

Technical Publication
RP1108R5

Renewal Parts

HF Series Generators

REVISION HISTORY

| REVISION | DATE | REASON FOR CHANGE |
|----------|--------------|--------------------------------------|
| 0 | FEB 07, 2014 | First edition. |
| 1 | MAY 19, 2015 | ATBC - RAD Console. |
| 2 | JAN 23, 2017 | Components update. |
| 3 | JUN 26, 2018 | License Key Module update, Fans. |
| 4 | NOV 29, 2019 | New PC Interface Box / CTSC Console. |
| 5 | APR 24, 2020 | Components update. |

This Document is the english original version, edited and supplied by the manufacturer.

The Revision state of this Document is indicated in the code number shown at the bottom of this page.

ADVISORY SYMBOLS

The following advisory symbols will be used throughout this manual. Their application and meaning are described below.



DANGERS ADVISE OF CONDITIONS OR SITUATIONS THAT IF NOT HEDED OR AVOIDED WILL CAUSE SERIOUS PERSONAL INJURY OR DEATH.



ADVISE OF CONDITIONS OR SITUATIONS THAT IF NOT HEDED OR AVOIDED COULD CAUSE SERIOUS PERSONAL INJURY, OR CATASTROPHIC DAMAGE OF EQUIPMENT OR DATA.



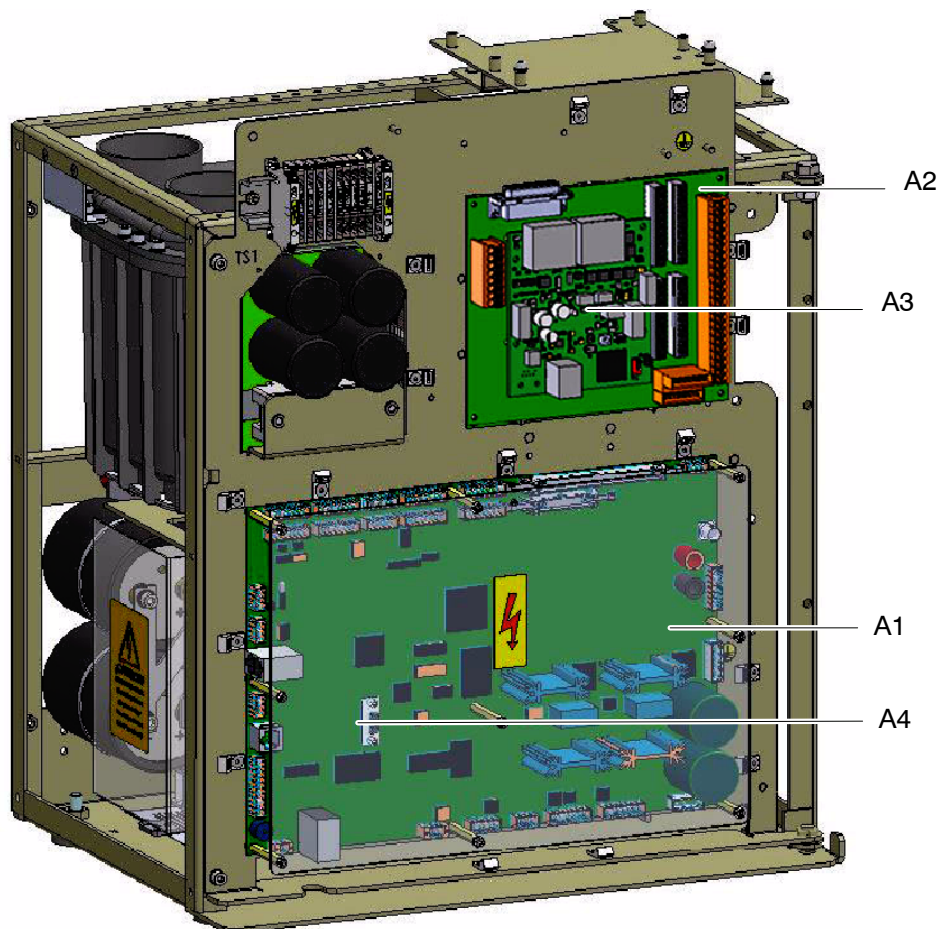
Advise of conditions or situations that if not heeded or avoided could cause personal injury or damage to equipment or data.

Note 

Alert readers to pertinent facts and conditions. Notes represent information that is important to know but which do not necessarily relate to possible injury or damage to equipment.

SECTION 1 GENERATOR

| ITEM | DESCRIPTION | QTY | REFERENCE | REMARKS |
|------|--|-----|---------------|--|
| A0 | CONTROL PANEL, MOD. 3 | | | |
| A1 | Control Board | 1 | SAT-A3640-03 | Dongle with dedicated software not included, install the Dongle from the replaced Board. Dongle is exclusive for each Generator. |
| A2 | Interface Board | 1 | SAT-A3674-02 | |
| | | | SAT-A3674-03 | Only for Generators equipped with H. B. - Ethernet-CAN - SHFR Adaptation |
| A3 | H. B. - Ethernet-CAN - SHFR Adaptation | 1 | SAT-A9599-02 | |
| A4 | License Key Module (Dongle) | 1 | SAT-A11920-02 | Dongle is exclusive for each Generator, so the corresponding Generator serial number has to be indicated in the spare part order. This component must not be stored as a stock item. |



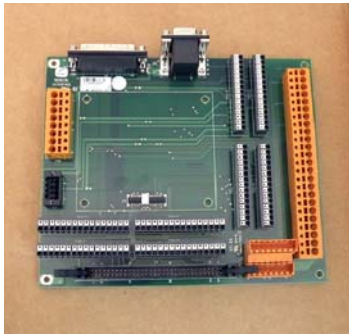
HF Series Generators

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A1



A2



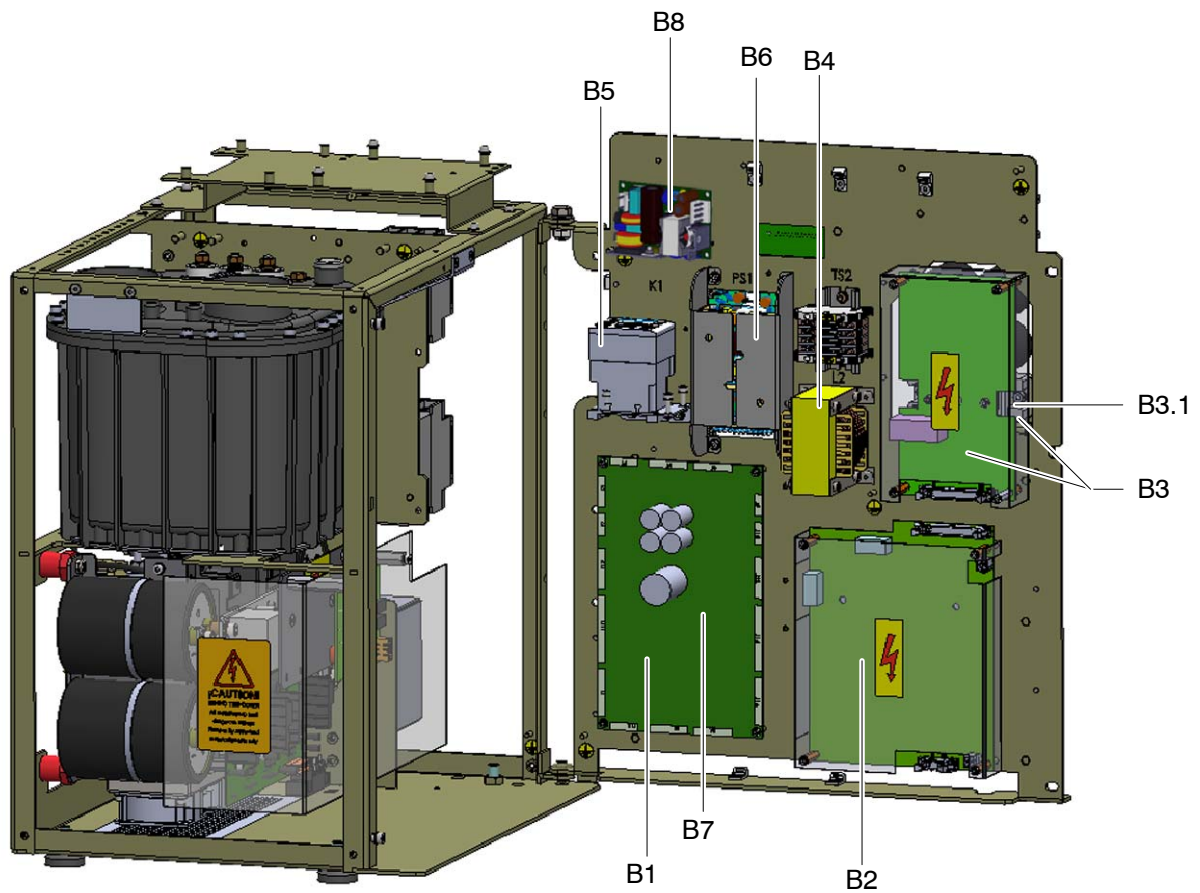
A3



A4



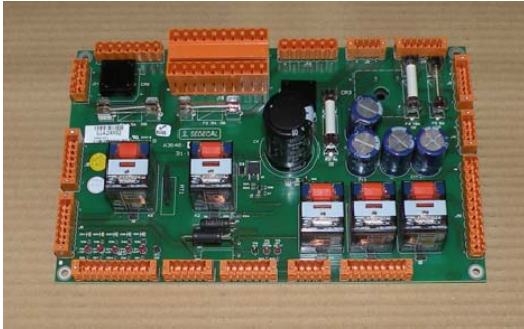
| ITEM | DESCRIPTION | QTY | REFERENCE | REMARKS |
|-----------|---------------------------|-----|---------------|---|
| B0 | BACK PANEL | | | |
| B1 | Supply Board | 1 | SAT-A3646-02 | |
| B2 | Dual Speed Starter Board | 1 | RS0008009 | |
| B3 | Booster High Speed Module | 1 | A522019-01 | Optional, includes Board and IGBT (Item B3.1) |
| B3.1 | IGBT | 1 | RS0009814 | Optional |
| B4 | Inductance 1.5MH 60A | 1 | SAT-A11755-01 | Optional, only with Booster |
| B5 | Contactactor 24V | 1 | SAT-51405029 | K1 |
| B6 | Power Supply | 1 | SAT-53418039 | |
| B7 | Fuses F1, F2, F3, F4, F5 | 1 | A522018-01 | (see Fuse Kit - ITEM F0) |
| | | 1 | A522018-02 | (see Fuse Kit - ITEM F0) only for 50kW single phase Generator |
| B8 | Power Supply XP Power | 1 | SAT-53418071 | |



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B1



B2



B3



B3.1



B4



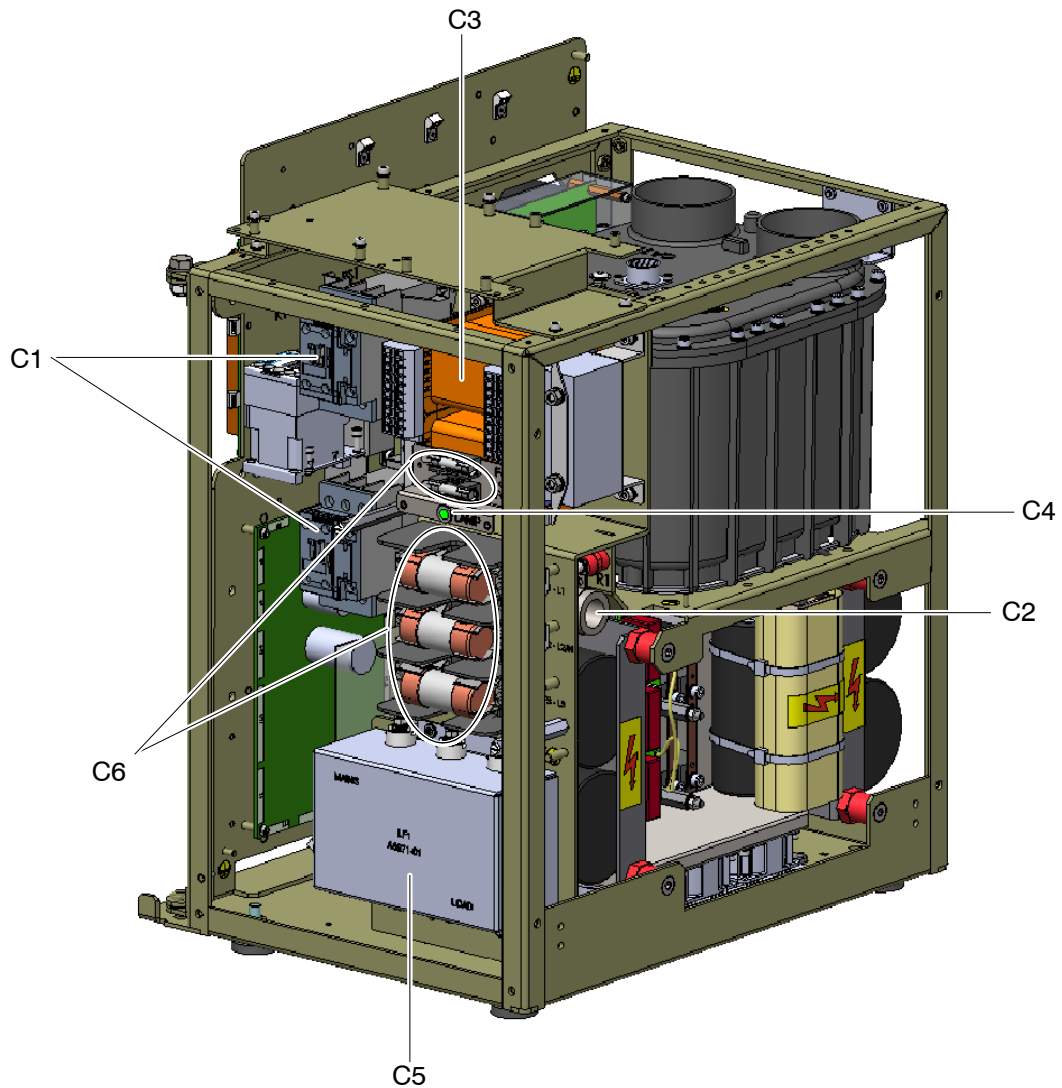
B5



B6



| ITEM | DESCRIPTION | QTY | REFERENCE | REMARKS |
|-----------|-------------------------------|-----|---------------|---|
| C0 | POWER INPUT MODULE | | | |
| C1 | Contactors | 2 | SAT-51405016 | K2, K3 |
| C2 | Resistor 20 ohms /100 W / 10% | 1 | SAT-52707021 | |
| C3 | Transformer | 1 | SAT-50509071 | |
| C4 | Green LED | 1 | SAT-54203026 | |
| C5 | Line Filter Standard | 1 | SAT-A6371-01 | for 1 Ph or 3 Ph |
| C5 | Line Filter C1F | 1 | SAT-A11769-01 | Optional for 1 Ph - Heavy Duty |
| C5 | Line Filter C3F Symmetric | 1 | SAT-A11769-02 | Optional for 3 Ph - Heavy Duty |
| C6 | Fuses F1, F2, F3, F4, F5 | 1 | A522018-01 | see Fuse Kit - ITEM F0) |
| | | 1 | A522018-02 | (see Fuse Kit - ITEM F0) only for 50kW single phase Generator |



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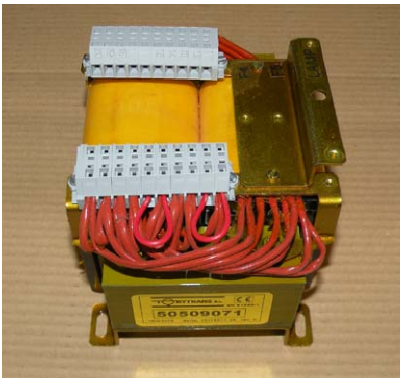
C1



C2



C3



C4



C5



| ITEM | DESCRIPTION | QTY | REFERENCE | REMARKS |
|-----------|--|-----|--------------|--|
| D0 | HIGH VOLTAGE TANK - HERMETICAL TANK (ALUMINIUM) | | | |
| D1 | HV Tank, 1T, 230V | 1 | SAT-A6099-14 | |
| | HV Tank, 1T, 400V | 1 | SAT-A6099-12 | |
| | HV Tank, 1T, 415-480V | 1 | SAT-A6099-13 | |
| D2 | HV Tank, 1T, 230V, Heavy Duty | 1 | SAT-A6099-16 | Includes Pressure Switch |
| | HV Tank, 1T, 400V, Heavy Duty | 1 | SAT-A6099-17 | Includes Pressure Switch and Protective Caps |
| | HV Tank, 1T, 415-480V, Heavy Duty | 1 | SAT-A6099-18 | Includes Pressure Switch and Protective Caps |

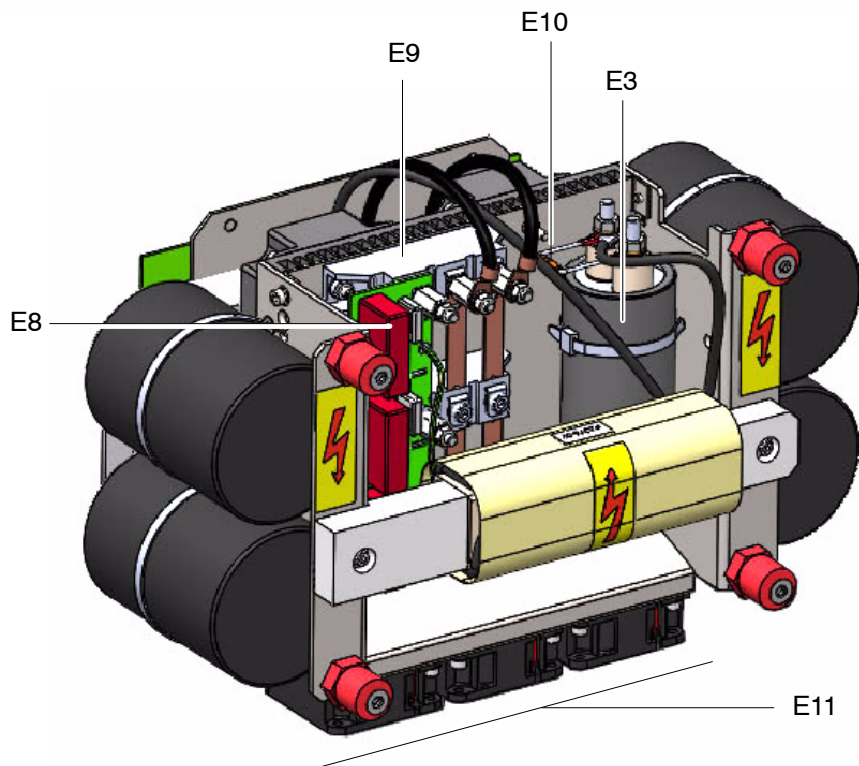
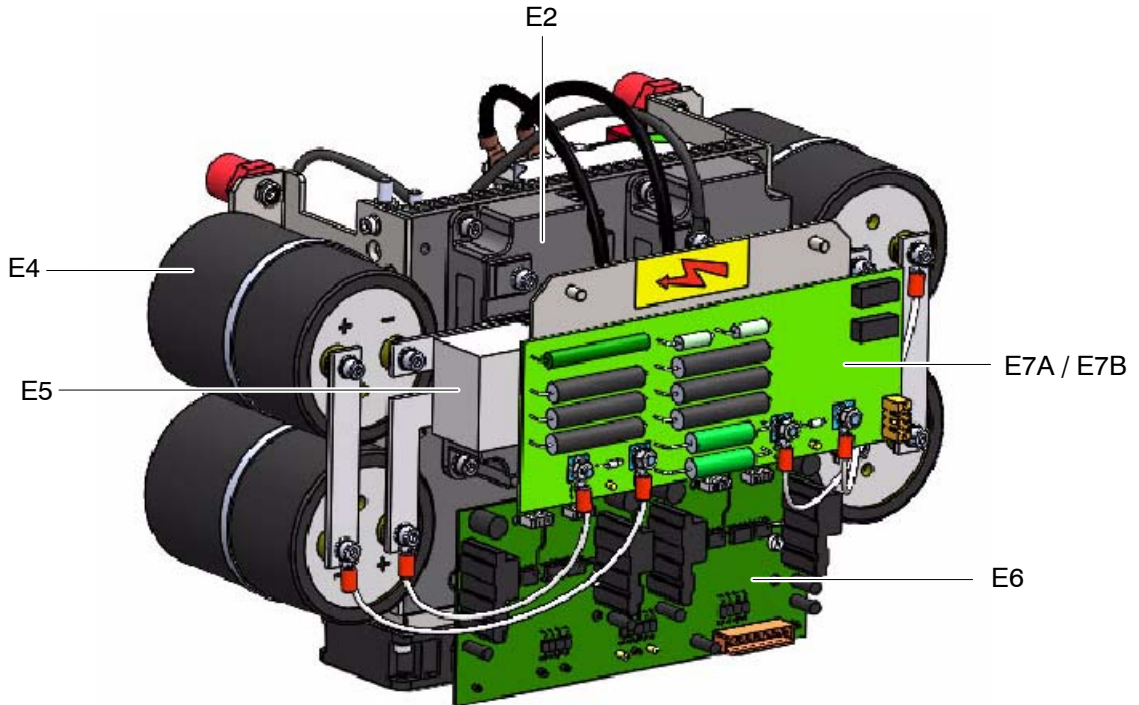


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| ITEM | DESCRIPTION | QTY | REFERENCE | REMARKS |
|-----------|---|-----|--------------|--|
| E0 | INVERTER MODULE, MOD. 5 | | | |
| E1 | Inverter 3Ph, 208-230 V, Lo kW, w Fans, RF | 1 | SAT-A6862-20 | |
| E1 | Inverter 3Ph, 208-230 V, Hi kW, w Fans, RF | 1 | SAT-A6862-21 | |
| E1 | Inverter 1Ph, 230 V, Lo kW, w Fans, RF | 1 | SAT-A6862-25 | |
| E1 | Inverter 1Ph, 230 V, Hi kW, w Fans, RF | 1 | SAT-A6862-26 | |
| E1 | Inverter 1Ph, 230 V, 50 kW, w Fans, RF | 1 | SAT-A6862-91 | |
| E1 | Inverter 3Ph, 208-230 V, Lo kW, RAD | 1 | SAT-A6862-59 | |
| E1 | Inverter 3Ph, 208-230 V, Hi kW, RAD | 1 | SAT-A6862-60 | |
| E1 | Inverter 1Ph, 230 V, Lo kW, RAD | 1 | SAT-A6862-57 | |
| E1 | Inverter 1Ph, 230 V, Hi kW, RAD | 1 | SAT-A6862-61 | |
| E1 | Inverter 1Ph, 230 V, 50 kW, RAD | 1 | SAT-A6862-92 | |
| E1 | Inverter 3Ph, 400-480 V, HD, w Fans, RAD/RF | 1 | SAT-A6862-35 | |
| E1 | Inverter 3Ph, 400-480 V, w Fans, RAD/RF | 1 | SAT-A6862-40 | |
| E1 | Inverter 3Ph, 400-480 V, RAD | 1 | SAT-A6862-56 | |
| E1 | Inverter 3Ph, 400-480 V,80 kW, w Fans, RAD/RF | 1 | SAT-A6862-90 | |
| E2 | IGBT 400A / 600V | 2 | SAT-53416040 | Used in Inverters A6862-20/25/59/57 |
| E2 | IGBT 600A / 600V | 2 | SAT-53416039 | Used in Inverters A6862-21/26/60/61/91/92 |
| E2 | IGBT 300A / 1200V | 2 | SAT-53416038 | Used in Inverters A6862-35/40/56 |
| E2 | IGBT 450A / 1200V | 2 | SAT-53416048 | Used in Inverter A6862-90 |
| E3 | Capacitor 40 μ F, 450 VDC | 1 | SAT-54001006 | C9, for 230 VAC Gen. |
| E3 | Capacitor 10 μ F, 1000 VDC | 1 | SAT-54001011 | C9, for 400-480 VAC Gen. |
| E4 | Capacitor Elec. 3700 μ F, 450 VDC | 4 | SAT-54002011 | C1, C2, C3 & C4 (For 1Ph Generators at 32 and 40 kW; and all 3Ph Generators) |
| E4 | Capacitor Elec. 6200 μ F, 450 VDC | 4 | SAT-54002062 | C1, C2, C3 & C4 (For 1Ph Generator at 50 kW) |
| E5 | Capacitor 2 μ F, 1000 VDC | 2 | SAT-54008002 | C10, C11 |
| E6 | PCB, IPM Driver | 1 | SAT-A3063-16 | |
| E7A | PCB, Charge / Discharge Monitor | 1 | SAT-A3212-03 | for 208-230 VAC (1 Ph / 3 Ph) |
| E7B | | | SAT-A3212-04 | for 400-480 VAC (3 Ph) |
| E8 | Input Rectifier Board | 1 | SAT-A3255-03 | Includes 2 metallic Plates |
| E9 | Rectifier SKKD 40F10 | 2/3 | SAT-53404023 | CR1, CR2, CR3 (only 2 for 1 Ph) |
| E9 | Rectifier Diode | 2 | SAT-53404026 | CR1, CR2 (For 1Ph Generator at 50 kW) |
| E10 | Equipped Resistor | 1 | SAT-A3312-01 | |
| E11 | Fans | 3 | SAT-53103046 | |

E1



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E2



E3



E4



E5



E6



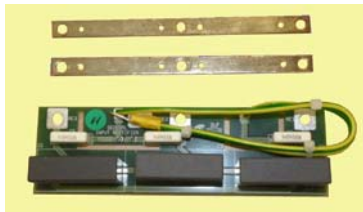
E7A



E7B



E8



E9



E10



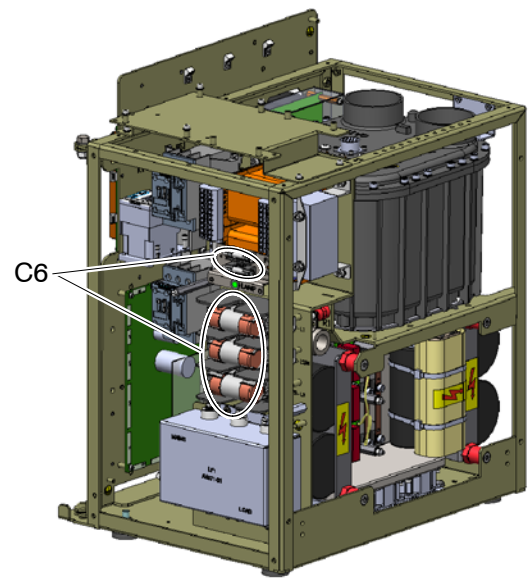
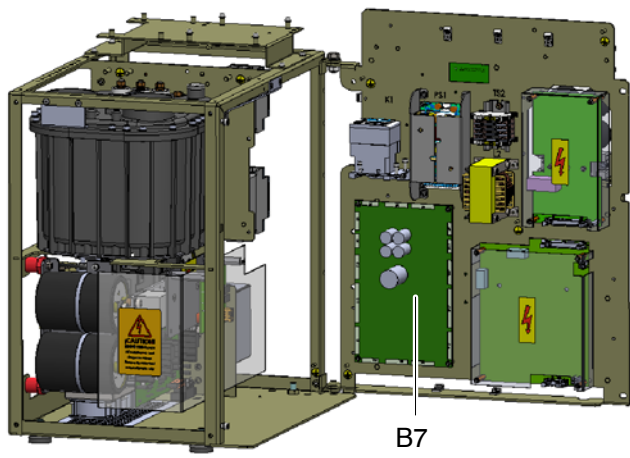
E11



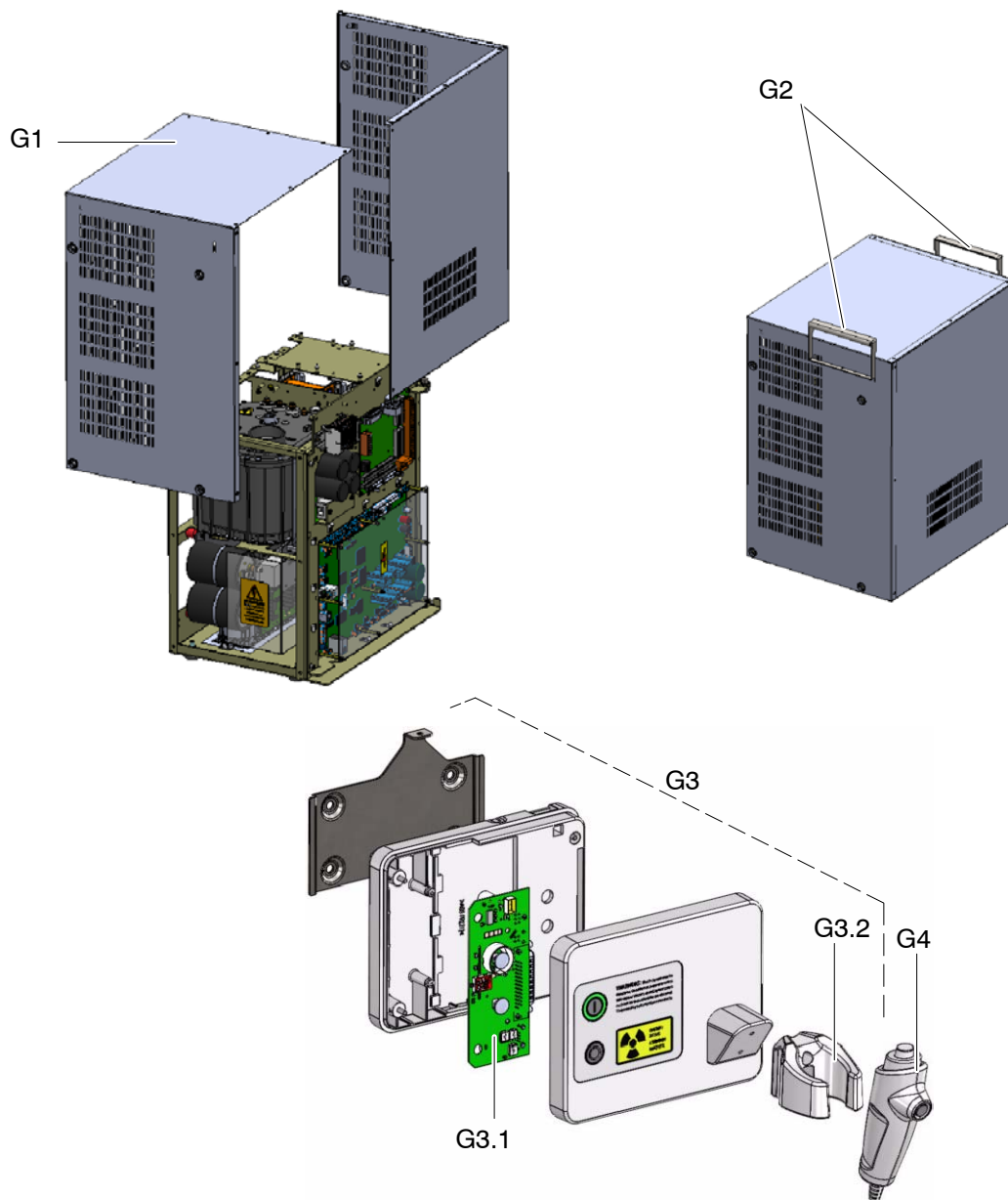
| ITEM | DESCRIPTION | QTY | REFERENCE | REMARKS | | | | | | | | | | | | | | | | |
|------------------|------------------------|---|------------------|---|------------------|------------|----------|----|----------|----|----------|----|----------|----|----------|----|----------|----|--------|---|
| F0 | FUZE KIT | 1 | A522018-01 | <p>The Fuse Kit A522018-01 is common for all the 1-Phase and 3-Phase Generator models, except for 1-Phase 50 kW Generator, and comprises:</p> <table border="0"> <thead> <tr> <th><u>Reference</u></th> <th><u>Qty</u></th> </tr> </thead> <tbody> <tr> <td>53801002</td> <td>10</td> </tr> <tr> <td>53801003</td> <td>20</td> </tr> <tr> <td>53801008</td> <td>10</td> </tr> <tr> <td>53801011</td> <td>6</td> </tr> <tr> <td>53801012</td> <td>10</td> </tr> <tr> <td>53801013</td> <td>10</td> </tr> <tr> <td>C00809</td> <td>3</td> </tr> </tbody> </table> | <u>Reference</u> | <u>Qty</u> | 53801002 | 10 | 53801003 | 20 | 53801008 | 10 | 53801011 | 6 | 53801012 | 10 | 53801013 | 10 | C00809 | 3 |
| | | <u>Reference</u> | <u>Qty</u> | | | | | | | | | | | | | | | | | |
| 53801002 | 10 | | | | | | | | | | | | | | | | | | | |
| 53801003 | 20 | | | | | | | | | | | | | | | | | | | |
| 53801008 | 10 | | | | | | | | | | | | | | | | | | | |
| 53801011 | 6 | | | | | | | | | | | | | | | | | | | |
| 53801012 | 10 | | | | | | | | | | | | | | | | | | | |
| 53801013 | 10 | | | | | | | | | | | | | | | | | | | |
| C00809 | 3 | | | | | | | | | | | | | | | | | | | |
| 1 | A522018-02 | <p>The Fuse Kit A522018-01 is common for all the 1-Phase and 3-Phase Generator models, except for 1-Phase 50 kW Generator, and comprises:</p> <table border="0"> <thead> <tr> <th><u>Reference</u></th> <th><u>Qty</u></th> </tr> </thead> <tbody> <tr> <td>53801002</td> <td>10</td> </tr> <tr> <td>53801003</td> <td>20</td> </tr> <tr> <td>53801008</td> <td>10</td> </tr> <tr> <td>53801074</td> <td>4</td> </tr> <tr> <td>53801012</td> <td>10</td> </tr> <tr> <td>53801013</td> <td>10</td> </tr> <tr> <td>C00809</td> <td>3</td> </tr> </tbody> </table> | <u>Reference</u> | <u>Qty</u> | 53801002 | 10 | 53801003 | 20 | 53801008 | 10 | 53801074 | 4 | 53801012 | 10 | 53801013 | 10 | C00809 | 3 | | |
| <u>Reference</u> | <u>Qty</u> | | | | | | | | | | | | | | | | | | | |
| 53801002 | 10 | | | | | | | | | | | | | | | | | | | |
| 53801003 | 20 | | | | | | | | | | | | | | | | | | | |
| 53801008 | 10 | | | | | | | | | | | | | | | | | | | |
| 53801074 | 4 | | | | | | | | | | | | | | | | | | | |
| 53801012 | 10 | | | | | | | | | | | | | | | | | | | |
| 53801013 | 10 | | | | | | | | | | | | | | | | | | | |
| C00809 | 3 | | | | | | | | | | | | | | | | | | | |
| B7 | Fuse 1.5 A / 250 V SB | | SAT-53801012 | Supply Board: F1 | | | | | | | | | | | | | | | | |
| | Fuse 3 A / 250 V SB | | SAT-53801003 | Supply Board: F2 | | | | | | | | | | | | | | | | |
| | Fuse 4 A / 250 V SB | | SAT-53801013 | Supply Board: F3 | | | | | | | | | | | | | | | | |
| | Fuse 6.25 A / 250 V SB | | SAT-53801002 | Supply Board: F5 | | | | | | | | | | | | | | | | |
| | Fuse 10 A / 250 V SB | | SAT-53801008 | Supply Board: F4 | | | | | | | | | | | | | | | | |
| | Fuse 15 A / 1000 VDC | | SAT-CC00809 | Back Panel (TS2): F8 | | | | | | | | | | | | | | | | |
| C6 | Fuse 50 A / 600 V SB | | SAT-53801011 | Input Line: F1, F2, F3 For 1-Phase or 3-Phase Generators, except for 1-Phase 50 kW Generator | | | | | | | | | | | | | | | | |
| | Fuse 60 A / 600 VAC | | SAT-53801074 | Input Line: F1, F2, F3 Only for 1-Phase 50 kW Generator | | | | | | | | | | | | | | | | |
| | Fuse 3 A / 250 V SB | | SAT-53801003 | Transformer: F4, F5 | | | | | | | | | | | | | | | | |

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| ITEM | DESCRIPTION | QTY | REFERENCE | REMARKS |
|-----------|----------------------|-----|---------------|--|
| G0 | MISCELLANEOUS | | | |
| G1 | Generator Cover | 1 | SAT-A11740-01 | |
| G2 | Handle Kit | 1 | SAT-28135-01 | Optional |
| G3 | Interface Box PC | 1 | SAT-AS00519 | For using with a PC Includes Item G3.1 and G3.2 |
| G3.1 | PCB Interface Box | 1 | SAT-A40042-02 | |
| G3.2 | Hand Switch support | 1 | SAT-14653-01 | |
| G4 | Hand Switch equipped | 1 | SAT-A6805-16 | |



G3



G3.1



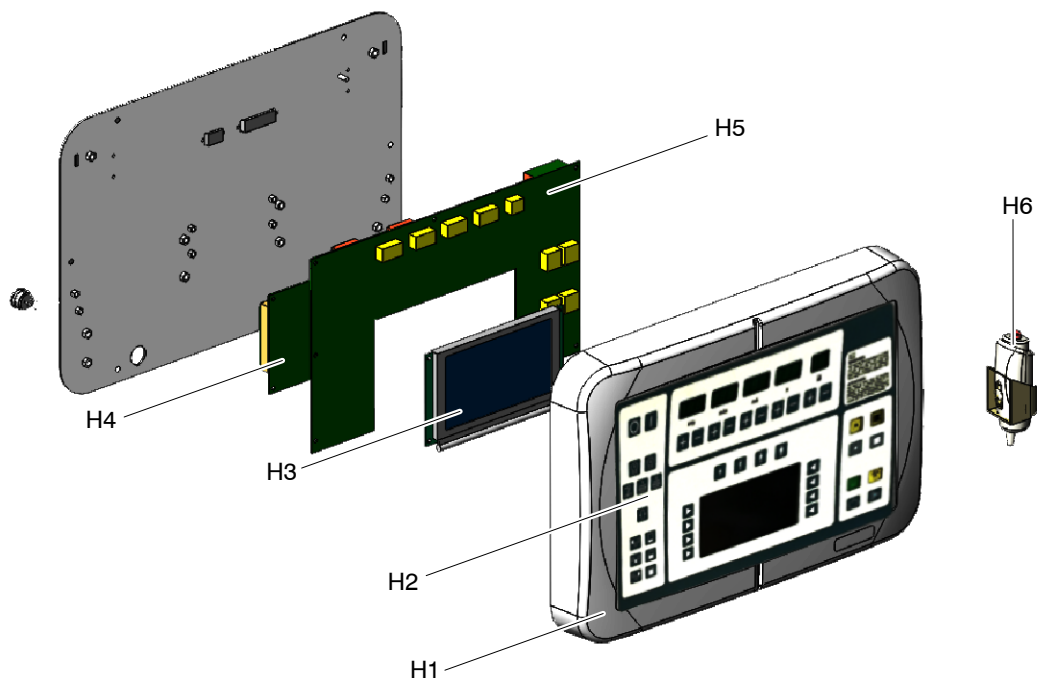
G3.2



G4



| ITEM | DESCRIPTION | QTY | REFERENCE | REMARKS |
|-----------|----------------------------|-----|--------------|---|
| H0 | PUSH-BUTTON CONSOLE | | | |
| H1 | Console Cover | 1 | SAT-8242-01 | |
| H2 | Overlay | 1 | SAT-55801420 | without logo, for other customization provide serial number |
| H3 | Display | 1 | SAT-54207037 | |
| H4 | Serial Control Console PCB | 1 | SAT-A3553-03 | |
| H5 | Console Display PCB | 1 | SAT-A3585-21 | |
| H6 | Handswitch | 1 | SAT-A3399-04 | |



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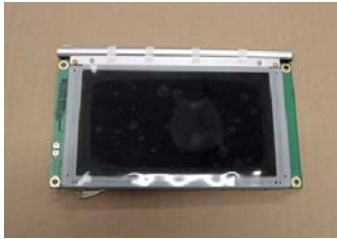
H1



H2



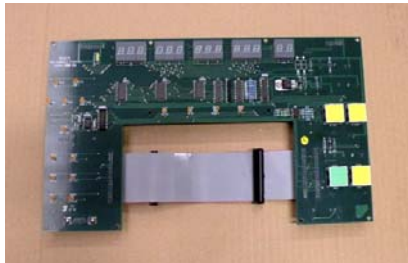
H3



H4



H5



H6



| ITEM | DESCRIPTION | QTY | REFERENCE | REMARKS |
|-----------|----------------------------------|-----|---------------|---------------|
| 10 | CTSC TOUCH SCREEN CONSOLE | | | |
| 11 | Main Board Kit | 1 | SAT-A11351-01 | Includes O.S. |
| 12 | Monitor | 1 | SAT-55904027 | |
| 13 | Power Supply | 1 | SAT-53418064 | |
| 14 | Auto ON/OFF | 1 | SAT-A3179-11 | |
| 15 | DVI-D Dual Cable | 1 | SAT-55001318 | |
| 16 | Audio Cable | 1 | SAT-55001317 | |
| 17 | USB 2.0 Cable | 1 | SAT-55001319 | |



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| ITEM | DESCRIPTION | QTY | REFERENCE | REMARKS |
|-----------|-------------------------|-----|--------------|---------|
| 10 | CONSOLE SUPPORTS | | | |
| I1 | Table Support | 1 | SAT-A6271-00 | |
| I2 | Wall Support | 1 | SAT-A6273-00 | |
| I3 | Pedestal | 1 | SAT-A6272-00 | |
| I4 | Knob | 2 | SAT-54402006 | |

