

ABB BALDOR RELIANCE III

Customer information packet D5530R

30 1750/2300 LC2812ATZ TEFC 500V

Specifications

Enclosure	TEFC
Frame	LC2812ATZ
Frame Material	Exposed Laminations
Output Power	30.000 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	STAB SHUNT
Frame Prefix	LC
Heater Indicator	No Heater
Lifting Lugs	Standard Lifting Lugs
Motor Standards	NEMA
Mounting Arrangement	F1
Overall Length	43.88 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Slinger Indicator	No Slinger

Part Detail

Revision	A
Type	DC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	G6151A A
Layout	609951-013
Eff. date	11-06-2017
CD Diagram	406770-002
Poles	00
Leads	
Proprietary	False
Created date	04-10-2015

Nameplate

000613006HP									
CAT.NO.			SPEC NO.		T28S0303				
FR	LC 2812ATZ	HP	30		DUTY		CONT		
ENCL.	TEFC	RPM	1750/2300			S.F.	1.0		
ENCL MOD			VOLTS	500		INSUL		F	
MAX SAFE SPEED	2450	AMPS	50.00			AMB.	40		
FIELD DATA		SER.NO.							
WINDING	STAB SHUNT		POWER CODE		C				
VOLTS	300		D.E. BRG.		65BC03J30X				
MAX AMPS @ 25 C	1.74		O.D.E. BRG.		55BC02J30X				
HOT AMPS	1.21/.90		MIN. AMB.		0		TYPE		TR
BRUSH:419904051AD									
FLD. DATA FOR HIGH VOLTS;									

000692000MB	
FIELD VOLTS 150/300	

Parts List

Part number	Description	Quantity
SA297069	SA T28S0303	1.000 ea
AA016120	AA T28S0303	1.000 ea
000613006HP	NAMEPLATE - RPM III D-C MOTOR W/CSA LOGO	1.000 ea
000692000MB	BALDOR RELIANCE MOTOR DATA NAMEPLATE	1.000 ea
000692000FP	NP, WARNING LIFT INSTRUCTIONS	1.000 ea
000692000FS	WARNING LABEL	1.000 ea
033775004EA	DRSCR #6-1/4 304 S.S.	8.000 ea
406770002	C/D TAG STAB SHUNT D.V.	1.000 ea
036000020HB	HHCS M6-1.0X20MM PLATED	4.000 ea
036000020KB	MHHCS M10-1.5X20MM PLTD.	4.000 ea
036501008AB	KPNUT M6-1.0 ZINCPLTED	8.000 ea
036610010AB	MHSLW M10 PLATED	4.000 ea
419904-51AD	BRUSH C	4.000 ea
419905003A	FLAT WASHER ROCKER RPM III RGG	4.000 ea
419905008A	HARDWARE	8.000 ea
706364051RBA	BRHLD METRIC SPRING CHG.	4.000 ea
706372001H	ROCKR METRIC	1.000 ea
034530018AB	P/NIP 1/8X2-1/4L PLATED	1.000 ea
034630001AJ	1/8" PIPE COUPLING	1.000 ea
034693001AB	PPLG - G508- use 034692001AB	1.000 ea
034693001AB	PPLG - G508- use 034692001AB	1.000 ea
035000001A	ALFTG 1/8" 1610-BL	1.000 ea
035000001A	ALFTG 1/8" 1610-BL	1.000 ea
036000075KB	HHCS M10 75MM ZINCPLAT	3.000 ea
036100060JA	M8-1.25 X 60MM HXSOCHDCS	3.000 ea
036500011AB	METRIC NUT M12-1.75 PLT.	4.000 ea
036500011AB	METRIC NUT M12-1.75 PLT.	4.000 ea
400638001AD	WAVEN - 400 (Customer number 43699)	1.000 ea
418150003A	GREASE FITTING CAP	2.000 ea
609830005W	TBOLT METRIC RP609830-	4.000 ea
415000103A	T/LUG #14AWG-#4AWG W/HOLE FOR .250 BOLT	1.000 ea

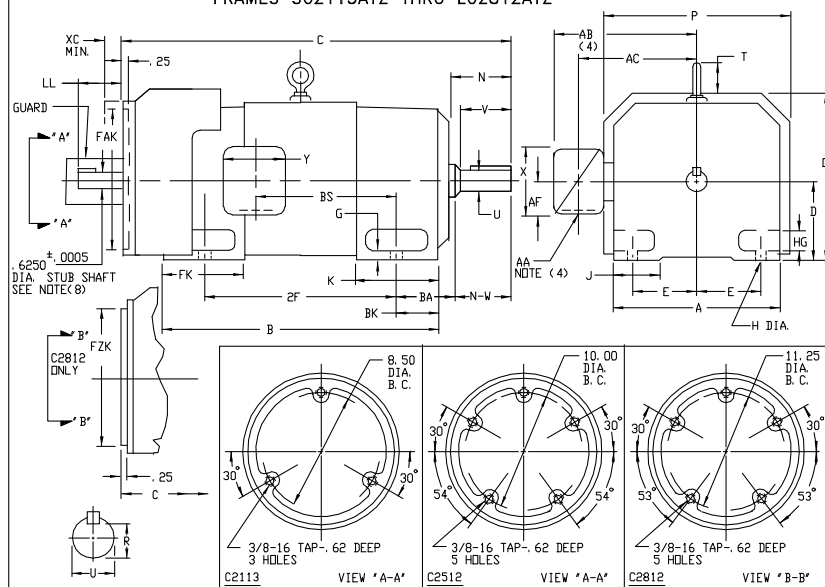
801928055A	BRKT,ODE,C280	1.000 ea
801929052A	BRKT,DE,C280	1.000 ea
004824015A	GREASE POLYREX EM	0.300 lb
032018004AK	HHCS 1/4-20X1/2 PLATED	4.000 ea
036000016KB	HHCSM10-1.5X16MM PLTD-280	2.000 ea
032018004CK	HHCS 3/8-16X1/2L PLATED	5.000 ea
418018074A	GROUND LABEL G100 METRIC 160 D.C.	3.000 ea
032018012DK	HHCS 1/2-13X1-1/2 PLTD. 032018012DR	4.000 ea
034001012AB	WSHR 1/4" PLATED	4.000 ea
034017016AB	LCKW 1/2" PLATED	4.000 ea
034180014GA	KEY 1/2X1/2X1-3/4 L	1.000 ea
036000012HB	HHCS M6X12MM LONG PLATED	4.000 ea
036000045JB	M8-1.25 X 45MM HXHCS	4.000 ea
036620009AB	M8 EXTERNAL LK WASHER	1.000 ea
036620010AB	M10 EXT. TOOTH LK WASHER	2.000 ea
074875000A	CONDUIT BOX COVER	1.000 ea
078549001SA	(006) FAN	1.000 ea
402731000A	GASK 320-400	1.000 ea
412043002K	BPLUG	1.000 ea
415072001B	CLAMP	1.000 ea
417733004D	GASKET CONDUIT BOX	2.000 ea
418014004A	609185004cDPT/BOX	1.000 ea
422919053	HHCVR KIT, C280, DE, XT	1.000 ea
422919053	HHCVR KIT, C280, DE, XT	1.000 ea
422919053	HHCVR KIT, C280, DE, XT	1.000 ea
422919064	HHCVR KIT, C280, ODE, SOLID	1.000 ea
422919064	HHCVR KIT, C280, ODE, SOLID	1.000 ea
422919064	HHCVR KIT, C280, ODE, SOLID	1.000 ea
603909004A	GRILL, FAN	1.000 ea
706320009A	CB, 2.00 CONDUIT, METRIC, SHEET METAL	1.000 ea
706365003A	FNGRL	1.000 ea
801955001A	FNCVR 801955-1WCA	1.000 ea
000640000P	TAG WINDING THERMOST	1.000 ea
000692000NG	LABEL ;NP 4POLE METRIC LABEL	1.000 ea

004824007K	SPECIAL PAINT	0.100 ea
034180028HA	KEY 5/8X5/8X3-1/2L-445	1.000 ea

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	B(1)	E	G	H	HG	J	D	P	T	BA	K	FK	BK	FAK(6)	FZK(7)	XC
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	3.30	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 SHOT AND KEY							WT. BS.
					N	N-W	UK2	Y	RC3	SD	LGTH	
SC2113A72	31.29	22.50	11.38	18.00	4.00	3.75	1.875	3.50	591	590	2.50	355
SC2113A72	33.44	23.75	12.62	18.00	4.00	3.75	1.875	3.50	591	590	2.50	380
LC2113A72	35.06	25.38	14.25	18.00	4.00	3.75	1.875	3.50	591	590	2.50	410
SC2113A72	35.94	26.50	12.06	20.00	4.50	2.52	1.260	4.00	845	590	3.00	555
SC2512A72	37.44	26.56	13.56	20.00	4.50	2.52	1.260	4.00	845	590	3.00	590
LC2512A72	38.94	28.06	15.06	20.00	4.50	2.52	1.260	4.00	845	590	3.00	630
MC2812A72	41.62	29.94	14.25	22.00	5.00	4.75	2.375	4.50	502	621	3.50	835
LC2812A72	43.98	32.19	16.50	22.00	5.00	4.75	2.375	4.50	502	621	3.50	900

- (1) "D" DIMENSION WILL NOT BE EXCEEDED. SHIMS UP TO .03 INCHES IN THICKNESS ARE USUALLY REQUIRED FOR COUPLED OR GEAR MACHINES.
- (2) "U" VARIES-----, 000 - .015
- (3) "V" VARIES-----, 000 - .001
- (4) TERMINAL "AA" VARIES WITH "P" FOR DIMENSIONS "AA", "AB", "AC", "AF", "X" AND "Y". SEE DRAWING NUMBER 609595-1.
- (5) WALLS OR OBSTRUCTIONS MUST NOT ENCRUCH ON AIR INLET SPACE "XC".
- (6) "FAK" VARIES +.005 - .000-----FACE ROUNDT AND ECCENTRICITY .007 MAX. T.I.R. .001 MAX. PER INCH OF FACE ROUNDT.
- (7) "F" VARIES-----, 000 - .001-----FACE ROUNDT AND ECCENTRICITY .007 MAX. T.I.R. .001 MAX. PER INCH OF FACE ROUNDT.
- (8) SUB SHAFT SUPPLIED ONLY WHEN SPECIFIED. KEY SIZE .188 X .188 X 1.00
- (9) FOR RE-Q45 OR 5P3 PROVISIONS ON "C8212" ADD 1.00 TO "L" DIMENSION.
- (10) "B" BOX BE LOCATED FOR LEAD OUTLET AT THE FOLLOWING DISTANCES FROM THE TERMINAL BOX LOCATED ON OPPOSITE SIDE WHEN F=2, 4, 6, 8, 10, W=5, W=5, W=7, OR C-1 MOUNTING IS SPECIFIED. BOX LOCATED ON TOP WHEN SPECIFIED.
- (11) WEIGHT MAY BE OBTAINED FROM WEIGHT TABLES AND DIMENSIONS ARE NECESSARIES. FOR MOUNTING CLEARANCE DETAILS ARE REQUIRED, CONSULT FACTORY.

TACHOMETER	LU
BC-42	
BC-46	
RD-11	
RD-12	4.
RD-51	
RD-61	
RD-62	
RE-210	
M627, M628	
M727, M737	
M738	
DYNAPAR 74S	
RE-045	3. 8
SPY	1. 1
	SEE NOTES (9)

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

REV. LTR: -	VERSION: 00	TDR: 000000577407
FILE: \RGG\00015\557	REVISED: 11:02:01 01/26/2011	BY: CONNAS
MTL: -		

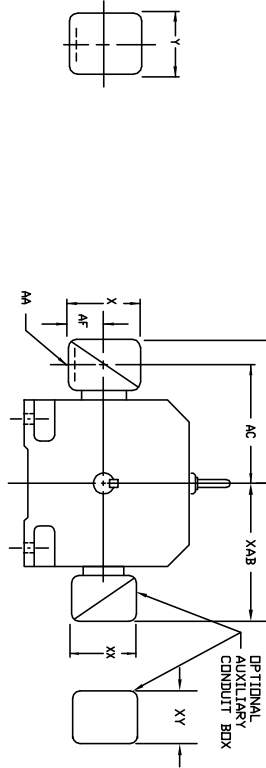
DIMENSION DRAWING, SC2113ATZ - LC2812ATZ, TEFC, FOOT MTG

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



FRAME SIZE	MAX. AMPS	STANDARD SIZE						STEEL TERMINAL BOX DIMENSIONS						ONE SIZE LARGER						PART NUMBER
		AK(1)	AB	AC	AF	X	Y	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					
C2513ATZ	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					
C2515ATZ	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					
(2)	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					
C2813ATZ	188	2"	14.03	10.53	4.23	8.44	7.23	74874-R	3"	14.47	11.22	4.23	8.44	7.23	74874-24-R					
C2815ATZ	188	3"	14.47	11.22	4.23	8.44	7.23	74874-24-R	3"	15.91	11.84	5.38	10.56	9.00	706308-3-R					
(2)	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					

FRAME SIZE	MAX. AMPS	STANDARD SIZE						CAST IRON TERMINAL BOX DIMENSIONS						ONE SIZE LARGER						PART NUMBER
		AK(3)	AB	AC	AF	X	Y	AK(3)	AB	AC	AF	X	Y	AK(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					
(2)	208	2"	10.97	8.53	3.00	6.00	7.00	705029-2-S	2-1/2	11.09	9.09	2.50	5.00	5.75	705028-2-T					
C2513ATZ	18	3/4	11.09	9.09	2.50	5.00	5.75	705028-2-S	1"	12.03	9.59	3.00	6.00	7.00	705029-2-R					
C2515ATZ	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-S					
C2515ATZ	96	1-1/2	12.03	9.59	3.00	6.00	7.00	705029-2-R	2"	13.72	9.97	3.62	7.88	9.25	705030-2-R					
C2813ATZ	188	2"	12.78	10.34	3.00	6.00	7.00	75460-T	3"	14.47	10.72	3.62	7.88	9.25	705030-2-R					
C2815ATZ	188	3"	14.47	10.72	3.62	7.88	9.25	76700-R	4"	15.78	11.59	4.12	9.50	10.50	76708-R					
(2)	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)

CONDUIT BOX DIMENSIONS WITH TERMINAL BORDERS (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	11.26	9.25	3.35	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				
C280	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				
	1600	18.27	13.54	7.68	15.35	--	15.35	706310-63-C	706310-63-C				

FRAME SIZE	YAB	XY	OPTIONAL AUXILIARY CONDUIT BOX DIMENSIONS (MAXIMUM)						
			XY	PART NUMBER	XX	YY	PART NUMBER		
C210	7.38	4.25	4.25	602007-26-A	C210	10.88	8.00	8.00	706310-3-B
C250	8.44	4.25	4.25	602007-26-A	C250	11.88	8.00	8.00	706310-3-B
C280	9.12	4.25	4.25	602007-26-A	C280	12.62	8.00	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	VERSION: 01	TDR: 000000816512
REV. LTR: A		
FILE: \RGG\00021\153		REVISED: 03: 09: 09 09/06/2013
MTL: -		BY: RGGWT

BALDOR

DIMENSION SHEET

SH 1 of 1

609959-001

406770-002

406770-002

CONNECTION DIAGRAM
D-C MOTOR - STAB. SHUNT
DUAL VOLTAGE FIELD

W1

(NOTE 7)

SHUNT FIELD

F2

INTER-COIL

AX2

ARMATURE

H1 H2 F1 A1

SHUNT FIELD

F11

SERIES FIELD

S2 S3

SERIES FIELD

S4 F22 P1 P2

TD1

TD2

TD3

TD

(NOTE 6)

THREE WIRE RTD

(NOTE 4)

(CAUTION-SEE NOTE 1)

(NOTE 2)

(NOTE 5)

ARMATURE AND FIELD EXTERNAL CONNECTIONS

WARNING- SEE NOTE 8 FOR GROUNDING INSTRUCTIONS

CCW ROTATION

LOW VOLTAGE FIELD CONNECTION

CW ROTATION

CCW ROTATION

HIGH VOLTAGE FIELD CONNECTION

CW ROTATION

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 MOTOR GROUNDING. GROUND LEAD, WHEN PROVIDED, WILL BE GREEN.

CUSTOMER

CUSTOMER

ORDER NO.

S.D. NO.

RELIANCE

REV. DESC: UPDATE LOGO AND TITLEBLOCK: LOADED TO BUS

REV. LTR: -

VERSION: 00

TDR: 000000781086

FILE: \RSN\00026\434

REVISED: 02: 35: 07 02/01/2013

MTL: -

BY: MGHPC

BALDOR

D-C MOTOR CONNECTION DIAGRAM STAB. SHUNT, DUAL VOLTAGE FIELD

SH 1 of 1

G6151A A: Electrical Design

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