

BALDOR® • RELIANCE

Product Information Packet

D50400RS-BV

400HP, 1750RPM, DC, 4013ATZ, DPG-FV,

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Part Detail			
Type:	DC	Prod. Type:	TR
Power Code:	C	Weight:	3040
Frame Group:	LC 4013ATZ	Mounting Pos.:	F2
HP:	400	Enclosure:	DPFV
RPM:	1750/2000	Wound:	STAB SHUNT
Service Factor:	1.0	Arm V:	500
Arm A:	635.00	Field V:	300
Field A:	7.97	Field A Hot:	5.68/4.89
Insulation Class:	F	Ambient:	40
Duty:	CONT	DE Bearing:	95BC02J30X
ODE Bearing:	95BC02J30X	Brushes:	419904-52AB
Brush Qty.:			

609962-025

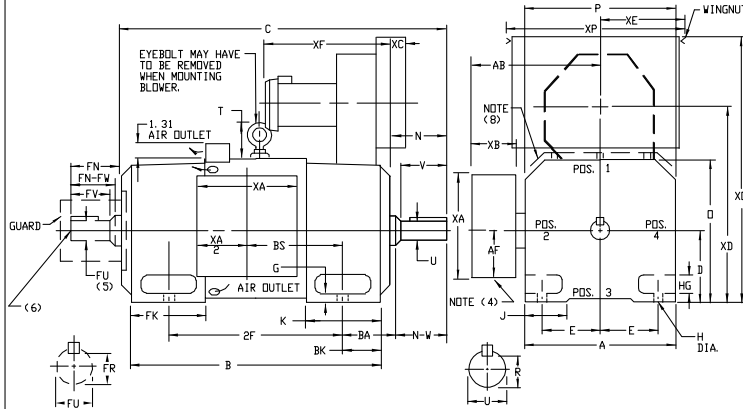
INDUSTRIAL DIRECT CURRENT MOTORS AND GENERATORS - RPM III

ENCLOSURE: DRIP-PROOF FULLY-GUARDED,
SPLASHPROOF
MOUNTING: FOOT

COOLING: FORCE VENTILATED WITH
INTEGRAL BLOWER AND
MOTOR AIR FILTERED-
SPECIAL BAFFLE

ACCESSORIES: PROVISION FOR
TACHOMETER MOUNTING
ONLY WHEN SPECIFIED

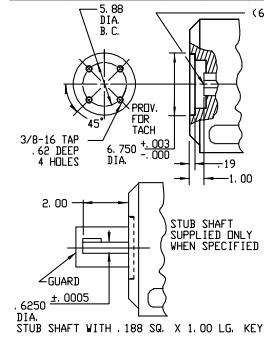
FRAMES C4011ATZ THRU ULC4013ATZ



DIMENSIONS ARE IN INCHES

FRAME	A	D(1)	E	G	H	HG	J	D	P	T	BA	K	FK	BK	AB	AF	RH(6)
C4011ATZ-ULC4013ATZ	19.38	10.00	8.00	1.06	1.06	2.82	3.50	19.81	19.56	4.31	6.62	8.75	12.12	5.25	16.12	8.00	1.6240

FRAME	METHOD OF DRIVE (1,7)	B	BS	2F	DRIVE END SHAFT AND KEY					(5) OPPOSITE DRIVE END SHAFT AND KEY					WT. LBS.					
					N	N-W	UK(2)	V	RK(3)	SO	LGTH	FN	FN-FV	FV		FRK(3)	SO	LGTH		
C4011ATZ	COUPLED	52.19	42.06	16.00	28.00	7.62	17.25	3.625	7.00	3.134	875	5.75	7.62	7.25	3.625	7.00	3.134	875	5.75	2500
UC4011ATZ	BELTED	53.19	42.06	16.00	28.00	8.62	8.25	4.125	8.00	3.563	1.000	6.50	7.62	7.25	3.625	7.00	3.134	875	5.75	2505
MC4013ATZ	COUPLED	56.94	46.81	20.75	36.00	7.62	7.25	3.625	7.00	3.134	875	5.75	7.62	7.25	3.625	7.00	3.134	875	5.75	2800
UMC4013ATZ	BELTED	57.94	46.81	20.75	36.00	8.62	8.25	4.125	8.00	3.563	1.000	6.50	7.62	7.25	3.625	7.00	3.134	875	5.75	2805
LC4013ATZ	COUPLED	60.19	50.06	24.00	36.00	7.62	7.25	3.625	7.00	3.134	875	5.75	7.62	7.25	3.625	7.00	3.134	875	5.75	3100
ULC4013ATZ	BELTED	61.19	50.06	24.00	36.00	8.62	8.25	4.125	8.00	3.563	1.000	6.50	7.62	7.25	3.625	7.00	3.134	875	5.75	3105



FRAME	XA	XB	XC	XD	XE	XF	XD	XP
C4011ATZ-ULC4013ATZ	16.00	6.00	1.25	26.00	9.84	18.75	42.94	22.50

- (1) "D" DIMENSION WILL NOT BE EXCEEDED. SHIMS UP TO .06 INCHES IN THICKNESS ARE USUALLY REQUIRED FOR COUPLED OR GEARED MACHINES.
- (2) "FV" AND "FV-FV" VARY ----+ 0.00 - .015
- (3) "R" AND "FR" VARY ----+ 0.00 - .015
- (4) CUSTOMER TO PROVIDE HOLE IN TERMINAL BOX FOR CONDUIT.
- (5) OPPOSITE DRIVE END SHAFT SUPPLIED ONLY WHEN SPECIFIED.
- (6) MOTOR SHAFT TAPPED FOR SCREW-IN STUB SHAFT
- (7) WHEN THE MOTOR APPLICATION DOES NOT REQUIRE THE USE OF DPP, DRIVE END, ADD .25 TO "C" DIM. FOR BRACKET COVER.
- (8) FOR HORIZONTAL APPLICATIONS ONLY.

TERMINAL BOX LOCATED ON OPPOSITE SIDE WHEN F-2, V-1, V-4, V-5, V-7, OR C-1 MOUNTING IS SPECIFIED. BOX LOCATED ON TOP WHEN SPECIFIED. BLOWER ASSEMBLY CAN BE LOCATED AT POSITIONS 1, 2, OR 4. MOTOR WEIGHT MAY VARY 13% 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.

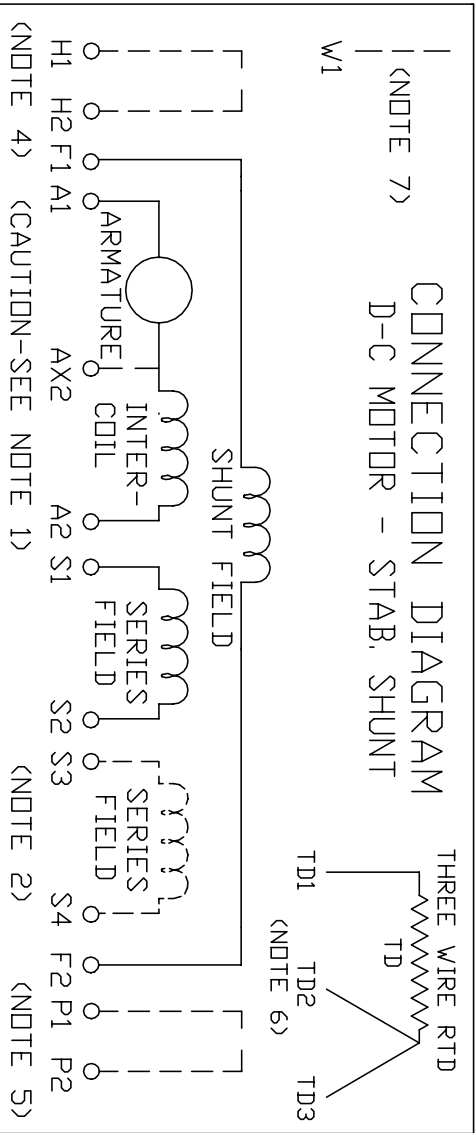
REV. DESC: LOADED TO BUS	VERSION: 00	TDR: 000000577407
REV. LTR: -	REVISED: 12:40:55 01/26/2011	BY: CONNAS
FILE: \RGG\00015\603		
MTL: -		

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DIMENSION DRAWING, C4011ATZ - ULC4013ATZ, DPP, FOOT MTG.

SH 1 of 1

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ARMATURE AND FIELD EXTERNAL CONNECTIONS
WARNING- SEE NOTE 8 FOR GROUNDING INSTRUCTIONS



ROTATION FACING COMMUTATOR END

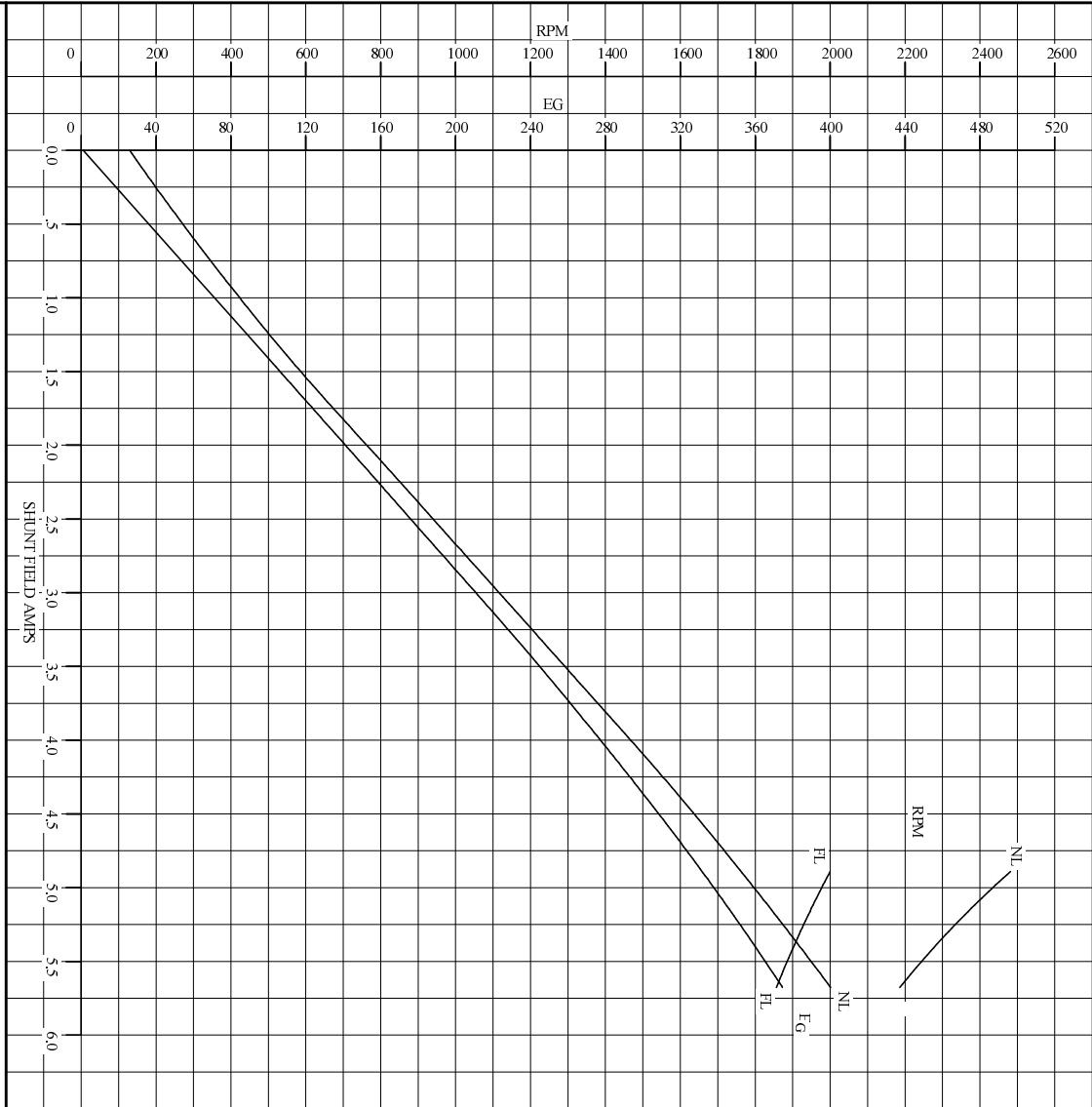
1. **CAUTION** — ARMATURE AND SERIES FIELD MAY HAVE MULTIPLE LEADS. CONNECT ALL LUGS WITH THE SAME MARKING TOGETHER.
2. OPTIONAL SERIES FIELD IS MARKED S3 AND S4. FOR CUMULATIVE SERIES FIELD, CONNECT S3 TO S2 AND CONNECT S4 TO NEGATIVE. FOR DIFFERENTIAL SERIES FIELD CONNECT S4 TO S2 AND S3 TO NEGATIVE.
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 RTDS, 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 OPPOSITE DRIVE END BRACKET, ADJACENT TO THE TERMINAL BOX FOR FOR MOTOR GROUNDING. GROUND LEAD, WHEN PROVIDED, WILL BE GREEN.

CUSTOMER _____ RELIANCE
ORDER NO. _____ S.D. NO. _____

<p style="text-align: center;">RELIANCE ELECTRIC</p> <p style="text-align: center;">CLEVELAND, OHIO 44117 U.S.A.</p>	<p style="text-align: center;">DR. BY <u>N.L. EVANS</u> CK. BY <u>N. JESCHKE</u> APP. BY <u>E. HINER</u> DATE <u>5-5-69</u></p>
<p style="text-align: center;">CONNECTION DIAGRAM</p> <p style="text-align: center; font-size: 24pt;">406770-1</p> <p style="text-align: center;">ORIGINAL AT RCC</p>	

C/R 290048, 354478, 354480

REF. S.O.	FRAME LC4013AT	RATING 400HP	BASE SPEED 1750	WINDING TYPE STAB SHUNT
S.F. 1.0	ENCL. DPEV	AMB°C/INSUL 40/F	DUTY CONT	POWER CODE/FORM FACTOR C
COOLING AIR (CFM/IN H ₂ O) 1200/4.0	\bar{R} (hot) .0361	T_r .0242	T_m .0157	BASIC RPM 1850
				MAX CONT RPM 2000
				WINDER RPM MAX. SAFE 3000
WINDING	VOLTS	RESISTANCE		CURRENT
		25°C	HOT	INDUCTANCE
ARM CIRCUIT	500	.0161	.0233	PER COIL
SERIES S1-S2	-	.00167	.00235	MR
SHUNT F1-F2	300	37.6	52.8	H
			7.97	21.6
				535



REMARKS: TYPICAL DATA
CURVES VALID FOR NAMEPLATE SPEED RANGE ONLY

BALDOR BALDOR • DOUGLASS • RELIANCE	DR. BY J. MARTIN	D-C
	CK. BY J. MARTIN	
	APP. BY T. EYON	APPLICATION DATA
	DATE 06/10/91	
		ISSUE DATE 06/10/91

REL S.O.	FRAME	RATING	RPM	ARM. VOLTS	ARM. AMPS
	LC4013AT	400HP	1750	500	635
WINDING TYPE		S.F.	ENCL.	AMB °C/INSUL	DUTY
STAB. SHUNT		1.0	DPFV	40/F	CONT
					300
POWER CODE	TYPE	WK 2 (LB-PT 2)	HOT ARM. CIR. RES.	FLD. AMPS@25 °C	HOT FIELD RES
C	TR	92.06	.0233	7.97	52.8


ARM. CIR. IND. (mh)	FIELD IND. (H)	COOLING AIR (CFM/IN H 20)	TURNS PER COIL SHUNT/SERIES	TEST DATE
.665	21.5	1200/4.0	535/1.5	-

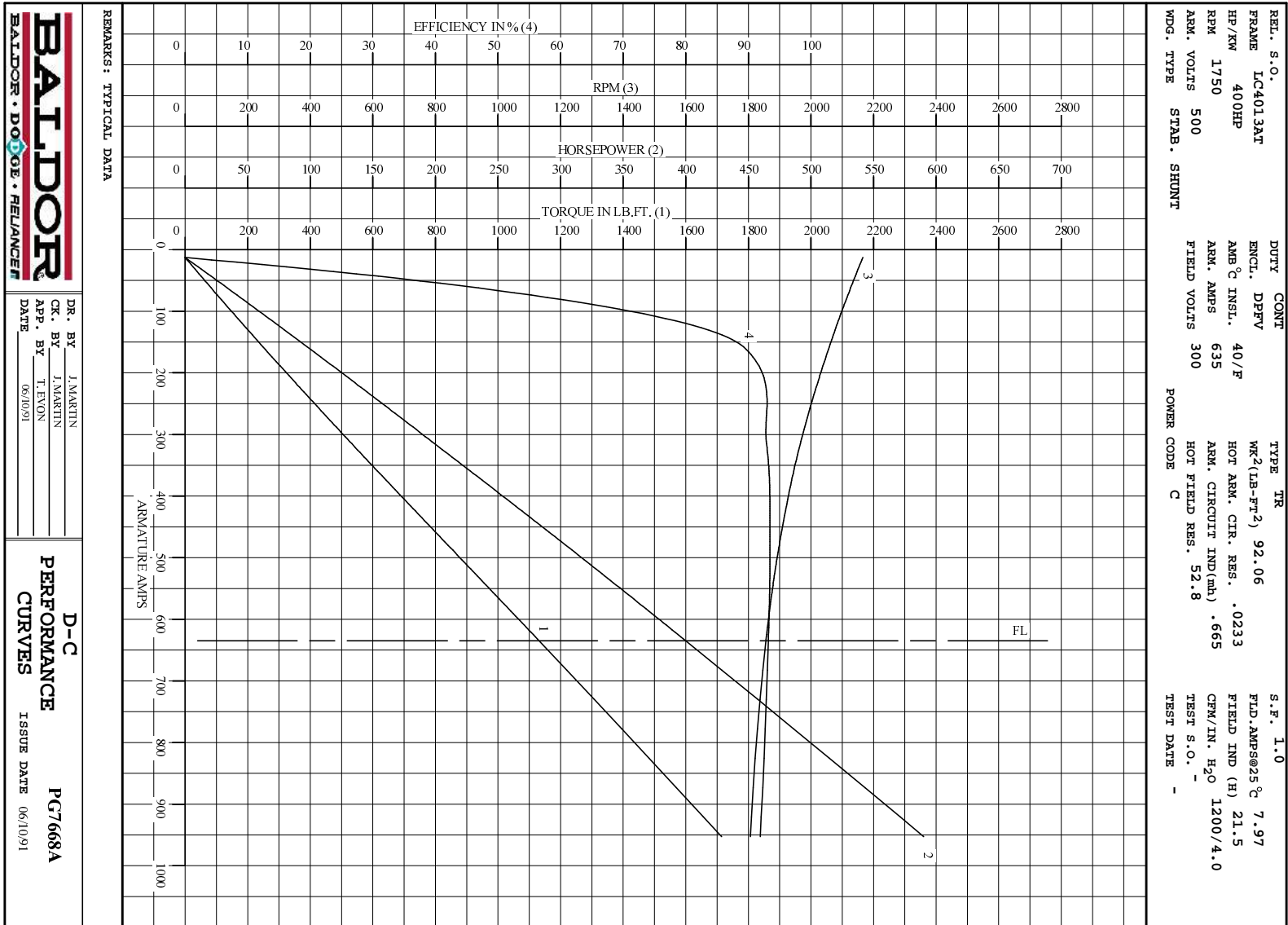
LOAD PERFORMANCE					
LOAD	AMPERES	TORQUE IN LB.-FT.	OUTPUT IN HP	RPM	% EFFICIENCY
NO LOAD	13	0	0	2166	0
1/4	159	251	98.2	2058	89.3
2/4	318	537	201	1965	92.9
3/4	476	834	302	1900	93.5
4/4	635	1131	400	1856	93.2
O.L.	953	1715	590	1807	91.9

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
5.67	2165	1856	400	374
5.48	2251	1888	389	364
5.28	2321	1923	377	353
5.08	2398	1960	365	342
4.89	2481	2000	352	331

MAXIMUM SAFE SPEED = 3000 RPM

REMARKS: TYPICAL DATA

	DR. BY J. MARTIN	D-C MOTOR PERFORMANCE DATA DG7668A ISSUE DATE 06/10/91
	CK. BY T. EVON	
	APP. BY 06/10/91	



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DR. BY J.MARTIN
 CK. BY J.MARTIN
 APP. BY T.EMON
 DATE 06/10/91

D-C
PERFORMANCE
CURVES ISSUE DATE 06/10/91
PG7668A