

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

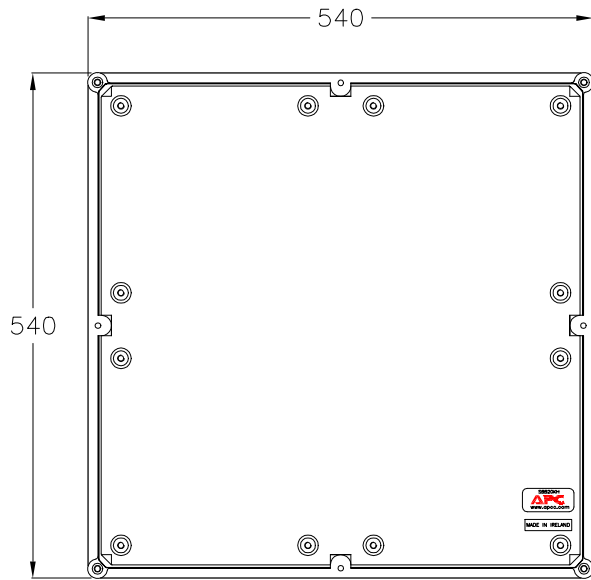
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TITLE: SILCON 20kW UPS
BATTERY BREAKER BOX,
SPECIFICATION SHEET
20kW, 400V
PROJECT: SUBMITTAL DRAWINGS SHEET 1 OF 8

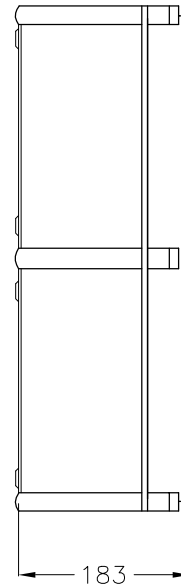
DWG NO: SBB20KH-SP
DRAWN BY: M.ZON 16/12/03
CHECKED BY: B.NIELSEN 16/12/03
ENGINEER: CLARSEN 16/12/03

REV. -
PROJECTION

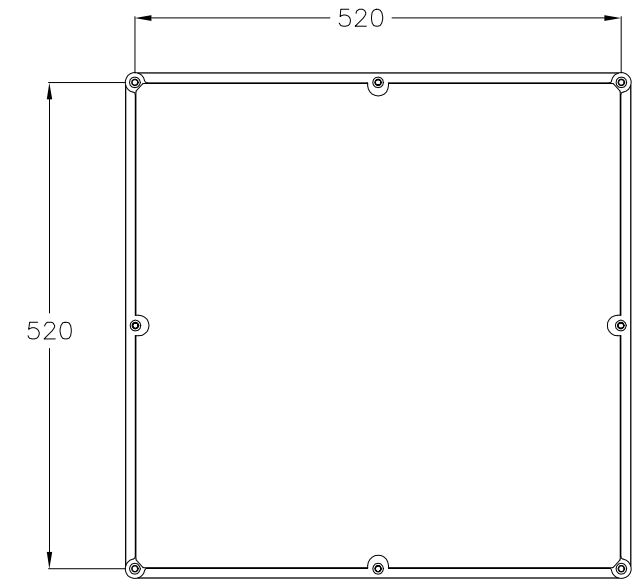
APC[®]
AMERICAN POWER CONVERSION
132 FAIRGROUNDS RD
WEST KINGSTON, RI 02892



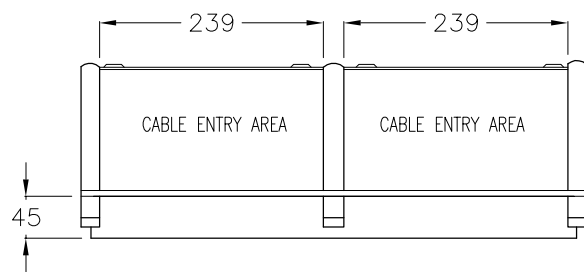
FRONT VIEW



LEVEL SIDE VIEW



REAR VIEW
(MOUNTING LOCATIONS OF WALL FIXING LUGS)



TOP VIEW

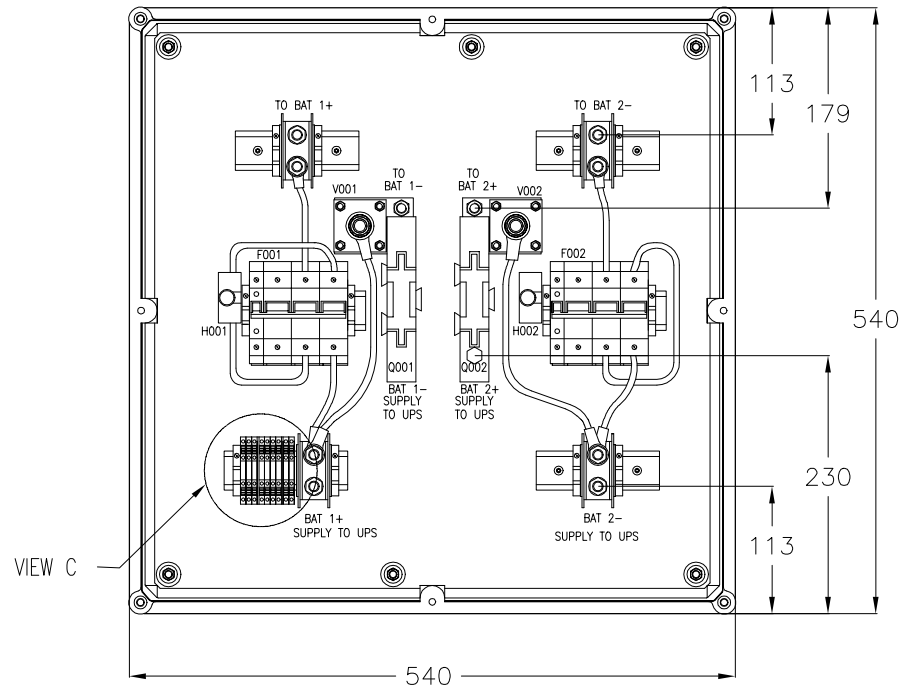
NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS.
2. MINIMUM SERVICE CLEARANCE IS 700 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.

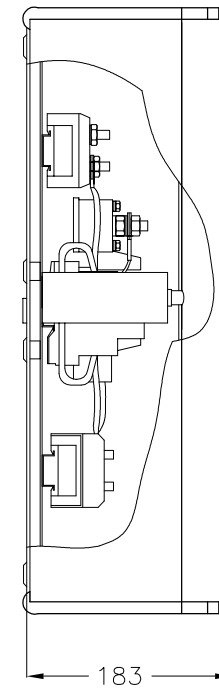
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TITLE:	SILCON 20kW UPS BATTERY BREAKER BOX, MAIN MECHANICAL 20kW, 400V	DWG NO:	SBB20KH-MM	REV.	-
DRAWN BY:	M.ZON	CHECKED BY:	B.NIELSEN	16/12/03	16/12/03
PROJECT:	SUBMITTAL DRAWINGS	ENGINEER:	C.JARSEN	16/12/03	PROJECTION
SHEET 2 OF 8					

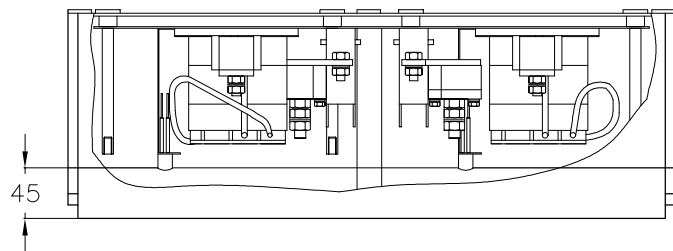




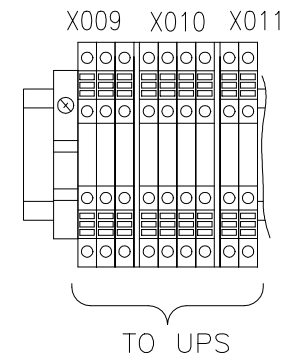
FRONT VIEW
(DOOR AND POLYCARBONATE COVER REMOVED)



LEFT SIDE VIEW
(POLYCARBONATE COVER REMOVED)



TOP VIEW
(POLYCARBONATE COVER REMOVED)



TO UPS
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 50 AMP.
4. WIRING CONFIGURATION SHOWN IS FOR REFERENCE ONLY.
5. INSTALLATION MUST COMPLY WITH ALL APPLICABLE NATIONAL AND LOCAL CODES.

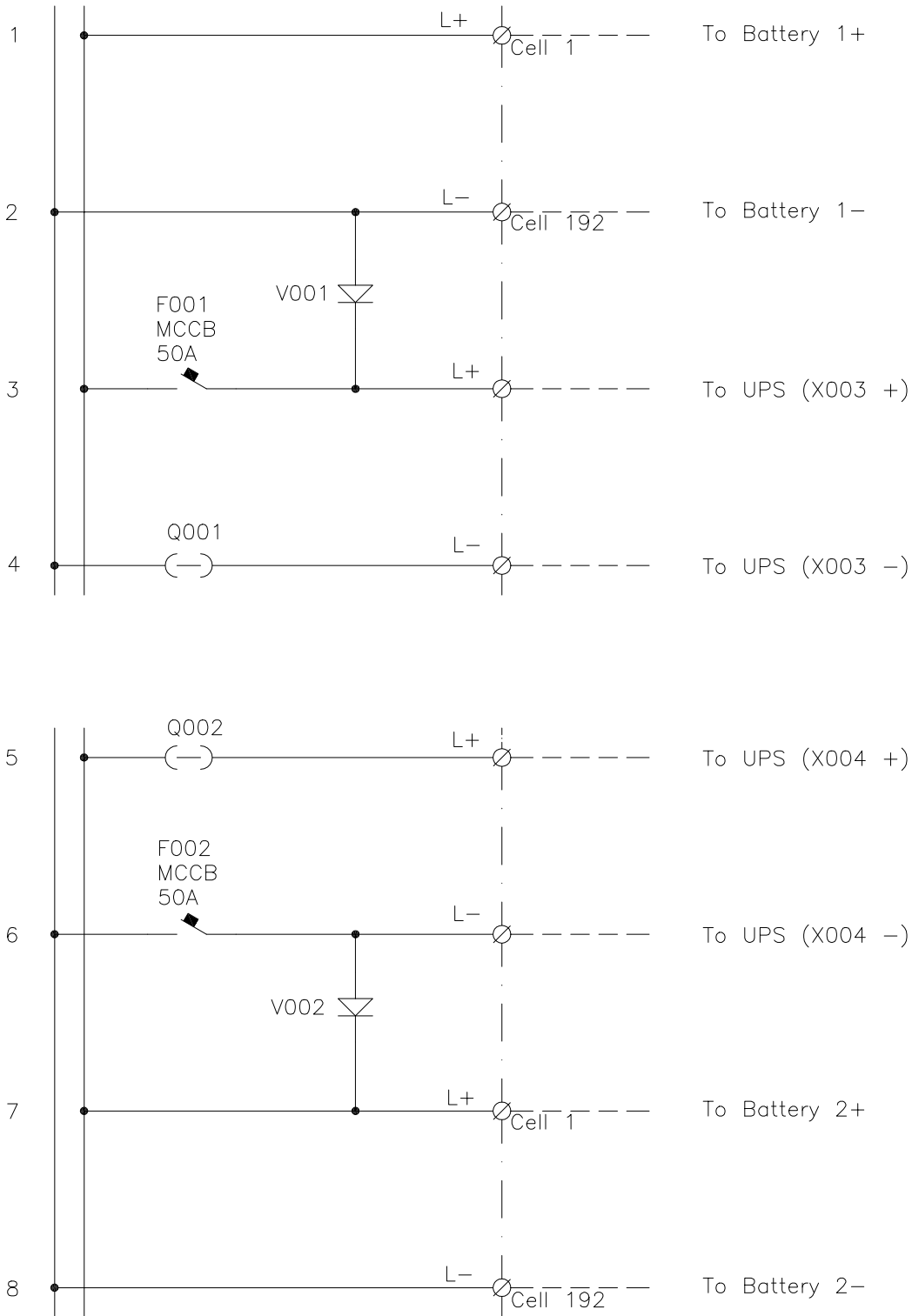
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TITLE:	SILCON 20kW UPS BATTERY BREAKER BOX, ELECTROMECHANICAL 20kW, 400V		REV.	—
DWG NO:	SBB20KH-ME		PROJECTION	—
DRAWN BY:	M.ZON	16/12/03		
CHECKED BY:	B.NIELSEN	16/12/03		
PROJECT:	SUBMITTAL DRAWINGS	SHEET 3 OF 8	ENGINEER:	C.JARSEN 16/12/03



POWER CIRCUIT

880V DC
In= 50A
L-L+



NOTES:

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

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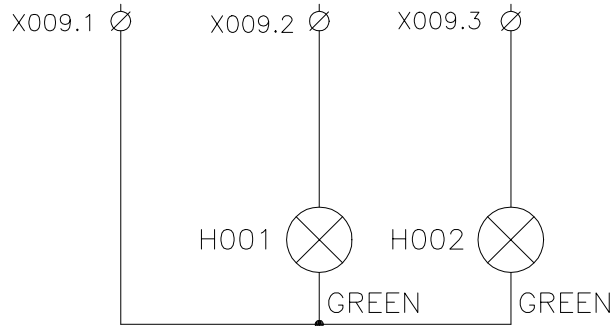
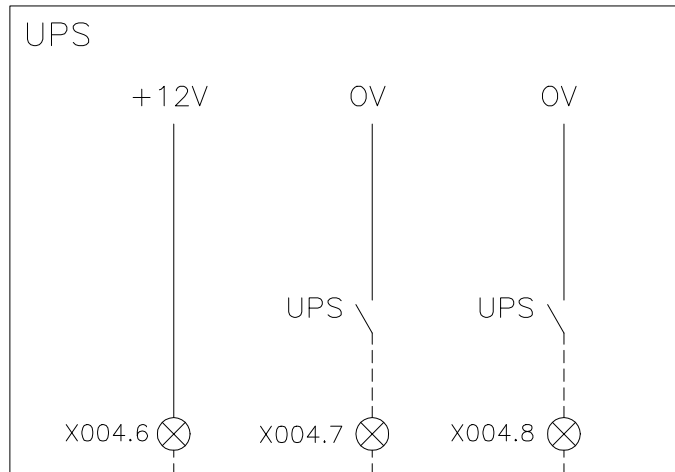
TITLE: SILCON 20kW UPS BATTERY BREAKER BOX, POWER CIRCUIT 20kW, 400V
PROJECT: SUBMITTAL DRAWINGS SHEET 4 OF 8

DWG NO: SBB20KH-ES
DRAWN BY: M.ZON
CHECKED BY: B.NIELSEN
ENGINEER: C.JARSEN

REV. 1
PROJECTION

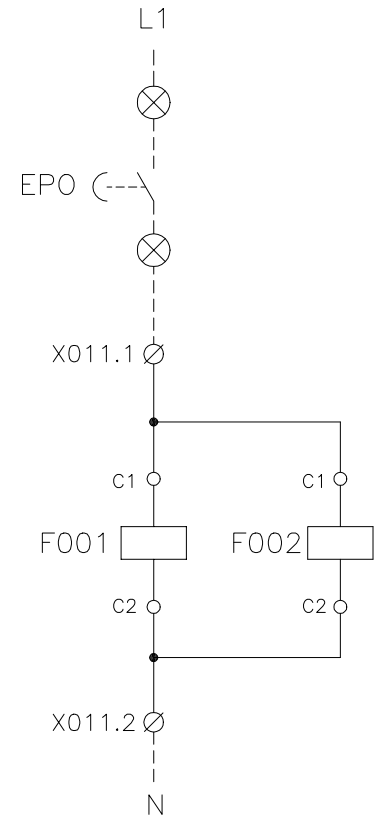


CONTROL CIRCUIT



1 2 3 4 5 6 7 8 9 10

OK FOR
OPERATING
THE F002 OK FOR
OPERATING
THE F001



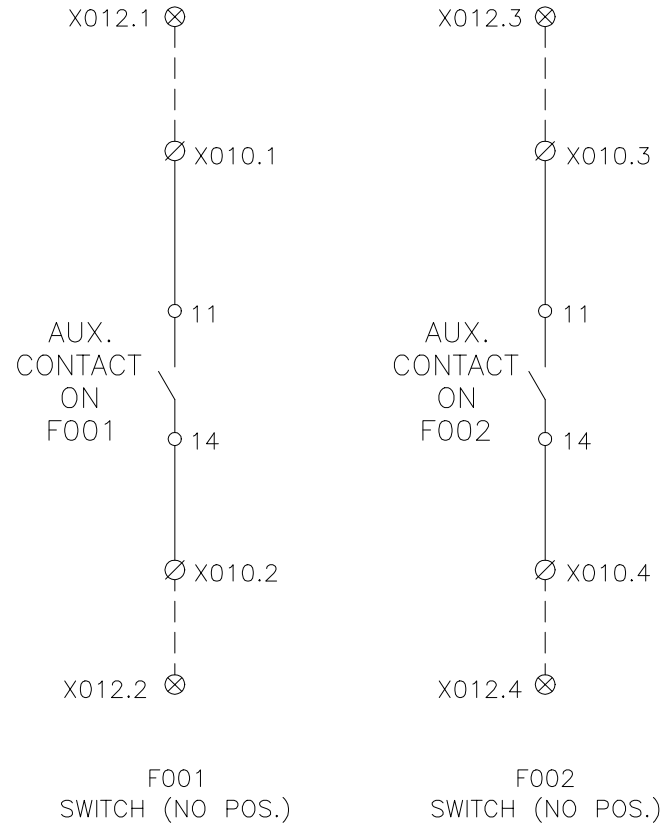
TRIP FOR
EMERGENCY TRIP
(220-240V AC)

NOTES:

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

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PROJECT: SUBMITTAL DRAWINGS		SHEET 5 OF 8		DRAWN BY: M.ZON		16/08/03	
				CHECKED BY: B.NIELSEN		16/08/03	
				ENGINEER: CLARSEN		16/08/03	
				AMERICAN POWER CONVERSION 132 FARGROUNDS RD WEST KINGSTON, RI 02892			

CONTROL CIRCUIT



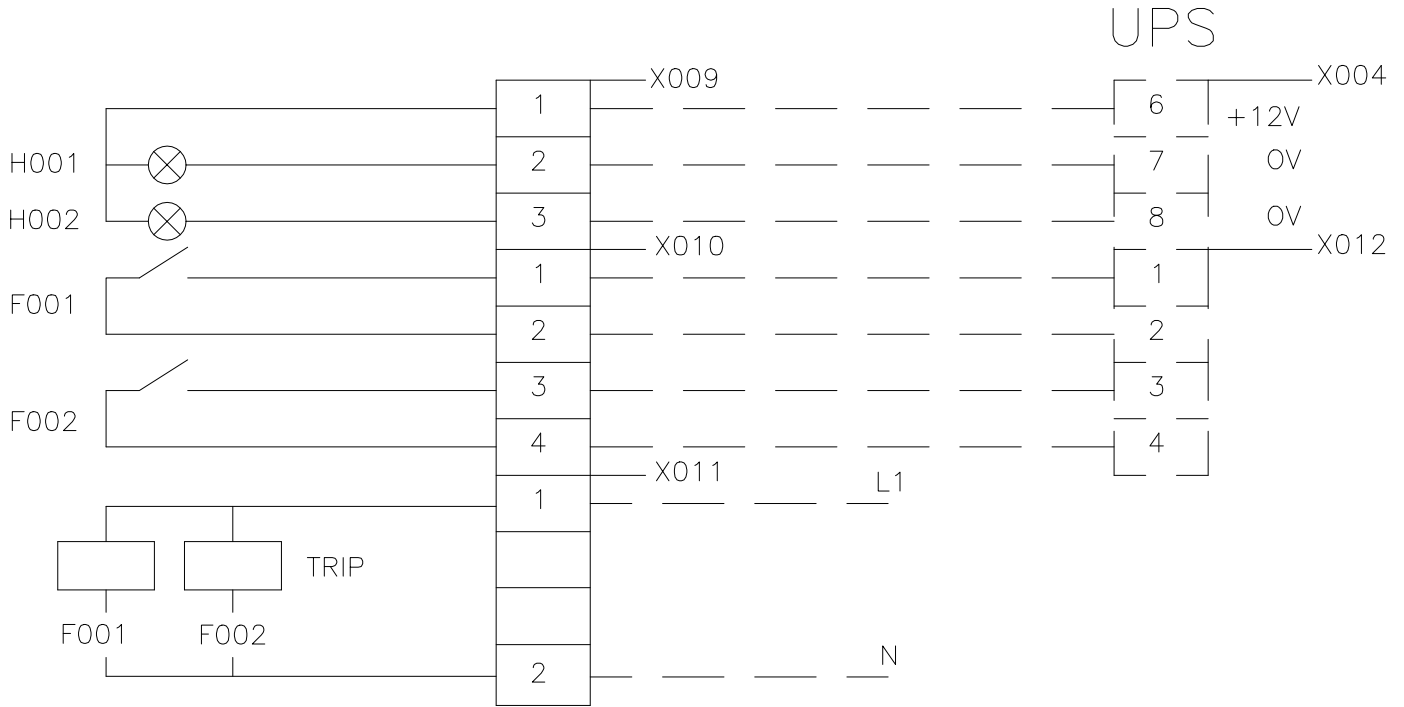
NOTES:

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

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TITLE: SILCON 20kW UPS BATTERY BREAKER BOX, CONTROL CIRCUIT 20kW, 400V		DWG NO: SBB20KH-ES		REV. —
DRAWN BY: M.ZON	16/08/03	PROJECTION		 <small>AMERICAN POWER CONVERSION 132 FARGROUNDS RD WEST KINGSTON, RI 02892</small>
CHECKED BY: B.NIELSEN	16/08/03	PROJECT: SUBMITTAL DRAWINGS SHEET 6 OF 8		
ENGINEER: CLARSEN		16/08/03		

CONTROL CIRCUIT



NOTES:

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

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TITLE: SILCON 20KW UPS BATTERY BREAKER BOX, CONTROL CIRCUIT 20kW, 400V
 PROJECT: SUBMITTAL DRAWINGS SHEET 7 OF 8

DWG NO: SBB20KH-ES
 DRAWN BY: M.ZON 16/08/03
 CHECKED BY: B.NIELSEN 16/08/03
 ENGINEER: CLARSEN 16/08/03

REV. -
 PROJECTION



Sl. No.	Part No.	Description	U.O.M	Qty.
01	OM-4160	KIT MOUNTING FOR SMALL mccb	NO.	1
02	0W4274	SET OF WIRE FOR MCCB 25A-63A	NO.	1
03	340-8000	DIODE OWR 800A 600V 8.2KAS	NO.	2
04	370-0060	LED GRN PILOT LGHT 2.0/2.2V UL	NO.	2
05	515-7000	FUSELINK DIN 00	NO.	2
06	530-1415A	CIRCUIT BREAKER 50ADC	NO.	2
07	610-1840A	WIRE 18AWG/0.82SQ BLK 150C	m	3.89
08	610-6765A	WIRE #6AWG/13.3SQ BLK 1KV 150C	m	1.42
09	660-0058	SHRINK SLEEVE D12.7 BLK 125C	NO.	8
10	701-3314	CABLE LUG 16SQ RING M8 CU/SN	NO.	6
11	701-3326	CABLE LUG 0.25 - 1.6SQ 0017977	NO.	8
12	701-3331	CABLE LUG M3 FORK RED 0017956	NO.	6
13	701-3334	CABLE PIN CRIMP BLUE L=6.7MM	NO.	1
14	701-3336	FASTON 6.3 X 0.8MM RED 0017959	NO.	4
15	701-3354	CABLE LUG 16SQ RING M10	NO.	2
16	701-3369	CABLE LUG FORK BLUE M4 0017954	NO.	2
17	7100523GB	TESTDESCR.F -BDP -MCCB/-MCCB BOX	NO.	1
18	730-0043	TERMINAL END BRACKET EW 35	NO.	12
19	740-0027	TERMINAL WDU 2.5	NO.	9
20	740-0036	TERM BLOCK POWER M70/31FF	NO.	4
21	8001044	DIAGRAM FOR MCB BOX DP300E	NO.	1
22	803-0015	NUT PLASTIC PG16	NO.	3
23	803-0016	WASHER M6 FLAT	NO.	18
24	803-0017	WASHER M10 FLAT	NO.	2
25	803-0021	NUT PLASTIC PG21	NO.	8
26	803-0462B	SCREW TFRM M4X12 TORX PH ZPLT	NO.	22
27	803-0541	SCREW M5X40MM HEX CAP DIN 931	NO.	8
28	803-0611	SCREW M6X12 PHIL RCH DIN7985	NO.	14
29	803-0615	SCREW M6X16MM PN HD TX DIN7985	NO.	4
30	803-2008	NUT M8	NO.	2
31	803-2825	BOLT MASK M8X25 0059282	NO.	4
32	811-0501	WASHER SPLIT M5 DIN7980	NO.	8
33	811-0502	WASHER FLAT M5 DIN125	NO.	8
34	811-0603	WASHER SPRING M6	NO.	18
35	811-0802	WASHER FLAT M8	NO.	6
36	811-0803	WASHER LOCK M8 SPLIT	NO.	4
37	811-1001	WASHER SPLIT M10 DIN7980	NO.	2
38	820-0020	CABLE TIE PSH MNT 3.5X1.2MM	NO.	10
39	820-0038	GLAND PG21 PLASTIC GREY	NO.	8
40	820-0039	GLAND PLASTIC PG16GREY 18028	NO.	3
41	820-0042	CLAMP-BOX D42MM	NO.	2
42	822-0006	STRAP NYLON 100MM W/BUCKLE	NO.	2
43	830-0600	SPACER M6 M/F ALU FOR MCCB BOX	NO.	6

Sl. No.	Part No.	Description	U.O.M	Qty.
44	870-40175	CURAIL FOR BOX CLAMP BDP 54180	NO.	2
45	870-40181C	PLATE MOUNT FOR MCCBOX 0054092	NO.	1
46	870-40562	SAREL BOX 54X54X18 BUTTM+COVER	NO.	1
47	870-40825	PROFILE FOR DIODE FOR MCCB BOX	NO.	2
48	870-40828A	DIN RAIL FOR BDP/MCCB BOX	NO.	6
49	870-41001	COVER TOP FOR MCCB BOX 25-63A	NO.	1
50	870-5468	BRACKET CIRCUIT BREAKER SPOT	NO.	2
51	870-8220	COVER END WAP 2.2-10	NO.	3
52	871-4180	FOAM INSERT 585 X 585 MCCB	NO.	2
53	871-4182B	CARTON 585X 585 X 285 MCCB	NO.	1
54	872-0401	BAG MINIGRIP 230X 320 MM	NO.	1
55	885-0098-A	LABEL BOX GENERIC W/APC LOGO	NO.	1
56	885-0610	BOX LABEL 4.4 X 8.5	NO.	1
58	885-4201	LABEL WAR HIGH V. (22109GB)	NO.	1
59	885-4215	LABEL WAR.YELLOW 55MM (19985)	NO.	1
60	885-4475	LABEL SHT MCB- & FSE BX DP300E	NO.	1
61	885-4476	LABEL SHEET "PASSED"	NO.	1
62	885-4477	LABEL SHEET "MADE IN IRELAND"	NO.	1
63	885-4489	LABEL INPUT/OUTPUT SBB20KH	NO.	1
64	885-4495	LABEL SBB20KH APC LOGO	NO.	1
65	885-7015B	LABEL MODEL/SERIAL #	NO.	1
66	890-0103	FUSE HANDLE FOR DIN 00-3	NO.	1
67	890-0104	FUSE HOLDER 160A DIN 00	NO.	2