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3.3.8 Frame R6, ZINT replacement

1. Remove covers and cable gland box

- a. Remove the control panel
- b. Open two mounting **screws**.
- c. First lift off top cover and then release four clips to remove bottom cover.
- d. Remove the cable gland box by opening the mounting **screws**. (3pcs)M6x12



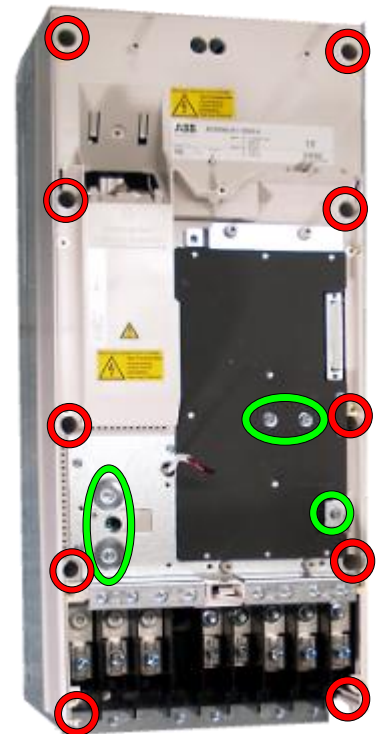
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2. Remove CCU

- a. Remove CCU (see instructions in section 3.3.3 *Control unit replacement (CCU)*, page 12).

3. Remove middle frame (skeleton)

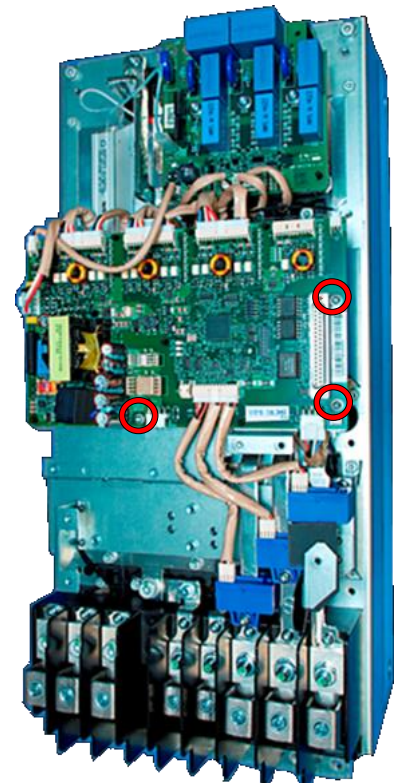
- a. Remove grounding screws. (5pcs) M4x8
- b. Remove skeleton mounting screws. (10pcs)M5x12



4. Replace ZINT board


- a. Unplug ZINT wiring
- b. Remove ZINT board fixing screws (3pcs) M3x6
- c. Release ZINT board plastic holders

Before installing the new ZINT board, check whether the correct RatingID has been uploaded to it and configure the board accordingly.



5. Install components in reverse order

Check the correct tightening torques from section 2 (page 6).

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3.3.9 Frame R7, ZINT replacement


1. Remove covers and cable gland box

- a. Remove the control panel
- b. Open two mounting **screws**.
- c. First lift off top cover and then release four clips to remove bottom cover.
- d. Remove the cable gland box by opening the mounting **screws**. (3pcs)M6x12



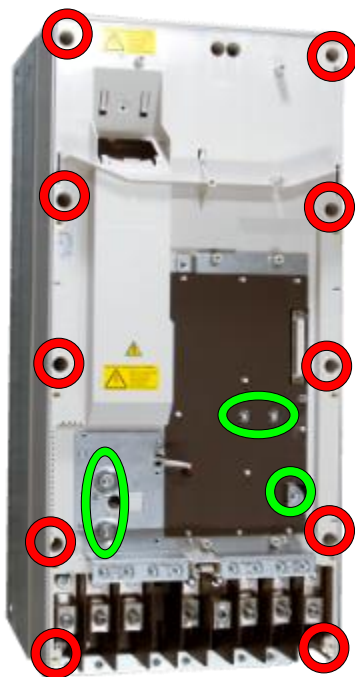
2. Remove CCU

- a. Remove CCU (see instructions in section 3.3.3 *Control unit replacement (CCU)*, page 12).

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3. Remove middle frame (skeleton)

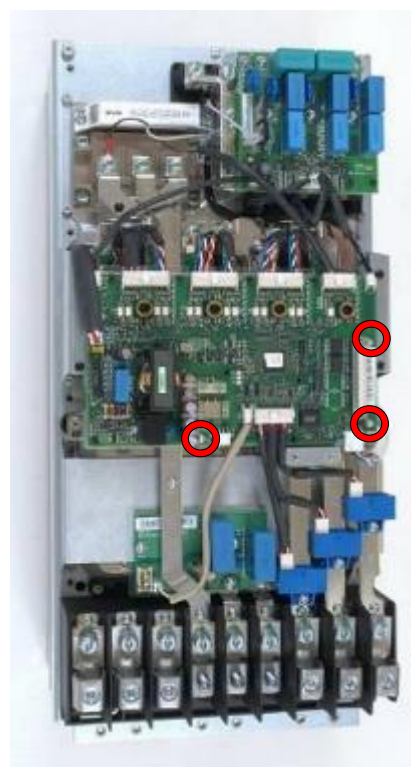
- a. Remove grounding **screws**. (5pcs) M4x8
- b. Remove skeleton mounting **screws**. (10pcs)M5x12



4. Remove ZINT board


- a. Unplug ZINT wiring
- b. Remove ZINT board fixing **screws** (3pcs) M3x10
- c. Release ZINT board plastic holders

Before installing the new ZINT board, check whether the correct RatingID has been uploaded to it and configure the board accordingly.



5. Install components in reverse order

Check the correct tightening torques from section 2 (page 6).

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3.3.10 Frame R8, ZINT replacement

1. Remove covers and cable gland box


- a. Remove the control panel
- b. Open two mounting **screws**.
- c. First lift off top cover and then release four clips to remove bottom cover.
- d. Remove the cable gland box by opening the mounting **screws**. (3pcs)M6x12



2. Remove CCU

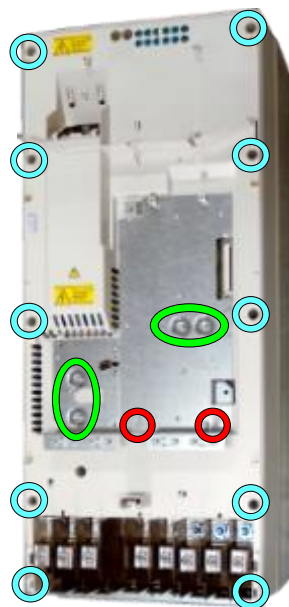
- a. Remove CCU (see instructions in section 3.3.3 *Control unit replacement (CCU)*, page 12).



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3. Remove middle frame (skeleton)

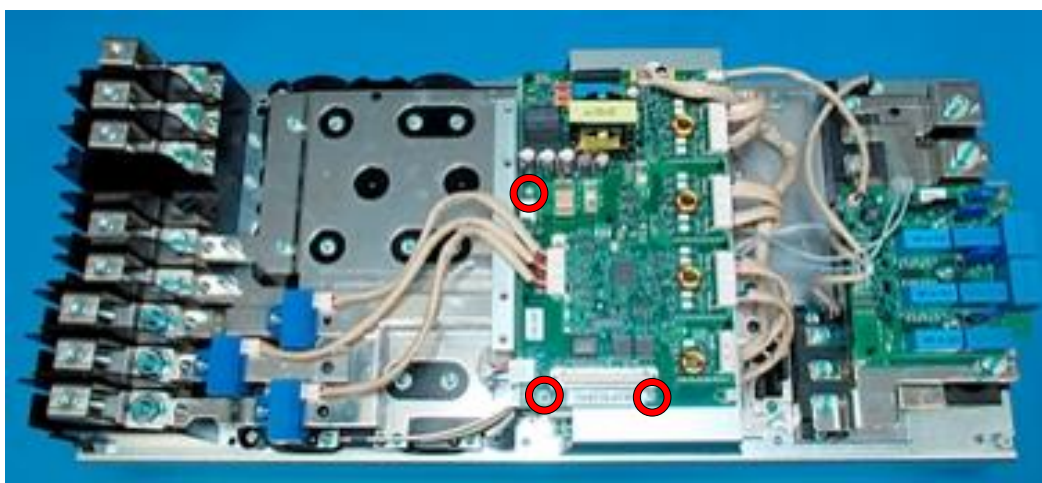
- a. Isolating plexiglas fixing **screws** (2pcs) K40x16 PT
- b. Grounding **screws** (2-4pcs) M4x12
- c. Skeleton fixing **screws** (8pcs) M5x12 and (2pcs) M5x20



4. Remove ZINT board


- a. Unplug ZINT wiring
- b. Remove ZINT board fixing **screws** (3pcs) M3x10
- c. Release ZINT board plastic holders

Before installing the new ZINT board, check whether the correct RatingID has been uploaded to it and configure the board accordingly.



5. Install components in reverse order

Check the correct tightening torques from section 2 (page 6).

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3.3.11 Frame R9, ZINT replacement

1. Remove covers and cable gland box


- a. Remove the control panel
- b. Open two mounting **screws**.
- c. First lift off top cover and then release four clips to remove bottom cover.
- d. Remove the cable gland box by opening the mounting **screws**. (3pcs)M6x12



2. Remove CCU

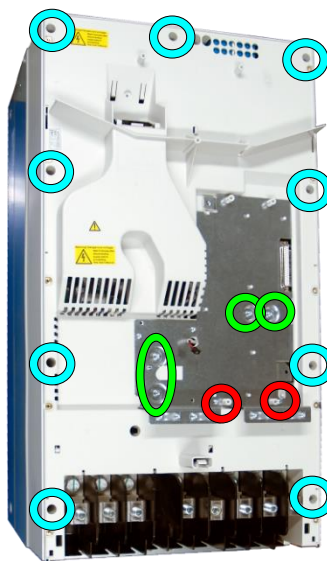
- a. Remove CCU (see instructions in section 3.3.3 *Control unit replacement (CCU)*, page 12).



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3. Remove middle frame (skeleton)

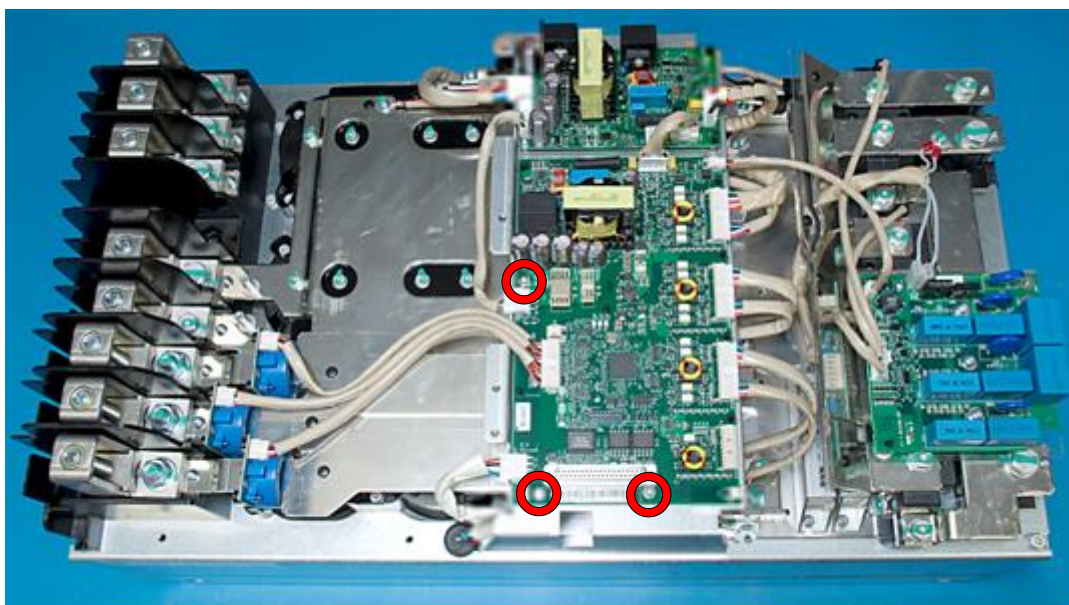
- a. Isolating plexiglas fixing **screws** (2pcs) M4x16 PT
- b. Grounding **screws** (4pcs) M4x12
- c. Skeleton fixing **screws** (9pcs) M5x12



4. Replace ZINT board


- a. Unplug ZINT
- b. Remove ZINT board fixing **screws** (3pcs) M3x10
- c. Release ZINT board plastic holders

Before installing the new ZINT board, check whether the correct RatingID has been uploaded to it and configure the board accordingly.



5. Install components in reverse order

Check the correct tightening torques from section 2 (page 6).

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3.3.12 Frame R9, ZPOW replacement

1. Remove covers and cable gland box


- a. Remove the control panel
- b. Open two mounting **screws**.
- c. First lift off top cover and then release four clips to remove bottom cover.
- d. Remove the cable gland box by opening the mounting **screws**. (3pcs)M6x12



2. Remove CCU

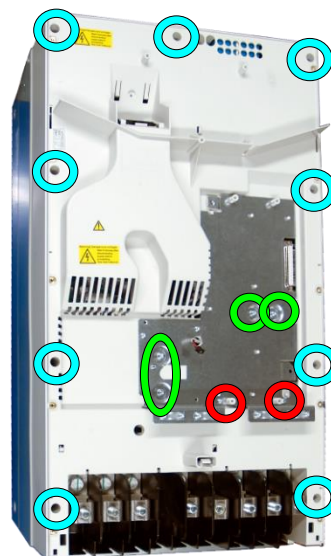
- a. Remove CCU (see instructions in section 3.3.3 *Control unit replacement (CCU)*, page 12).



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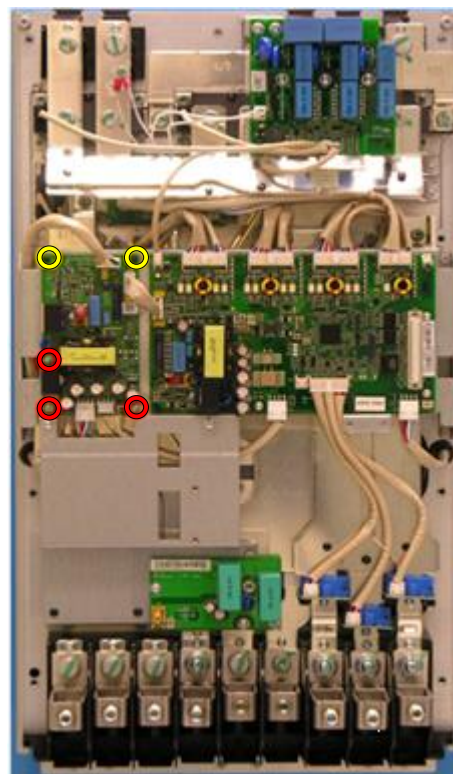
3. Remove middle frame (skeleton)

- a. Isolating plexiglas fixing **screws** (2pcs) M4x16 PT
- b. Grounding **screws** (4pcs) M4x12
- c. Skeleton fixing **screws** (9pcs) M5x12




4. Replace ZPOW board

- a. Unplug ZPOW wiring.
- b. Remove ZPOW board mounting **screws**, (3pcs) M3x10
- c. Release ZPOW board **plastic holders**



5. Install components in reverse order

Check the correct tightening torques from section 2 (page 6).

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3.4 Replacement of DC capacitors

3.4.1 Frame R6, DC capacitor replacement

1. Remove covers and cable gland box

- a. Remove the control panel
- b. Open two mounting **screws**.
- c. First lift off top cover and then release four clips to remove bottom cover.
- d. Remove the cable gland box by opening the mounting **screws**. (3pcs)M6x12



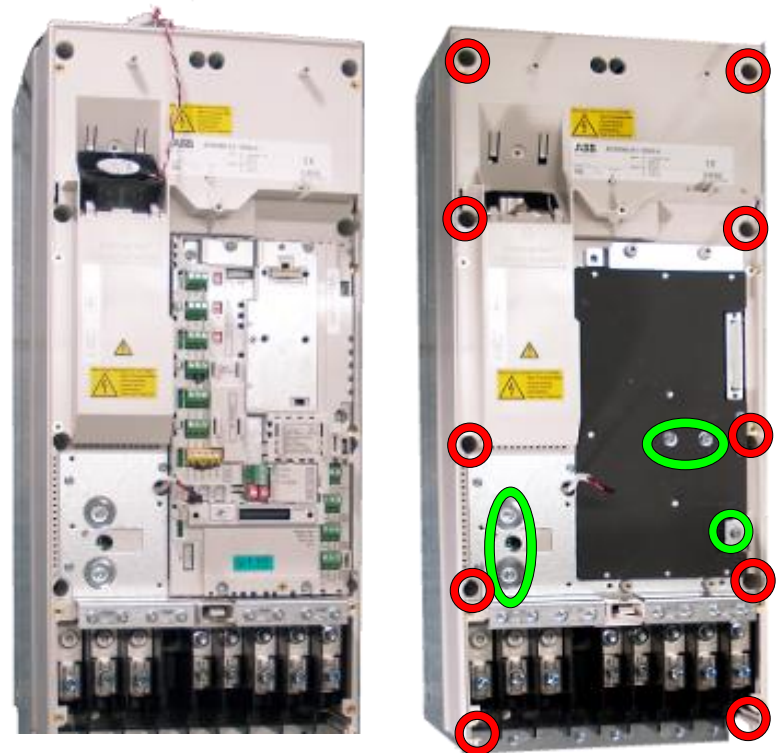
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2. Remove CCU

- a. Remove CCU (see instructions in section 3.3.3 *Control unit replacement (CCU)*, page 12).

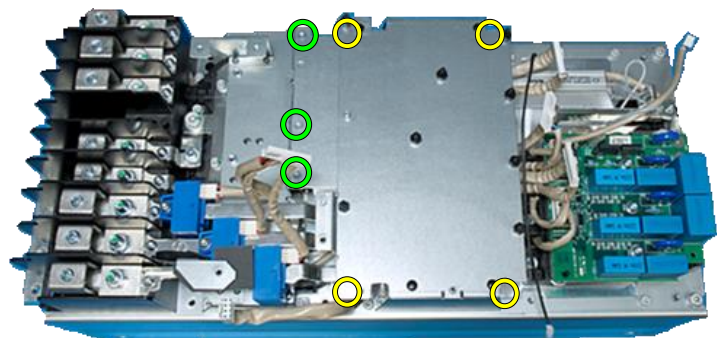
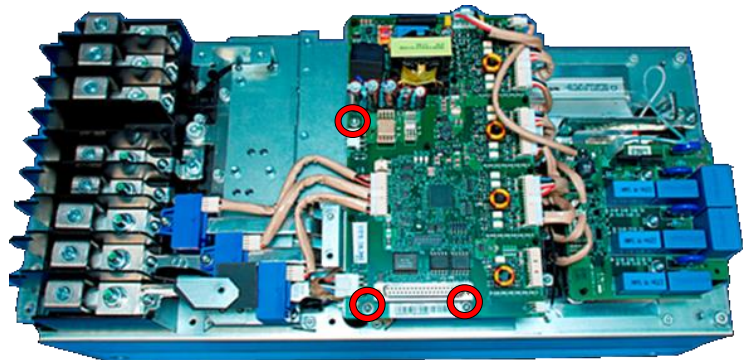
3. Remove middle frame (skeleton)


- a. Remove grounding **screws**. (5pcs) M4x8
- b. Remove skeleton mounting **screws**. (10pcs)M5x12



4. Remove ZINT board and assembly plate

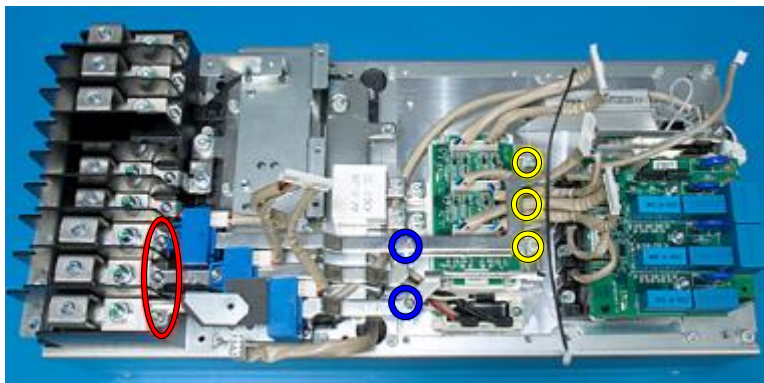
- a. Unplug ZINT wiring
- b. Remove ZINT board fixing **screws** (3pcs) M3x6
- c. Remove assembly plate fixing screws (3pcs of **M4x8** and 4pcs of **M5x12**)



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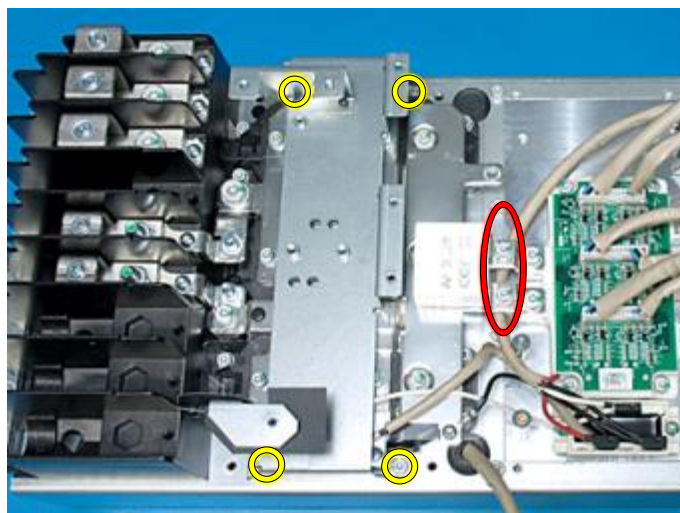
5. Remove output busbars

- a. Unscrew busbar tightening screws (3pcs) **50x14 PT** and 2pcs **M4x8** and one **M4x12 insulating pillar**
- b. Remove semiconductor output **screws** (3pcs) M6x12



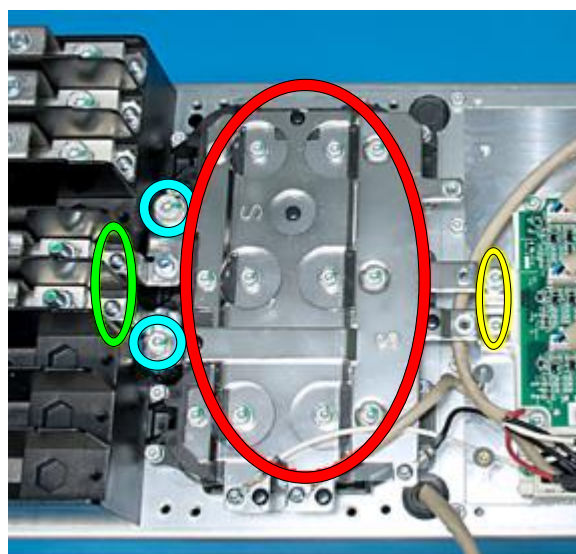
6. Remove assembly plate


- a. Remove ZFC-board if used (3pcs fixing screws, M4x12, one grounding screw M4x8)
- b. Unscrew assembly plate tightening **screws** (4pcs) M5x12
- c. Remove assembly plate
- d. Remove clamp capacitor **screws** (2pcs) M5x12



7. Remove DC busbars

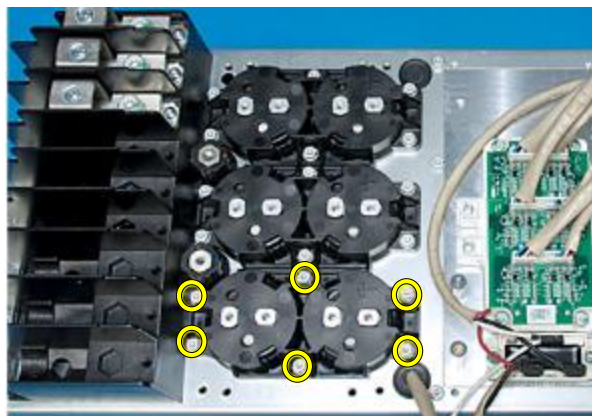
- a. Remove semiconductor DC connector **screws** (2pcs) M6x14
- b. Remove DC capacitor **pole screws** (12pcs) M5x12
- c. Remove choke connection **screws** M6x16 and M8x20
- d. Remove DC busbar output connector **screws** (2pcs) 50x14 PT



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8. Replace DC capacitors

- a. Remove capacitor assembly fixing **screws** M5x20
- b. Replace capacitors. **Note: pay attention to TOP mark on capacitor assembly!**



9. Install components in reverse order

- Check the correct tightening torques from section 2 (page 6).

