

# **BALDOR**® • ***RELIANCE***

## **Product Information Packet**

### **D50125UR-BV**

**125HP, 1750RPM, DC, 2813ATZ, DPG-FV,**

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Part Detail			
Type:	DC	Prod. Type:	TR
Power Code:	C	Weight:	945
Frame Group:	UC 2813ATZ	Mounting Pos.:	F2
HP:	125	Enclosure:	DPFV
RPM:	1750/2000	Wound:	STR. SHUNT
Service Factor:	1.0	Arm V:	500
Arm A:	204.00	Field V:	300
Field A:	6.93	Field A Hot:	4.87/4.24
Insulation Class:	F	Ambient:	40
Duty:	CONT	DE Bearing:	
ODE Bearing:	55BC02J30X	Brushes:	419904-51AF
Brush Qty.:			

616022-001

### INDUSTRIAL DIRECT CURRENT MOTORS AND GENERATORS - RPM III

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

COOLING: FORCE VENTILATED  
WITH INTEGRAL  
BLOWER AND MOTOR

ACCESSORIES: PROVISION FOR  
TACHOMETER MOUNTING  
ONLY WHEN SPECIFIED

FRAMES MC2812ATZ THRU UC2815ATZ

616022-001

DIMENSIONS ARE IN INCHES

FRAME	XAC	XC	XE	XF	XO
MC2812ATZ-UC2815ATZ	6.38	4.00	9.25	19.00	26.25

FRAME	A	B(1)	E	G	H	HG	J	D	P	T	BA	K	FK	BK
MC2812ATZ-UC2815ATZ	13.78	7.00	5.50	.62	.56	1.88	2.75	14.00	13.94	2.80	4.75	6.75	9.19	3.50

FRAME	METHOD OF DRIVE	C(7)	B	BS	2F	N	N-W	U(2)	V	R(3)	SD	LGTH	FN	FN-FW	FUK(2)	FV	FR(3)	SD	LGTH	WT. LBS.
MC2812ATZ	COUPLED	37.38	29.94	14.25	22.00	5.00	4.75	2.375	4.50	2.021	.625	3.50	4.50	4.25	2.125	4.00	1.845	.500	3.00	810
UMC2812ATZ	BELTED	37.88	29.94	14.25	22.00	5.50	5.25	2.625	5.00	2.275	.625	4.00	4.50	4.25	2.125	4.00	1.845	.500	3.00	815
LC2812ATZ	COUPLED	39.62	32.19	16.50	22.00	5.00	4.75	2.375	4.50	2.021	.625	3.50	4.50	4.25	2.125	4.00	1.845	.500	3.00	885
ULC2812ATZ	BELTED	40.12	32.19	16.50	22.00	5.50	5.25	2.625	5.00	2.275	.625	4.00	4.50	4.25	2.125	4.00	1.845	.500	3.00	890
C2813ATZ	COUPLED	41.25	33.81	18.12	25.00	5.00	4.75	2.375	4.50	2.021	.625	3.50	4.50	4.25	2.125	4.00	1.845	.500	3.00	940
UC2813ATZ	BELTED	41.75	33.81	18.12	25.00	5.50	5.25	2.625	5.00	2.275	.625	4.00	4.50	4.25	2.125	4.00	1.845	.500	3.00	945
C2815ATZ	COUPLED	46.75	39.31	23.62	32.00	5.00	4.75	2.375	4.50	2.021	.625	3.50	4.50	4.25	2.125	4.00	1.845	.500	3.00	1125
UC2815ATZ	BELTED	47.25	39.31	23.62	32.00	5.50	5.25	2.625	5.00	2.275	.625	4.00	4.50	4.25	2.125	4.00	1.845	.500	3.00	1130

(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-----4.000 - .001

(3) "R" AND "FR" VARY-----4.000 - .015

(4) TERMINAL BOX VARIES WITH N.P. FOR DIMENSIONS "AN", "AB", "AC", "AF", "X" AND "Y". REFER TO BOX D/S. (STD. 609959-1, "X/P" 609959-2, WILL 609959-3)

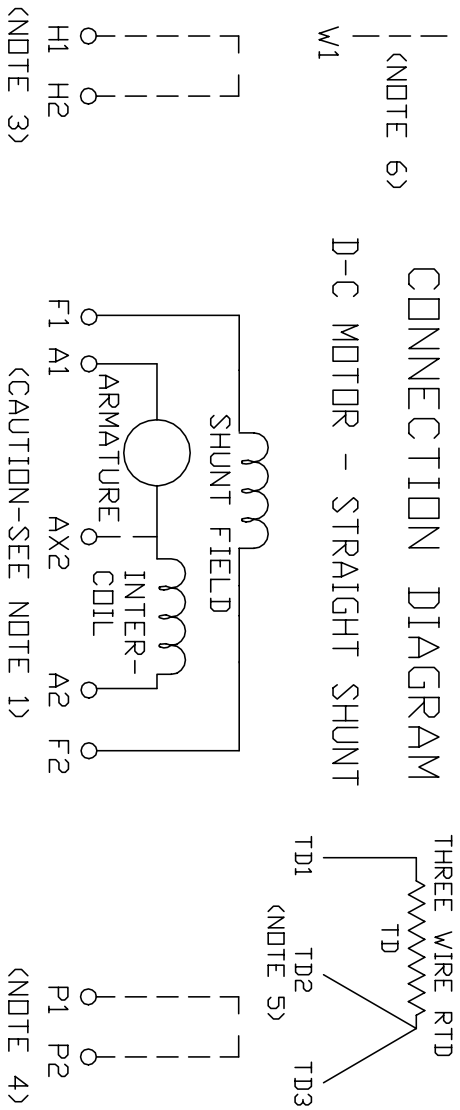
(5) OPPOSITE DRIVE END SHAFT SUPPLIED ONLY WHEN SPECIFIED.

(6) MOTOR SHAFT TAPPED FOR SERVO-IN STUB SHAFT.

(7) WHEN THE MOTOR APPLICATION DOES NOT REQUIRE THE USE OF OPP. DRIVE END, AND .25 TO ".5" DIM FOR BRACKET COVER. TERMINAL BOX CAN BE ROTATED FOR LEAD OUTLET AT TOP, SIDES OR BOTTOM. 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. BLOWER ASSEMBLY CAN BE LOCATED AT POSITIONS 1, 2, OR 4, EXCEPT BLOWER ASSEMBLY AND TERMINAL BOX CAN NOT BE LOCATED AT THE SAME POSITION. 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: LOADED TO BUS	VERSION: 00	TDR: 000000578087	<b>BALDOR</b> DIMENSION DRAWING, MC2812ATZ - UC2815ATZ, DPP, FOOT MTG SH 1 of 1
REV. LTR: -	REVISED: 01:13:50 01/28/2011	BY: CONNAS	
FILE: \RGG\00016\005	MTL: -		



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 LEAD MARKED W1.
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 FOR MOTOR GROUNDING. GROUND LEAD, WHEN PROVIDED, WILL BE GREEN.

CUSTOMER \_\_\_\_\_ RELIANCE \_\_\_\_\_  
 ORDER NO. \_\_\_\_\_ S.O. NO. \_\_\_\_\_



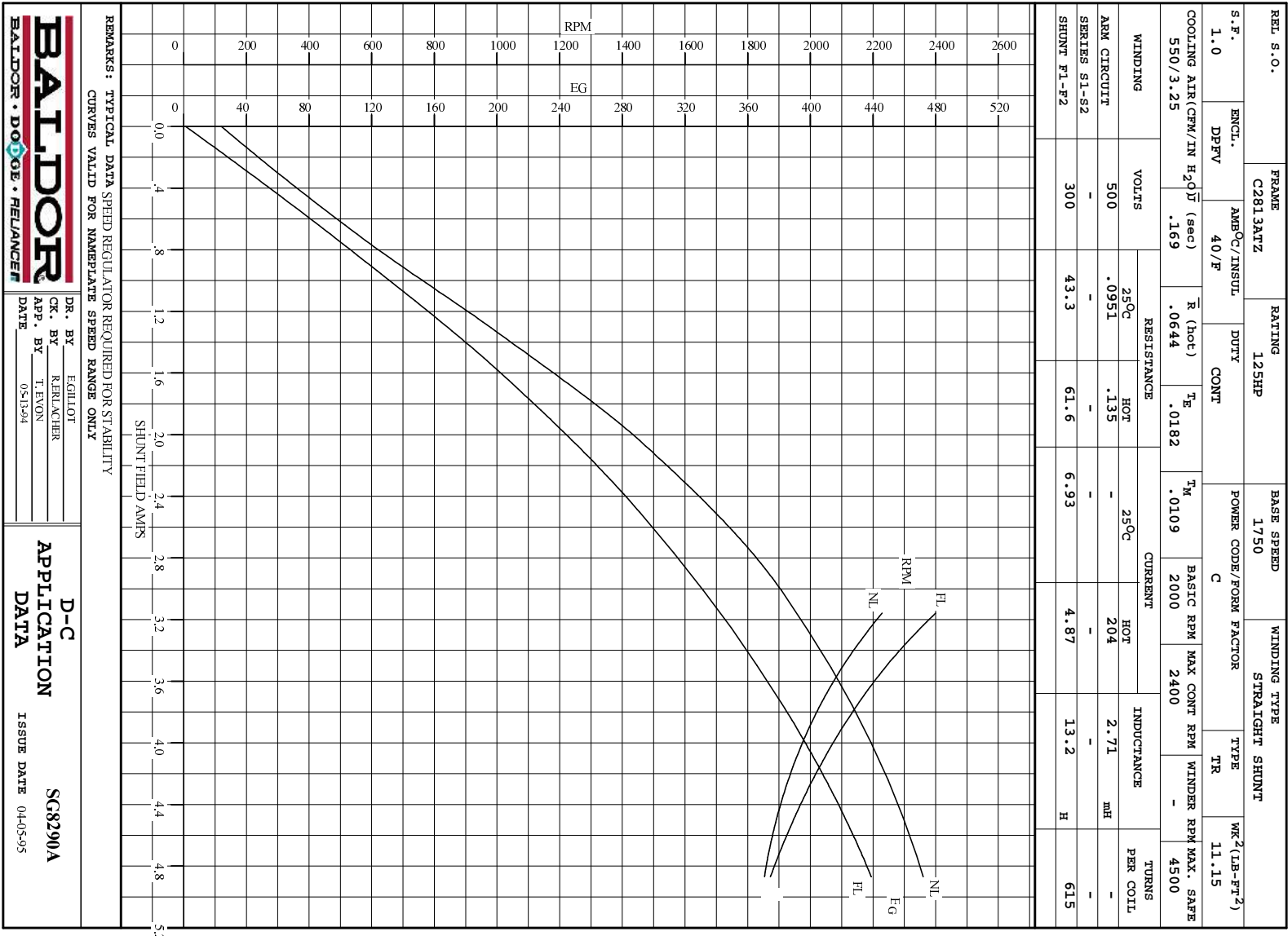
Rev. BY N.L. EVANS  
 CK. BY N. JESCHKE  
 App. BY E.J. HINER  
 DATE 5-5-69

**CONNECTION DIAGRAM**

**406770-6**

ORIGINAL AT RCC

C/R 244907, 290048, 354478, 354480



REL. S.O.	FRAME	RATING	RPM	ARM. VOLTS	ARM. AMPS
	C2813ATZ	125HP	1750	500	204
WINDING TYPE	S.F.	ENCL.	AMB °C/INSUL	DUTY	FIELD VOLTS
STRAIGHT 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	11.15	.135	6.93	61.6
ARM. CIR. IND. (mh)	FIELD IND. (H)	COOLING AIR (CFM/IN H 20)	TURNS PER COIL SHUNT/SERIES	TEST DATE	
2.70	13.1	550/3.25	615/.00000	-	

LOAD PERFORMANCE


LOAD	AMPERES	TORQUE IN LB.-FT.	OUTPUT IN HP	RPM	% EFFICIENCY
NO LOAD	3.5	0	0	1847	0
1/4	51	89.0	31.1	1833	85.2
2/4	102	182	63.5	1828	89.8
3/4	153	270	94.7	1840	90.3
4/4	204	352	125	1860	89.7
O.L.	306	487	181	1953	87.3

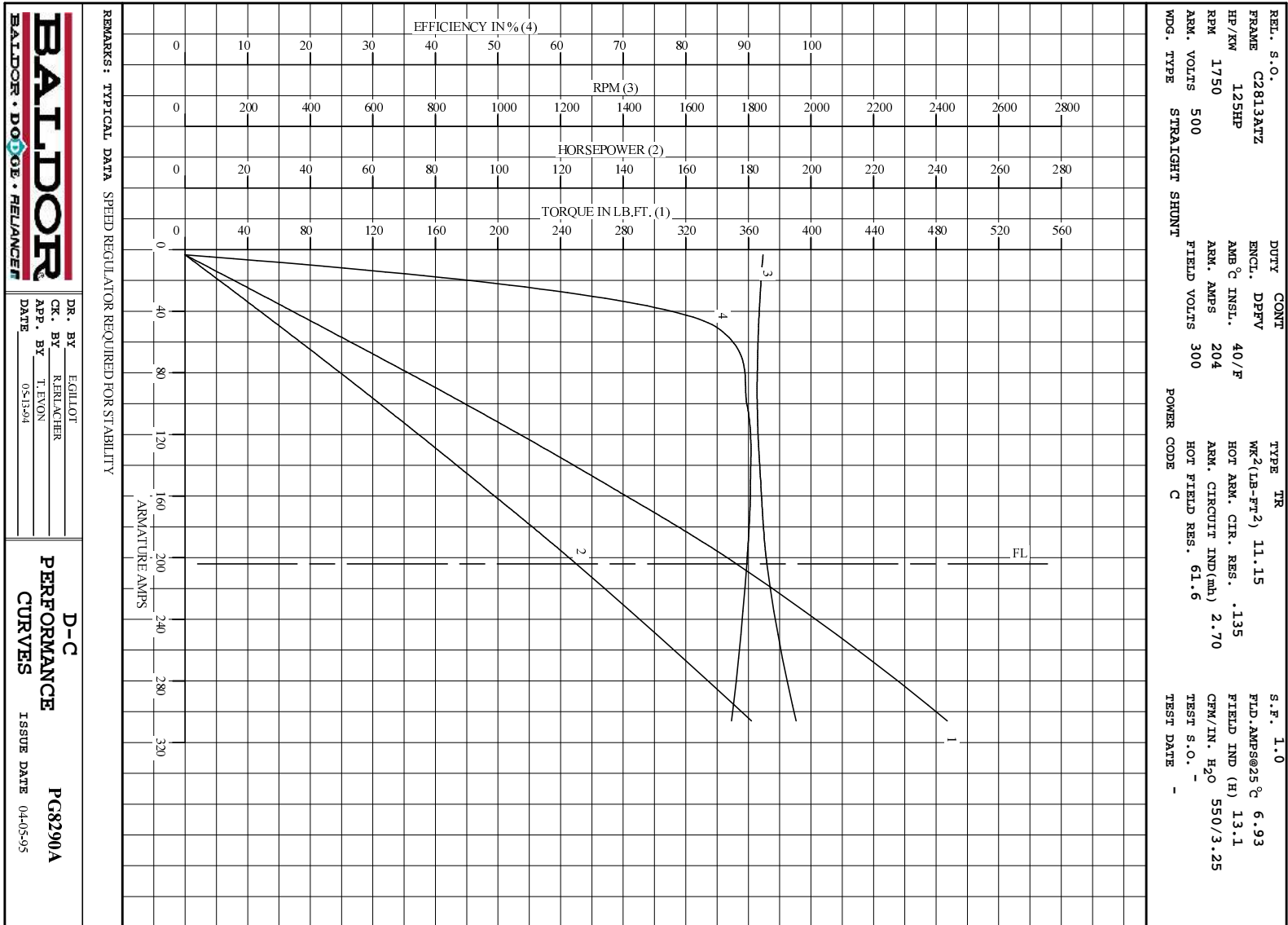
RPM VS. FIELD AMPS

Eg VS. FIELD AMPS

FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED
4.86	1847	1859	472	438
4.44	1899	1959	457	419
4.01	1972	2068	439	397
3.58	2078	2209	418	371
3.15	2229	2400	391	343

REMARKS: TYPICAL DATA  
 MAXIMUM SAFE SPEED = 4500 RPM  
 SPEED REGULATOR REQUIRED FOR STABILITY

	DR. BY E. GILLIOT	<b>D-C MOTOR PERFORMANCE DATA</b> DG8290A ISSUE DATE 04-05-95
	CK. BY K. BRACHER	
	APP. BY T. EVON DATE 05-13-94	



DR. BY EGHLOT  
 CK. BY RRELAOCHER  
 APP. BY T. ENON  
 DATE 05-13-94

**D-C**  
**PERFORMANCE**  
**CURVES** ISSUE DATE 04-05-95  
**PG8290A**