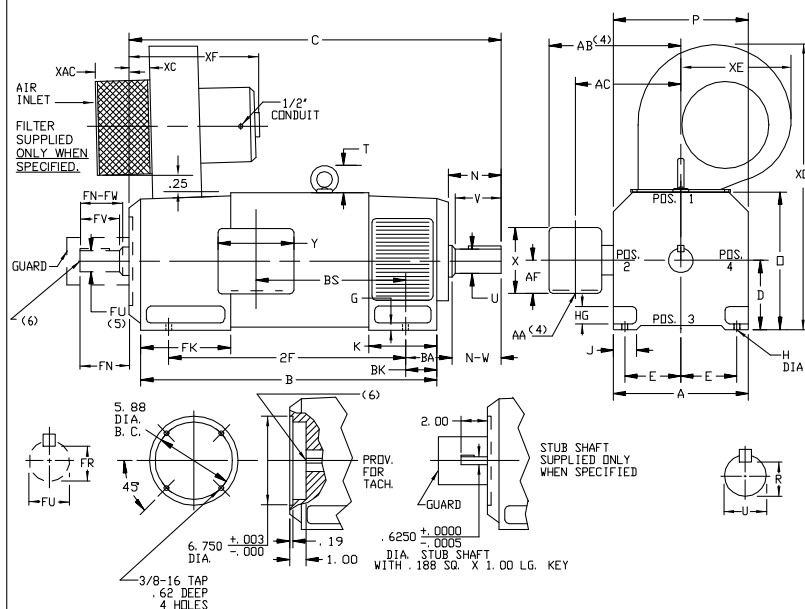
COOLING: FORCE VENTILATED
WITH INTEGRAL
BLOWER AND MOTOR

MOUNTING:FOOT

METHOD OF DRIVE:COUPLED OR BELTED

ACCESSORIES: PROVISION FOR
TACHOMETER MOUNTING
ONLY WHEN SPECIFIED

FRAMES SC2113ATZ THRU LC2115ATZ



DIMENSIONS ARE IN INCHES

FRAME	XAC	XC	XE	XF	XO
SC2113ATZ-LC2115ATZ	7.75	2.25	10.00	16.00	22.75

FRAME	A	D(1)	E	G	H	HG	J	O	P	T	BA	K	FK	BK
SC2113ATZ-LC2115ATZ	10.25	5.25	4.25	.44	.44	1.38	1.75	10.44	10.31	2.08	3.50	5.19	6.81	2.35

FRAME	C(7)	B	BS	2F	DRIVE END SHAFT AND KEY							OPPOSITE DRIVE END SHAFT AND KEY(S)							WT.
					N	N-W	U(2)	V	R(3)	SQ.	LGTH.	FN	FN-FW	FU(2)	FV	FR(3)	SQ.	LGTH.	
SC2113A7Z	28.38	22.50	11.38	18.00	4.00	3.75	1.875	3.50	1.91	.500	2.50	3.50	3.25	1.625	3.00	1.416	.375	2.25	345
MC2113A7Z	29.62	23.75	12.62	18.00	4.00	3.75	1.875	3.50	1.91	.500	2.50	3.50	3.25	1.625	3.00	1.416	.375	2.25	370
MC2113A7Z	31.25	25.38	14.25	18.00	4.00	3.75	1.875	3.50	1.91	.500	2.50	3.50	3.25	1.625	3.00	1.416	.375	2.25	400
MC2115A7Z	35.25	26.62	15.50	22.00	4.00	3.75	1.875	3.50	1.91	.500	2.50	3.50	3.25	1.625	3.00	1.416	.375	2.25	425
MC2115A7Z	32.50	28.38	18.25	22.00	4.00	3.75	1.875	3.50	1.91	.500	2.50	3.50	3.25	1.625	3.00	1.416	.375	2.25	480

- (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 "F"U" VARY ---.4, .000 - .01.
- (3) "P" AND "F"U" VARY ---.000 - .015.
- (4) TERMINAL BOX VARIES WITH H.P. DIMENSIONS "AA", "AB", "AC", "AF", "X" AND "Y".
- (5) REFER TO BOX D'S. (STD. 609959-1, "X"/P 609959-2, MILL 609959-3)
- (6) DRIVE END SHAFT SUPPLIED UNLESS OTHERWISE SPECIFIED.
- (7) MOTOR SHAFT TAPPED FOR SCREW-IN STUB SHAFT.
- (8) WHEN THE MOTOR APPLICATION DOES NOT REQUIRE THE USE OF DRIVE END AND LEAVE END, "C" DIMENSION IS NOT REQUIRED.
- (9) TERMINAL BOX CAN BE ROTATED FOR LEAD OUTLET AT TOP, SIDES OR BOTTOM.
- (10) TERMINAL BOX LOCATED ON OPPOSITE SIDE WHEN F-2, W-1, W-4, W-5, W-7, OR C-2 MOUNTING BOX IS SPECIFIED BY DIMENSION ON DRAWING.
- (11) BLOWER ASSEMBLY CAN BE LOCATED AT POSITIONS 1, 2, 4, OR 5.
- (12) BLOWER ASSEMBLY AND TERMINAL BOX CAN NOT BE LOCATED AT THE SAME POSITION.
- (13) MINIMUM CLEARANCE IS REQUIRED FOR NON-SHAFT ACCESSORIES.
- (14) IF MOUNTING CLEARANCE DETAILS ARE REQUIRED, CONSULT FACTORY.

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

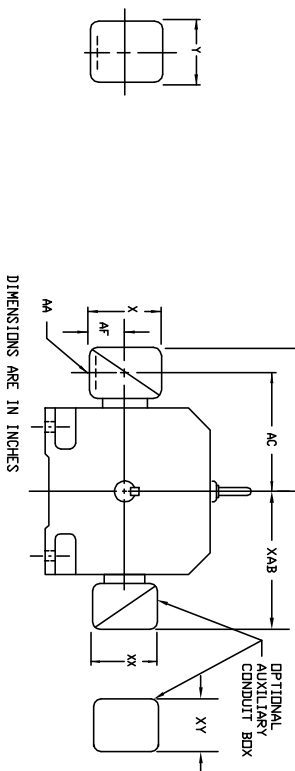
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BALDOR

DIMENSION DRAWING,SC2113ATZ – LC2115ATZ,DPP,FOOT MTG

SH 1 of 1

609959-001

INDUSTRIAL DIRECT CURRENT MOTORS
AND GENERATORS - RPM III
TERMINAL BOX DIMENSIONS
STANDARD SIZE AND ONE SIZE LARGER
FRAMES C2113ATZ THRU C2815ATZ

DIMENSIONS ARE IN INCHES

STEEL TERMINAL BOX DIMENSIONS																	
FRAME SIZE	MAX. AMPS	STANDARD SIZE					PART NUMBER					ONE SIZE LARGER					PART NUMBER
		AK(1)	AB	AC	AF	X	Y	AK(1)	AB	AC	AF	X	Y				
C2113ATZ	40	3/4 & 1"	8.97	7.47	1.94	4.38	5.00	705028-1-R	1-1/4 & 1-1/2	10.03	8.03	2.50	5.50	6.12	705029-1-R		
C2115ATZ	96	1-1/4 & 1-1/2	10.03	8.03	2.50	5.50	6.12	705029-1-R	2" & 2-1/2	11.16	8.41	3.19	7.00	7.62	705030-1-R		
(2)	208	2" & 2-1/2	11.16	8.41	3.19	7.00	7.62	705030-1-R	2" & 2-1/2	11.16	8.41	3.19	7.00	7.62	705030-1-R		
C2516ATZ	40	3/4 & 1"	10.03	8.53	1.94	4.38	5.00	705028-1-R	1-1/4 & 1-1/2	11.09	9.09	2.50	5.50	6.12	705029-1-R		
C2514ATZ	96	1-1/4 & 1-1/2	11.09	9.09	2.50	5.50	6.12	705029-1-R	2" & 2-1/2	12.22	9.47	3.19	7.00	7.62	705030-1-R		
C2515ATZ	208	2" & 2-1/2	12.22	9.47	3.19	7.00	7.62	705030-1-R	2" & 2-1/2	12.22	9.47	3.19	7.00	7.62	705030-1-R		
(2)	128	2"	14.03	10.53	4.25	8.44	7.25	74874-R	3"	14.47	11.22	4.25	8.44	7.25	74874-24-R		
C2816ATZ	185	3"	14.47	11.22	4.25	8.44	7.25	74874-24-R	4"	15.91	11.84	5.38	10.56	9.00	706308-3-R		
C2815ATZ	269	4"	15.91	11.84	5.38	10.56	9.00	706308-3-R	5" (4)	18.72	13.47	7.00	12.75	15.00	706589-1-C		

CAST IRON TERMINAL BOX DIMENSIONS															
FRAME SIZE	MAX. AMPS	STANDARD SIZE					ONE SIZE LARGER								
		AA(3)	AB	AC	AF	X	Y	AA(3)	AB	AC	AF	X	Y		
C2113ATZ	18	3/4	10.03	8.03	2.50	5.00	5.75	705028-2-S	1"	10.03	8.03	2.50	5.00	5.75	705028-2-T
C2115ATZ	40	1"	10.03	8.03	2.50	5.00	5.75	705028-2-T	1-1/2	10.97	8.53	3.00	6.00	7.00	705029-2-R
C2115ATZ	96	1-1/2	10.97	8.53	3.00	6.00	7.00	705029-2-R	2"	12.66	8.91	3.62	7.88	9.25	705030-2-R
C2516ATZ	18	3/4	11.09	9.09	2.50	5.00	5.75	705028-2-S	1"	11.09	9.09	2.50	5.00	5.75	705028-2-T
C2514ATZ	40	1"	11.09	9.09	2.50	5.00	5.75	705028-2-T	1-1/2	12.03	9.59	3.00	6.00	7.00	705029-2-R
C2515ATZ	96	1-1/2	12.03	9.59	3.00	6.00	7.00	705029-2-R	2"	12.03	9.59	3.00	6.00	7.00	705029-2-S
C2515ATZ	208	2"	12.03	9.59	3.00	6.00	7.00	705029-2-S	2-1/2	13.72	9.97	3.62	7.88	9.25	705030-2-R
C2813ATZ	128	2"	12.78	10.34	3.00	6.00	7.00	75460-T	3"	14.47	10.72	3.62	7.88	9.25	76708-R
C2815ATZ	185	3"	14.47	10.72	3.62	7.88	9.25	76708-R	4"	15.78	11.59	4.12	9.50	10.50	76708-R
C2815ATZ	269	4"	15.78	11.59	4.12	9.50	10.50	76708-R	5" (4)	18.59	13.34	7.00	12.75	15.00	76870-S

CONDUIT BOX DIMENSIONS WITH TERMINAL BOARDS (IEC TYPE BOX)

STANDARD SIZE									
FRAME SIZE	AMPS	AB	AC	AF	X	AA	Y	PART NUMBER	PART NUMBER
C210	100	10.71	8.98	2.72	7.48	--	7.48	706310-56-A	706310-225-R
	200	11.66	9.23	3.33	8.82	--	8.82	706310-56-B	706310-226-R
	100	11.30	9.57	2.72	7.48	--	7.48	706310-56-A	706310-225-R
C250	200	11.85	9.84	3.35	8.82	--	8.82	706310-56-B	706310-226-R
	400	17.48	12.75	6.20	14.39	--	14.39	706310-63-B & 706310-63G	706310-63-B & 706310-63G
	800	17.48	12.75	6.20	14.39	--	14.39	706310-63-B & 706310-63G	706310-63-B & 706310-63G
	200	12.60	10.59	3.76	8.82	--	8.82	706310-56-B	706310-226-R
	400	18.27	13.54	6.20	14.39	--	14.39	706310-63-B & 706310-63G	706310-63-B & 706310-63G
	800	18.27	13.54	6.20	14.39	--	14.39	706310-63-B & 706310-63G	706310-63-B & 706310-63G
C280	1600	18.27	13.54	7.68	15.35	--	15.35	706310-63-C	706310-63-C

OPTIONAL AUXILIARY CONDUIT BOX DIMENSIONS (MAXIMUM)											
FRAME SIZE	XAB	XY	PART NUMBER	FRAME SIZE	XAB	XY	PART NUMBER	FRAME SIZE	XAB	XY	PART NUMBER
C210	7.38	4.25	602007-26-A	C210	10.88	8.00	706310-3-B	C250	11.88	8.00	706310-3-B
C250	8.44	4.25	602007-26-A	C250	11.88	8.00	706310-3-B	C280	12.62	8.00	706310-3-B
C280	9.12	4.25	602007-26-A	C280	12.62	8.00	706310-3-B				

(1) 1/4" CONDUIT.
(2) RACEWAYS PROVIDED WITH DOUBLE KNUCKLE.
(3) 1/4" PIPE LAP.(4) TERMINAL BOX 76870-S AND 76870-98 EXTENDS BELOW MOTOR FEET.
TERMINAL BOX 76870-S AND 76870-98 EXTENDS BELOW MOTOR FEET.
DR - C-1 MOUNTING IS SPECIFIED. BOX LOCATED IN TOP WHEN SPECIFIED.
FOR "X"/P/TERMINAL BOX DIMENSIONS SEE 609959-2.
FOR MILL TYPE TERMINAL BOX DIMENSIONS SEE 609959-3.

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

REV. DESC: ADD 706310-63G C/BOX TO C250 AND C280 FRAMES

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REVISED: 03: 09: 09 09/06/2013

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BY: RGGWT

BALDOR

DIMENSION SHEET

SH 1 of 1

609959-001

406770-006			406770-006	
CONNECTION DIAGRAM D-C MOTOR - STRAIGHT SHUNT W1 <NOTE 6> H1 H2 SHUNT FIELD INTER-COIL ARMATURE F1 A1 AX2 A2 F2 <NOTE 3> <CAUTION-SEE NOTE 1> <NOTE 4> THREE WIRE RTD TD1 TD2 TD3 <NOTE 5> ARMATURE AND FIELD EXTERNAL CONNECTIONS WARNING- SEE NOTE 7 FOR GROUNDING INSTRUCTIONS A1 A2 F1 F2 - + - + CCW ROTATION ROTATION FACING COMMUTATOR END A1 A2 F1 F2 - + - + CW ROTATION 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 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		BALDOR D-C MOTOR CONNECTION DIAGRAM, STRAIGHT SHUNT SH 1 of 1		
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