

A.J.V. AUG.21 ISSUED FOR E,C&I TEAM REVIEW

M.S JULY 21 ISSUED FOR CHECKING

M.S JULY 21 ISSUED FOR ENGINEERS APPROVAL

REVISIONS

2-N830-02622 RIO-3M1-F2 FIELD CONTROL PANEL SCHEMATIC

REFERENCE DRAWINGS

DESCRIPTION

DRAWING NO.

DRAWING NO.

DESCRIPTION

REFERENCE DRAWINGS

.JvV | AUG.2

	DRA PROJECTS				ZIMPLATS				DRAWING OFFICE			
	APPROVAL	NAME	SIGNATURE	DATE	APPROVAL	NAME	SIGNATURE	DATE	D.O. MANAGER	S. CLOETE	JULY 2021	
	PROJECT MANAGER				PROJECT MANAGER				SECTION LEADER			
	PROJECT ENGINEER				PROJECT ENGINEER				DRAWN	M. STRYDOM	21.07.2021	
	PROJECT ENGINEER				ENG. MANAGER				CHECKED	M.J V VUUREN	JULY 2021	TITLE
	DISCIPLINE ENGINEER								ENG. CHECKED	B. vd WESTHUIZEN	JULY 2021	
	- DISCIPLINE ENGINEER								F	PR. ENG. / PR. TECH.		(
	DISCIPLINE ENGINEER								NAME:			
	DESIGN ENGINEER								REG. NUMBER:			
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68 AO ANALOG OUTPUT, AQ 8XU/I HS

FRONT CONNECTOR, PUSH-IN SYSTEM FOR 35MM MODULES, 40-PIN

		LEGEND - ENCLOSURE							
ITEM		DESCRIPTION	MANUFACTURER	PART NUMBER	QTY SUPPLIER				
	ı	TERMINALS	_						
1		UBE/D TERMINAL GROUP LABEL	PHOENIX CONTACT	800307	VENDOR				
2		E/NS 35 N END CLAMPS	PHOENIX CONTACT	800886	VENDOR				
3		PTB 2.5-PE/L/L	PHOENIX CONTACT	3210547	VENDOR				
4		D-PTB 2.5-PE/L/L	PHOENIX CONTACT	3210553	VENDOR				
5		SET OF TERMINAL LABELS	ANY	-	VENDOR				
6		PTB 2.5-PE/L/TG	PHOENIX CONTACT	3210539	VENDOR				
7		P-FU 5 X 20-LED ( AI/AO = 63mA , DI/DO(24Vdc) = 500mA, DI(110Vac) = 2A)	PHOENIX CONTACT	3209248	VENDOR				
8		D-PTB 2.5/3 (End Cover)	PHOENIX CONTACT	3210522	VENDOR				
9		40 X 100 NARROW SLOT TRUNKING - GREY	PHOENIX CONTACT	-	VENDOR				
10		60x100 NARROW SLOT TRUNKING - GREY	PHOENIX CONTACT	-	VENDOR				
11		100 X 100 NARROW SLOT TRUNKING - GREY	PHOENIX CONTACT	-	VENDOR				
12		110VAC Plug Socket	ANY	-	1 VENDOR				
13		LED enclosure light - PLD E 400 W 500	PHOENIX CONTACT	2702223	1 VENDOR				
14		Door position switch - PLD E 400-DS-MS/1,0-FS/0,6	PHOENIX CONTACT	2702337	VENDOR				
15		LED enclosure light - PLD E 400 W250	PHOENIX CONTACT	2702221	1 VENDOR				
16		UTI 2,5-L/LB TERMINAL	PHOENIX CONTACT	3076033	VENDOR				
17		D-UTI/3 TERMINAL END COVER	PHOENIX CONTACT	307036	VENDOR				
	1	SURGE PROTECTION	T	T					
20		TYPE 3 SURGE PROTECTION 110VAC PLT-SEC-T3-120-FM-PT	PHOENIX CONTACT	2907927	1 VENDOR				
21		TYPE 3 SURGE PROTECTION 24VDC PLT-SEC-T3-24-FM-UT	PHOENIX CONTACT	2907916	2 VENDOR				
	FIBRE SPLICE BOXES AND NETWORK CABLES								
30		DINSpace SNAP12ST DIN RAIL MOUNT SPLICE BOXES - SM (COMPLETE WITH PIGTAILS MID	COMPOSITE BOARDS CC	SNAP12ST					
		COUPLERS AND FIBRE MANAGEMENT)		0.00.	VENDOR				
31		2M LC - ST SINGLEMODE DUPLEX FIBRE PATCH LEADS	ANY	-	2 VENDOR				
32		CAT6 (RJ45) S/FTP ETHERNET PATCH LEADS AS PER MCC DESIGN	SIEMENS	-	2 VENDOR				
33		RUGGED ST - ST SINGLEMODE FIBRE PATCH LEADS AS PER MCC DESIGN	ANY	-	VENDOR				
34		6M RUGGED ST - ST SINGLEMODE FIBRE PATCH LEADS BETWEEN MCC SWITCHES	ANY	-	VENDOR				
35		10M RUGGED ST - ST SINGLEMODE FIBRE PATCH LEADS BETWEEN MCC SWITCHES	ANY	-	VENDOR				
36		20M RUGGED ST - STSINGLEMODE FIBRE PATCH LEADS BETWEEN MCC SWITCHES	ANY	-	VENDOR				
		CIRCUIT BREAKERS	T	T					
40		MINIATURE CIRCUIT BREAKER 2A	SIEMENS	5SL6002-7	VENDOR				
41		MINIATURE CIRCUIT BREAKER 4A	SIEMENS	5SL6004-7	VENDOR				
42		MINIATURE CIRCUIT BREAKER 6A	SIEMENS	5SL6006-7	VENDOR				
43		MINIATURE CIRCUIT BREAKER 10A	SIEMENS	5SL6010-7	VENDOR				
44		MINIATURE CIRCUIT BREAKER DOUBLE POLE 10A	SIEMENS	5SJ6510-7KS	VENDOR				
45		MINIATURE CIRCUIT BREAKER DOUBLE POLE 20A	SIEMENS	5SJ6520-7KS	VENDOR				
46		MINIATURE CIRCUIT BREAKER DOUBLE POLE 50A	SIEMENS	5SY65027	VENDOR				
	I ·	SIEMENS EQUIPMENT		Ι	T . I				
50		POWER SUPPLY 5A 24VDC (PS1)	SIEMENS	6EP1333-2BA20	1 VENDOR				
51		POWER SUPPLY 10A 24VDC (PS2)	SIEMENS	6EP1334-2BA20	VENDOR				
52	PS-03	POWER SUPPLY 20A 24VDC (PS3)	SIEMENS	6EP1336-2BA10	1 VENDOR				
53		SCALANCE XC206-2SFP G ETHERNET SWITCH (SM)	SIEMENS	6GK5206-2GS00-2AC2	1 VENDOR				
54		SCALANCE X SFP, SFP992-1LD; 1x 1000 Mbit/s LC PORT SINGLEMODE OPTICAL 10000 m	SIEMENS	6GK5992-1AM00-8AA0					
55		S7-1500 RAIL (530mm)	SIEMENS	6ES7590-1AF30-0AA0	1 VENDOR				
56	PS-04	S7-1500 25W SYSTEM POWER SUPPLY	SIEMENS	6ES7505-0KA00-0AB0	1 VENDOR				
57		ET200MP IM 155-5 ST PROFINET INTERFACE MODULE	SIEMENS	6ES7155-5AA01-0AB0	1 VENDOR				
58	DI	DIGITAL INPUT, DI 32X24VDC HF	SIEMENS	6ES7521-1BL00-0AB0	4 VENDOR				
59		FRONT CONNECTOR, PUSH-IN SYSTEM FOR 35MM MODULES, 40-PIN	SIEMENS	6ES7592-1BM00-0XB0	4 VENDOR				
60	DI	DIGITAL INPUT, DI 16x230VAC BA	SIEMENS	6ES7521-1FH00-0AA0	VENDOR				
61		FRONT CONNECTOR, PUSH-IN SYSTEM FOR 35MM MODULES, 40-PIN	SIEMENS	6ES7592-1BM00-0XB0	VENDOR				
62	DO	DIGITAL OUTPUT, DQ 32X24VDC/0.5A HF	SIEMENS	6ES7522-1BL01-0AB0	2 VENDOR				
63	<u> </u>	FRONT CONNECTOR, PUSH-IN SYSTEM FOR 35MM MODULES, 40-PIN	SIEMENS	6ES7592-1BM00-0XB0	2 VENDOR				
64	DO	S7-1500, DQ 16x230VAC/2A ST (Relay)	SIEMENS	6ES7522-5HH00-0AB0	VENDOR				
65		FRONT CONNECTOR, PUSH-IN SYSTEM FOR 35MM MODULES, 40-PIN	SIEMENS	6ES7592-1BM00-0XB0	VENDOR				
66	AI	S7-1500 ANALOG INPUT CARD, AI 8xU/I HS	SIEMENS	6ES7531-7NF10-0AB0	2 VENDOR				
67		FRONT CONNECTOR, PUSH-IN SYSTEM FOR 35MM MODULES, 40-PIN	SIEMENS	6ES7592-1BM00-0XB0	2 VENDOR				

NOTES:

1. EVERYTHING ON THIS DRAWING IS PANEL BUILDER SUPPLY.

2. THE PANEL WILL BE IP65 RATED, DIVIDED INTO TWO SEPERATE SECTIONS, EACH WITH ITS OWN DOOR 3. SECTION 1: OUTSIDE DIMENTIONS — 1600mm X 350mm X 300mm

SIEMENS

SIEMENS

LOCKS - 2 SQUARE KEY LATCHES, ONE PAD LOCKABLE (WITH 2 KEYS) 4. SECTION 2: OUTSIDE DIMENTIONS - 1600mm X 1200mm X 300mm

CHASSIS DIMENSIONS - 1550mm X 300mm

CHASSIS DIMENSIONS - 1550mm X 1150mm LOCKS - 2 SQUARE KEY LATCHES, ONE PAD LOCKABLE (WITH 2 KEYS)

5. THE PANEL WILL BE POWDER COATED TO THE FOLLOWING SPECIFICATION: PANEL: POWDER COATED TO SIEMENS GREY CHASSIS: POWDER COATED TO BRILLIANT WHITE

6. SUITABLE MOUNTING BRACKETS WILL BE INSTALLED PRIOR TO POWDER COATING 7. THE PANEL WILL HAVE A 3mm BRASS GLANDPLATE 8. HOLES WILL BE PUNCHED BETWEEN THE TWO SECTIONS PER THE ATTACHED LAYOUT

9. THE PANEL WILL BE MANUFACTURED FROM 2mm 3CR12 STAINLESS STEEL 10. HINGES WILL BE INSTALLED ON THE SIDE OF THE PANEL AND THE LOCKS IN THE MIDDLE

11. ALL PANEL LABELLING WILL BE ENGRAVED ON WHITE TRAFOLITE WITH 15mm BLACK LETTERING 12. TWO SUITABLE PANEL LABELS WILL BE FIXED USING STUDS TO THE OUTSIDE OF EACH DOOR (NOT GLUED NOT DRILLED)

13. 3M FIBRE SPLICE BOX WILL BE 250mm X 200mm X 100mm OR SIMILAR

14. A SUITABLE DRIP COVER WILL BE REQUIRED

15. DRAWING POCKET SUITABLE FOR A4 DRAWING TO BE STUDDED TO THE INSIDE DOOR

16. EACH CIRCUIT BREAKER TOGGLE SHALL BE PROPERLY IDENTIFIED BY MEANS OF TRAFFOLYTE LABELS 17. I/O CARDS, LANDING TERMINAL STRIPS, SAFETY RELAY AND FIELD TERMINAL STRIPS, TO MATCH THE RIO BOX SCHEDULES



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6ES7532-5HF00-0AB0 1 VENDOR

6ES7592-1BM00-0XB0 | 1 | VENDOR

NGEZI 3rd CONCENTRATOR PLANT PROJECT N830 NGEZI SITE GRINGING & MILLING - SAG MILL

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RIO-3M1-F2 RIO PANEL PANEL GENERAL ARRANGEMENT DRAWINGS

PROJECT DWG No.

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