BALDOR
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BALDOR • RELIANCE

Product Information Packet

D2525R

25 1750/2300 MC2812ATZ TEFC 240V

For Baldor Sales and Support, Please Contact: Walker EMD • http://www.walkeremd.com • Toll-Free: (800) 876-4444 • Phone: (203) 426-7700 • Fax: (203) 426-7800

Part Detail			
Type:	DC	**Prod. Type:**	TR
Power Code:	C	**Weight:**	805
Frame Group:	MC 2812ATZ	**Mounting Pos.:**	F1
HP:	25	**Enclosure:**	TEFC
RPM:	1750/2300	**Wound:**	STAB SHUNT
Service Factor:	1.0	**Arm V:**	240
Arm A:	87.00	**Field V:**	150
Field A:	4.05	**Field A Hot:**	2.73/1.96
Insulation Class:	F	**Ambient:**	40
Duty:	CONT	**DE Bearing:**	65BC03J30X
ODE Bearing:	55BC02J30X	**Brushes:**	419904-51AB
Brush Qty.:			

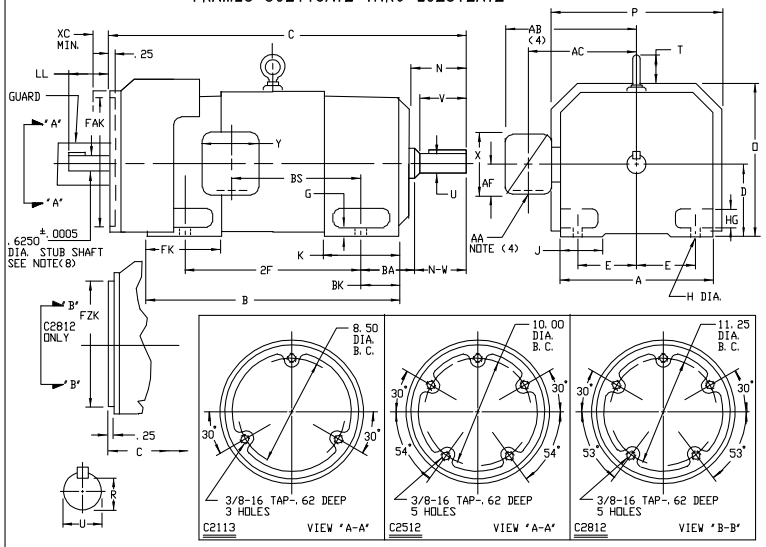
609951-013

INDUSTRIAL DIRECT CURRENT MOTORS AND GENERATORS – RPM III

ENCLOSURE: TOTALLY ENCLOSED
MOUNTING:FOOT
METHOD OF DRIVE:COUPLED OR BELTED

COOLING: FAN COOLED
ACCESSORIES: PROVISION FOR TACHOMETER MOUNTING ONLY WHEN SPECIFIED

FRAMES SC2113ATZ THRU LC2812ATZ



DIMENSIONS ARE IN INCHES

FRAME	A	DX(1)	E	G	H	HG	J	D	P	T	BA	K	FK	BK	FAK(6)	FZK(7)	XC(5)
SC2113ATZ-LC2113ATZ	10.25	5.25	4.25	.44	.44	1.38	1.75	11.62	12.75	1.38	3.50	5.19	6.81	2.38	9.750	N/A	1.25
SC2512ATZ-LC2512ATZ	12.31	6.25	5.00	.50	.56	1.62	2.00	13.62	14.75	1.94	4.25	6.06	8.00	3.00	11.250	N/A	1.25
MC2812ATZ-LC2812ATZ	13.78	7.00	5.50	.62	.56	1.88	2.75	15.06	16.12	2.31	4.75	6.75	9.19	3.50	N/A	12.500	1.25

FRAME	C	B	BS	2F	DRIVE END SHAFT AND KEY N	N-W	U(2)	V	R(3)	SQ.	LGTH.	WT. LBS.
SC2113ATZ	32.19	22.50	11.38	18.00	4.00	3.75	1.875	3.50	1.591	500	2.50	355
MC2113ATZ	33.44	23.75	12.62	18.00	4.00	3.75	1.875	3.50	1.591	500	2.50	380
LC2113ATZ	35.06	25.38	14.25	18.00	4.00	3.75	1.875	3.50	1.591	500	2.50	410
SC2512ATZ	35.94	25.06	12.06	20.00	4.50	4.25	2.125	4.00	1.845	500	3.00	555
MC2512ATZ	37.44	26.56	13.56	20.00	4.50	4.25	2.125	4.00	1.845	500	3.00	590
LC2512ATZ	38.94	28.06	15.06	20.00	4.50	4.25	2.125	4.00	1.845	500	3.00	630
MC2812ATZ	41.62	29.94	14.25	22.00	5.00	4.75	2.375	4.50	2.021	625	3.50	835
LC2812ATZ	43.88	32.19	16.50	22.00	5.00	4.75	2.375	4.50	2.021	625	3.50	900

(1) 'D' DIMENSION WILL NOT BE EXCEEDED. SHIMS UP TO .03 INCHES IN THICKNESS ARE USUALLY REQUIRED FOR COUPLED OR GEARED MACHINES.
(2) 'U' VARIES----+.000 -.001
(3) 'R' VARIES----+.000 -.015
(4) TERMINAL BOX VARIES WITH H.P. FOR DIMENSIONS 'AA', 'AB', 'AC', 'AF', 'X' AND 'Y'. SEE DRAWING NUMBER 609959-1.
(5) WALLS OR OBSTRUCTIONS MUST NOT ENCROACH ON AIR INLET SPACE 'XC'.
(6) 'FAK' VARIES +.005 -.000----FACE RUNOUT AND ECCENTRICITY .007 MAX. T.I.R.
(7) 'FZK' VARIES +.000 -.005----FACE RUNOUT AND ECCENTRICITY .007 MAX. T.I.R.
(8) STUB SHAFT SUPPLIED ONLY WHEN SPECIFIED. KEY SIZE .188 X .188 X 1.00
(9) FOR RE-045 OR 5PY PROVISIONS ON 'C2812" ADD 1.00 TO 'LL' DIMENSION.
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.
MOTOR WEIGHT MAY VARY 15% FOR NON-STANDARD RATINGS AND/OR ACCESSORIES.
IF MOUNTING CLEARANCE DETAILS ARE REQUIRED, CONSULT FACTORY.

TACHOMETER	LL
BC-42	4.25
BC-46	
RD-11	
RD-12	
RD-51	
RD-61	
RD-62	
RE-210	
M627, M628	
M727, M737	
M738	
DYNAPAR 74S	
RE-045 5PY	3.80 1.12 SEE NOTE (9)

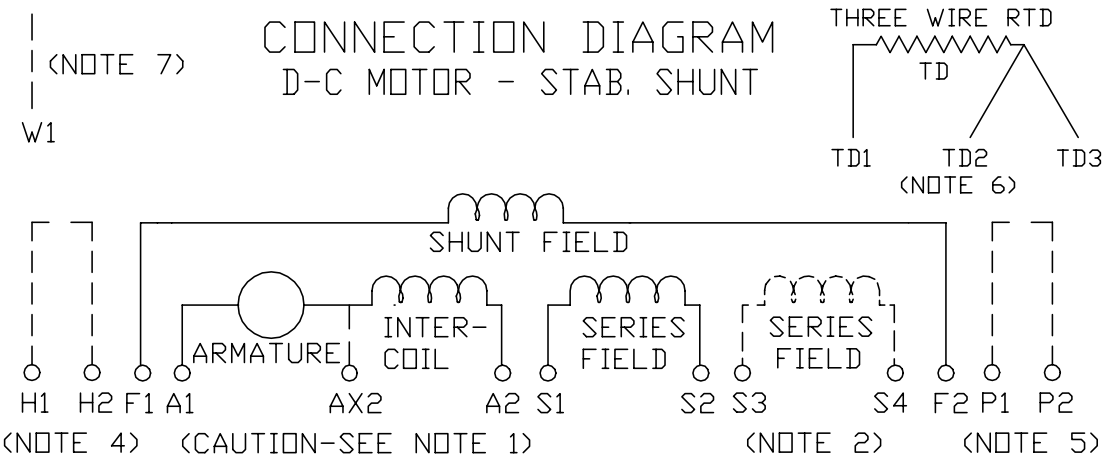
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION.

REV. DESC: LOADED TO BUS		
REV. LTR: –	VERSION: 00	TDR: 000000577407
FILE: \RGG\00015\557	REVISED: 11:02:01 01/26/2011	BY: CONNAS
MTL: –		

BALDOR
DIMENSION DRAWING,SC2113ATZ – LC2812ATZ,TEFC,FOOT MTG
SH 1 of 1

609951-013

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

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

RELIANCE ELECTRIC CLEVELAND, OHIO 44117 U. S. A.	DR. BY N. L. EVANS CK. BY N. JUESCHKE APP. BY E. J. HINGER DATE 5-5-69	CONNECTION DIAGRAM	406770-1 ORIGINAL AT RRC

C/R 290048, 354478, 354480

REL S.O.	FRAME	RATING	RPM	ARM. VOLTS	ARM. AMPS
	MC2812AT	25.0HP	1750	240	87.0

WINDING TYPE	S.F.	ENCL.	AMB °C/INSUL	DUTY	FIELD VOLTS
STAB. SHUNT	1.0	TEFC	40/F	CONT	150

POWER CODE	TYPE	WK^2 (LB-FT^2)	HOT ARM.CIR.RES.	FLD. AMPS@25 °C	HOT FIELD RES
C	TR	8.469	.112	4.05	54.8

ARM. CIR. IND. (mh)	FIELD IND. (H)	COOLING AIR(CFM/IN H_2O)	TURNS PER COIL SHUNT/SERIES	TEST DATE
2.34	11.0	-/-	550/2	-

LOAD PERFORMANCE

LOAD	AMPERES	TORQUE IN LB.-FT.	OUTPUT IN HP	RPM	% EFFICIENCY
NO LOAD	4.6	0	0	1990	0
1/4	22	14.8	5.47	1936	71.3
2/4	44	34.0	12.2	1882	83.1
3/4	65	53.7	18.7	1832	86.4
4/4	87	73.5	25.1	1791	87.4
O.L.	131	113	37.1	1726	87.0

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
2.73	1990	1791	209	203
2.54	2139	1886	196	191
2.34	2296	2000	183	178
2.15	2484	2135	169	164
1.95	2712	2300	154	150

MAXIMUM SAFE SPEED = 4500 RPM

REMARKS: TYPICAL DATA

RELIANCE ELECTRIC

DR. BY B. GRANT
CK. BY B. GRANT
APP. BY T. EVON
DATE 8-5-85

D-C MOTOR PERFORMANCE DATA

DG6317A

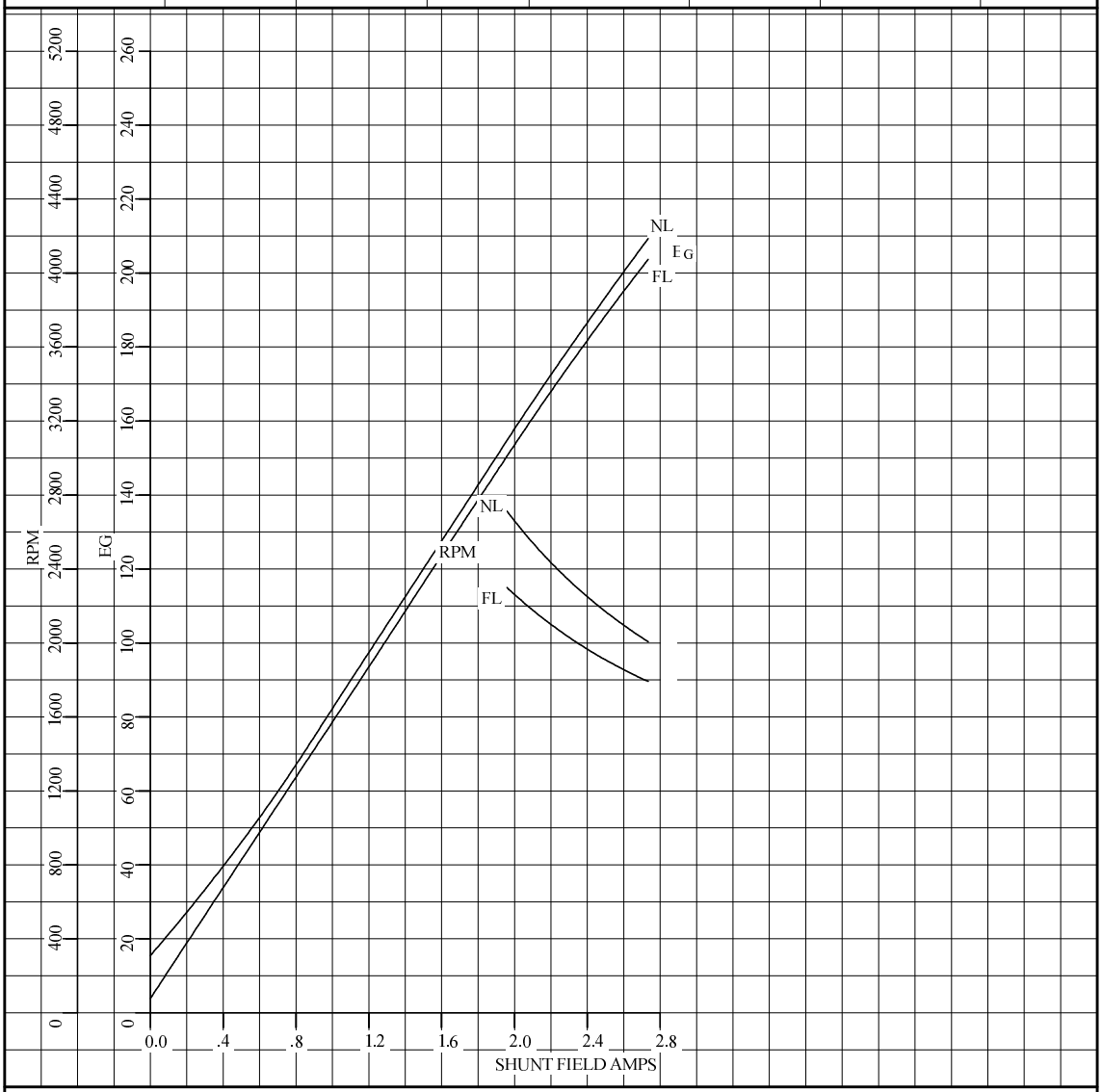
ISSUE DATE 8-5-85

REL S.O.	FRAME	RATING	BASE SPEED	WINDING TYPE
	MC2812AT	25.0HP	1750	STAB SHUNT

S.F.	ENCL.	AMB °C/INSUL	DUTY	POWER CODE/FORM FACTOR	TYPE	WK^2 (LB-FT^2)
1.0	TEFC	40/F	CONT	C	TR	8.469

COOLING AIR (CFM/IN H_2O)	$\bar{J}$ (sec)	$\bar{R}$ (hot)	T_E	T_M	BASIC RPM	MAX CONT RPM	WINDER RPM	MAX. SAFE
-/-	.641	.0540	.0165	.0346	2030	2300	-	4500

WINDING	VOLTS	RESISTANCE		CURRENT		INDUCTANCE	TURNS PER COIL
		25°C	HOT	25°C	HOT		
ARM CIRCUIT	240	.0801	.112	-	87.0	2.34 mH	-
SERIES S1-S2	-	.00438	.00640	-	87.0	-	2.00
SHUNT F1-F2	150	37.0	54.9	4.05	2.73	11.1 H	550



REMARKS: TYPICAL DATA
CURVES VALID FOR NAMEPLATE SPEED RANGE ONLY

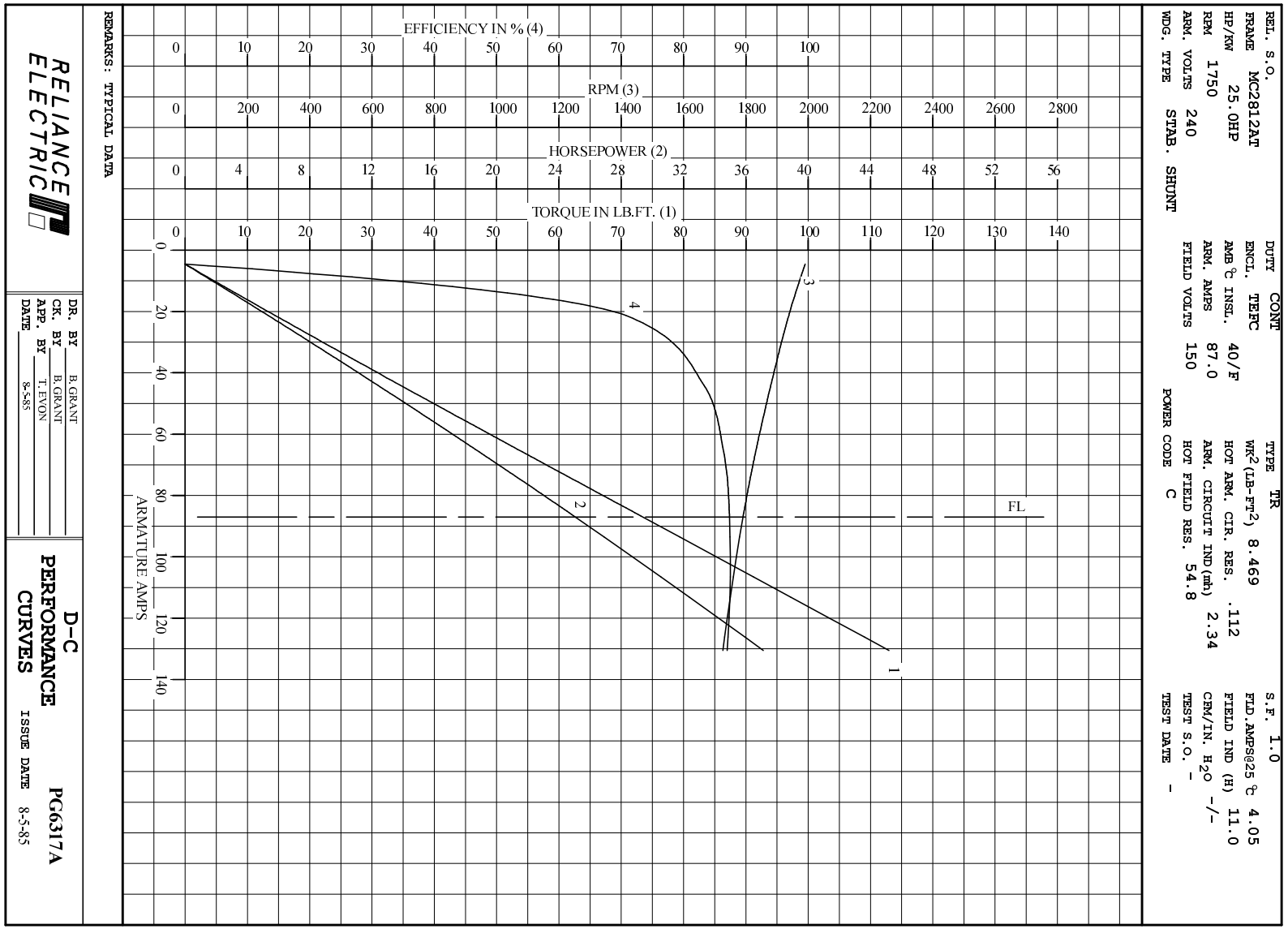
RELIANCE ELECTRIC

DR. BY B. GRANT
CK. BY B. GRANT
APP. BY T. EVON
DATE 8-5-85

D-C APPLICATION DATA

SG6317A

ISSUE DATE 8-5-85



REL. S.O.
FRAME MC2812AT
HP/KW 25.0HP
RPM 1750
ARM. VOLTS 240
WDG. TYPE STAB. SHUNT

DUTY CONT
ENCL. TEFC
AMB °C INSL. 40/F
ARM. AMPS 87.0
FIELD VOLTS 150
POWER CODE C

TYPE TR
WR^2 (LB-FT^2) 8.469
HOT ARM. CIR. RES. .112
ARM. CIRCUIT IND(mh) 2.34
HOT FIELD RES. 54.8

S.F. 1.0
FLD.AMPS@25 °C 4.05
FIELD IND (H) 11.0
CRM/IN. H_2O -/-
TEST S.O. -
TEST DATE -

REMARKS: TYPICAL DATA

RELIANCE ELECTRIC

DR. BY	B. GRANT	
CK. BY	B. GRANT	
APP. BY	T. EVON	
DATE	8-5-85	

D-C PERFORMANCE CURVES

PG6317A

ISSUE DATE 8-5-85