

# SILCON BATTERY BREAKER BOX SPECIFICATION

## 1. SYSTEM MAINS SUPPLY RATING

Mains voltage : 2x400V DC  
Control Voltage : 230V at 50Hz  
Short-circuit current Icc : 10 kA

## 2. STANDARDS

The Silcon Battery Breaker Box is built according to : IEC 439-1

## 3. ENVIRONMENTS

The assembly is made for an ambient temperature of :  Max: +40°C and  Min : -5°C

## 4. ENCLOSURE

The enclosure of the assembly is : IP20 and Form 1  
The assembly material is : Plastic

## 5. POSITIONING

The assembly is made for indoor installation on:  floor  
 wall

## 6. DIMENSIONS AND WEIGHTS

Height : 540 mm  
Width : 540 mm  
Depth : 183 mm  
Weight : 20 kg

## 7. CABLE ENTRIES

Inlets for UPS:  
 Bottom

Outlets for Batteries:  
 Top

## 8. CONNECTIONS

Power Circuits :  
Input Output  
  Terminals

Control Circuits :  
 Terminals

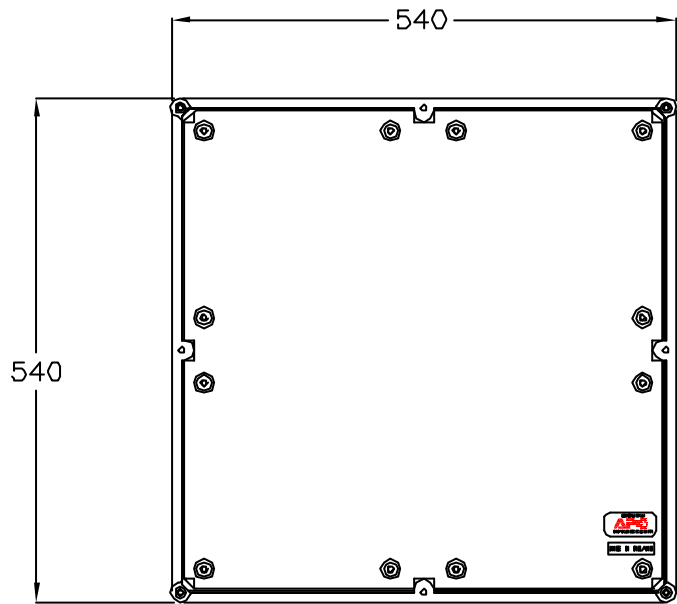
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TITLE:	SILCON 120KW UPS BATTERY BREAKER BOX, SPECIFICATION SHEET 120KW, 400V
PROJECT:	SUBMITAL DRAWINGS SHEET 1 OF 8

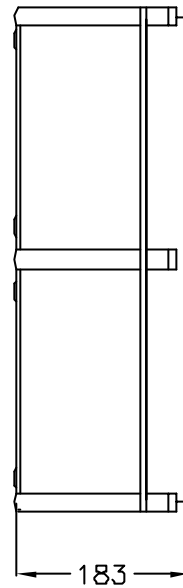
DWG NO:	SBB120KH-SP	
DRAWN BY:	MZGN	01/10/03
CHECKED BY:	B.WEISEN	01/10/03
ENGINEER:	CLARKE	01/10/03

REV.	-
PROJECTION	

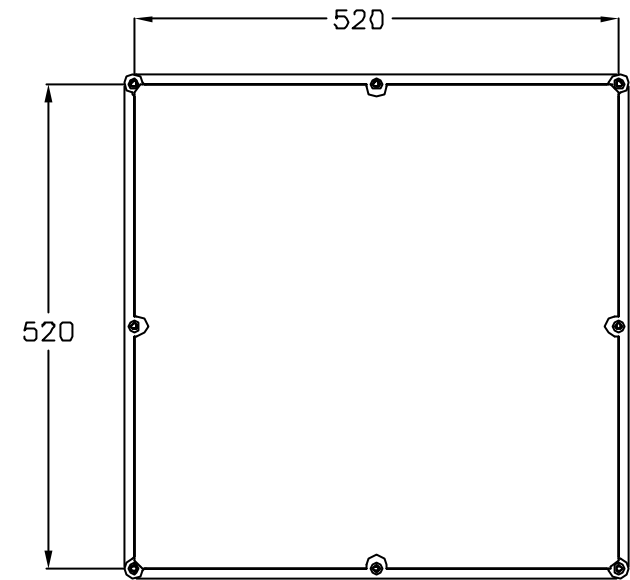
**APC**<sup>®</sup>  
AMERICAN POWER CONVERSION  
132 FAIRBROOKS RD  
WEST KINGSTON, RI 02892



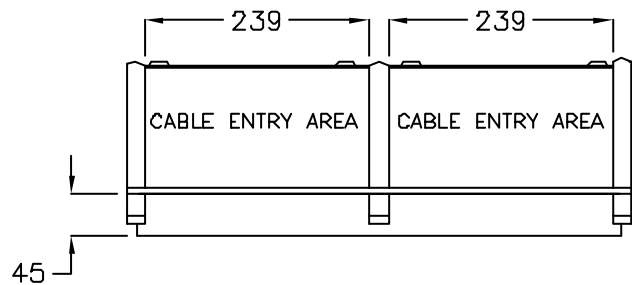
FRONT VIEW



LEFT SIDE VIEW



REAR VIEW  
(MOUNTING LOCATIONS OF WALL FIXING LUGS)



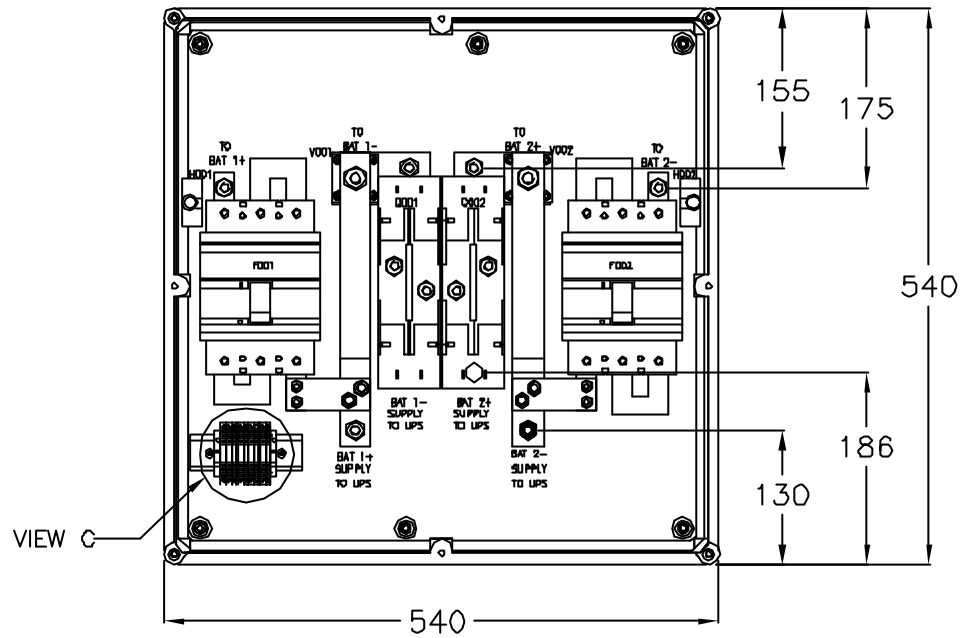
TOP VIEW

NOTES:

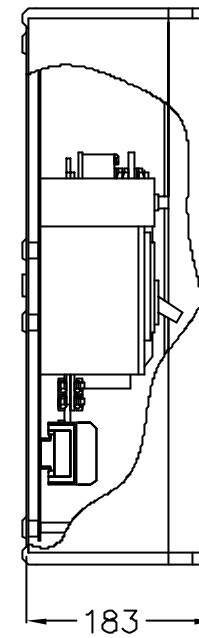
1. ALL DIMENSIONS ARE IN MILLIMETERS.
2. MINIMUM SERVICE CLEARANCE IS 914 FRONT.
3. CONDUIT ENTRY IS TOP OR BOTTOM OF UNIT.
4. UNIT WEIGHT IS 20 kg.
5. INSTALLATION MUST COMPLY WITH ALL APPLICABLE NATIONAL AND LOCAL STANDARDS.

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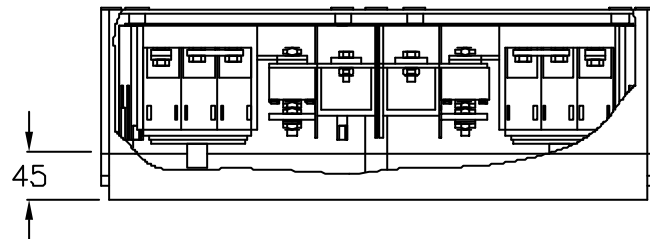
TITLE: SILICON 120kW UPS BATTERY BREAKER BOX, MAIN MECHANICAL 120kW, 400V		DWG NO: SBB120KH-MM		REV. -
DRAWN BY: NIZON		01/19/03		PROJECTION 
CHECKED BY: BUNELSEN		01/19/03		
ENGINEER: CLURSEL		01/19/03		
PROJECT: SUBMITTAL DRAWINGS	SHEET 2 OF 8	 AMERICAN POWER CONVERSION 132 PARBROOKS RD WEST KINGSTON, RI 02892		



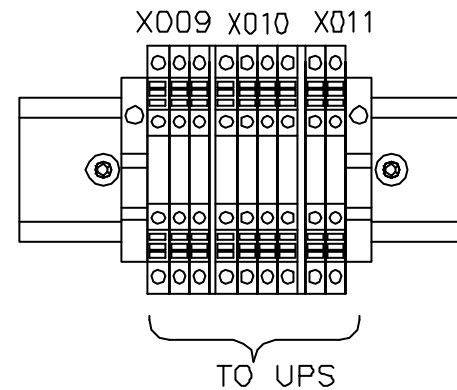
FRONT VIEW  
(DOOR AND POLYCARBONATE COVER REMOVED)



LEFT SIDE VIEW  
(POLYCARBONATE COVER REMOVED)



TOP VIEW  
(POLYCARBONATE COVER REMOVED)



VIEW C (ENLARGED)  
CONTROL WIRING

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS.
2. BATTERY CABLING VOLTAGE DROP SHOULD NOT EXCEED 1%.
3. CIRCUIT BREAKERS F001, F002 ARE 200 AMP.
4. WIRING CONFIGURATION SHOWN IS FOR REFERENCE ONLY.
5. INSTALLATION MUST COMPLY WITH ALL APPLICABLE NATIONAL AND LOCAL CODES.

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TITLE: SILICON 120kW UPS  
BATTERY BREAKER BOX,  
ELECTROMECHANICAL  
120kW, 400V  
PROJECT: SUBMITAL DRAWINGS SHEET 3 OF 8

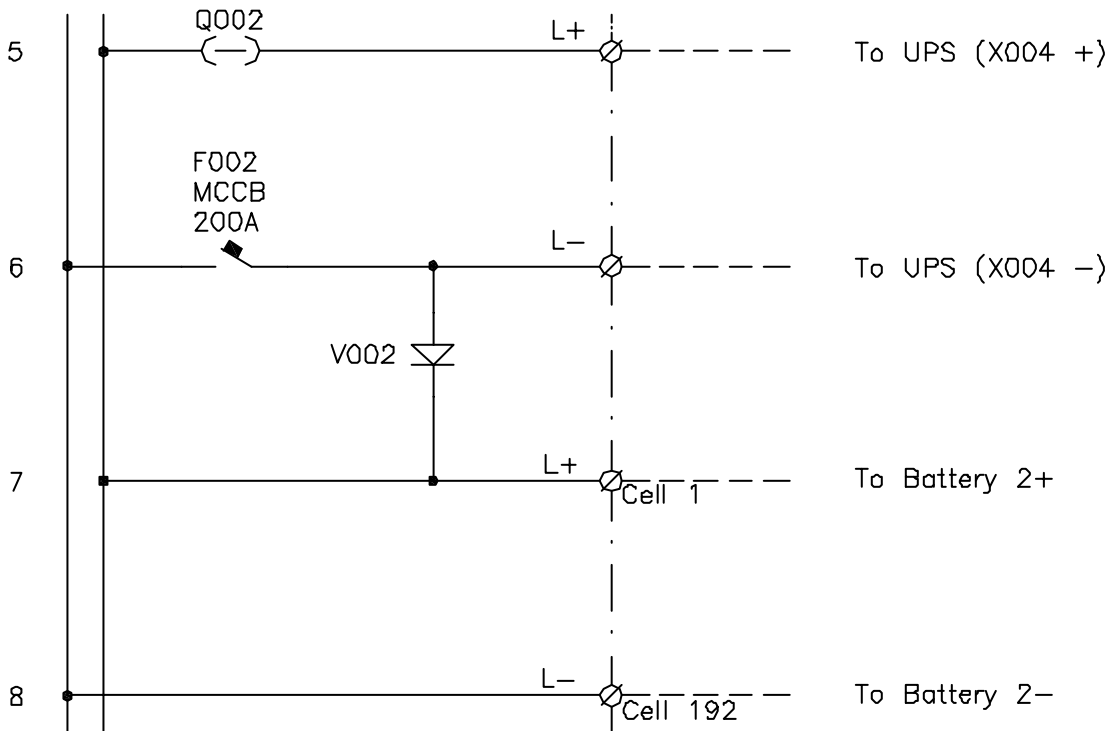
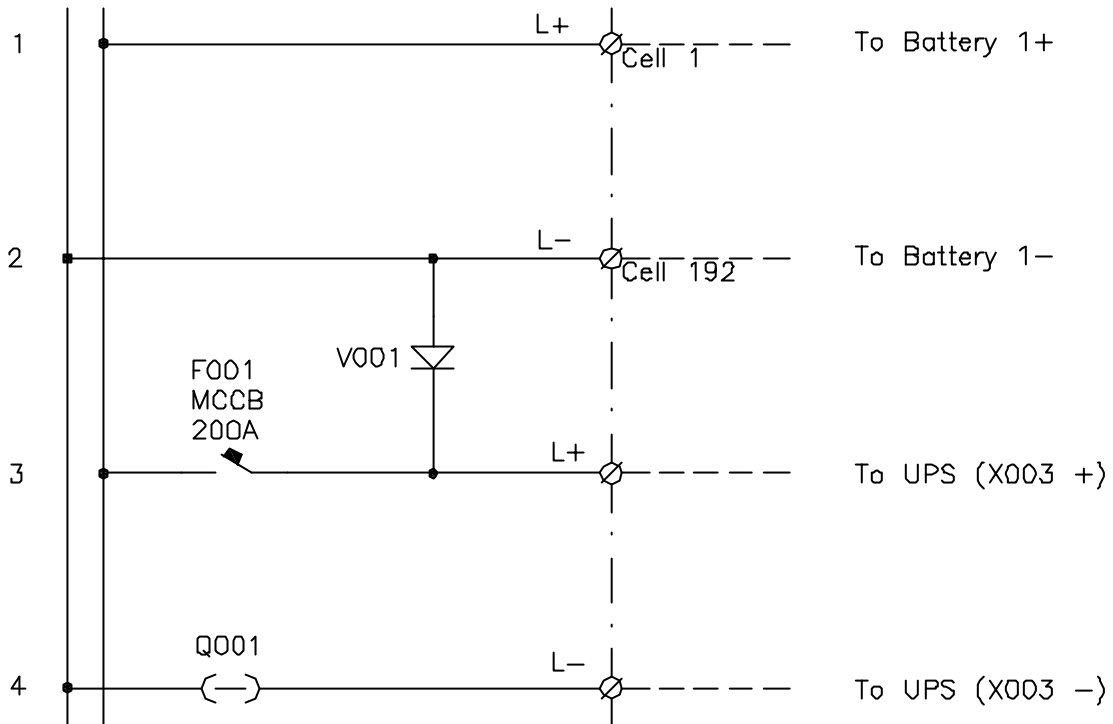
DWG NO: SBB120KH-ME  
DRAWN BY: M.ZEN  
CHECKED BY: B.NIELSEN  
ENGINEER: CLAUSEN

REV. -  
01/10/03  
01/10/03  
01/10/03

PRODUCTION  
APC

**APC**  
AMERICAN POWER CONVERSION  
130 FINGERBILLS RD.  
WEST MINGHAM, RI 02892

880V DC  
 In=200A  
 L-L+



NOTES:

1. DASHED ( - - ) LINES OUTSIDE OF SBB UNIT, REPRESENT CABLING PROVIDED BY OTHERS.

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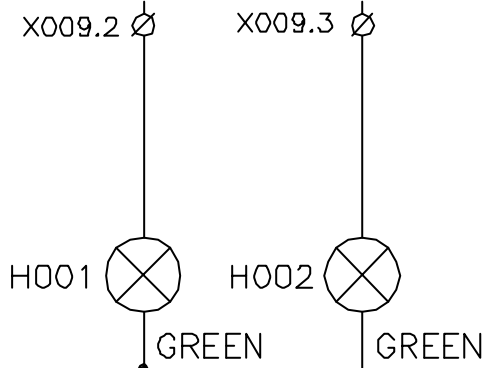
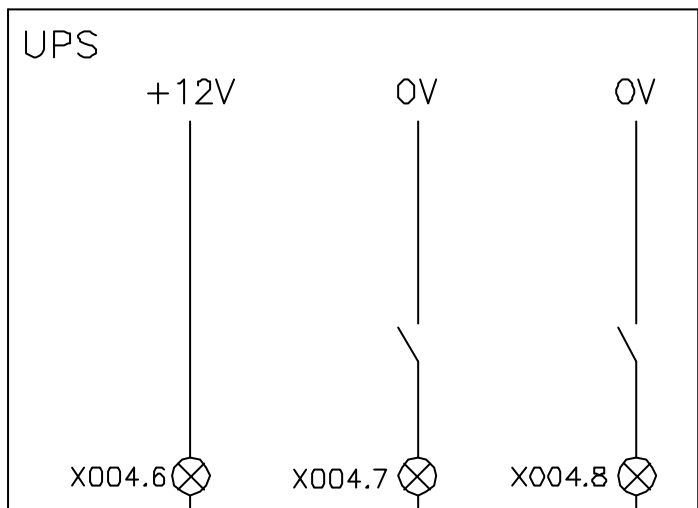
TITLE: SILICON 120kW UPS BATTERY BREAKER BOX, POWER CIRCUIT 120kW, 4DOV  
 PROJECT: SUBMITTAL DRAWINGS SHEET 4 OF 8

DWG NO: SBB120KH-ES  
 DRAWN BY: NZJON 07/01/04  
 CHECKED BY: BLJENSEN 07/01/04  
 ENGINEER: CLARSEN 07/01/04

REV. 1  
 PROJECTION

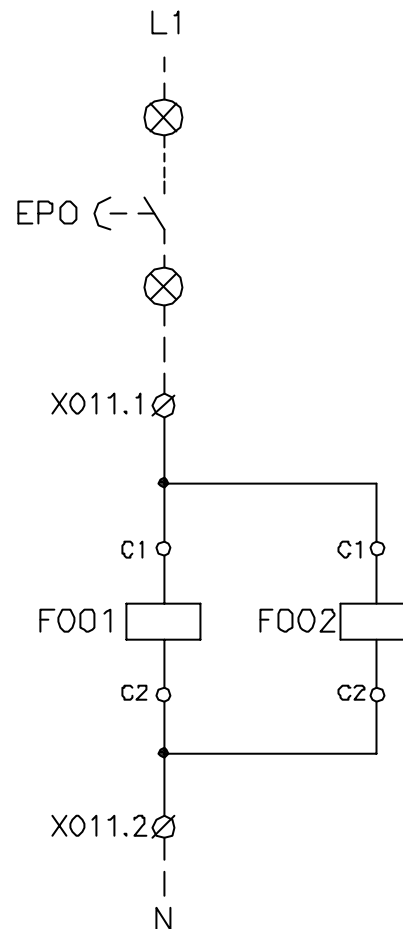


CONTROL CIRCUIT



1                      2                      3                      4                      5                      6                      7                      8                      9                      10

OK FOR  
OPERATING  
THE F002      OK FOR  
OPERATING  
THE F001



TRIP FOR  
EMERGENCY TRIP  
(220-240V AC)

- NOTES:
1. X004 ⊗ TERMINALS LOCATED IN UPS.
  2. X009 ⊘ TERMINALS LOCATED IN SBB.
  3. DASHED (---) LINES OUTSIDE OF MCCB UNIT, REPRESENT CABLING PROVIDED BY OTHERS.

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TITLE: SILCON 120kW UPS  
BATTERY BREAKER BOX,  
CONTROL CIRCUIT  
120kW, 400V

PROJECT: SUBMITTAL DRAWINGS SHEET 6 OF 8

DWG NO: SBB120KH-ES

DRAWN BY: M.ZEN      01/10/03

CHECKED BY: B.NIELSEN      01/10/03

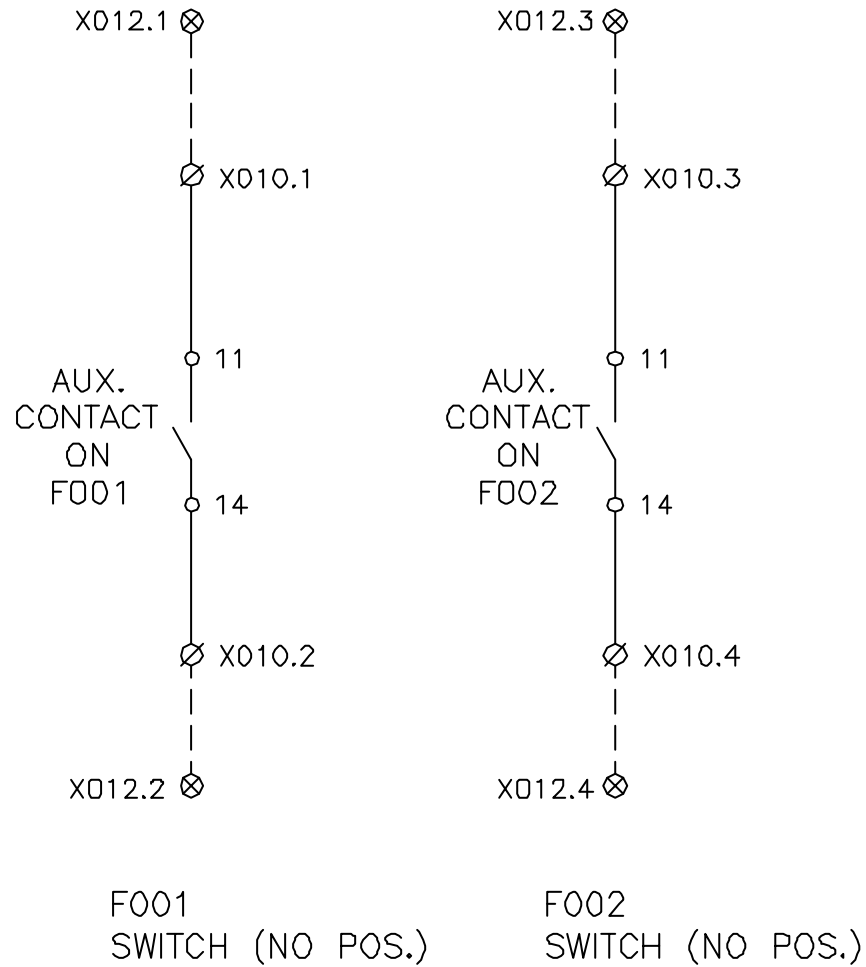
ENGINEER: CLAUSEN      01/10/03

REV. -

PRODUCTION



# CONTROL CIRCUIT



- NOTES:
1. X012 ⊗ TERMINALS LOCATED IN UPS.
  2. X010 ⊗ TERMINALS LOCATED IN SBB.
  3. DASHED (---) LINES OUTSIDE OF MCCB UNIT, REPRESENT CABLING PROVIDED BY OTHERS.

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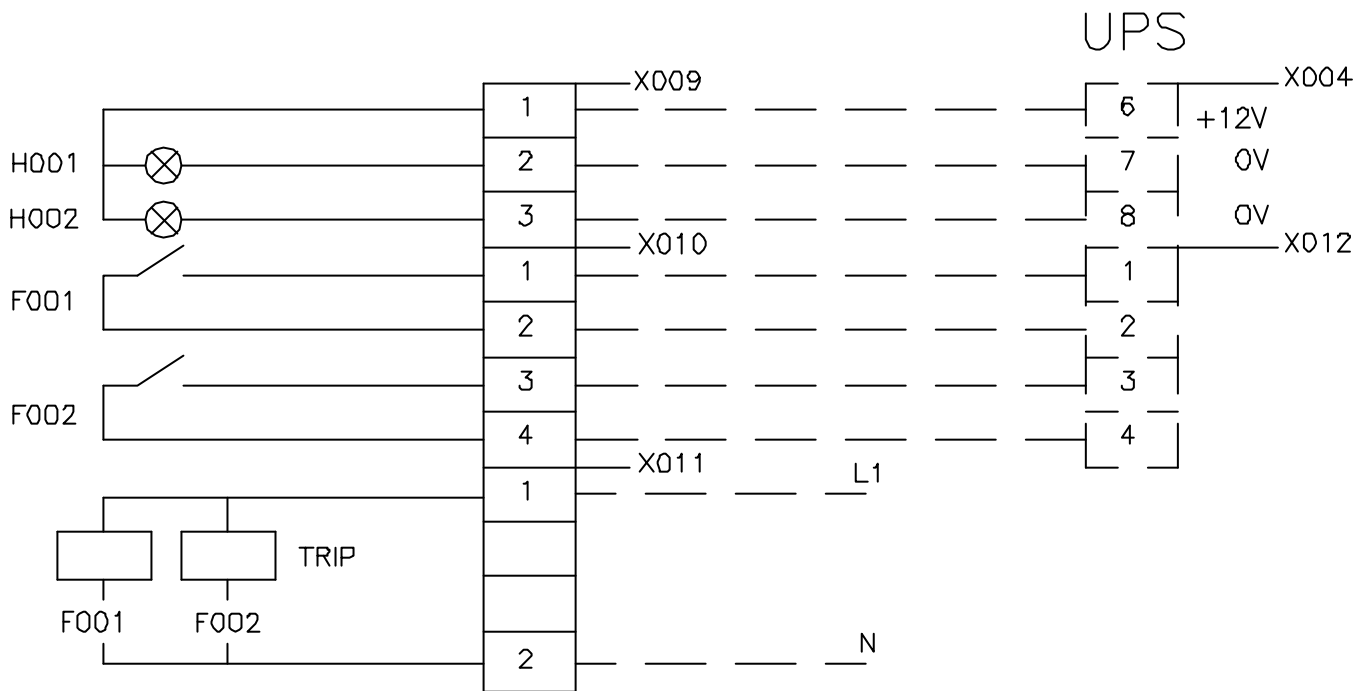
**TITLE:** SILCON 120kW UPS  
 BATTERY BREAKER BOX,  
 CONTROL CIRCUIT  
 120kW, 400V  
**PROJECT:** SUBMITAL DRAWINGS SHEET 6 OF 8

**DWG NO.:** SBB120KH-ES  
**DRAWN BY:** M.ZEN 01/10/03  
**CHECKED BY:** B.NIELSEN 01/10/03  
**ENGINEER:** CLAUSEN 01/10/03

**REV.:** -  
**PROJECTION:**



# CONTROL CIRCUIT



**NOTES:**

1. DASHED (---) LINES OUTSIDE OF SBB UNIT, REPRESENT CABLING PROVIDED BY OTHERS.

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**TITLE:** SILICON 120kW UPS BATTERY BREAKER BOX, CONTROL CIRCUIT 120kW, 4DOV

**DWG NO:** SBB120KH-ES

**REV.:** -

**DRAWN BY:** NZJON 01/10/03

**CHECKED BY:** BLWELSEN 01/10/03

**ENGINEER:** CLARKE 01/10/03

**PROJECTION:**

**APC**  
AMERICAN POWER CONVERSION  
132 FAIRGROUNDS RD.  
WEST KINGSTON, RI 02882

**PROJECT:** SUBMITTAL DRAWINGS **SHEET 7 OF 8**

Sl. No.	Part No.	Description	U.D.M	Qty.
01	0M-4080	ASSY BUSBAR MCCC BOX 125A-250A	NO.	1
02	DM-4089	KIT MOUNTING FOR MCCC	NO.	1
03	0W4266	WIRE ASSY MCB BOX 125A - 250A	NO.	1
04	340-8000	DIODE PWR 800A 600V 8.2KAS	NO.	2
05	370-0060	LED GRN PILOT LGHT 2.0/2.2V UL	NO.	2
06	515-7001	FUSELINK DIN 1 (0015221)	NO.	2
07	530-1413A	CKT BREAKER 200ADC 250V IM 600	NO.	2
08	610-1840A	WIRE 18AWG/0.825Q BLK 150C	m	2.09
09	660-0080A	SHRINK SLEEVE D4MM BLK 125C	m	0.02
10	701-3326	CABLE LUG 0.25 - 1.6SQ 0017977	NO.	2
11	701-3334	CABLE PIN CRIMP BLUE L=6.7MM	NO.	1
12	701-3336	FASTON 6.3 X 0.8MM RED 0017959	NO.	4
13	7100523GB	TESTDESCR. F.-BDP-MCCB/- MCCC BOX	NO.	1
14	730-0043	TERMINAL END BRACKET EW 35	NO.	2
15	740-0027	TERMINAL WDU 2.5	NO.	9
16	7600200	SPEC. FOR MCB BOX DP3120E	NO.	1
17	803-0015	NUT PLASTIC PG16	NO.	3
18	803-0016	WASHER M6 FLAT	NO.	14
19	803-0017	WASHER M10 FLAT	NO.	2
20	803-0021	NUT PLASTIC PG21	NO.	8
21	803-0408	SCREW M4X8MM TORX DIN7985	NO.	6
22	803-0541	SCREW M5X4DMM HEX CAP DIN 931	NO.	8
23	803-0611	SCREW M6X12 PHIL RCH DIN7985	NO.	6
24	803-2006	NUT M6 HEX STEEL	NO.	4
25	803-2008	NUT M8	NO.	14
26	803-2825	BOLT MASK M8X25 0059282	NO.	14
27	803-4625	SCREW M6X25MM HEX CAP DIN 933	NO.	4
28	811-0501	WASHER SPLIT M5 DIN7980	NO.	8
29	811-0502	WASHER FLAT M5 DIN125	NO.	8
30	811-0603	WASHER SPRING M6	NO.	10
31	811-0802	WASHER FLAT M8	NO.	28
32	811-0803	WASHER LOCK M8 SPLIT	NO.	14
33	811-1001	WASHER SPLIT M10 DIN7980	NO.	2
34	820-0020	CABLE TIE PSH MNT 3.5X1.2MM	NO.	18
35	820-0038	GLAND PG21 PLASTIC GREY 18011	NO.	8
36	820-0039	GLAND PLASTIC PG16 GREY 18028	NO.	3
37	820-0042	CLAMP-BOX D42MM	NO.	2
38	830-0600	SPACER M6 M/F ALU FOR MCCC BOX	NO.	6
39	870-40100	CU-RAIL 4 FOR MCB BOX 0054493	NO.	2
40	870-40107	CU-RAIL 2 FOR MCB BOX 0054491	NO.	2
41	870-40108	CU-RAIL FOR MCB BOX (0054490)	NO.	2
42	870-40176	CUPPERRAIL3 FOR MCBBOX 0054178	NO.	4
43	870-40181B	PLATE MUNT FOR MCBBOX 0054092	NO.	1

Sl. No.	Part No.	Description	U.D.M	Qty.
44	870-40562	SAREL BOX 54X54X18 BUTTM+COVER	NO.	1
45	870-40750A	CU-RAIL 3 FOR MCB BOX	NO.	2
46	870-40780	CU RAIL FOR MCCC (0055920)	NO.	8
47	870-40824	CVR TOP FOR MCCC BOX 125-250A	NO.	1
48	870-40825	PROFILE FOR DIODE FOR MCCC BOX	NO.	2
49	870-40828A	DIN RAIL FOR BDP/MCCC BOX	NO.	1
50	870-8220	COVER END WAP 2.2-10	NO.	3
51	871-4180	FOAM INSERT 585 X 585 MCCC	NO.	2
52	871-4182B	CARTON 585 X 585 X 285 MCCC	NO.	1
53	872-0401	BAG MINIGRIP 230 X 320 MM	NO.	1
54	885-0098-A	LABEL BOX GENERIC W/APC LOGO	NO.	1
55	885-0610	BOX LABEL 4.4 X 8.5	NO.	1
56	885-4201	LABEL WAR HIGH V. (22109GB)	NO.	1
58	885-4215	LABEL WAR.YELLOW 55MM (19985)	NO.	1
59	885-4475	LABEL SHT MCB- & FSE BX DP300E	NO.	1
60	885-4476	LABEL SHEET "PASSED"	NO.	1
61	885-4477	LABEL SHEET "MADE IN IRELAND"	NO.	1
62	885-4577	LABEL SBB120KH APC LOGO	NO.	1
63	885-4578	LABEL INPUT/OUTPUT SBB120KH	NO.	1
64	885-7015B	LABEL MODEL/SERIAL #	NO.	1
65	890-0103	FUSE HANDLE FOR DIN 00-3	NO.	1
66	890-0250	FUSE HOLDER 250A DIN 1	NO.	2

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TITLE: SILDON 120KW UPS BATTERY BREAKER BOX, BILL OF MATERIAL 120KW, 400V  
 PROJECT: SUBMITAL DRAWINGS SHEET 8 OF 8

DWG NO: SBB120KH-BM  
 REV. 1  
 DRAWN BY: MZON 11/06/04  
 CHECKED BY: BWELSEN 11/06/04  
 ENGINEER: CLURSEI 11/06/04

