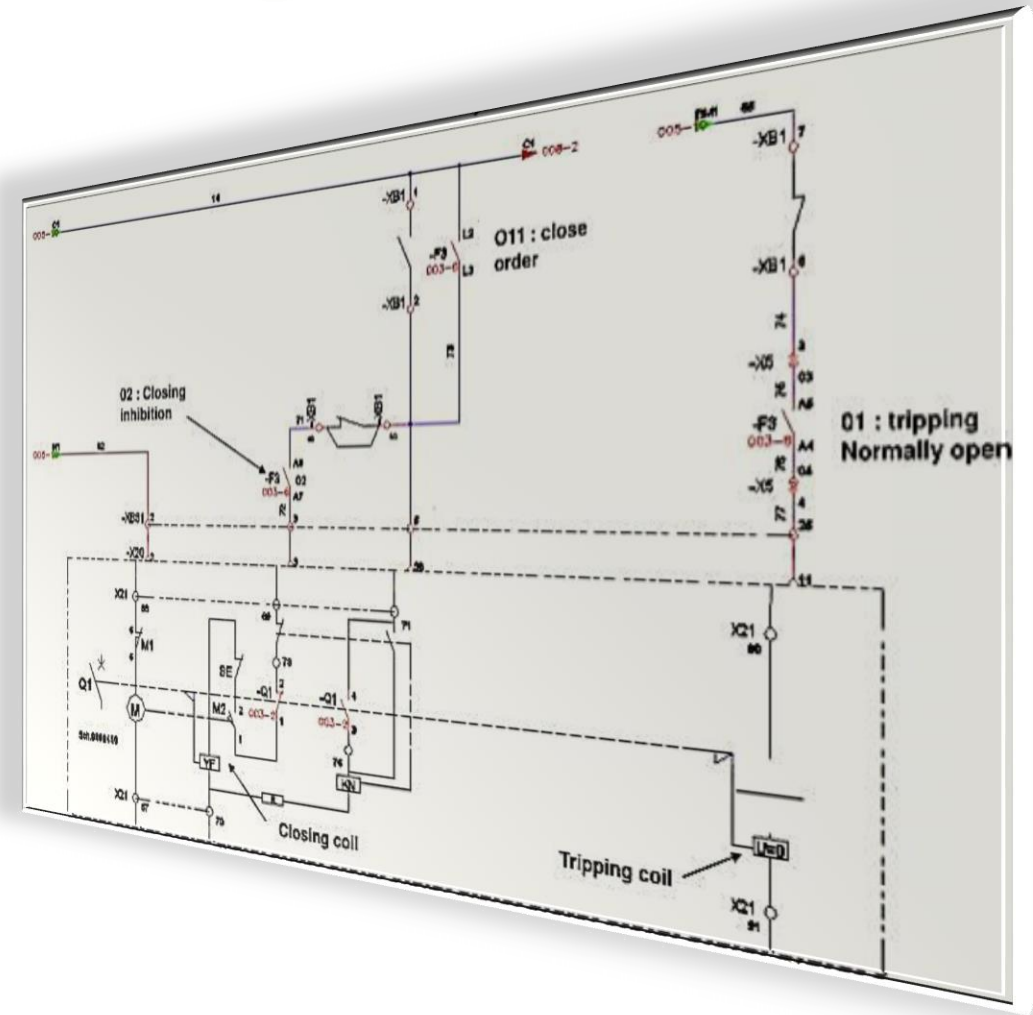
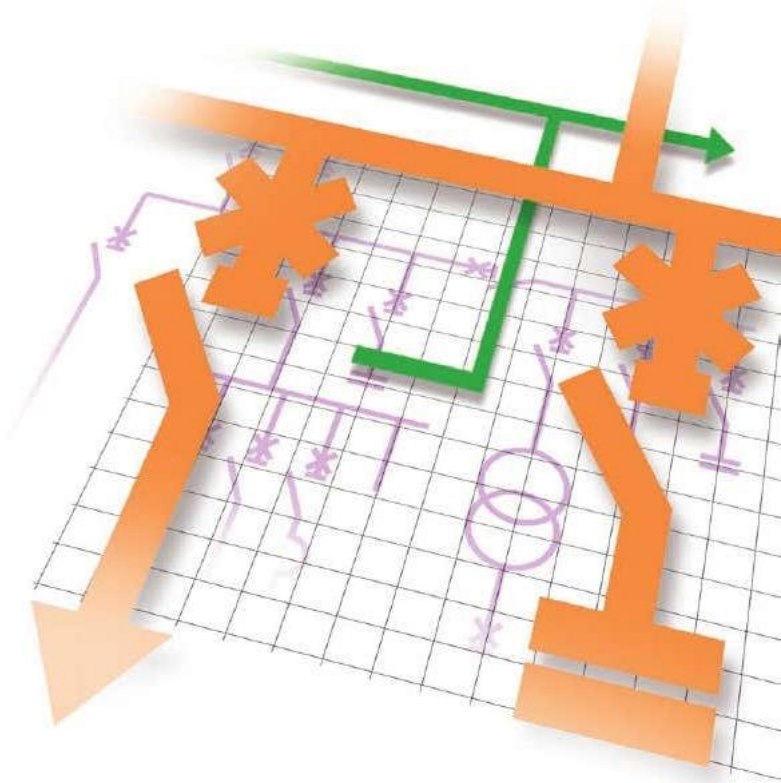


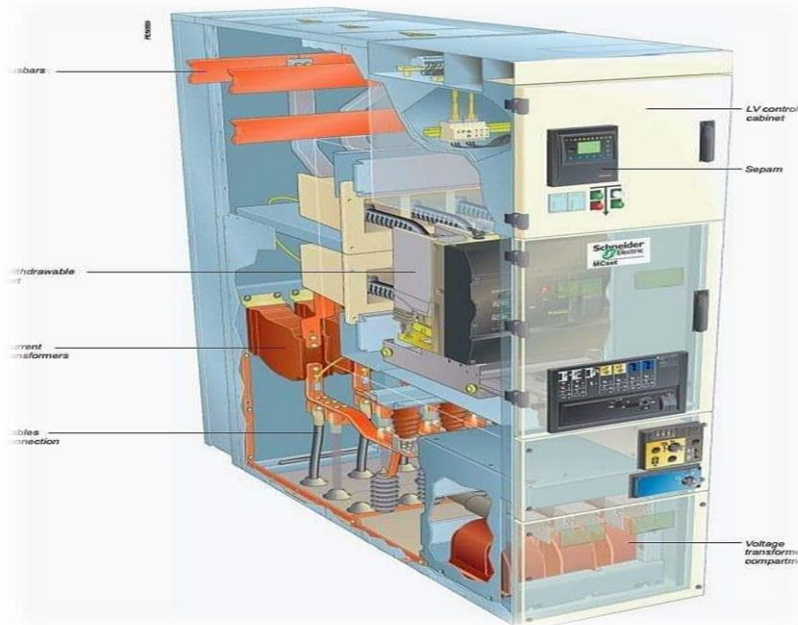
مدخل الى قراءة المخططات



ماهي الامور المهمة لفهم المخططات

1. الاطلاع على الرموز الكهربائية والالكترونية وحسب نوع المخطط .
2. معرفة وظيفة كل جزء يتم تمثيله في المخطط.
3. معرفة طريقة ترقيم الصفحات والاجزاء .
4. المعرفة بشكل عام بالكلاسيك كونترول.

سوف نقوم بشرح مخطط لخانة ال incomer في MCSET SWICHGEAR 6.6KV ليكون مثالا ومدخلا لقراءة المخططات



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SCHNEIDER ELECTRIC

INCOMER 1

C

D

Rev	Date	Modification	Name	Visa	Name	Visa	Name	Visa	Archiv
A	27-06-2013	First issue	CUD		ZAD		TAA		
			Drawn		Checked		Approved		

INCOMER 1			
Scale			
Cubicle Type	MCSET		
Department	REU	P1003715-01	Rev A
			Sheet 001

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MISCELLANEOUS COMPONENTS

IEC SYMBOL	DESCRIPTION
(K)	INSTANTANEOUS COIL & CONTACTOR RELAY
(R)	HEATING RESISTOR
(P)	MEASURING DEVICE
(P)	PROTECTION RELAY INPUT
(V)	DIODE
(H)	VOLTAGE LED LAMP
(S)	THERMOSTAT / HYGROSTAT
(H)	INDICATOR TUNGSTEN, NEON, LED
(K)	ON DELAY TIMER (TON)
(K)	OFF DELAY TIMER (TOF)
(T)	TRANSDUSER

MISCELLANEOUS COMPONENTS

IEC SYMBOL	DESCRIPTION
(K)	BISTABLE RELAY
(K)	MAKE CONTACT
(K)	BREAK CONTACT
(K)	CHANGE OVER BREAK CONTACT
(S)	PUSH BUTTON N/O
(S)	PUSH BUTTON N/C
(S)	2 POSITION TURN SWITCH N/O
(S)	3 POSITION TURN SWITCH N/O
(S)	TNC SWITCH
(S)	HV DISCONNECTING
(X)	MULTIPIN CONNECTOR
(U)	DC/AC CONVERTER

MISCELLANEOUS COMPONENTS

IEC SYMBOL	DESCRIPTION
(Q)	HV EARTHING SWITCH
(Q)	HV CIRCUIT BREAKER
(S)	LIMIT SWITCH MAKE CONTACT
(S)	LIMIT SWITCH BREAK CONTACT
(Q)	HV CONTACTOR
(Q)	LV CIRCUIT BREAKER
(Q)	THERMAL/MAGNETIC CIRCUIT BREAKER
(Q)	CABLE
(F)	SURGE ARRESTER
(F)	MECHANICAL INTERLOCK
(F)	ELECTRICAL INTERLOCK
(U)	DC/DC CONVERTER

MISCELLANEOUS COMPONENTS

IEC SYMBOL	DESCRIPTION
(F)	FUSE
(T)	RESIDUAL CURRENT
(T)	CURRENT TRANSFORMER
(X)	TEST BOX
(X)	TERMINAL
(X)	PROTECTIVE EARTH
(X)	EARTH-GROUND
(X)	FUNCTIONAL EQUIPMENT
(T)	VOLTAGE TRANSFORMER
(X)	TEST TERMINAL
(H)	HORN

Rev	Date	Modification	Drawn	Rev	Date	Modification	Drawn
A	27-06-2010	Edition originale / First issue	CUD				

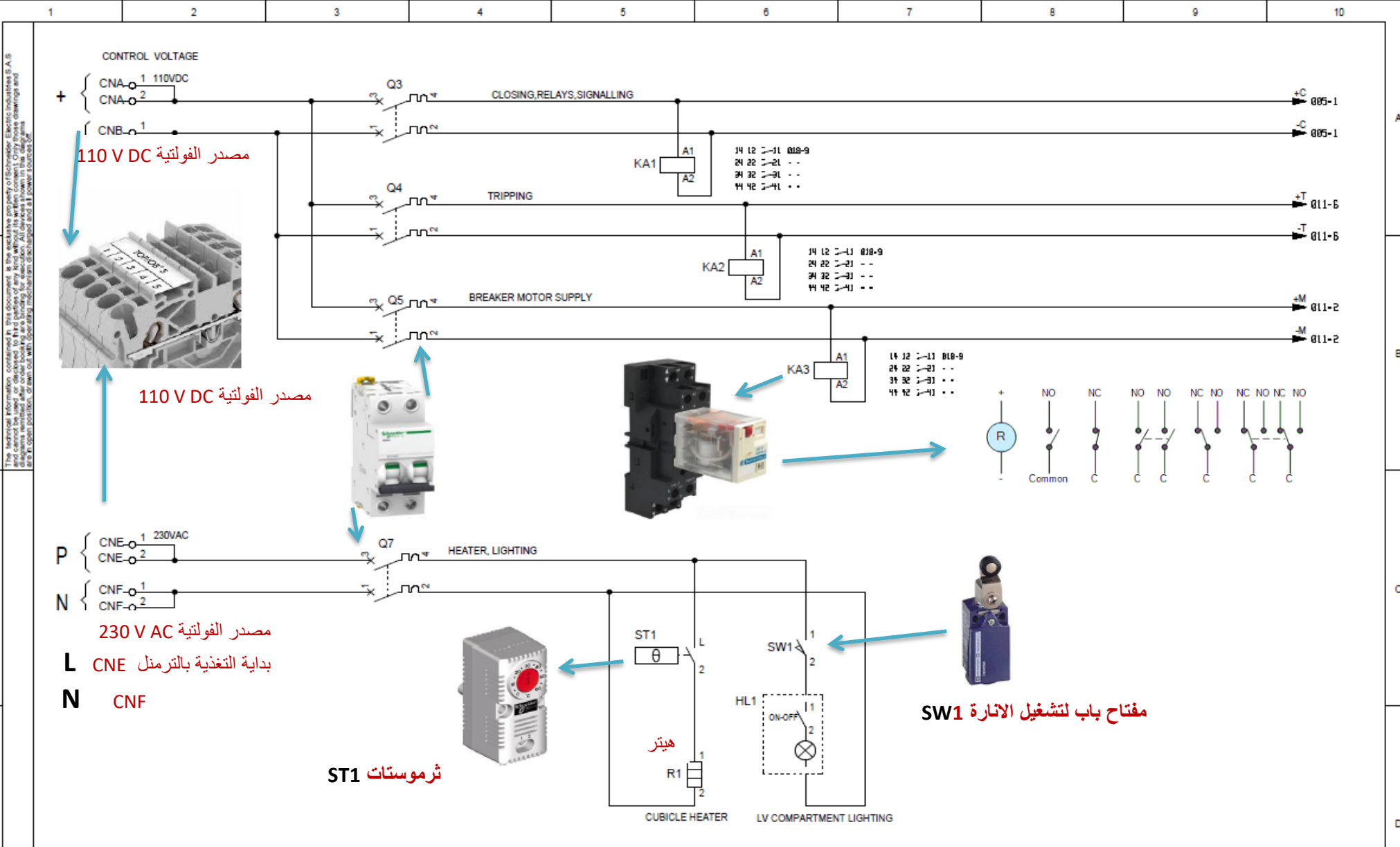
SYMBOL LIST
INCOMER 1

رموز اجزاء المخطط



P1003715-01

Circle Type MCSET	Rev A	Sheet 003
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AUXILIARY SUPPLY INCOMER 1		Schneider Electric		P1003715-01	
Rev	Date	Modification	Drawn	Rev	Date
A	27-05-2012	Edtion originale / First issue	CUD		
Rev	Date	Modification	Drawn	Rev	Date

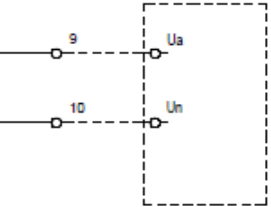
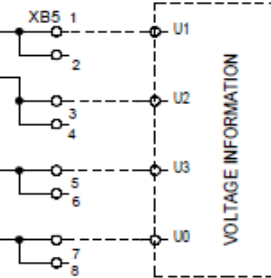
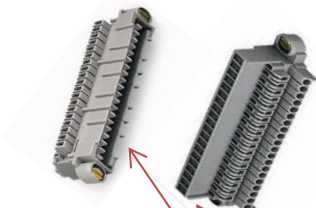
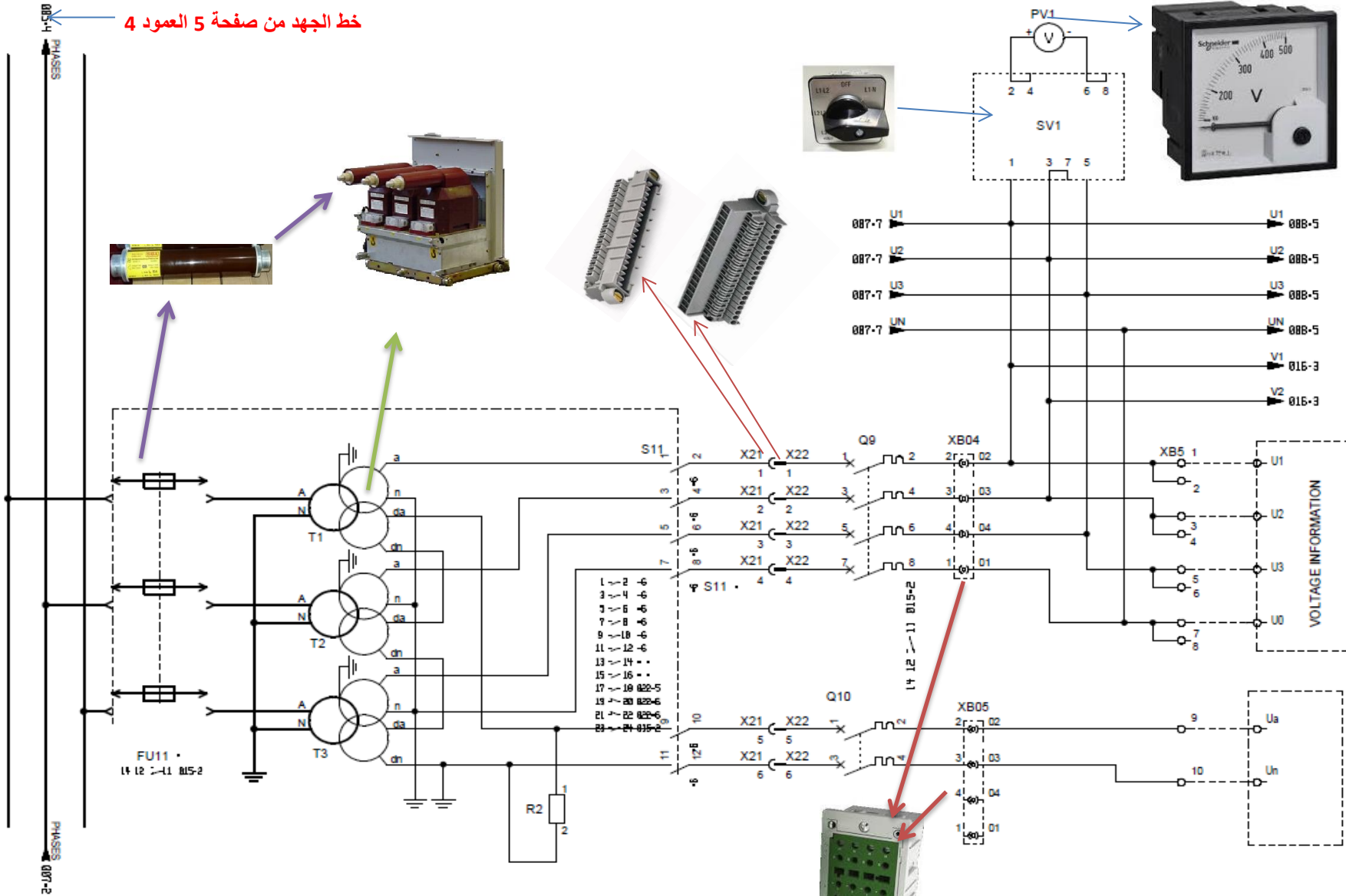
Cubicle Type	Rev	Sheet
MCSET	A	004

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POWER CIRCUIT

VOLTMETER

خط الجهد من صفحة 5 العمود 4



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24

Rev	Date	Modification	Drawn	Rev	Date	Modification	Drawn
A	27-09-2010	Edition originale / First issue					

VOLTAGE TRANSFORMER
INCOMER 1



P1003715-01

Outside Type
MCSET

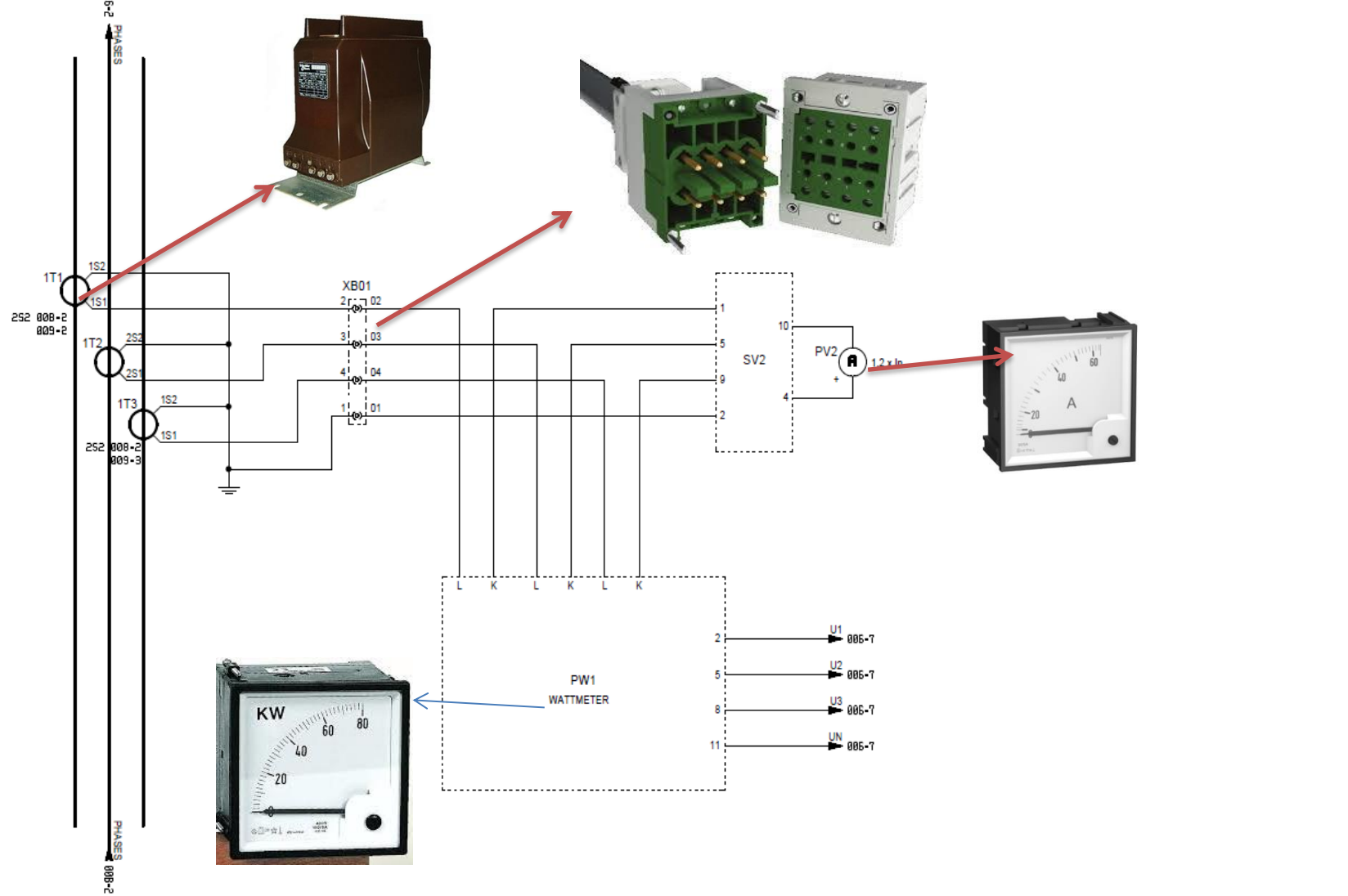
Rev A
Sheet 006

POWER CIRCUIT

WATTMETER

AMMETER

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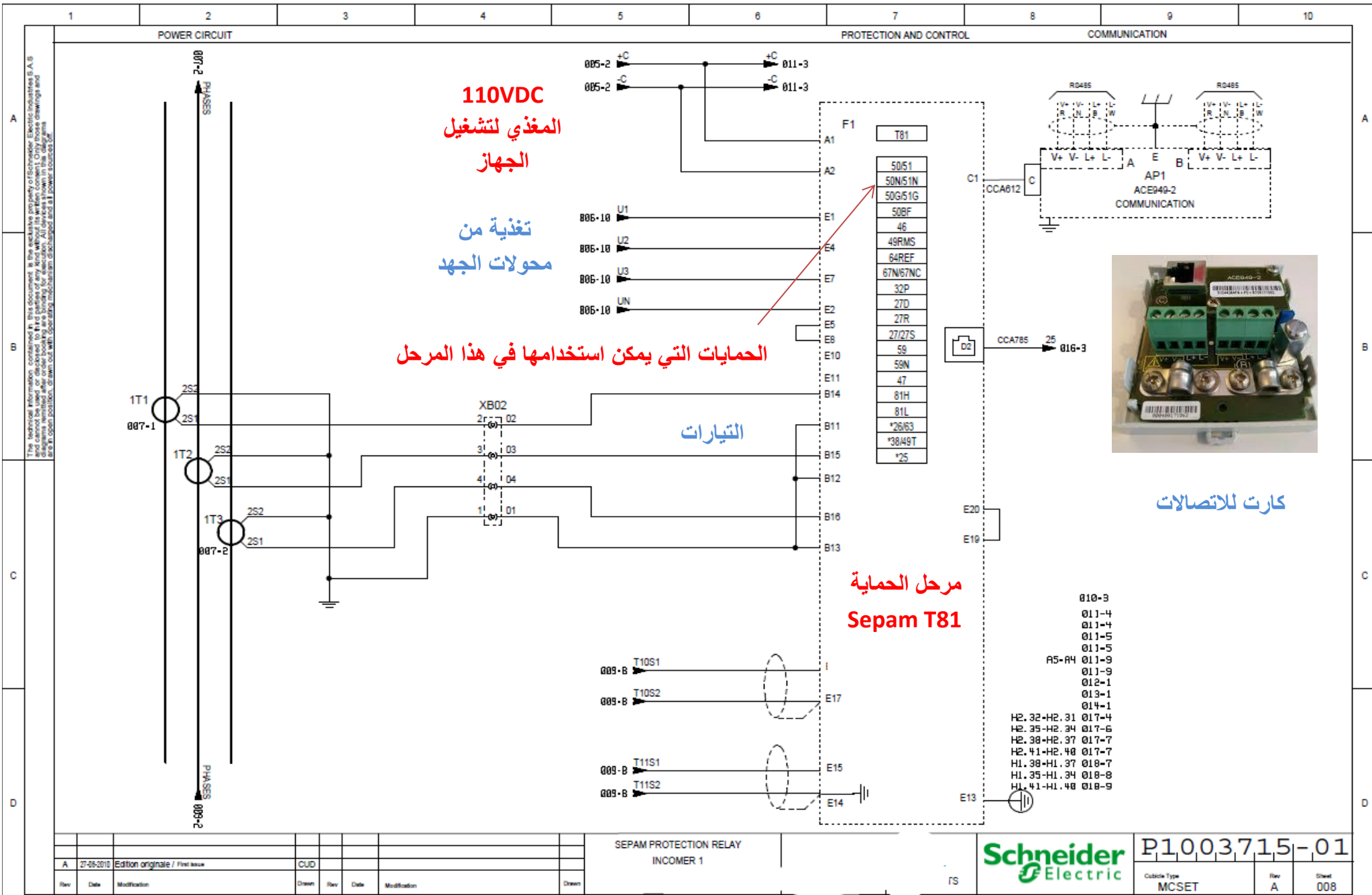
Rev	Date	Modification	Drawn	Rev	Date	Modification	Drawn
A	27-08-2010	Edition originale / First issue	CUD				

AMMETER&WATTMETER
INCOMER 1



P1003715-01

Cable Type MCSET	Rev A	Sheet 007
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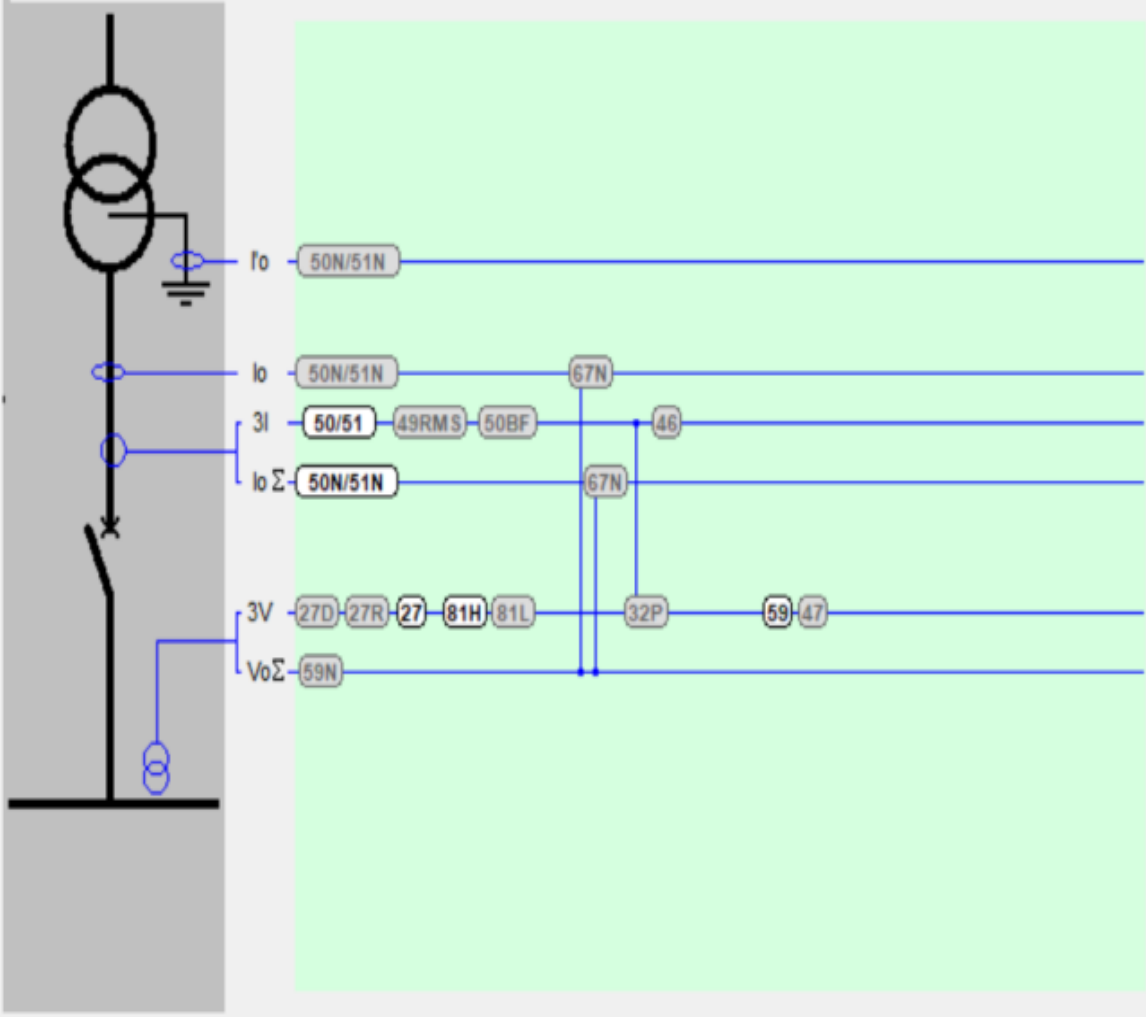
SEPAM PROTECTION RELAY
INCOMER 1



P1003715-01
Cubicle Type: MCSET
Rev: A
Sheet: 008

Transformer T81

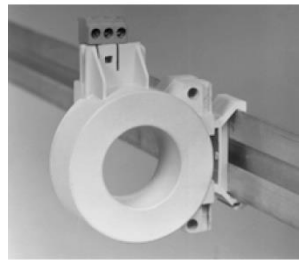
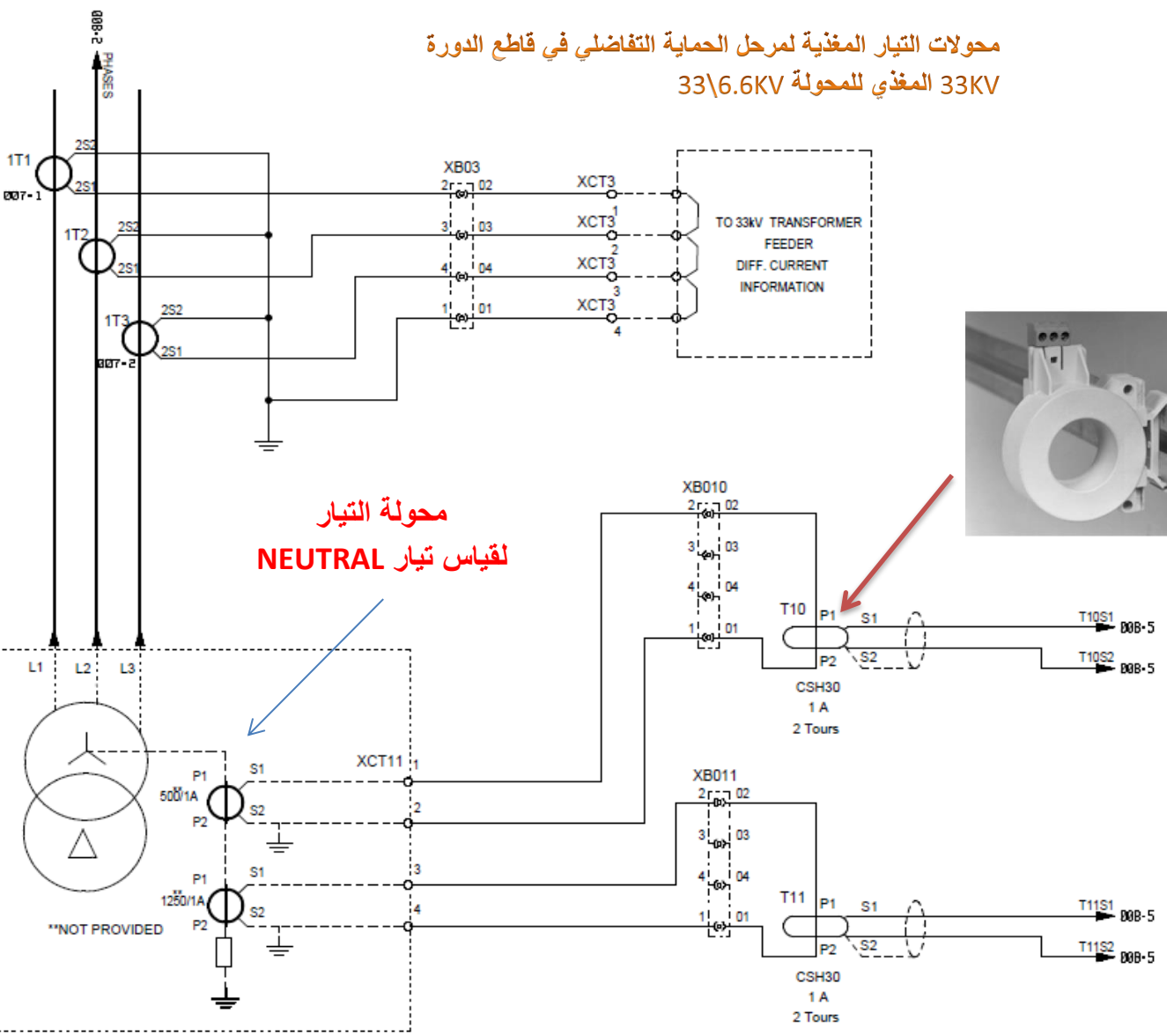
Apply Cancel



	On	Latching	Trip C.B.
50/51 - 1	X	X	X
50/51 - 2	X	X	X
50/51 - 3			
50/51 - 4			
50/51 - 5		X	X
50/51 - 6		X	X
50/51 - 7		X	X
50/51 - 8		X	X
50N/51N ...	X	X	X
50N/51N ...	X	X	X
50N/51N ...		X	X
50N/51N ...			
50N/51N ...		X	X
50N/51N ...		X	X
50N/51N ...		X	X

POWER CIRCUIT

محولات التيار المغذية لمرحل الحماية التفاضلي في قاطع الدورة
33KV المغذي للمحولة 6.6KV



محولة التيار
لقياس تيار NEUTRAL

محولة
القدرة

**NOT PROVIDED

Rev	Date	Modification	Drawn	Rev	Date	Modification	Drawn
A	27-06-2010	Edition originale / First issue	CUD				

EARTH FAULT PROTECTION
INCOMER 1



P1003715-01	
Cubicle Type MCSET	Rev A
Sheet 009	

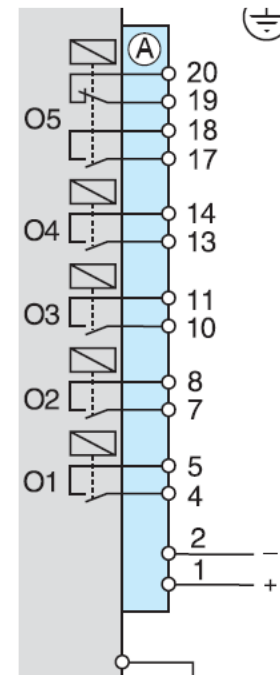
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SEPAM BASE OUTPUTS

الأوامر الخارجة من مرحل الحماية



الامر الخارج من الجهاز WATCHDOG



شكل العمود A في مرحل الحماية

فتح القاطع لوجود عطل

منع غلق القاطع

غلق

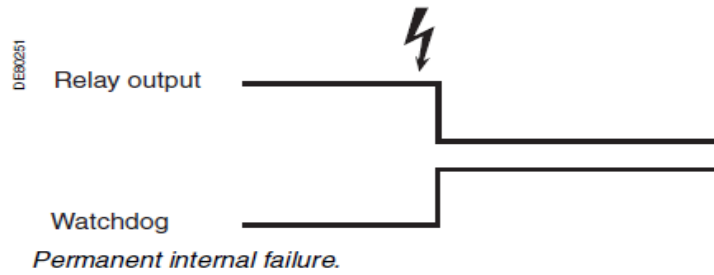
مخرج احتياط يمكن تخصيصه لاحقا

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				SEPAM BASE OUTPUTS				Schneider Electric		P1003715-01	
				INCOMER 1				MCSET		Rev A Sheet 010	
Rev	Date	Modification	Drawn	Rev	Date	Modification	Drawn				
A	27-08-2010	Edition originale / First issue		CUD							

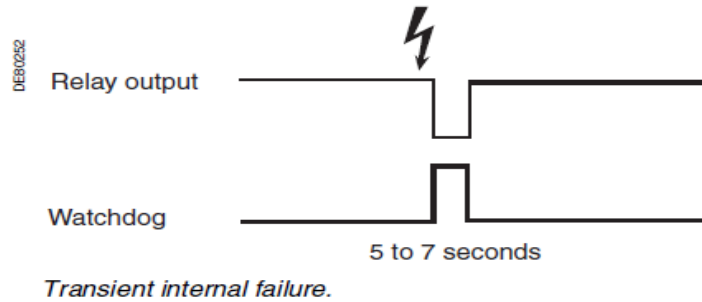
واحد من الحماية الداخلية لجهاز الحماية التي تراقب ادائه الداخلي ففي حالة فشل العمل الداخلي للجهاز يتم اصدار امر منع اشتغال قاطع الدورة لحين حل مشكلة الجهاز الداخلية.

عندما يكون Sepam في حالة عمل ، فإنه يجري اختبارات ذاتية بشكل مستمر للكشف عن الاخطاء.

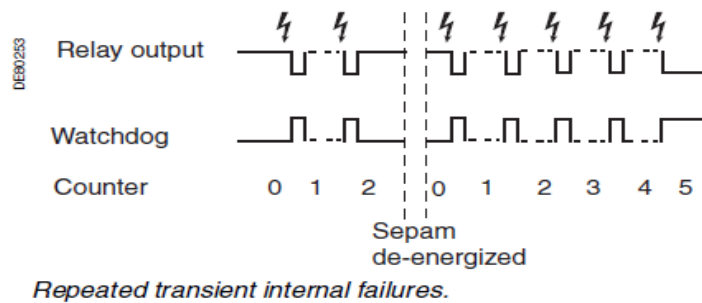


في حال وجود عطل مستمر في الجهاز

يتفعل حماية WATCHDOG



في حالة العطل العابر ينتظر من 5 الى 7 ثانية



الاعطال العابرة سوف يقوم باحتساب خمس اعطال ثم يفعل

حماية WATCHDOG

دائرة غلق قاطع الدورة

عن طريق
SEPM

الغلق الموقعي
من مفتاح الغلق

عن بعد
قابل للتخصيص

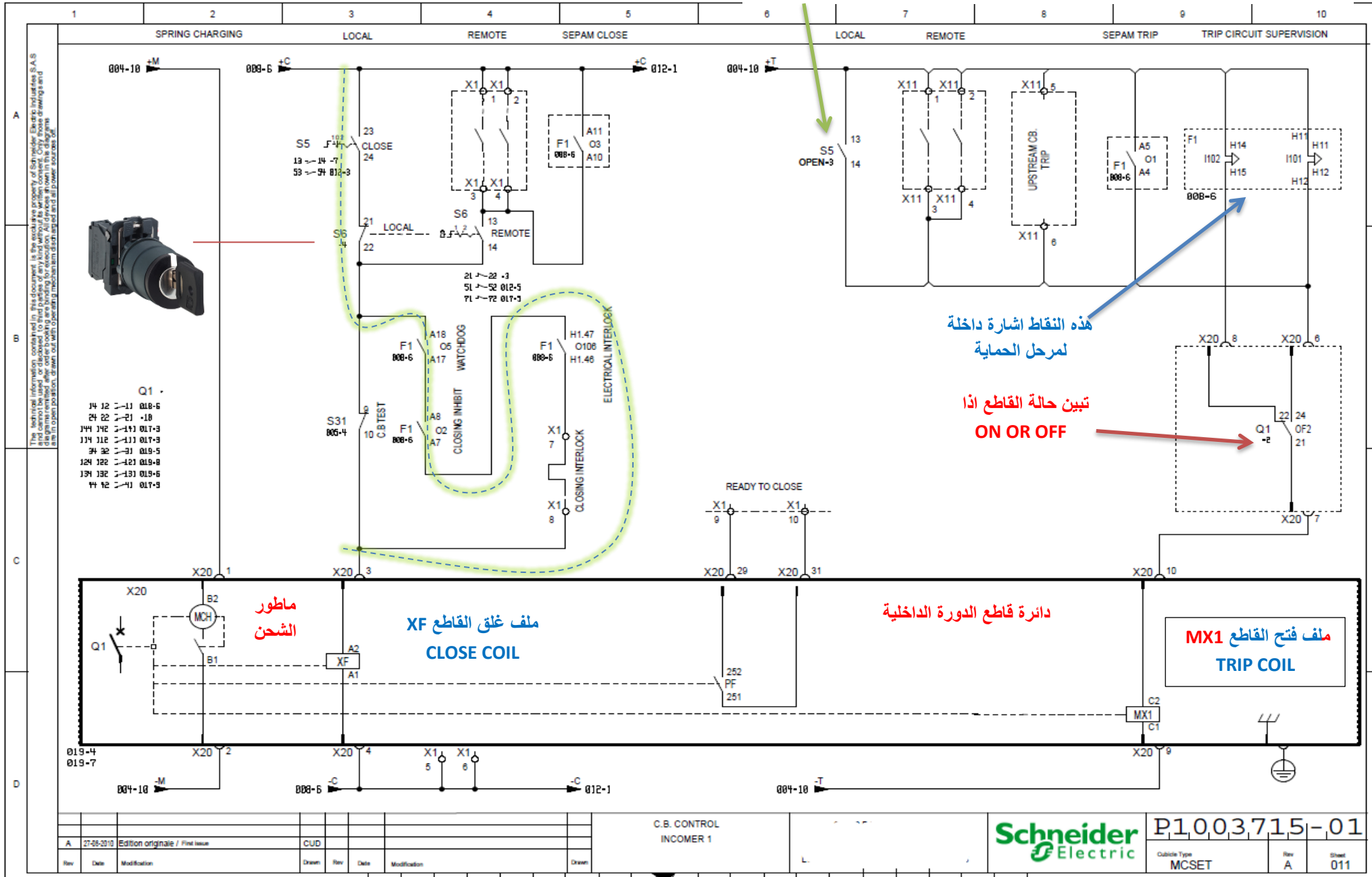
دائرة فتح قاطع الدورة

من
SEPM

الغلق الموقعي
من مفتاح الغلق

عن بعد
قابل للتخصيص

الإشراف على
حالة القاطع



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C.B. CONTROL
INCOMER 1



P1003715-01

Cable Type	Rev	Sheet
MCSET	A	011

Rev	Date	Modification	Drawn
A	27-05-2010	Edition originale / First issue	CUD



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				FIRST SEPAM MES120 I/O MODULE INCOMER 1				Schneider Electric		P1003715-01	
Rev	Date	Modification	Drawn	Rev	Date	Modification	Drawn	Subsite Type MCSET	Rev A	Sheet 012	
A	27-08-2010	Edition originale / First issue		CUD							

Logic input/output assignment

Standard assignments

Assigned to other use

Apply

Cancel

	Used	Charact.	Pulse
O1	Yes	NO	
O2	Yes	NC	
O3	Yes	NO	
O4	Yes	NO	
O5	Yes	NC	

	Used	Charact.	Pulse
O101	Yes	NO	
O102	Yes	NO	
O103	Yes	NC	
O104	Yes	NO	
O105	Yes	NO	
O106	Yes	NO	

	Used	Charact.	Pulse
O201	Yes	NO	
O202	Yes	NO	
O203	Yes	NO	
O204	Yes	NO	
O205	Yes	NO	
O206	Yes	NO	

	Used	Charact.	Pulse
O301	Yes	NO	
O302	Yes	NO	
O303	Yes	NO	
O304	Yes	NO	
O305	Yes	NO	
O306	Yes	NO	

Pulse duration O1

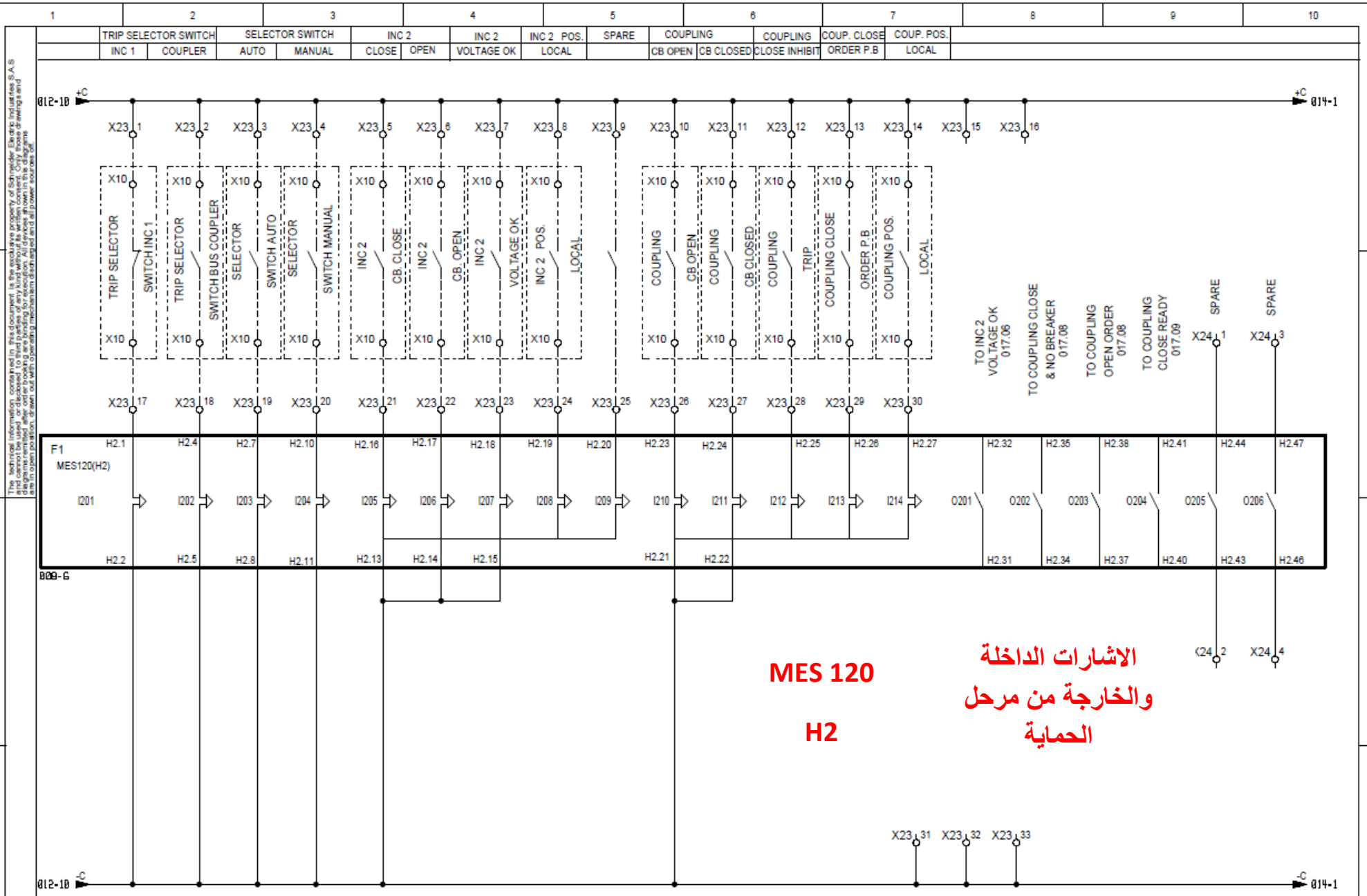
200

ms

	Logic input	Neg	Lat...
I101	Breaker closed		
I102	Breaker open		
I103	Other use		
I104	Close command		
I105	Close enable (ANSI25)		
I106	Grounding switch clo...		
I107	Other use		
I108	Block remote control		
I109	Breaker racked out		
I110	Other use		
I111	Circuit breaker on op...		
I112	Tie circuit breaker dis...		
I113	Phase VT fuse blown		X
I114	Other use		

	Logic input	Neg	Lat...
I201	Selector set to circuit ...		
I202	Selector set to Tie (A...		
I203	Selector set to Auto (...)		
I204	Selector set to Manua...		
I205	Opposite side closed		
I206	Opposite side open		
I207	Voltage OK on opposi...		
I208	Block opposite side r...		
I209	Other use		
I210	Tie open		
I211	Tie closed		
I212	Block closing of Tie		
I213	Tie close command		
I214	Block remote-control...		

	Logic input	Neg	Lat...
I301	Other use		
I302	Other use		
I303	Other use		
I304	Other use		
I305	Other use		
I306	Other use		
I307	Other use		
I308	Other use		
I309	Other use		
I310	Other use		
I311	Other use		
I312	Other use		
I313	Other use		
I314	Other use		



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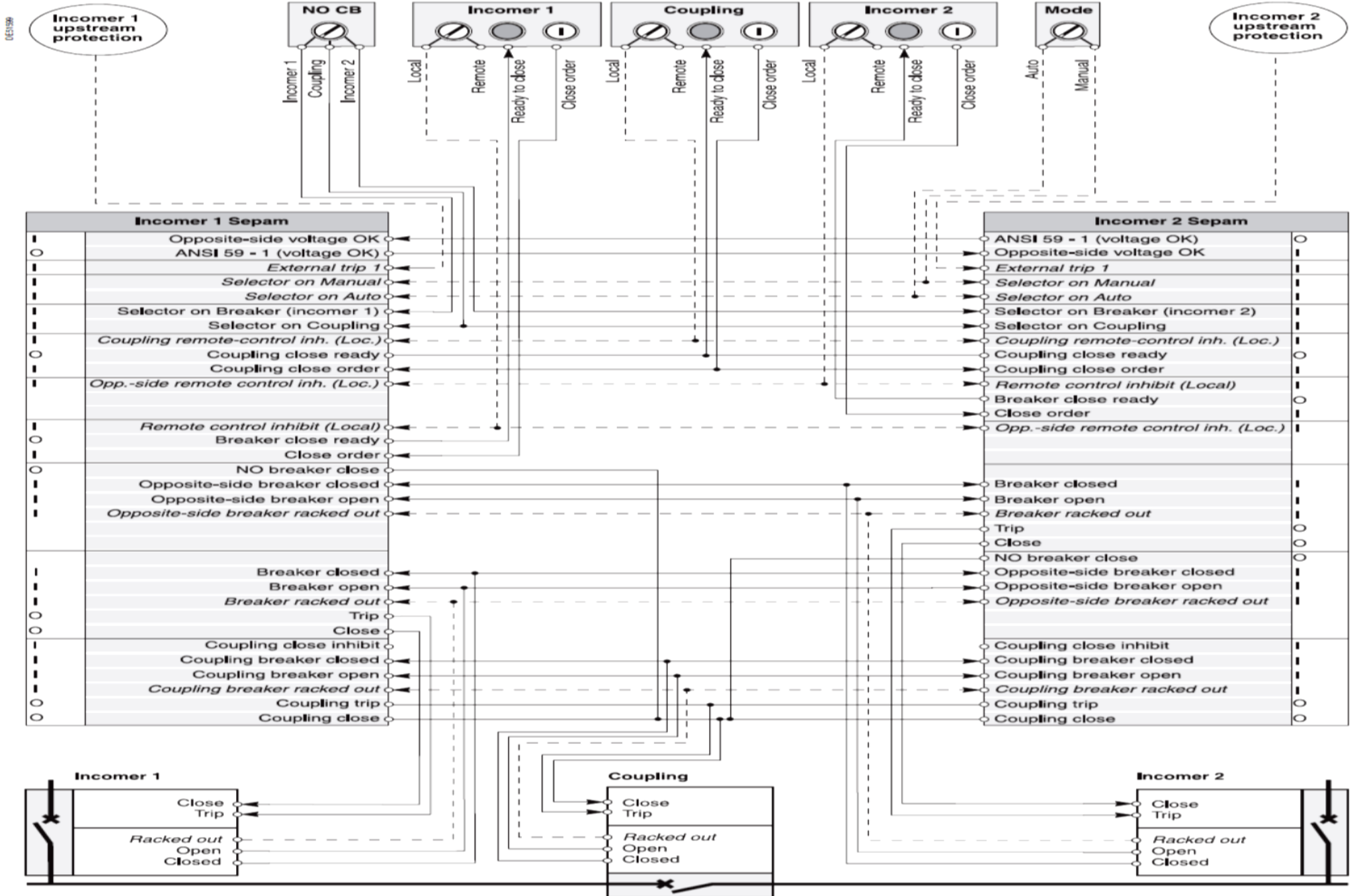
Rev	Date	Modification	Drawn	Rev	Date	Modification	Drawn
A	27-08-2010	Edition originale / First issue					

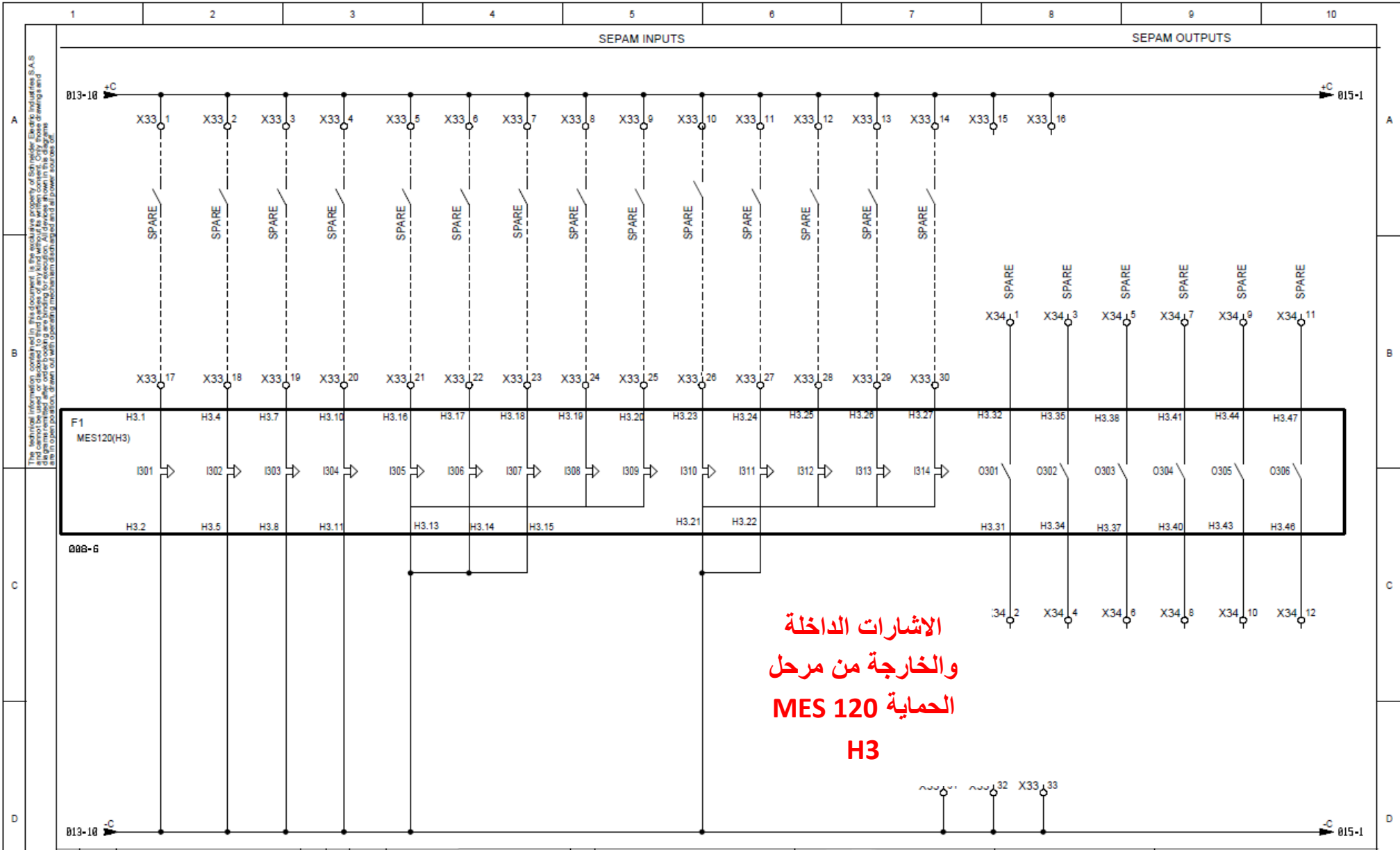
SEPAM SECOND MES120 I/O MODULE
 INCOMER 1



P1003715-01
 Cubicle Type: MCSET
 Rev: A
 Sheet: 013

Connection for normally open coupling





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الإشارات الداخلة
 والخارجة من مرحل
 الحماية MES 120
 H3

Rev	Date	Modification	Drawn	Rev	Date	Modification	Drawn
A	27-08-2010	Edition originale / First issue					

SEPAM THIRD MES120 I/O MODULE
 INCOMER 1

P1003715-01

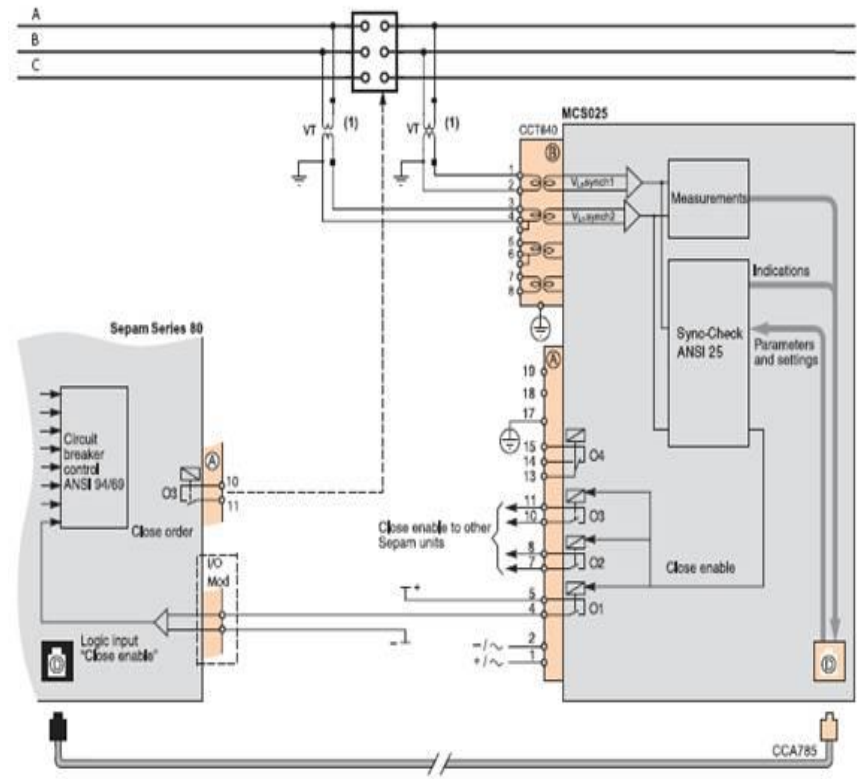
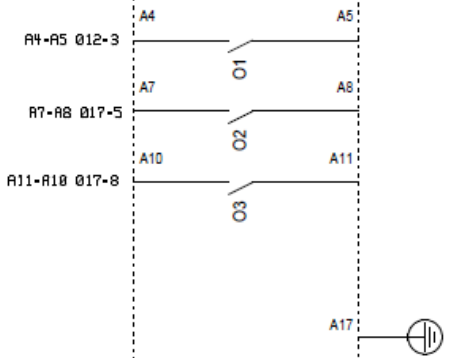
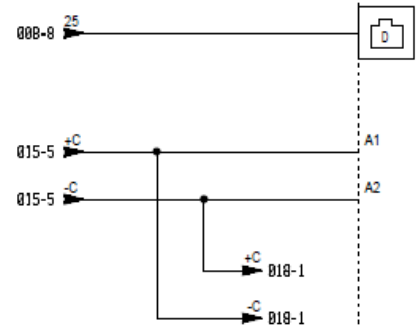
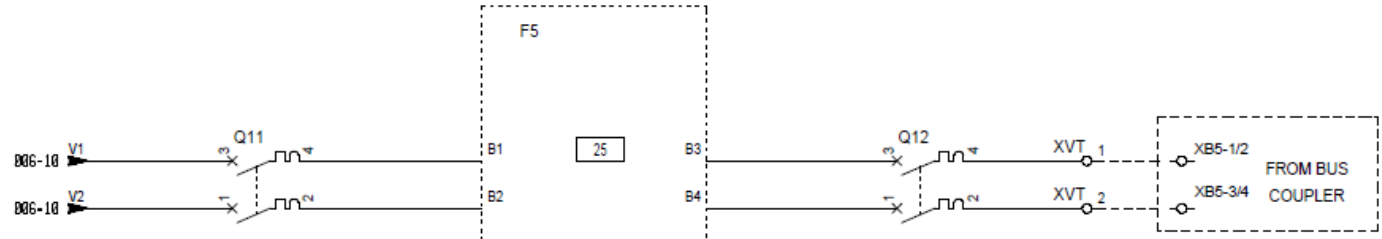
Cubicle Type
MCSET

Rev
A

Sheet
014

SEPAM SYNCHRO CHECK MODUL

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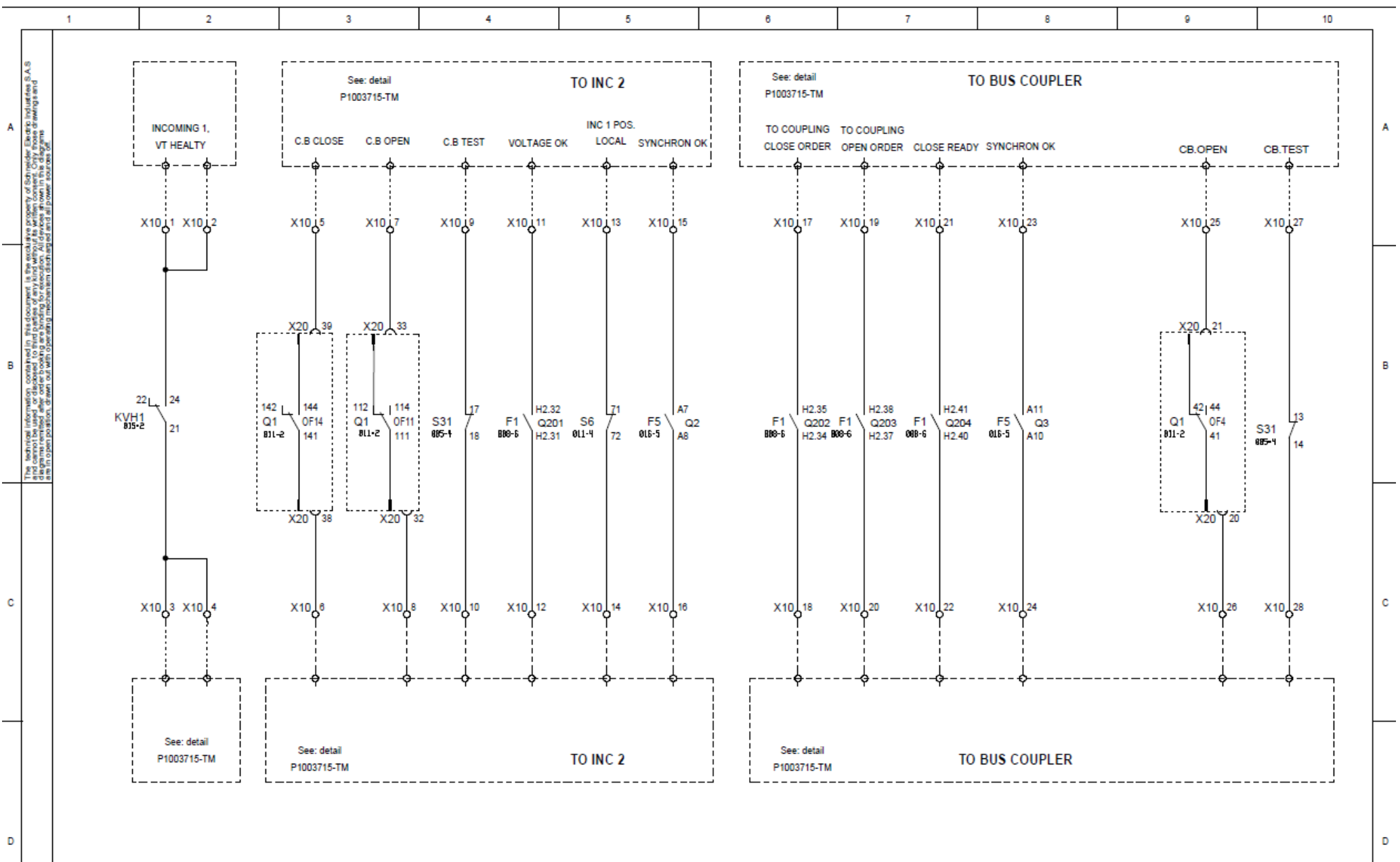
Rev	Date	Modification	Drawn	Rev	Date	Modification	Drawn
A	27-08-2010	Edition originale / First issue					

SYNCRO CHECK MODUL
 INCOMER 1



P1003715-01

Cubicle Type MCSET	Rev A	Sheet 016
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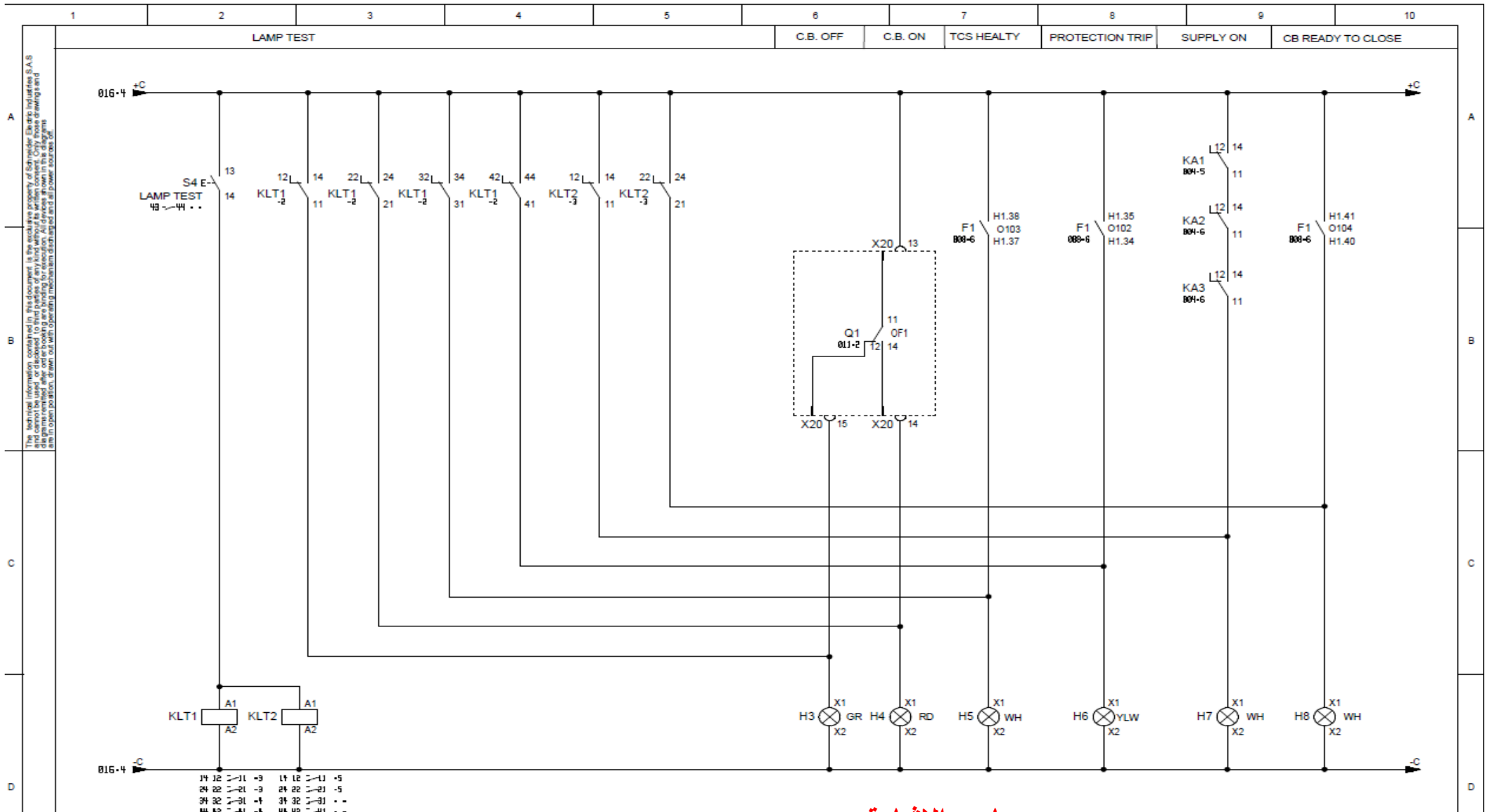
Rev	Date	Modification	Drawn	Rev	Date	Modification	Drawn
A	27-05-2010	Edition originale / First issue					

INFORMATION CONTACTS
INCOMER 1



P1003715-01

Cabinet Type: MCSET
Row: A
Sheet: 017



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A	27-05-2010	Edition originale / First issue					

SIGNALLING
INCOMER 1

مصباح الاشارة

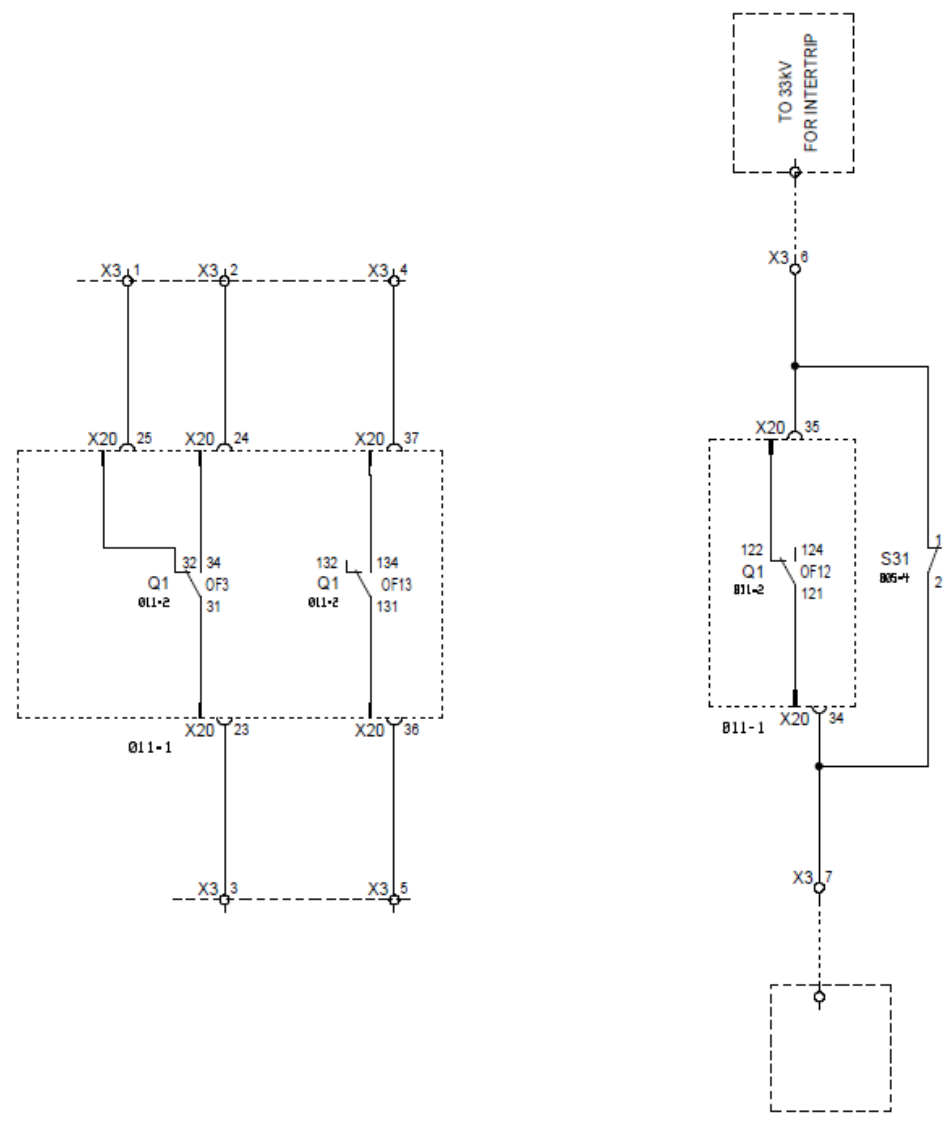


P1003715-01

Subcible Type MCSET	Rev A	Sheet 018
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C.B. AUXILIARY CONTACTS / SPARE

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A	25-05-2010	Edition originale / First issue	CUD				

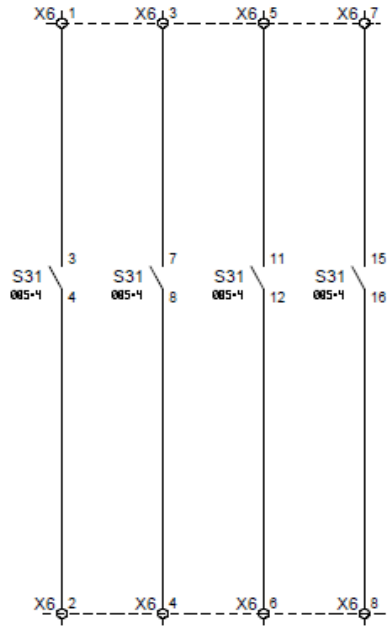
Q1 C.B. AUXILIARY CONTACTS / SPARE
INCOMER 1



P1003715-01

Cubicle Type MCSET	Rev A	Sheet 019
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C.B. TRUCK AUXILIARY CONTACTS /SPARE



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Rev	Date	Modification	Drawn	Rev	Date	Modification	Drawn
A	27-05-2010	Edition originale / First Issue					

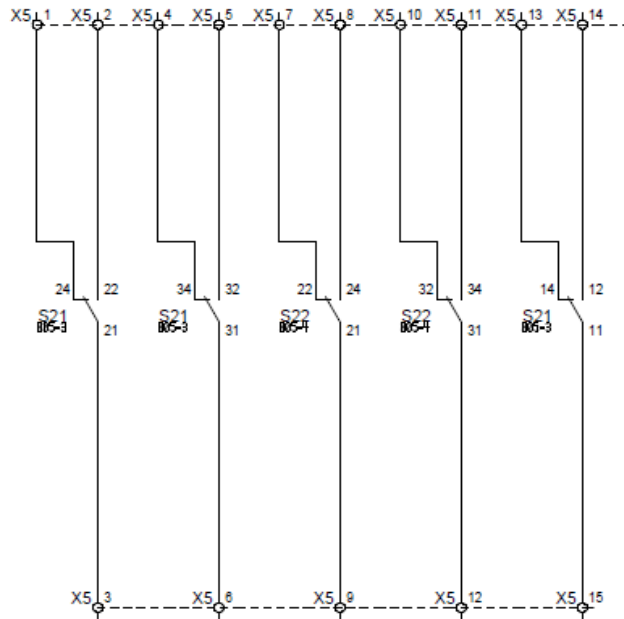
S31 C.B. TRUCK AUX. CONTACTS
INCOMER 1



P1003715-01

Outside Type MCSET	Rev A	Sheet 020
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EARTHING SWITCH AUXILIARY CONTACTS / SPARE



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Rev	Date	Modification	Drawn	Rev	Date	Modification	Drawn
A	27-05-2010	Edition originale / First issue					

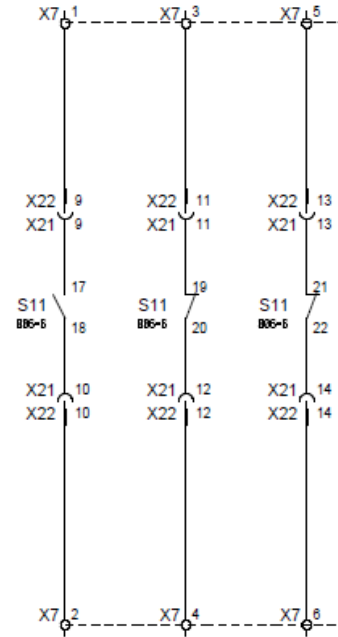
S21,S22 ES CONTACTS /SPARE
INCOMER 1



P1003715-01

Cubicle Type MCSET	Rev A	Sheet 021
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VT TRUCK AUX. CONTACTS



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Rev	Date	Modification	Drawn	Rev	Date	Modification	Drawn
A	27-05-2010	Edition originale / First issue	CUD				

S11 VT TRUCK AUX. CONTACTS
INCOMER 1

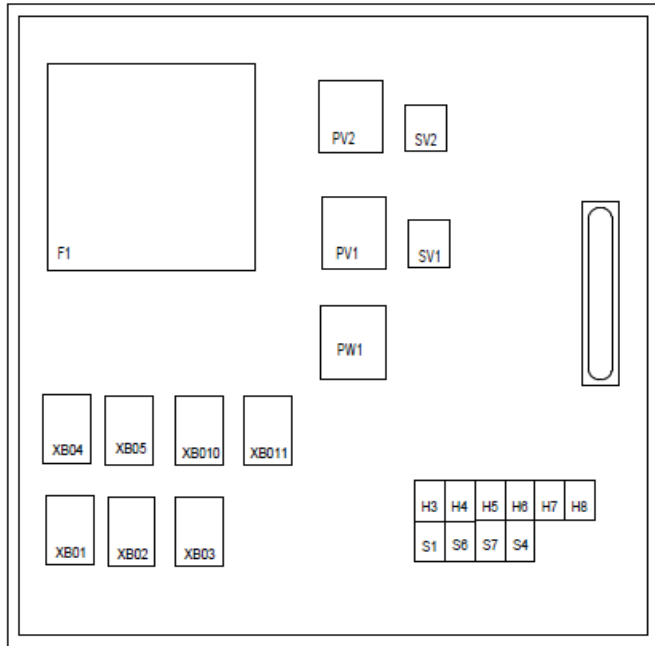


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Cubicle Type MCSET	Rev A
Sheet 022	

AD1 LV COMPARTMENT DOOR

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- F1 : SEPAM PROTECTION RELAY
- XB01 : CT TEST BOX
- XB02 : CT TEST BOX
- XB03 : CT TEST BOX
- XB010 : CT TEST BOX
- XB011 : CT TEST BOX
- XB04 : VT TEST BOX
- XB05 : VT TEST BOX
- SV1 : VOLTMETER COMMUTATOR
- PV1 : VOLTMETER
- SV2 : AMMETER COMMUTATOR
- PV2 : AMMETER
- PW1 : WATTMETER
- H3 : C.B OFF SIGNAL LAMP
- H4 : C.B ON SIGNAL LAMP
- H5 : TCS HEALTHY SIGNAL LAMP
- H6 : PROTECTION TRIP SIGNAL LAMP
- H7 : SUPPLY ON SIGNAL LAMP
- H8 : READY TO CLOSE SIGNAL LAMP
- S6 : LOCAL REMOTE SELECTOR SWITCH
- S5 : TNC SELECTOR SWITCH
- S4 : LAMP TEST PUSH BUTTON
- S7 : ELECTROMAGNET PUSH BUTTON



LV BOX FRONT VIEW
INCOMER 1



P1003715-01

Cubicle Type
MCSET

Rev
A

Sheet
023

Rev	Date	Modification	Drawn	Rev	Date	Modification	Drawn
A	27-08-2010	Edition originale / First issue	CUD				

1	2	3	4	5	6	7	8	9	10
SYMBOL	REFERENCE	DESIGNATION					MANUFACTURER	PAGE	
CNA	KL-WAGO-2010-1201	TOPJOBS LV TERMINAL 16mm2 GREY					WAGO	004	
CNB	KL-WAGO-2010-1201	TOPJOBS LV TERMINAL 16mm2 GREY					WAGO	004	
CNE	KL-WAGO-2010-1201	TOPJOBS LV TERMINAL 16mm2 GREY					WAGO	004	
CNF	KL-WAGO-2010-1201	TOPJOBS LV TERMINAL 16mm2 GREY					WAGO	004	
XE	2004-1201	LV TERMINAL 6mm2					WAGO	005	
X21	246-101	LV FEMALE CONNECTOR 20 POLES					WAGO	006	
X22	246-102	LV MALE CONNECTOR 20 POLES					WAGO	006	
XB5	2004-1201	LV TERMINAL 6mm2					WAGO	006	
XCT11	2004-1201	LV TERMINAL 6mm2					WAGO	009	
XCT3	2004-1201	LV TERMINAL 6mm2					WAGO	009	
X2	2004-1201	LV TERMINAL 6mm2					WAGO	010	
X1	2004-1201	LV TERMINAL 6mm2					WAGO	011	
X11	2004-1201	LV TERMINAL 6mm2					WAGO	011	
X4	2004-1201	LV TERMINAL 6mm2					WAGO	012	
X23	2004-1201	LV TERMINAL 6mm2					WAGO	013	
X24	2004-1201	LV TERMINAL 6mm2					WAGO	013	
X33	2004-1201	LV TERMINAL 6mm2					WAGO	014	
X34	2004-1201	LV TERMINAL 6mm2					WAGO	014	
XVT	2004-1201	LV TERMINAL 6mm2					WAGO	016	
X10	2004-1201	LV TERMINAL 6mm2					WAGO	017	
X3	2004-1201	LV TERMINAL 6mm2					WAGO	019	
X8	2004-1201	LV TERMINAL 6mm2					WAGO	020	
X7	2004-1201	LV TERMINAL 6mm2					WAGO	022	
XE	2004-1201	LV TERMINAL 6mm2					WAGO	005	
1T1	*CT-NMG	CURRENT TRANSFORMER					SCHNEIDER ELECTRIC	007	
1T2	*CT-NMG	CURRENT TRANSFORMER					SCHNEIDER ELECTRIC	007	
1T3	*CT-NMG	CURRENT TRANSFORMER					SCHNEIDER ELECTRIC	007	
AP1	59642	COMMUNICATION CONNECTION BOX ACE 949-2					SCHNEIDER ELECTRIC	008	
	59663	COMMUNICATION CABLE CCA612					SCHNEIDER ELECTRIC	008	
F1	SEPAMT81	PROTECTION RELAY SEPAM T81					SCHNEIDER ELECTRIC	008	
	59715	SEPAM MES120 14 INPUT / 6 OUTPUT MODULE					SCHNEIDER ELECTRIC	008	
	59715	SEPAM MES120 14 INPUT / 6 OUTPUT MODULE					SCHNEIDER ELECTRIC	008	
	59715	SEPAM MES120 14 INPUT / 6 OUTPUT MODULE					SCHNEIDER ELECTRIC	008	
F5	59712	MCS025 SYNCHRO-CHECK MODULE					SCHNEIDER ELECTRIC	016	
	59665	COMMUNICATION CABLE CCA785					SCHNEIDER ELECTRIC	016	
FU11	*FUSARC	M.V. FUSE 10A					SCHNEIDER ELECTRIC	006	
H1	VPIS	VOLTAGE INDICATOR					SCHNEIDER ELECTRIC	005	
H3	ZB5AVBG3	SIGNAL LAMP BODY WITH LED, GREEN 24-120VAC/DC					SCHNEIDER ELECTRIC	018	
	ZB5AV033	SIGNAL LAMP HEAD, GREEN					SCHNEIDER ELECTRIC	018	
H4	ZB5AVBG4	SIGNAL LAMP BODY WITH LED, RED 24-120VAC/DC					SCHNEIDER ELECTRIC	018	
	ZB5AV043	SIGNAL LAMP HEAD RED					SCHNEIDER ELECTRIC	018	
H5	ZB5AVBG1	SIGNAL LAMP BODY WITH LED, WHITE 24-120VAC/DC					SCHNEIDER ELECTRIC	018	
	ZB5AV013	SIGNAL LAMP HEAD, WHITE					SCHNEIDER ELECTRIC	018	
H6	ZB5AVBG5	SIGNAL LAMP BODY WITH LED, AMBER 24-120VAC/DC					SCHNEIDER ELECTRIC	018	
	ZB5AV053	SIGNAL LAMP HEAD, AMBER					SCHNEIDER ELECTRIC	018	
H7	ZB5AVBG1	SIGNAL LAMP BODY WITH LED, WHITE 24-120VAC/DC					SCHNEIDER ELECTRIC	018	
	ZB5AV013	SIGNAL LAMP HEAD, WHITE					SCHNEIDER ELECTRIC	018	
				EQUIPMENT LIST_ENG				P1003715-01	
				INCOMER 1					
						Schneider Electric		MCSET	
								Rev A Sheet 024	

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A

B

C

D

A

B


C

D

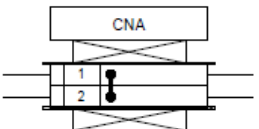
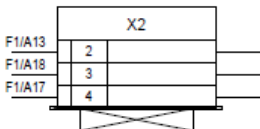
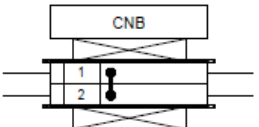
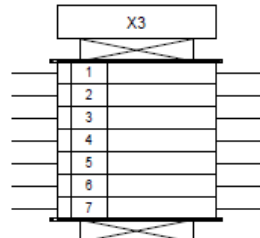
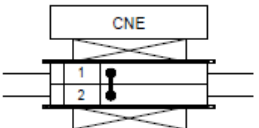
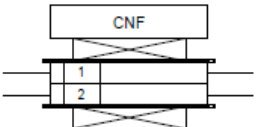
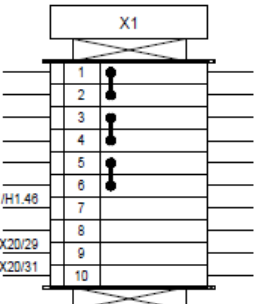
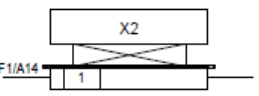
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SYMBOL	REFERENCE	DESIGNATION					MANUFACTURER	PAGE																																						
A	H8	ZB5AVBG1	SIGNAL LAMP BODY WITH LED, WHITE 24-120VAC/DC					SCHNEIDER ELECTRIC	018																																					
		ZB5AV013	SIGNAL LAMP HEAD, WHITE					SCHNEIDER ELECTRIC	018																																					
	HL1	3408828FD	LV COMP.LIGHTING					SCHNEIDER ELECTRIC	004																																					
		3408921FD	BULB 240V-25W					SCHNEIDER ELECTRIC	004																																					
	KA1	RXM4AB1FD	AUXILIARY RELAY 110VDC 4 CHANGE-OVER CONTACTS , 6A					SCHNEIDER ELECTRIC	004																																					
		RXZE2M114M	14 PIN SOCKET FOR RX RELAY					SCHNEIDER ELECTRIC	004																																					
	KA2	RXM4AB1FD	AUXILIARY RELAY 110VDC 4 CHANGE-OVER CONTACTS , 6A					SCHNEIDER ELECTRIC	004																																					
		RXZE2M114M	14 PIN SOCKET FOR RX RELAY					SCHNEIDER ELECTRIC	004																																					
	KA3	RXM4AB1FD	AUXILIARY RELAY 110VDC 4 CHANGE-OVER CONTACTS , 6A					SCHNEIDER ELECTRIC	004																																					
		RXZE2M114M	14 PIN SOCKET FOR RX RELAY					SCHNEIDER ELECTRIC	004																																					
	KLT1	RXM4AB1FD	AUXILIARY RELAY 110VDC 4 CHANGE-OVER CONTACTS , 6A					SCHNEIDER ELECTRIC	018																																					
		RXZE2M114M	14 PIN SOCKET FOR RX RELAY					SCHNEIDER ELECTRIC	018																																					
	KLT2	RXM4AB1FD	AUXILIARY RELAY 110VDC 4 CHANGE-OVER CONTACTS , 6A					SCHNEIDER ELECTRIC	018																																					
		RXZE2M114M	14 PIN SOCKET FOR RX RELAY					SCHNEIDER ELECTRIC	018																																					
	B	KM1	MAGNET 48	ELECTROMAGNET, 48VDC					SCHNEIDER ELECTRIC	005																																				
		KVH1	RXM4AB1FD	AUXILIARY RELAY 110VDC 4 CHANGE-OVER CONTACTS , 6A					SCHNEIDER ELECTRIC	015																																				
		RXZE2M114M	14 PIN SOCKET FOR RX RELAY					SCHNEIDER ELECTRIC	015																																					
PV1		56110335	VOLTMETER 0-6.6kV-8kV/110V CL:1.5 ,72x72					ALCEM	006																																					
PV2		*AMP72	AMMETER CL:1.5 NORMAL SCALE 90 DEGREE 72*72					ALCEM	007																																					
PW1		*WATTMETER	AC WATTMETER CLASS:1.5 72x72					ALCEM	007																																					
Q1		*EVOLIS-1	VACUUM CIRCUIT BREAKER					SCHNEIDER ELECTRIC	011																																					
Q2		TOPAY	EARTHING SWITCH					SCHNEIDER ELECTRIC	005																																					
Q3		MGN61526	C60H-DC 2P CIRCUIT-BREAKER 6A C CURVE 500VDC					SCHNEIDER ELECTRIC	004																																					
Q4		MGN61526	C60H-DC 2P CIRCUIT-BREAKER 6A C CURVE 500VDC					SCHNEIDER ELECTRIC	004																																					
Q5		MGN61526	C60H-DC 2P CIRCUIT-BREAKER 6A C CURVE 500VDC					SCHNEIDER ELECTRIC	004																																					
Q7		A9F84208	ACTI 9 IC60H 2P 6A 10KA MINIATURE CIRCUIT BREAKER					SCHNEIDER ELECTRIC	004																																					
Q9		A9F84402	ACTI 9 IC60H 4P 2A C 10KA MINIATURE CIRCUIT BREAKER					SCHNEIDER ELECTRIC	006																																					
		A9A26924	iOF 240-415VAC 24-130VDC OC CONTACT					SCHNEIDER ELECTRIC	006																																					
C		Q10	A9F84202	ACTI 9 IC60H 2P 2A 10KA MINIATURE CIRCUIT BREAKER					SCHNEIDER ELECTRIC	006																																				
		Q11	A9F84202	ACTI 9 IC60H 2P 2A 10KA MINIATURE CIRCUIT BREAKER					SCHNEIDER ELECTRIC	016																																				
	Q12	A9F84202	ACTI 9 IC60H 2P 2A 10KA MINIATURE CIRCUIT BREAKER					SCHNEIDER ELECTRIC	016																																					
	R1	28326007	HEATER 150W 220-240VAC						004																																					
	R2	MTA7843002	RESISTANCE 110/3V 50Ohm 300W,TKR-2					ALCE	006																																					
	S4	XB5AA21	PUSHBUTTON SPRING RETURN BLACK 1NO					SCHNEIDER ELECTRIC	018																																					
		ZBE101-4	SINGLE CONTACT BLOCK 1NO					SCHNEIDER ELECTRIC	018																																					
	S5	XB5AD53	SELECTOR SWITCH SPRING RETURN BLACK 2NO					SCHNEIDER ELECTRIC	011																																					
		ZBE101-5	SINGLE CONTACT BLOCK 1NO					SCHNEIDER ELECTRIC	011																																					
	S6	XB5AG41	SELECTOR SWITCH WTH KEY 2 POSITIONS BLACK 1NO					SCHNEIDER ELECTRIC	011																																					
		ZBE102-1	SINGLE CONTACT BLOCK 1NC					SCHNEIDER ELECTRIC	011																																					
		ZBE102-4	SINGLE CONTACT BLOCK 1NC					SCHNEIDER ELECTRIC	011																																					
		ZBE102-8	SINGLE CONTACT BLOCK 1NC					SCHNEIDER ELECTRIC	011																																					
	S7	XB5AA21	PUSHBUTTON SPRING RETURN BLACK 1NO					SCHNEIDER ELECTRIC	005																																					
	D	S11	K1SM1A7LNS04	VT TRUCK CAM SWITCH 2 POSITIONS					SCHNEIDER ELECTRIC	006																																				
		S31	K1SM1A8LNS05	CB TRUCK CAM SWITCH 2 POSITIONS					SCHNEIDER ELECTRIC	005																																				
S21		83108	EARTHING SWITCH POSITION CONTACTS					CROUZET	005																																					
S22		83108	EARTHING SWITCH POSITION CONTACTS					CROUZET	005																																					
ST1		8998	THERMOSTAT +10C - +80C 230VAC					SCHNEIDER ELECTRIC	004																																					
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				EQUIPMENT LIST_ENG		SCOP BAGHDAD - IRAQ				P1003715-01																																				
				INCOMER 1		SCOP BAGHDAD - IRAQ				<small>Cubicle Type</small> MCSET		<small>Rev</small> A																																		
<small>Rev</small>	<small>Date</small>	<small>Modification</small>	<small>Drawn</small>	<small>Rev</small>	<small>Date</small>	<small>Modification</small>	<small>Drawn</small>			<small>Sheet</small>	025																																			

1	2	3	4	5	6	7	8	9	10
SYMBOL	REFERENCE	DESIGNATION						MANUFACTURER	PAGE
SV1	K1D024MLH	VOLTMETER SELECTOR SWITCH 4 POSITIONS						SCHNEIDER ELECTRIC	006
SV2	K1F003MLH	AMMETER SELECTOR SWITCH 4 POSITIONS						SCHNEIDER ELECTRIC	007
SW1	3405467F0	LIMIT SWITCH 1NO						SCHNEIDER ELECTRIC	004
T1	*VT-NMG	VOLTAGE TRANSFORMER						SCHNEIDER ELECTRIC	006
T2	*VT-NMG	VOLTAGE TRANSFORMER						SCHNEIDER ELECTRIC	006
T3	*VT-NMG	VOLTAGE TRANSFORMER						SCHNEIDER ELECTRIC	006
T10	59634	CSH 30 INTERPOSING RING CT						SCHNEIDER ELECTRIC	009
T11	59634	CSH 30 INTERPOSING RING CT						SCHNEIDER ELECTRIC	009
X20	HAN 42 DD	MULTI-PIN CONNECTOR 42 ACTIVE CONTACTS 1EARTH CONTACT						HARTING	011
XB01	28851101	LV CURRENT TEST BOX						ENTRELEC	007
XB02	28851101	LV CURRENT TEST BOX						ENTRELEC	008
XB03	28851101	LV CURRENT TEST BOX						ENTRELEC	009
XB04	28851104	LV VOLTAGE TEST BOX						ENTRELEC	006
XB05	28851104	LV VOLTAGE TEST BOX						ENTRELEC	006
XB010	28851101	LV CURRENT TEST BOX						ENTRELEC	009
XB011	28851101	LV CURRENT TEST BOX						ENTRELEC	009

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				EQUIPMENT LIST_ENG						P1003715-01	
				INCOMER 1							
Rev	Date	Modification	Drawn	Rev	Date	Modification	Drawn	Outside Type	Rev	Sheet	
A	27-06-2010	First issue	CUD					MCSET	A	026	

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1	2	3	4	5	6	7	8	9	10
COMMENT	PAGE	TERMINAL	COMMENT	PAGE	TERMINAL				
CONTROL VOLTAGE + CONTROL VOLTAGE +	P1003715-01/004-2 P1003715-01/004-2			P1003715-01/010-6 P1003715-01/010-6 P1003715-01/010-6					
CONTROL VOLTAGE - CONTROL VOLTAGE -	P1003715-01/004-2 P1003715-01/004-2			P1003715-01/019-4 P1003715-01/019-5 P1003715-01/019-6 P1003715-01/019-8 P1003715-01/019-8 P1003715-01/019-8					
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Rev	Date	Modification	Drawn	Rev	Date	Modification	Drawn
A	27-05-2010	First issue	CUD				

Terminal Strip: CNA
CNA - 1/1
INCOMER 1

SCOP BAGHDAD - IRAQ
SCOP BAGHDAD - IRAQ



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Cable Type MCSET	Rev A	Sheet 027
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COMMENT

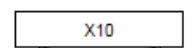
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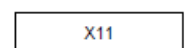
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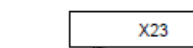
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- P1003715-01/017-5
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- F1
- F1
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- F1/H2.17
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- F1/H2.18
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A	27-06-2010	Final issue					

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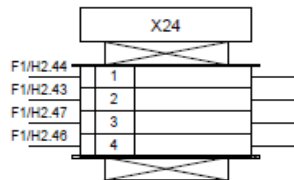
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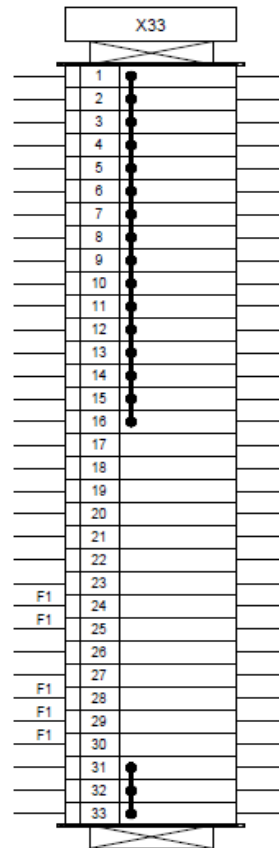
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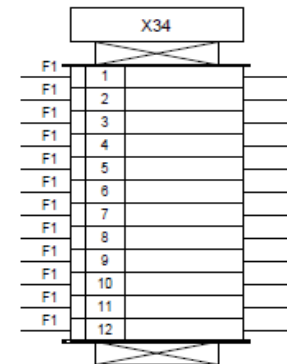
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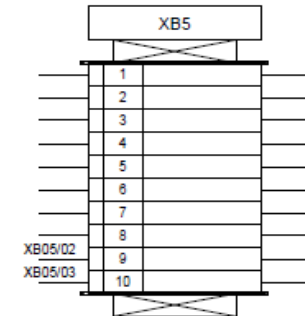
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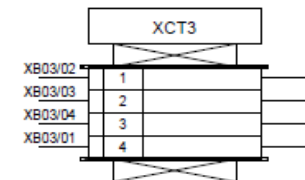
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A	27-05-2010	First Issue					

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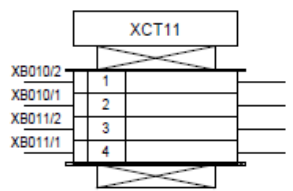
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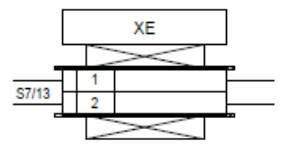
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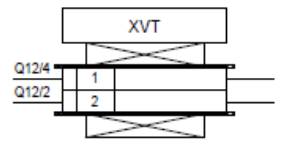
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A	27-05-2010	First issue	CUD				

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