

BALDOR® • **RELIANCE**

Product Information Packet

D50300RS-BV

300HP, 1750RPM, DC, 4013ATZ, DPG-FV,

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Part Detail			
Type:	DC	Prod. Type:	TR
Power Code:	C	Weight:	2815
Frame Group:	MC 4013ATZ	Mounting Pos.:	F2
HP:	300	Enclosure:	DPFV
RPM:	1750/2000	Wound:	STAB SHUNT
Service Factor:	1.0	Arm V:	500
Arm A:	478.00	Field V:	300
Field A:	6.50	Field A Hot:	4.76/3.92
Insulation Class:	F	Ambient:	40
Duty:	CONT	DE Bearing:	95BC02J30X
ODE Bearing:	95BC02J30X	Brushes:	419904-52AB
Brush Qty.:			

609962-025

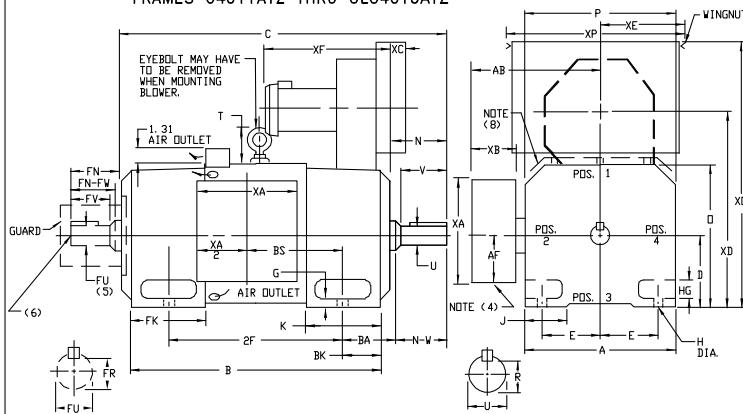
INDUSTRIAL DIRECT CURRENT MOTORS AND GENERATORS - RPM III

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

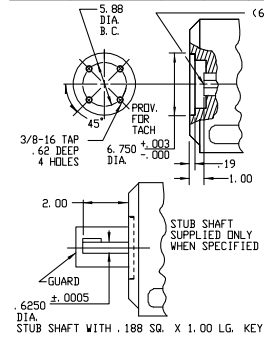
FRAMES C4011ATZ THRU ULC4013ATZ



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	C(7)	B	BS	2F	DRIVE END SHAFT AND KEY						(5) OPPOSITE DRIVE END SHAFT AND KEY						WT. LBS.		
						N	N-W	UK(3)	V	RK(3)	SO	LGTH	FN	FN-FV	FK(2)	FV	FK(3)		SO	LGTH
C4011ATZ	COUPLED	52.19	42.06	16.00	28.00	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	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 - 0.01
- (3) "R" AND "RV" VARY ----+ 0.00 - 0.15
- (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.

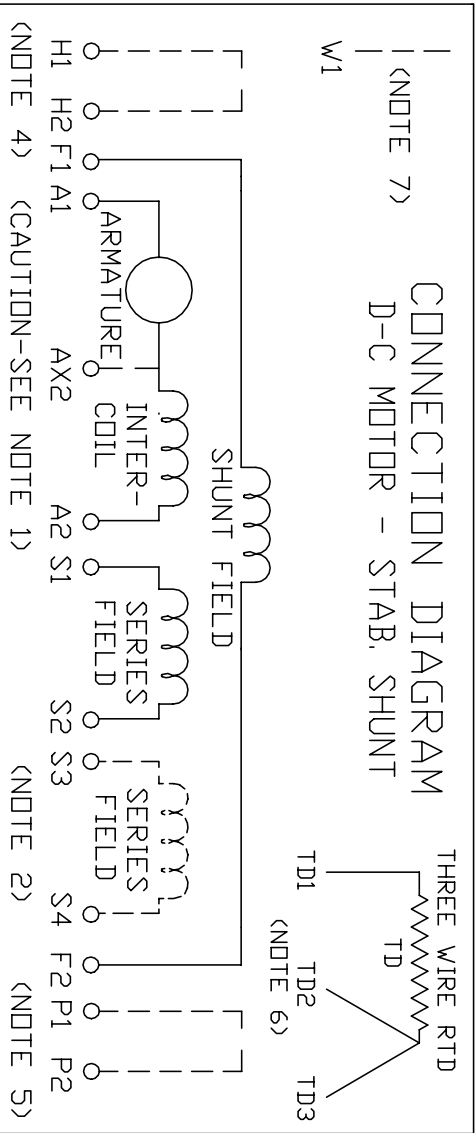
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION.

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: -		

BALDOR

DIMENSION DRAWING, C4011ATZ - ULC4013ATZ, DPP, FOOT MTG.
SH 1 of 1

609962-025



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



ROTATION FACING COMMUTATOR END

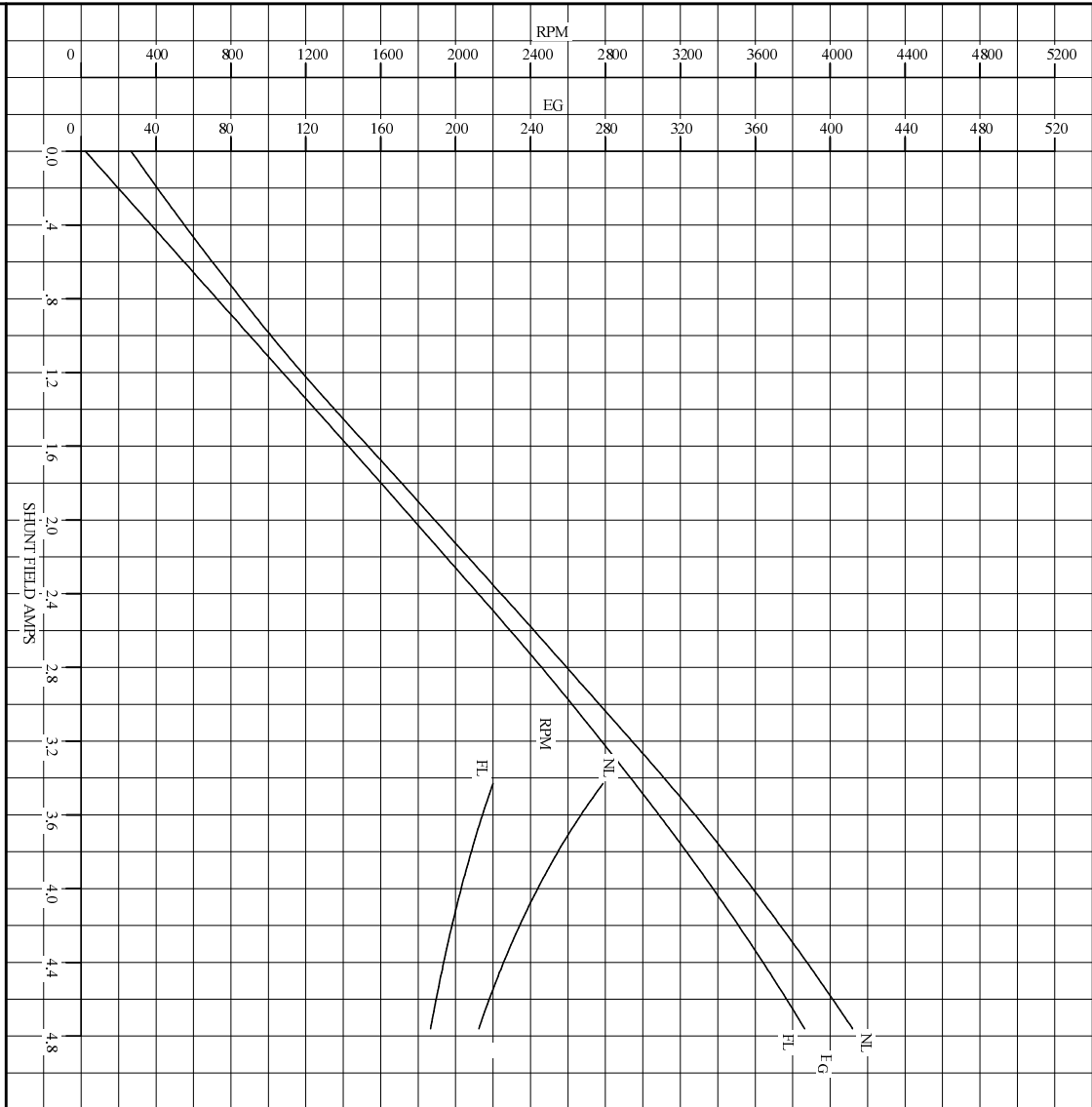
1. **CAUTION** — ARMATURE AND SERIES FIELD MAY HAVE MULTIPLE LEADS. CONNECT ALL LUGS WITH THE SAME MARKING TOGETHER.
2. OPTIONAL SERIES FIELD IS MARKED S3 AND S4. FOR CUMULATIVE SERIES FIELD, CONNECT S3 TO S2 AND CONNECT S4 TO NEGATIVE. FOR DIFFERENTIAL SERIES FIELD CONNECT S4 TO S2 AND S3 TO NEGATIVE.
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>RELIANCE ELECTRIC CLEVELAND, OHIO 44117 U.S.A.</p>	<p>Rev. by <u>N.L. EVANS</u> Ck. by <u>N. JESCHKE</u> App. by <u>E. L. HINER</u> DATE <u>5-5-69</u></p>
<p>CONNECTION DIAGRAM</p>	<p>406770-1</p>
<p>ORIGINAL AT RCC</p>	

C/R 290048, 354478, 354480

REF. S.O.	FRAME	RATING	BASE SPEED	WINDING TYPE
	MC4013ATZ	300HP	1750	STAB SHUNT
S.F.	ENCL.	AMB°C/INSUL	POWER CODE/FORM FACTOR	TYPE
1.0	DPFV	40/F	C	TR
COOLING AIR (CFM/IN H ₂ O) (sec)		R (hoc)	T _m	BASIC RPM
1200/4.00		.514	.0229	2000
				MAX COUNT RPM
				2200
				WINDER RPM
				MAX. SAFE
				3000
WINDING	VOLTS	RESISTANCE		TURNS PER COIL
		25°C	HOT	
ARM CIRCUIT	500	.0231	.0324	.851
SERIES S1-S2	-	.00251	.00344	-
SHUNT F1-F2	300	46.1	63.0	26.5
			6.50	H
				4.76
				6.50



REMARKS: TYPICAL DATA
CURVES VALID FOR NAMEPLATE SPEED RANGE ONLY

BALDOR • DOUG • RELIANCE		DR. BY	EHGILLOT	D-C	
		CK. BY	RJERLACHER		APPLICATION
		APP. BY	RJERLACHER		
		DATE	06/04/91	ISSUE DATE	
				06-17-2005	

C/R RCG499

REL S.O.	FRAME	RATING	RPM	ARM. VOLTS	ARM. AMPS
	MC4013ATZ	300HP	1750	500	478
WINDING TYPE	S.F.	ENCL.	AMB °C/INSVL	DUTY	FIELD VOLTS
STAB. SHUNT	1.0	DPFV	40/F	CONT	300
POWER CODE	TYPE	WK 2 (LB-FT 2)	HOT ARM. CIR. RES.	FLD. AMPS@25 °C	HOT FIELD RES
C	TR	81.56	.0324	6.50	63.0
ARM. CIR. IND. (mh)	FIELD IND. (H)	COOLING AIR (CFM/IN H 20)	TURNS PER COIL SHUNT/SERIES	TEST DATE	
.851	26.4	1200/4.00	650/1.75	-	

LOAD PERFORMANCE

LOAD	AMPERES	TORQUE IN LB.-FT.	OUTPUT IN HP	RPM	% EFFICIENCY
NO LOAD	10	0	0	2106	0
1/4	120	190	73.1	2019	88.0
2/4	239	406	150	1945	92.2
3/4	359	627	226	1894	93.0
4/4	478	848	300	1858	92.8
O.L.	717	1279	443	1818	91.6


RPM VS. FIELD AMPS

Eg VS. FIELD AMPS

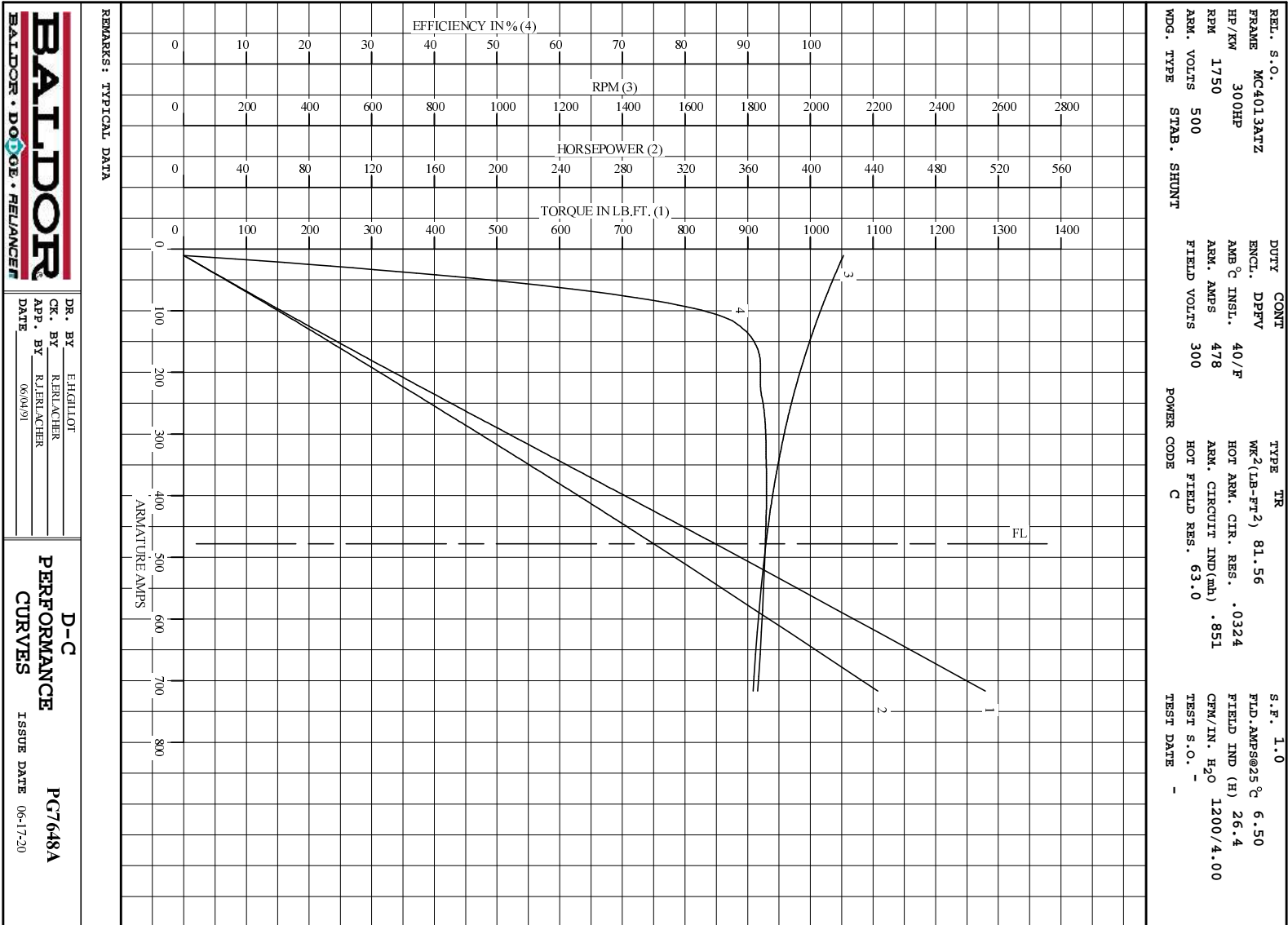
FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED
4.76	2105	1858	412	386
4.42	2245	1930	390	365
4.09	2391	2005	366	343
3.76	2568	2094	340	320
3.42	2786	2200	313	295

MAXIMUM SAFE SPEED = 3000 RPM

REMARKS: TYPICAL DATA

	DR. BY E.H.GILLIOT	D-C MOTOR PERFORMANCE DATA DG7648A ISSUE DATE 06-17-2005
	CK. BY R.ERLACHER APP. BY R.J.ERLACHER DATE 06/04/91	

C/R RGG439



C/R RCG499



DR. BY EHGILLIOT
 CK. BY RRELACHER
 APP. BY RRELACHER
 DATE 06/04/91

D-C
PERFORMANCE
CURVES ISSUE DATE 06-17-20
PG7648A