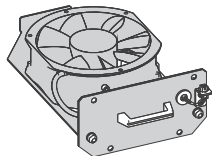




PHA3450505

Altivar Process Modular Power Fan



VX5VAM001

DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

- Only appropriately trained persons who are familiar with and understand the contents of this manual and all other pertinent product documentation and who have received safety training to recognize and avoid hazards involved are authorized to work on and with this drive system. Installation, adjustment, repair and maintenance must be performed by qualified personnel.
- The system integrator is responsible for compliance with all local and national electrical code requirements as well as all other applicable regulations with respect to grounding of all equipment.
- Many components of the product, including the printed circuit boards, operate with mains voltage.
- Only use properly rated, electrically insulated tools and measuring equipment.
- Do not touch unshielded components or terminals with voltage present.
- Motors can generate voltage when the shaft is rotated. Prior to performing any type of work on the drive system, block the motor shaft to prevent rotation.
- AC voltage can couple voltage to unused conductors in the motor cable. Insulate both ends of unused conductors of the motor cable.
- Do not short across the DC bus terminals or the DC bus capacitors or the braking resistor terminals.
- Before performing work on the drive system:
 - Disconnect all power, including external control power that may be present. Take into account that the circuit breaker or main switch does not de-energize all circuits.
 - Place a "Do Not Turn On" label on all power switches related to the drive system.
 - Lock all power switches in the open position.
 - Wait 15 minutes to allow the DC bus capacitors to discharge.
 - Follow the instructions given in the chapter "Verifying the Absence of Voltage".
- Before applying voltage to the drive system:
 - Verify that the work has been completed and that the entire installation cannot cause hazards.
 - If the mains input terminals and the motor output terminals have been grounded and short-circuited, remove the ground and the short circuits on the mains input terminals and the motor output terminals.
 - Verify proper grounding of all equipment.
 - Verify that all protective equipment such as covers, doors, grids is installed and/or closed.

Failure to follow these instructions will result in death or serious injury.

Electrical equipment should be installed, operated, serviced, and maintained only by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this product.

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▲ WARNING

INCORRECT MEASUREMENT VALUES

- Before using measuring equipment and tools, verify that the measuring equipment and tools are in proper condition.
- Calibrate and maintain all measuring equipment and tools according to the instructions of the manufacturers of the measuring equipment and tools.

Failure to follow these instructions will result in death or serious injury, or equipment damage.

NOTE: After successful fan exchange, the respective fan operation counters need to be reset.

This parameters are accessible in the following menu:

[Display] [Counter Management] [Time Counter Reset]

- [Reset Fan Counter] to reset the fan counter of the Standard Module
- [Clear AFE Fan] to reset the fan counter of the AFE Module
- [Clear BUO FanTime] to reset the fan counter of the Optional Braking Units

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valid for:

APM•A0••••4RH (380...480V)

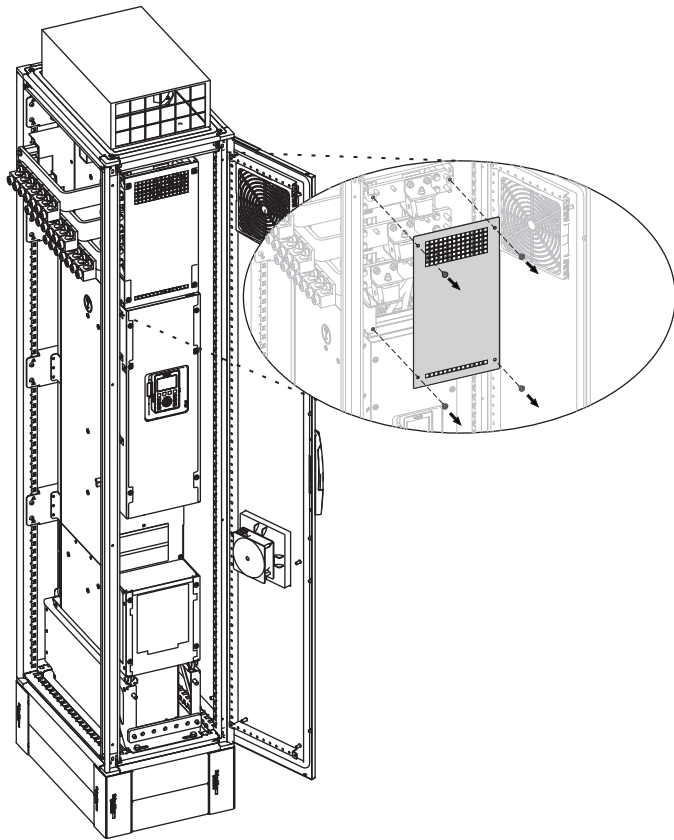
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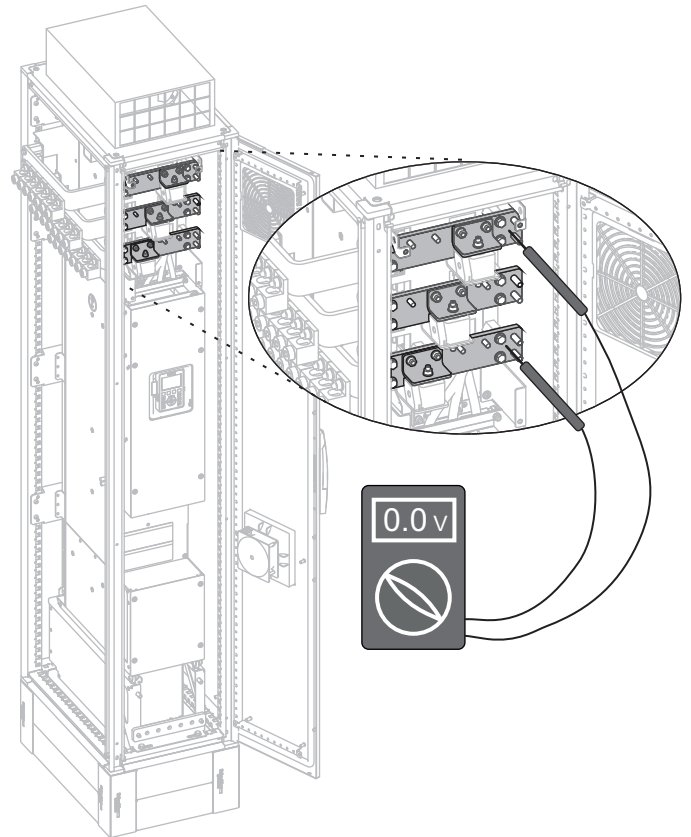
Verifying the Absence of Voltage valid for APM•A0••••4••, APM•A0••••6••

1. Measure the voltage (in AC mode and DC mode) on the mains input terminals and the motor output terminals between the phases and between each phase to ground to verify that no hazardous voltage is present.
2. Measure the voltage on the DC bus between the DC bus terminals (PA/+ and PC/-) to verify that the voltage is less than 10 Vdc.
3. If there is still voltage present on the terminals or if the DC bus capacitors do not discharge properly, contact your local Schneider Electric representative. Do not repair or operate the product.
4. Verify that no other voltage is present on the module.
5. Ground and short-circuit the mains input terminals and the motor output terminals.

1

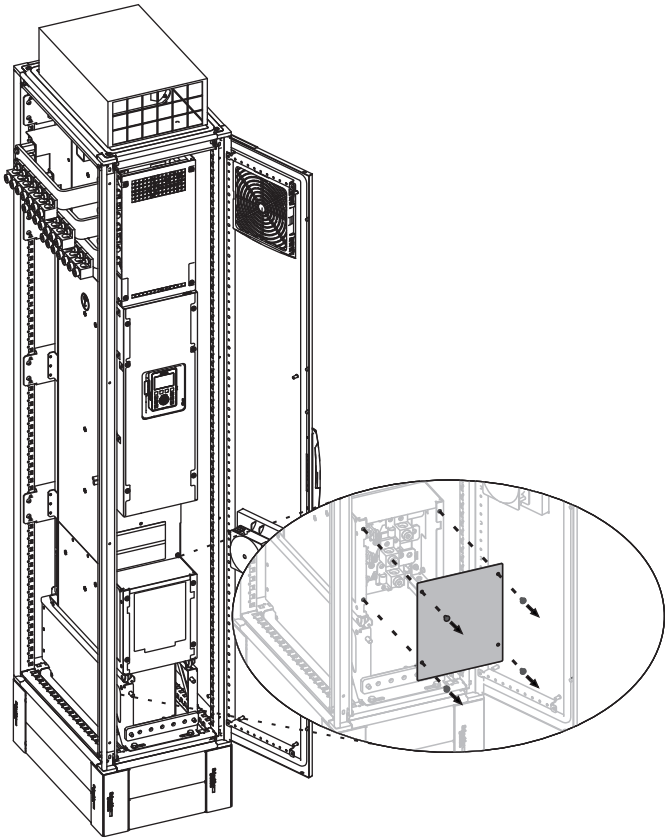


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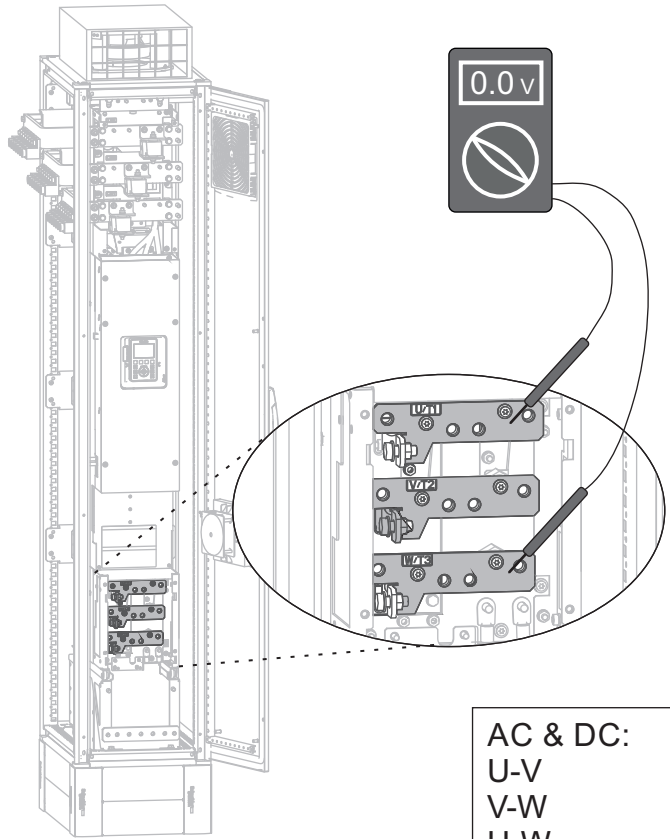


AC & DC:
L1-L2
L2-L3
L1-L3
L1,L2,L3 - PE

3

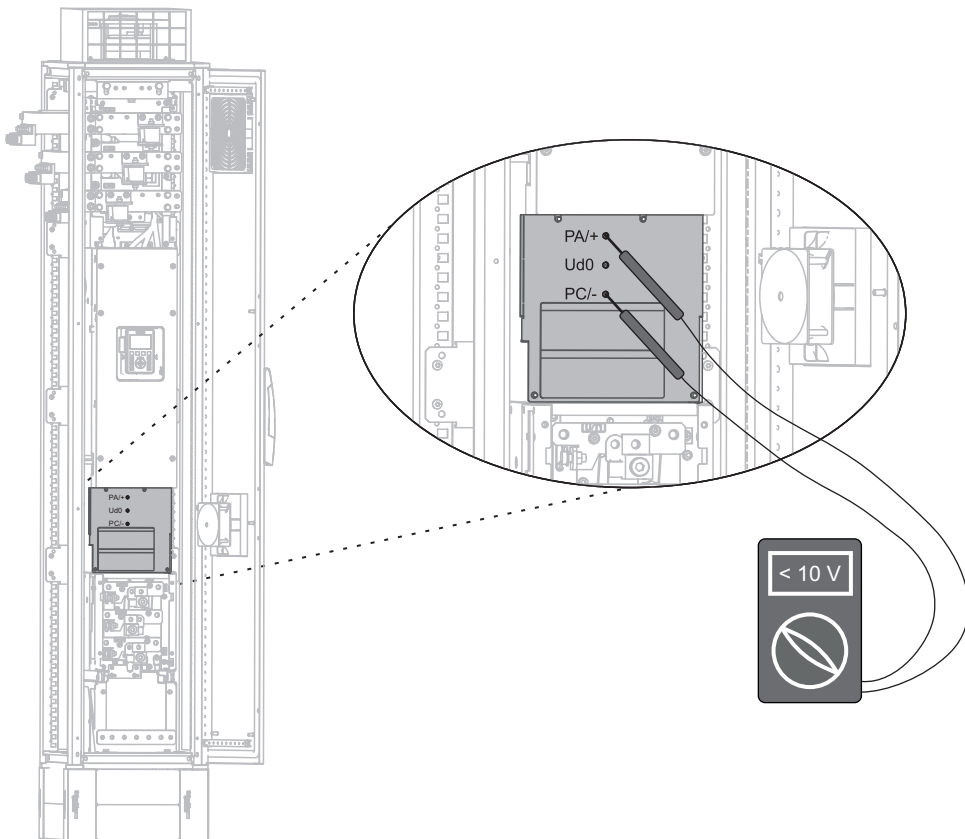


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AC & DC:
U-V
V-W
U-W
U, V, W - PE

5



DC:
PA/+ - PC/-
Ud0 - PA/+
Ud0 - PC/-



Standard Single Drives

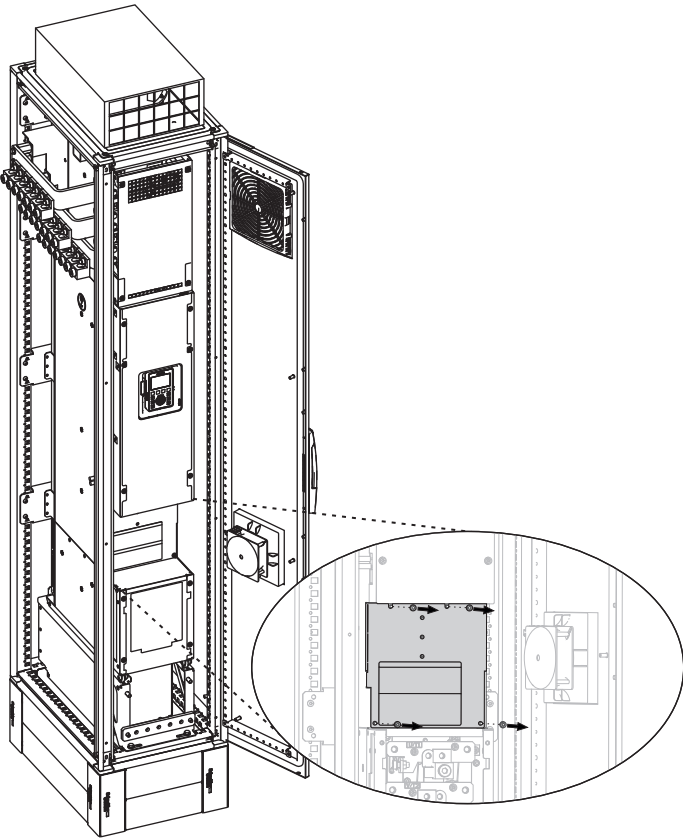
Low Harmonic / Regen
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Optional Braking Unit

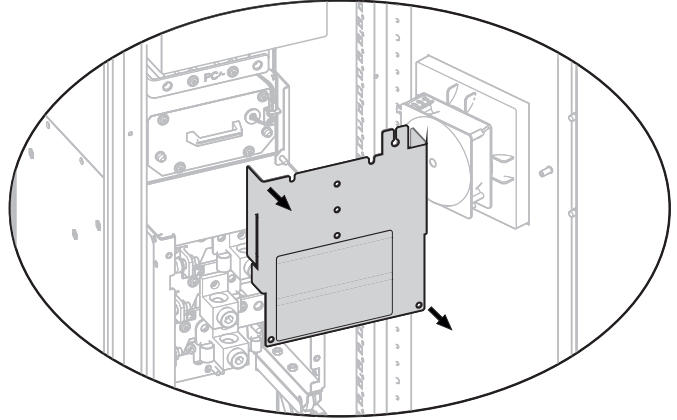
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Fan Exchange Procedure for APM•A0••••4••, APM•A0••••6••

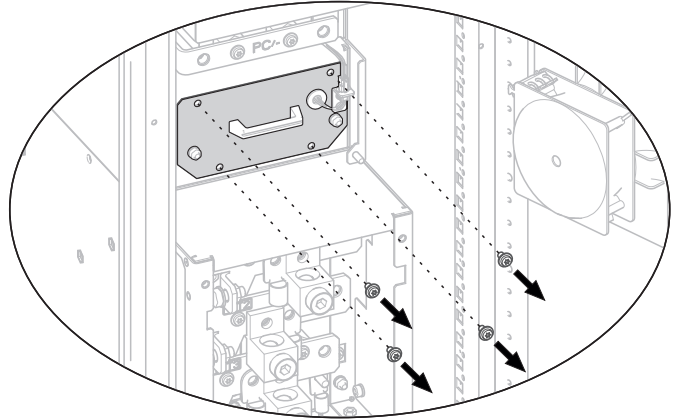
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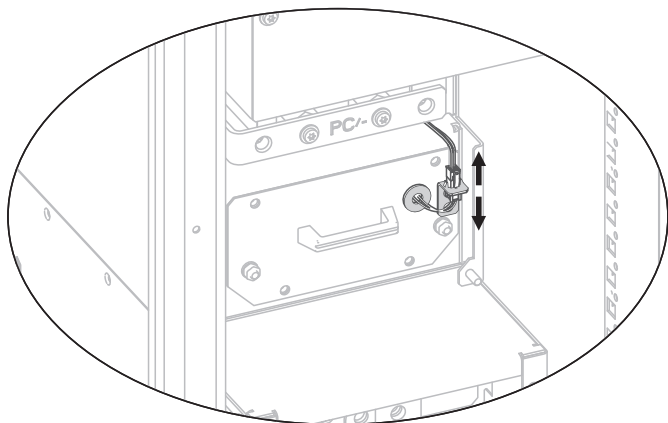
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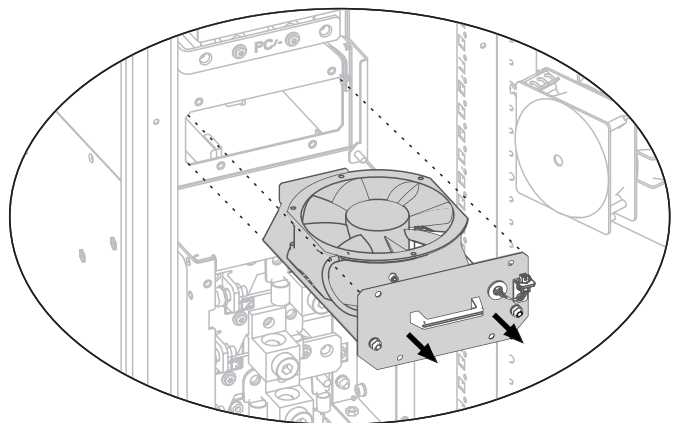
3  T30 



4 



5 



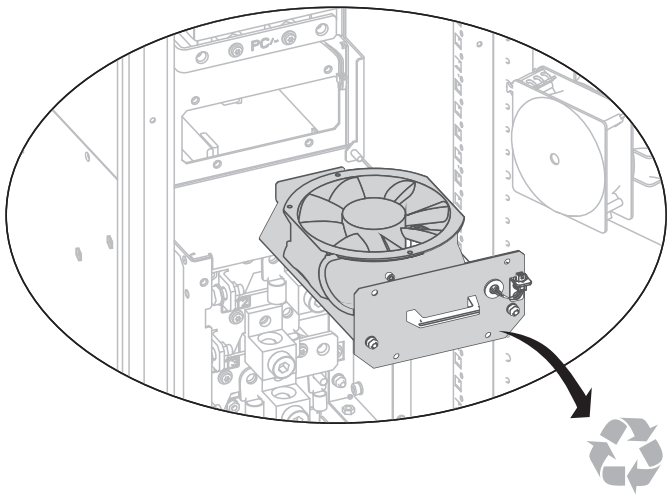
Standard Single Drives

Low Harmonic / Regen
Single Drives

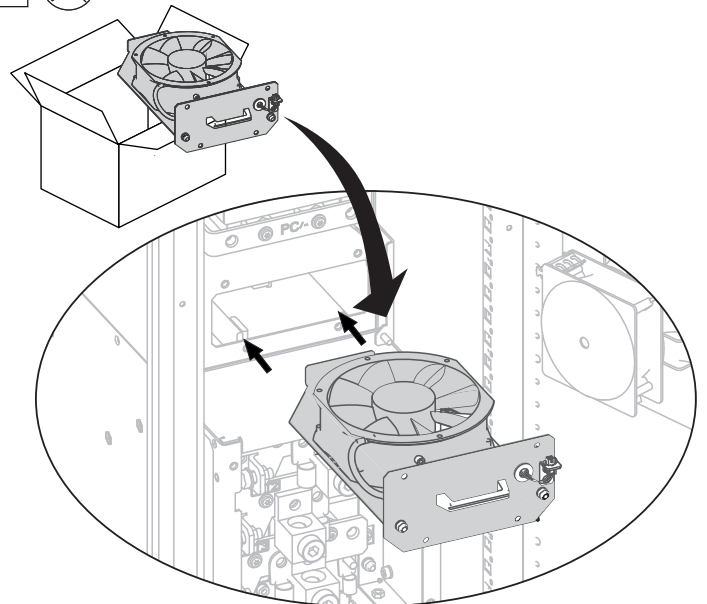
Optional Braking Unit

Standard Single Drives
Reduced Height

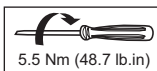
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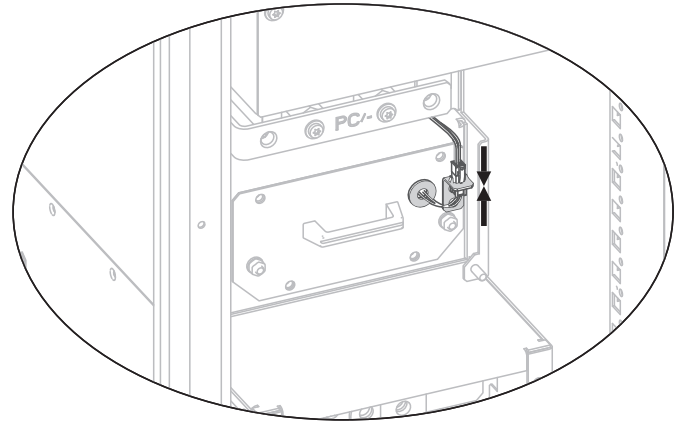
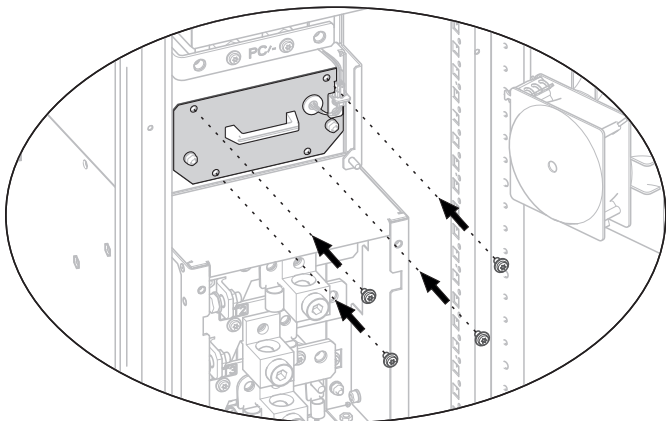
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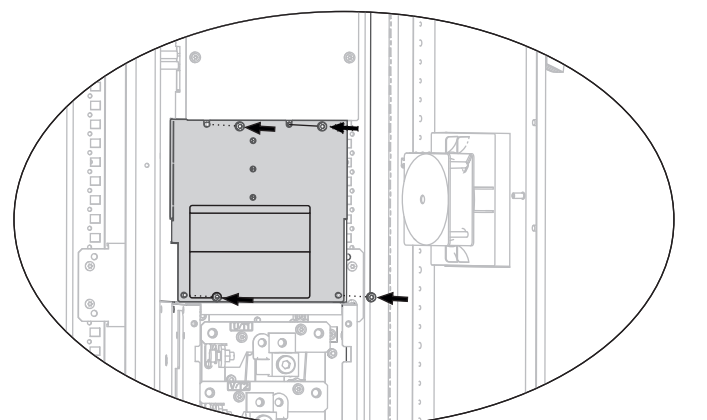
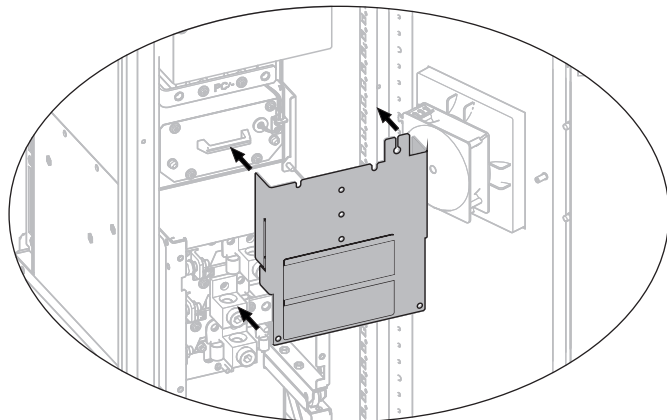
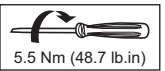
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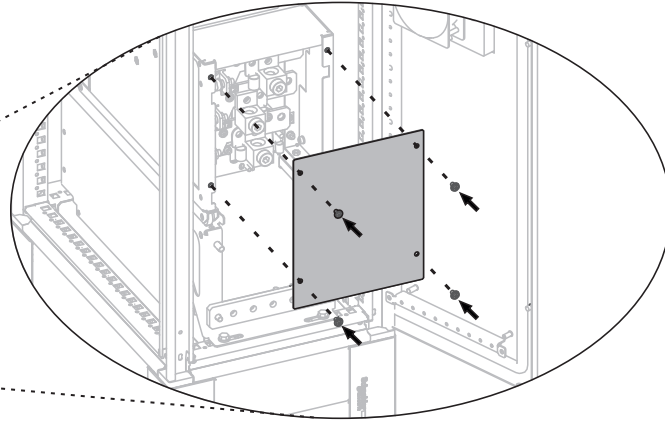
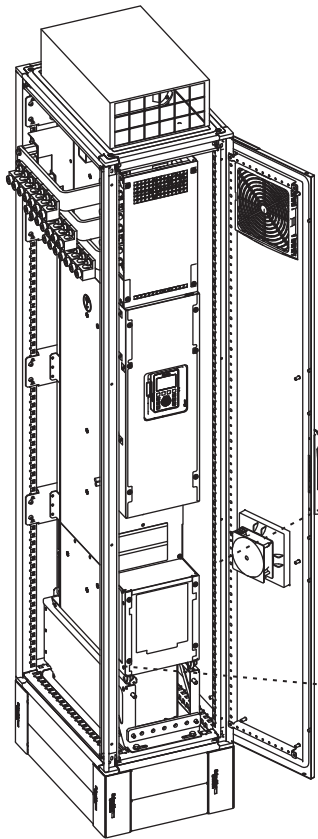
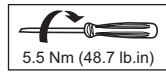
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11



12

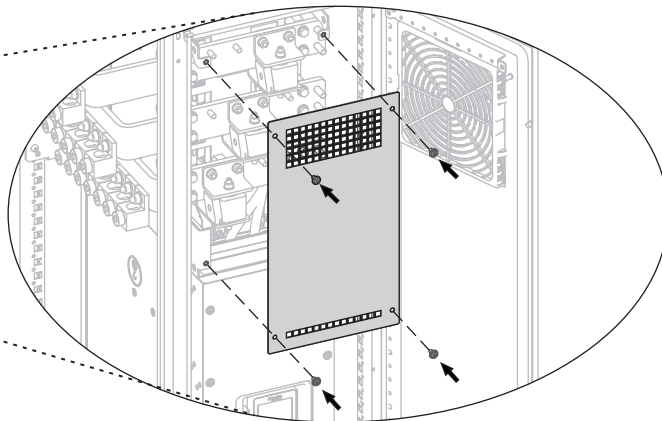
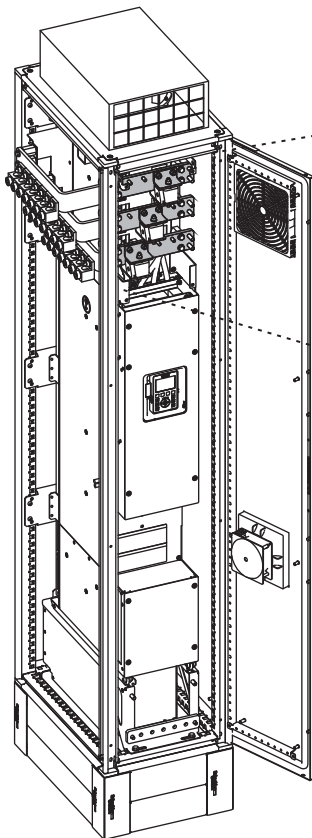
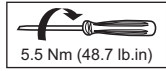


Standard Single Drives

Low Harmonic / Regen Single Drives

Optional Braking Unit

13



Standard Single Drives Reduced Height

Verifying the Absence of Voltage valid for APM•B0••••4, APM•B0••••6

Standard Single Drives

Low Harmonic / Regen
Single Drives

Optional Braking Unit

Standard Single Drives
Reduced Height

1. Measure the voltage (in AC mode and DC mode) on the mains input terminals and the motor output terminals between the phases and between each phase to ground to verify that no hazardous voltage is present.

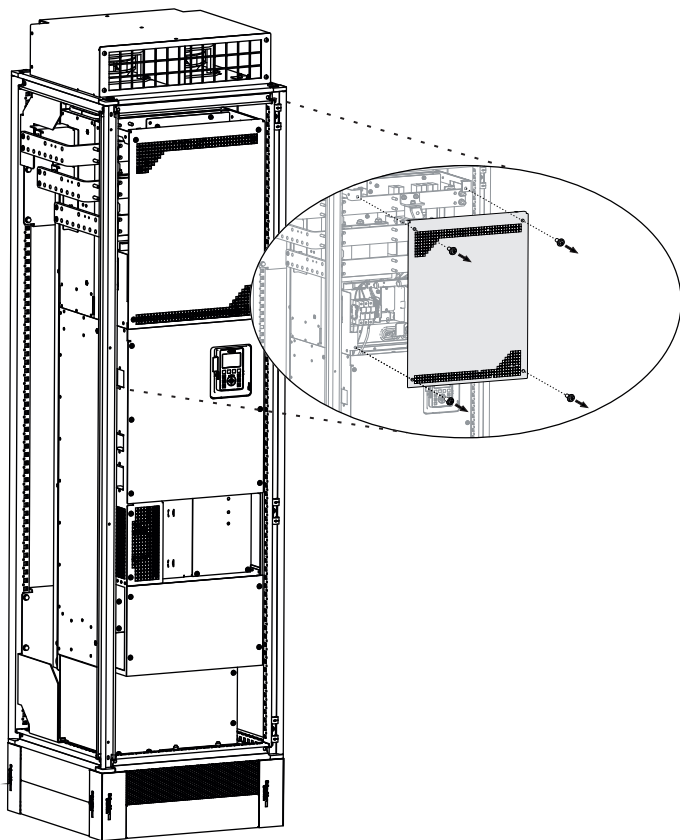
2. Measure the voltage on the DC bus between the DC bus terminals (PA/+ and PC/-) to verify that the voltage is less than 10 Vdc.

3. If there is still voltage present on the terminals or if the DC bus capacitors do not discharge properly, contact your local Schneider Electric representative. Do not repair or operate the product.

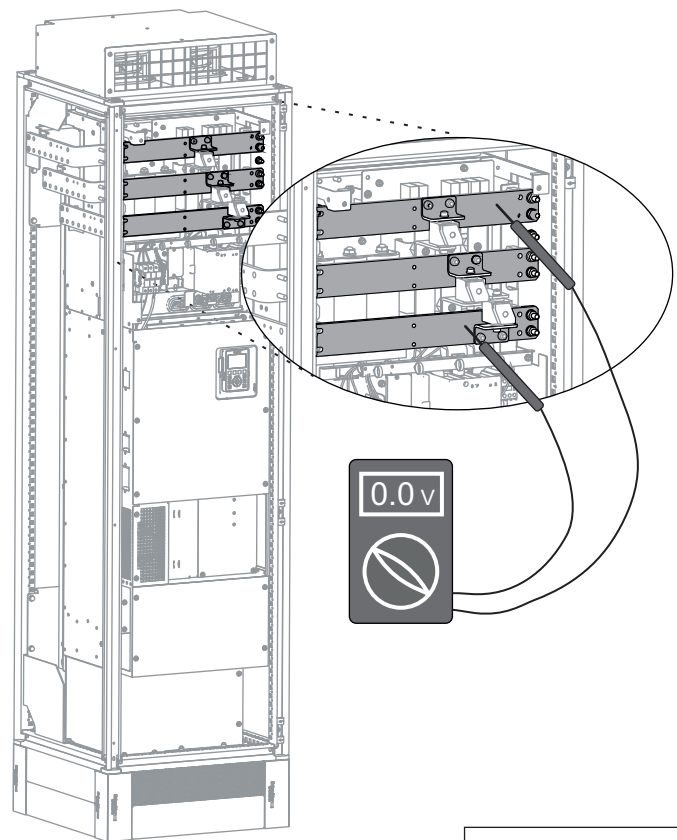
4. Verify that no other voltage is present on the module.

5. Ground and short-circuit the mains input terminals and the motor output terminals.

1  -T30 

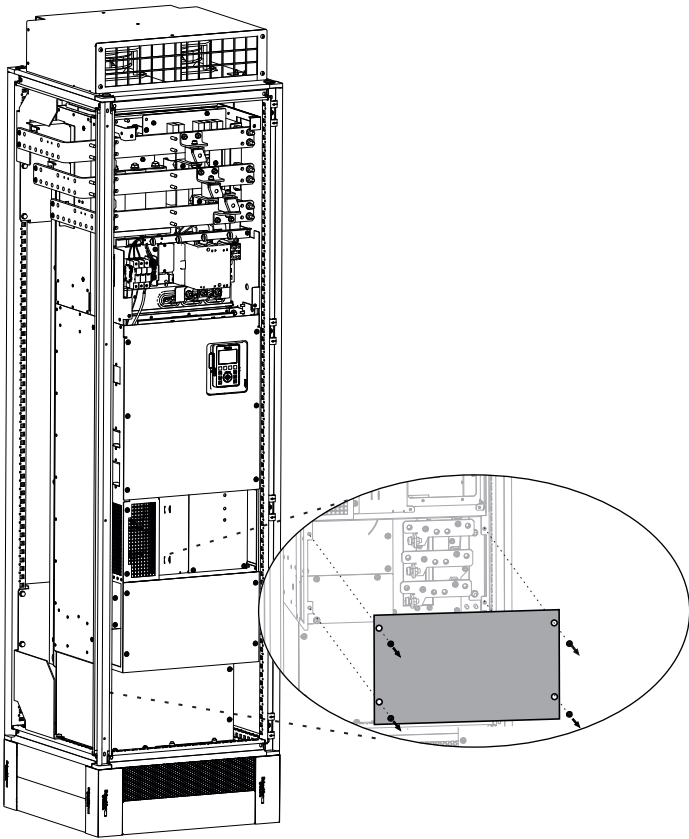


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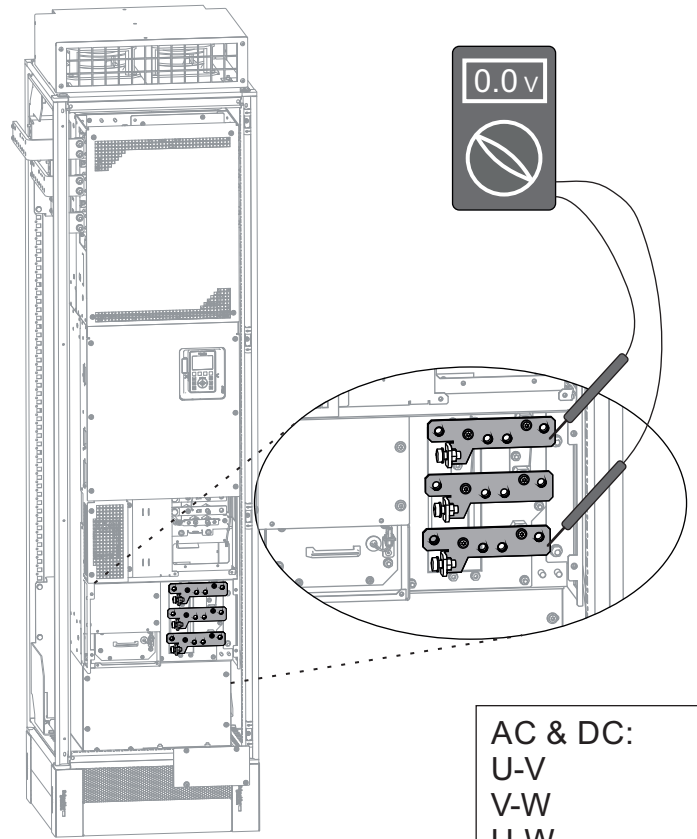


AC & DC:
L1-L2
L2-L3
L1-L3
L1,L2,L3 - PE

3

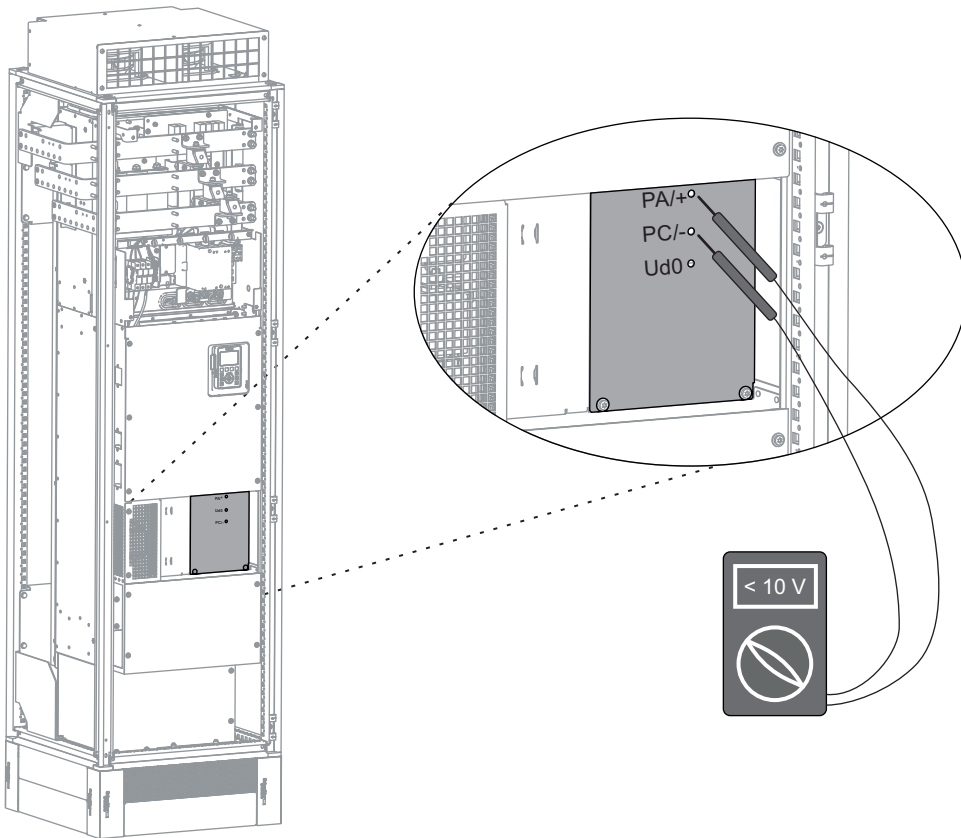


4



AC & DC:
U-V
V-W
U-W
U, V, W - PE

5



DC:
PA/+ - PC/-
Ud0 - PA/+
Ud0 - PC/-

Standard Single Drives

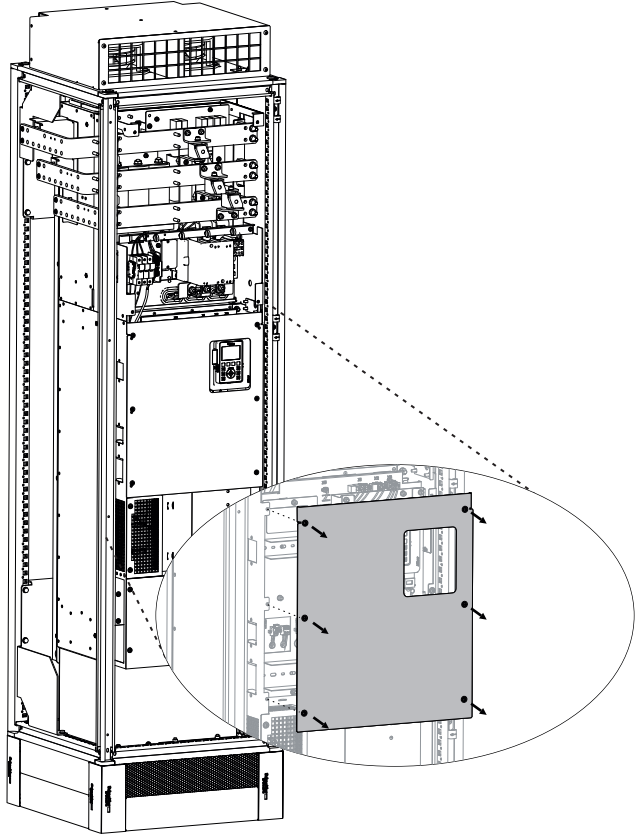
Low Harmonic / Regen
Single Drives



Optional Braking Unit

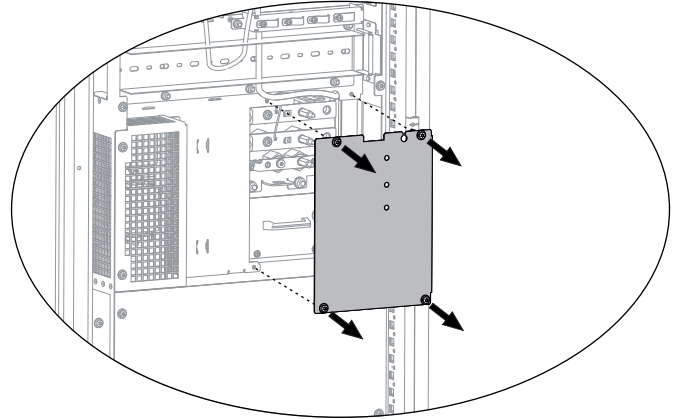
Standard Single Drives
Reduced Height



Fan Exchange Procedure for APM•B0••••4, APM•B0••••6

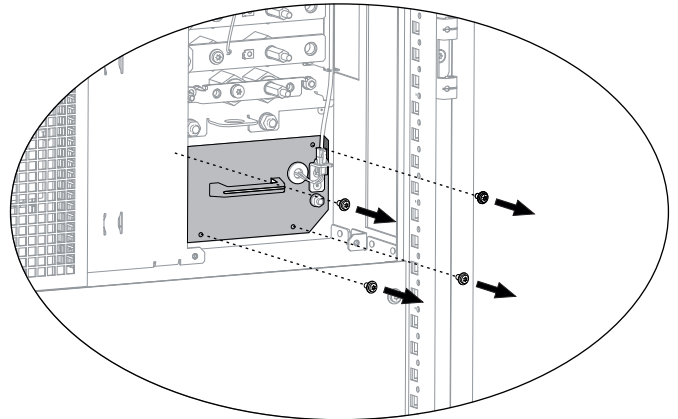
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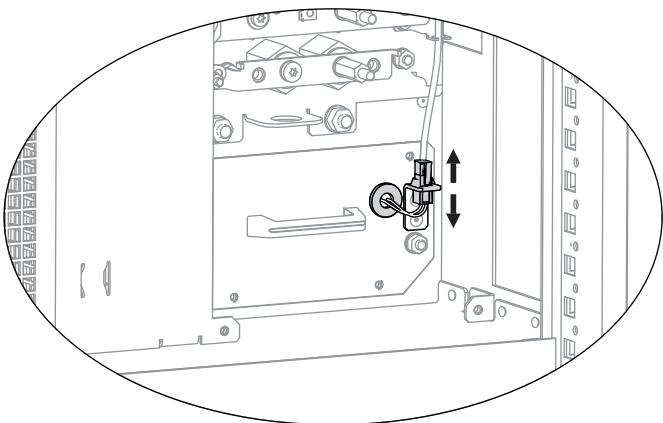
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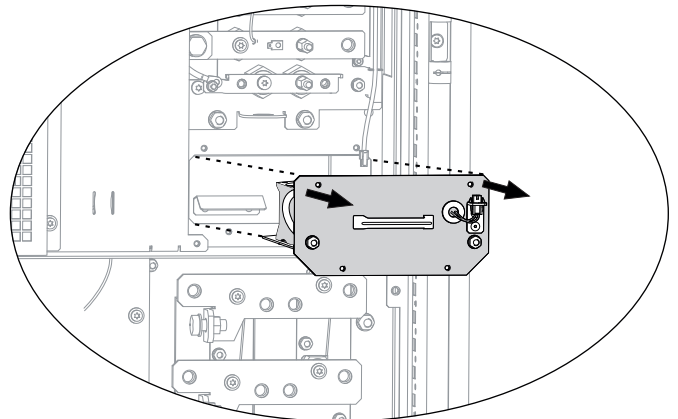
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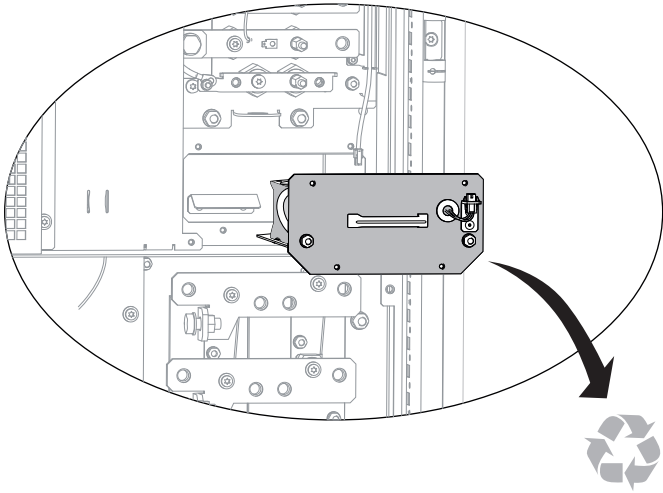
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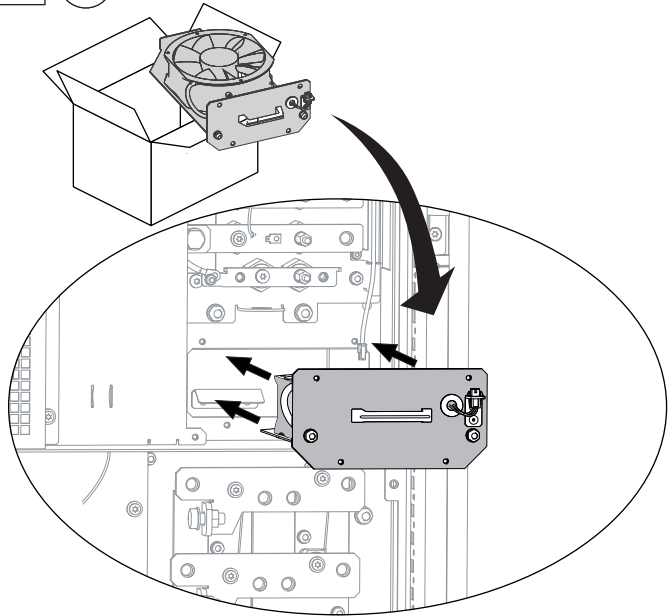
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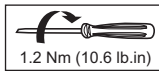
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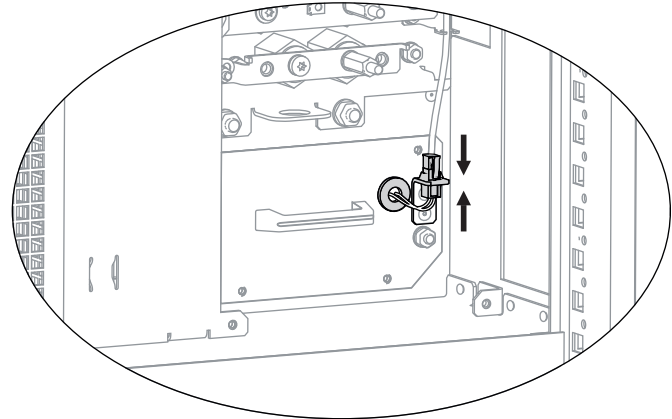
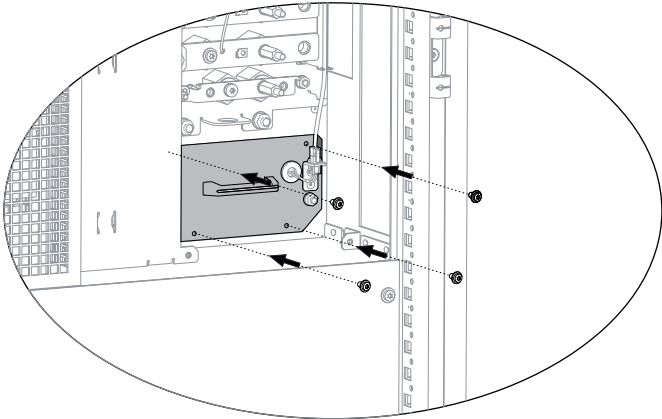
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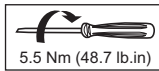
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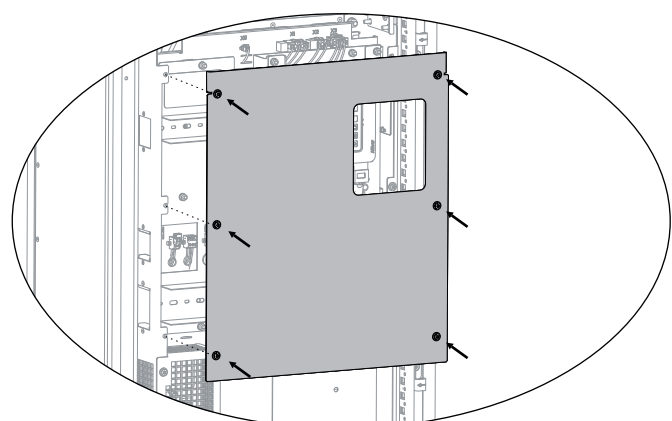
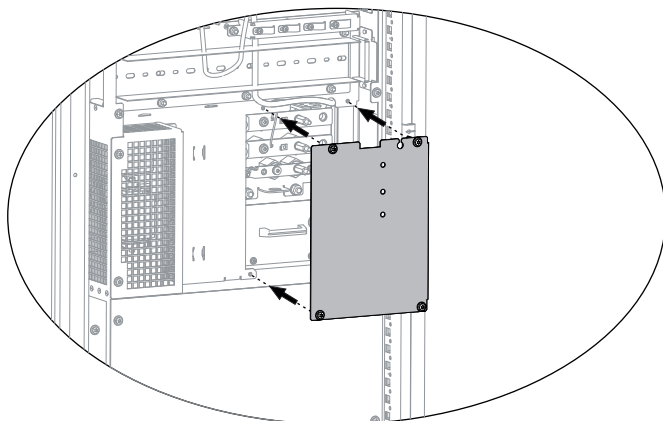
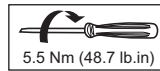
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11



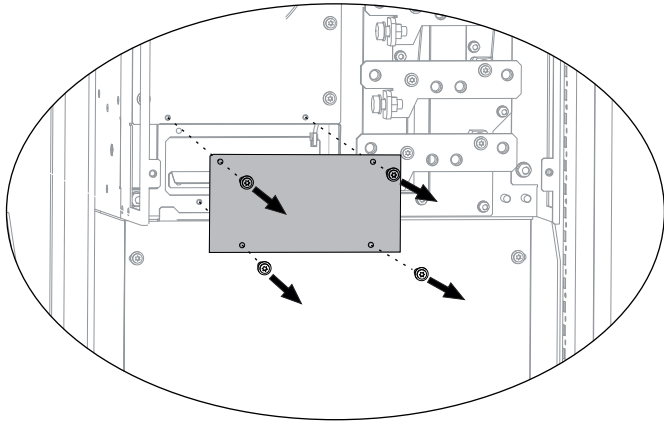
Standard Single Drives

Low Harmonic / Regen Single Drives

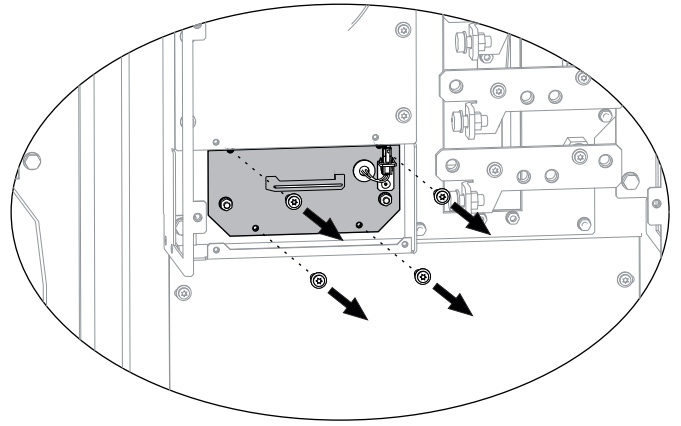
Optional Braking Unit

Standard Single Drives Reduced Height

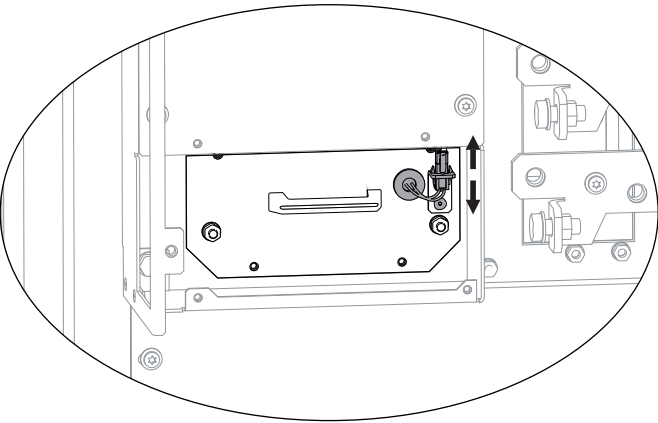
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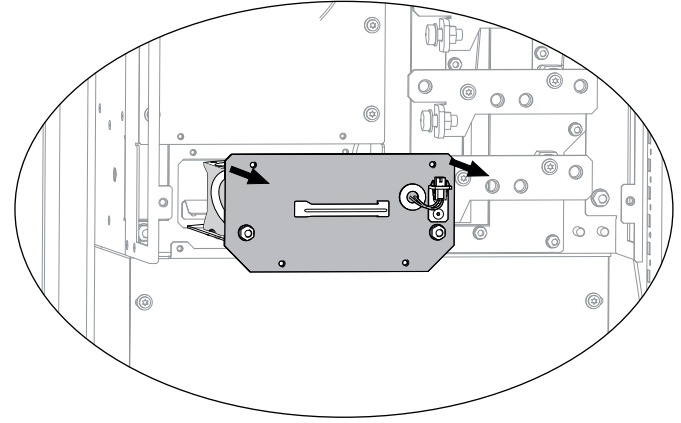
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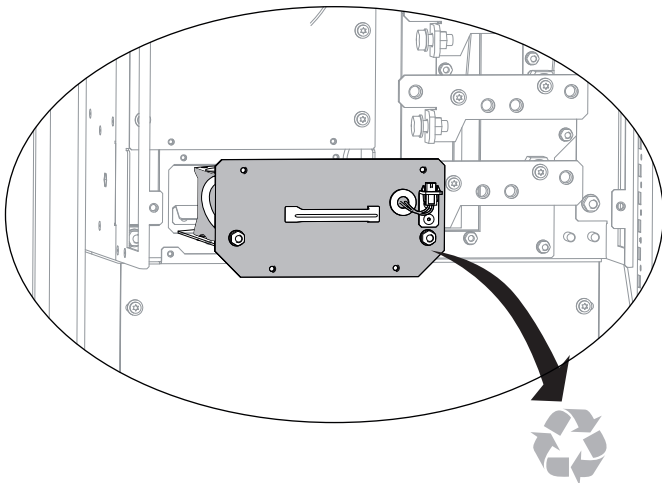
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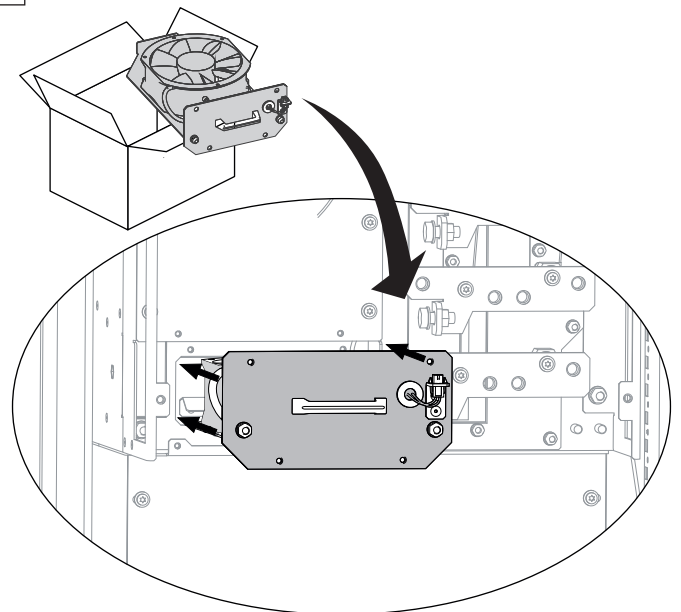
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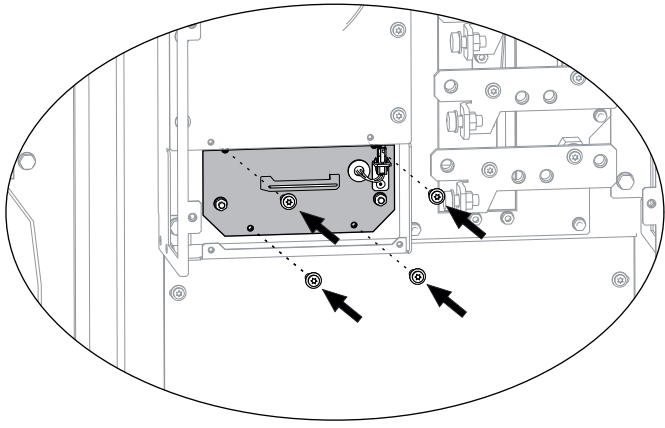
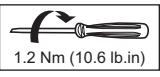
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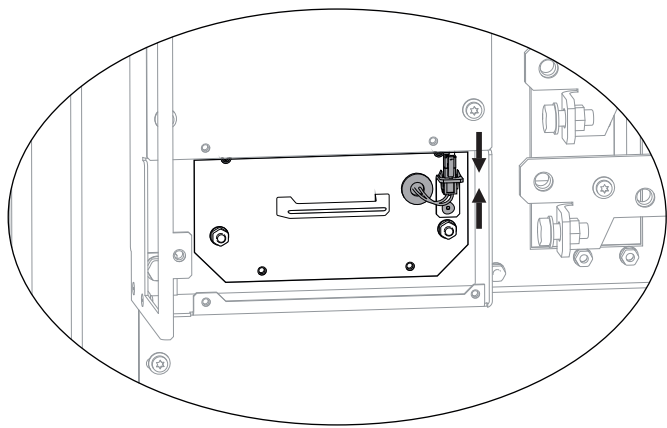
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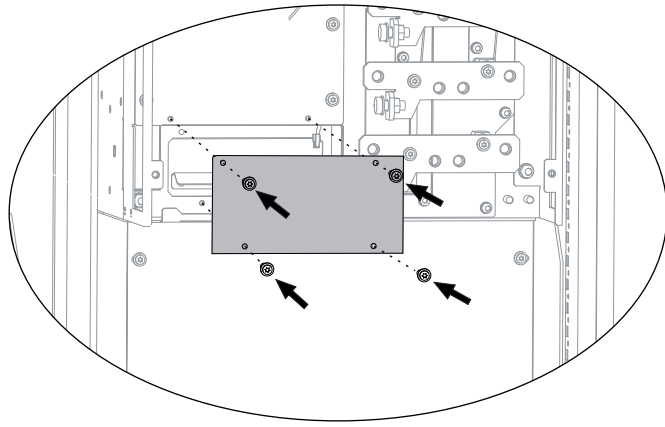
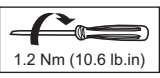
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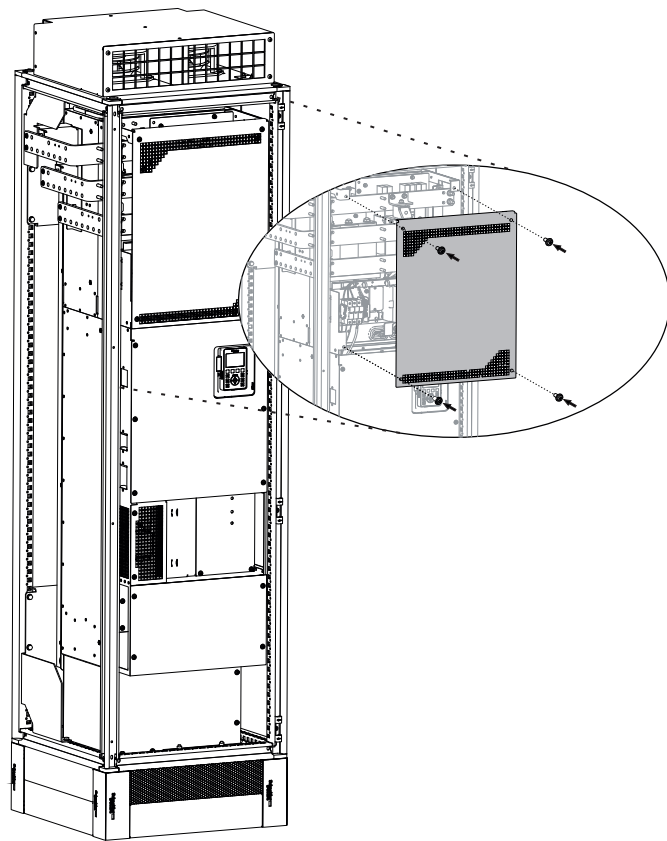
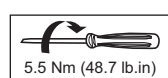
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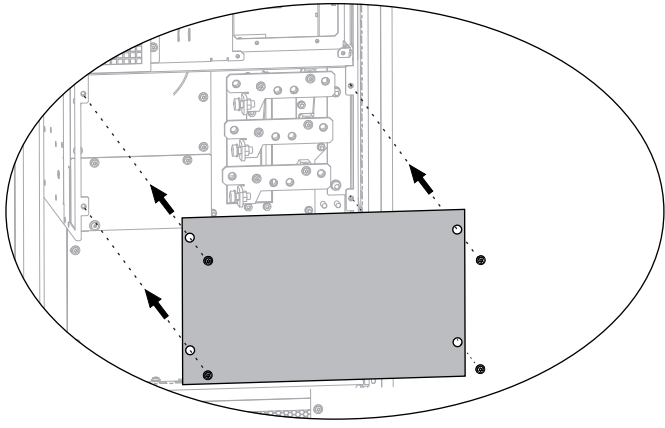
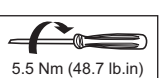
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22



21



Standard Single Drives

Low Harmonic / Regen Single Drives

Optional Braking Unit

Standard Single Drives Reduced Height

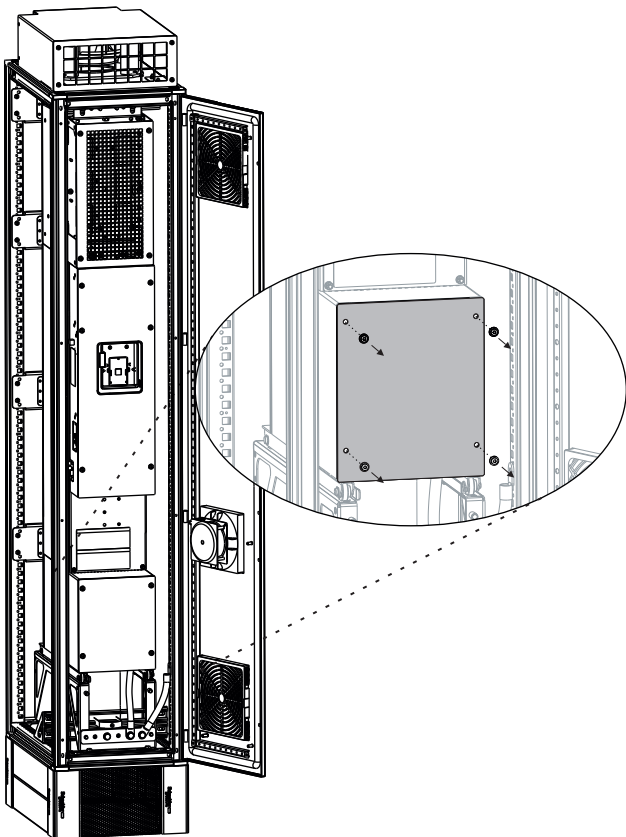
Verifying the Absence of Voltage valid for MODBUO...4APM, MODBUO...6APM

1. Measure the voltage (in AC mode and DC mode) on the mains input terminals and the output terminals between the phases and between each phase to ground to verify that no hazardous voltage is present.
(see also procedure for Standard Single Drives or Low Harmonic / Regen Single Drives)
2. Measure the voltage on the DC bus between the DC bus terminals (PA/+ and PC/-) to verify that the voltage is less than 10 Vdc.
3. If there is still voltage present on the terminals or if the DC bus capacitors do not discharge properly, contact your local Schneider Electric representative. Do not repair or operate the product.
4. Verify that no other voltage is present on the module.
5. Ground and short-circuit the mains input terminals, braking resistor terminals and the motor output terminals.

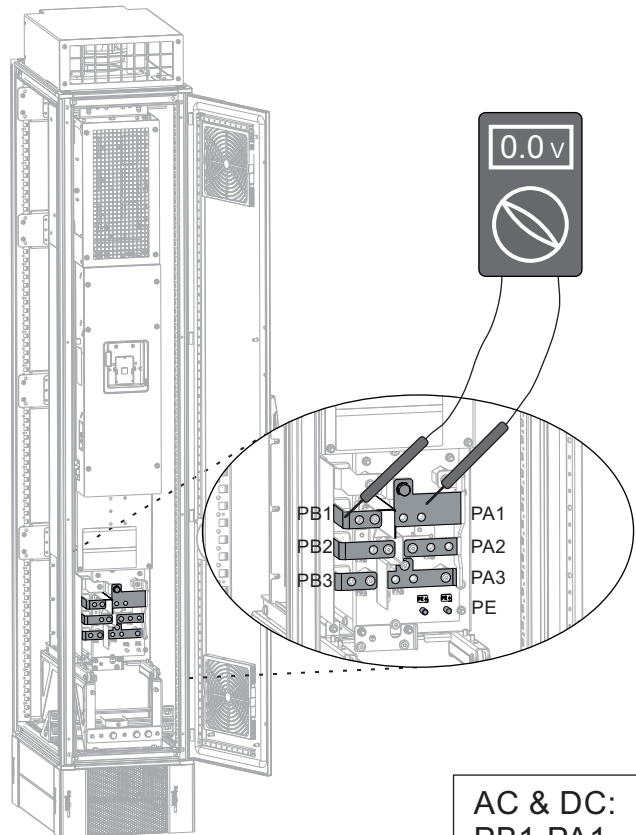
Standard Single Drives

Low Harmonic / Regen
Single Drives

1  



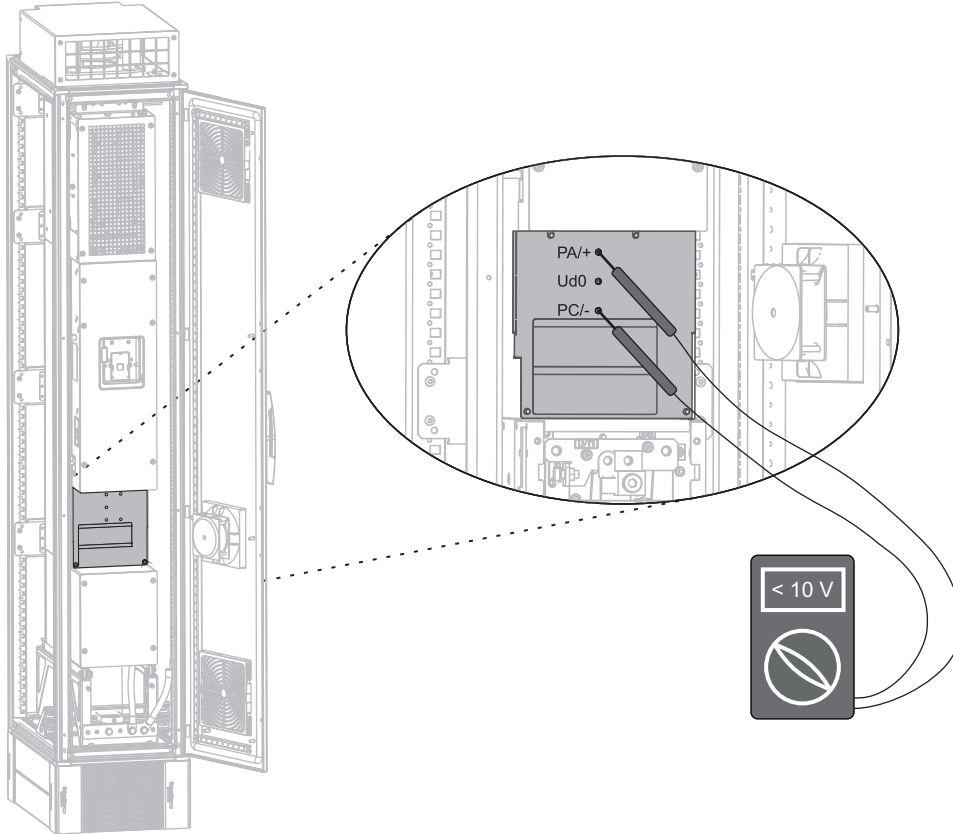
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AC & DC:
PB1-PA1
PB2-PA2
PB3-PA3
PA1,2,3 - PE
PB1,2,3 - PE

Optional Braking Unit

Standard Single Drives
Reduced Height



DC:
PA/+ - PC/-
Ud0 - PA/+
Ud0 - PC/-

Standard Single Drives

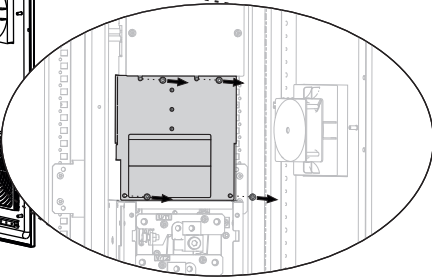
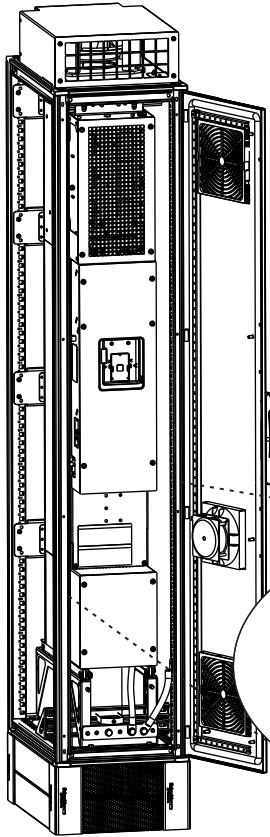
Low Harmonic / Regen
Single Drives

Optional Braking Unit

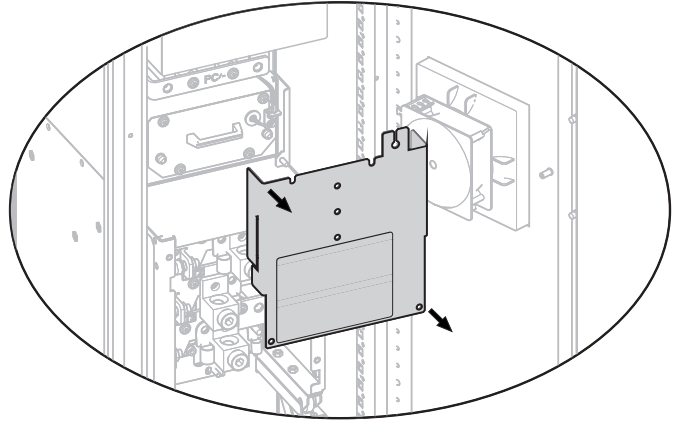
Standard Single Drives
Reduced Height

Fan Exchange Procedure for MODBUO...4APM, MODBUO...6APM

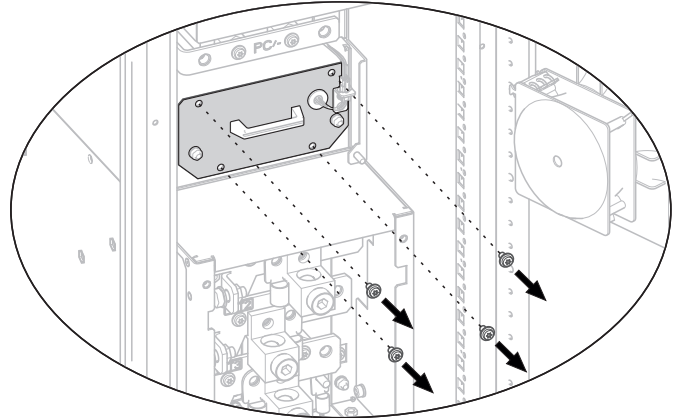
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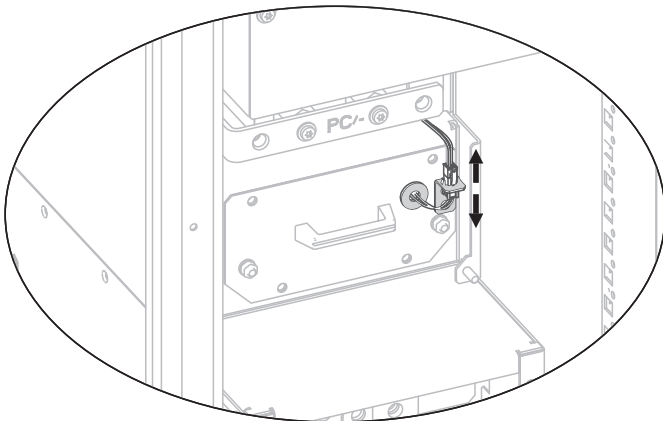
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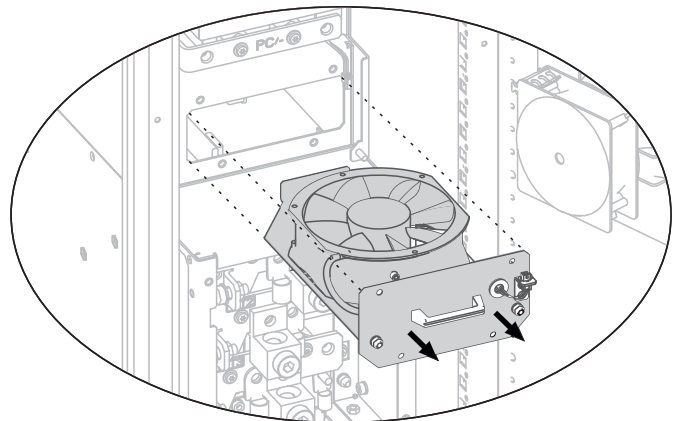
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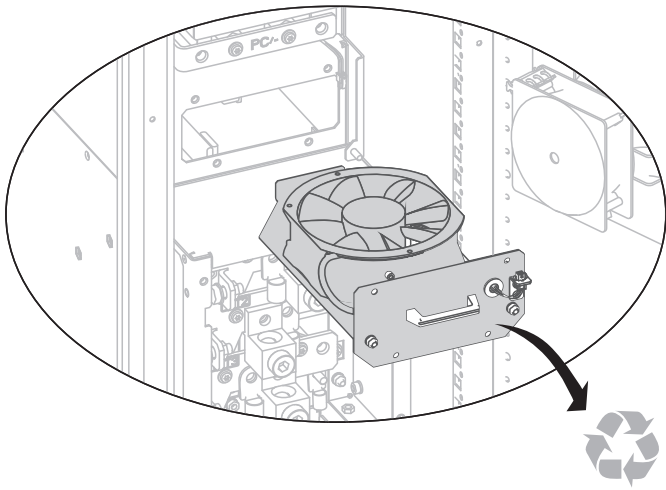
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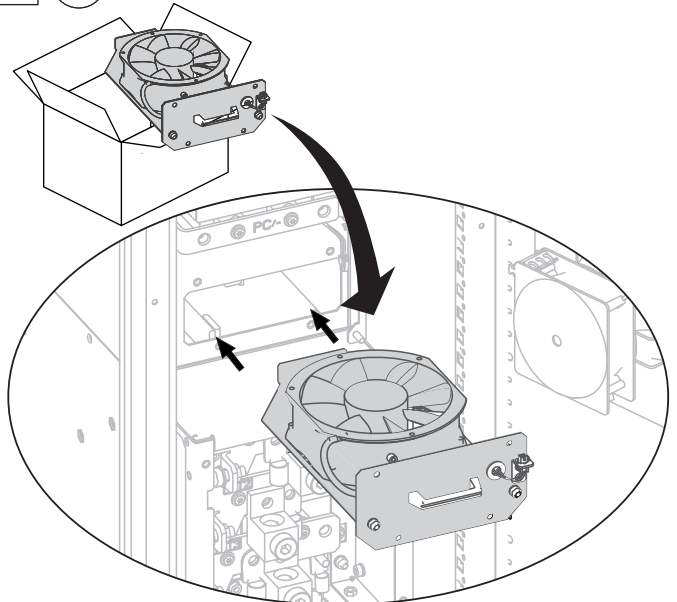
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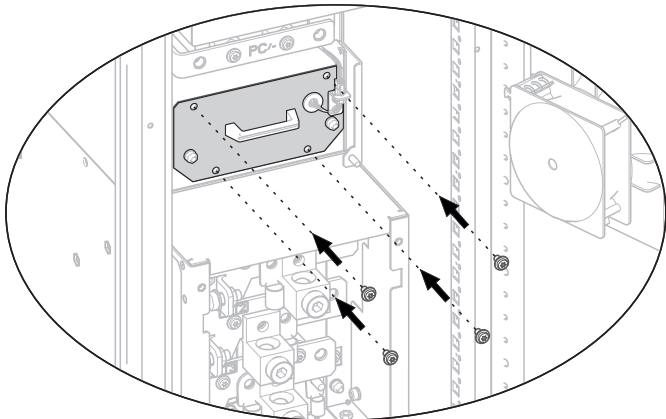
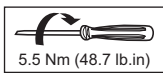
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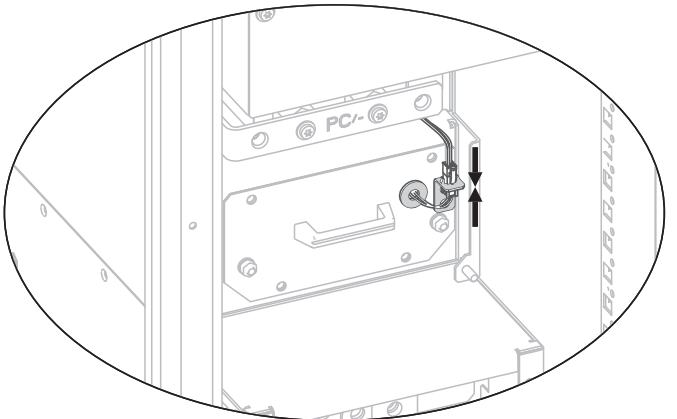
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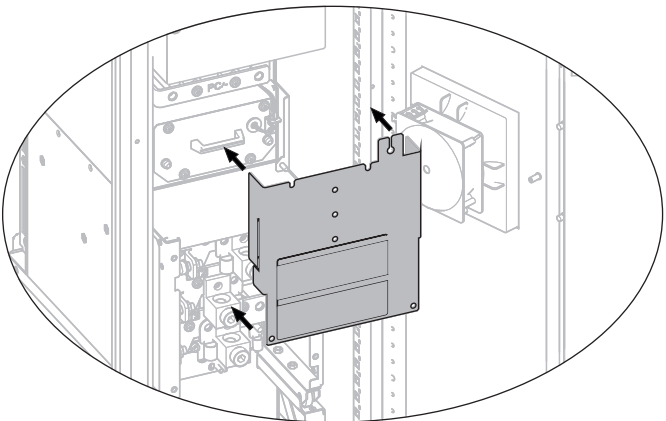
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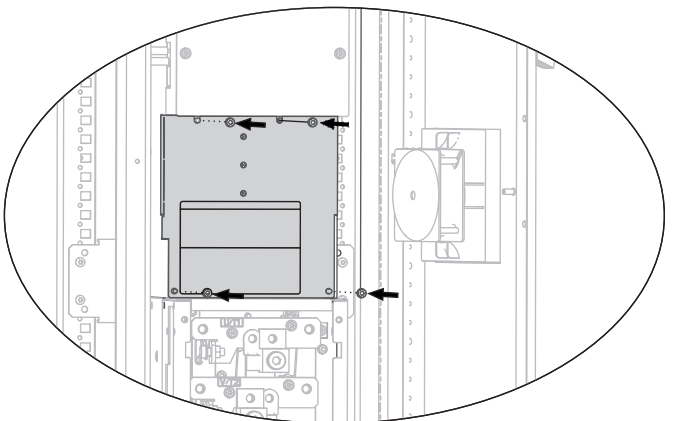
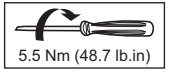
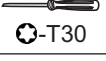
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10



11

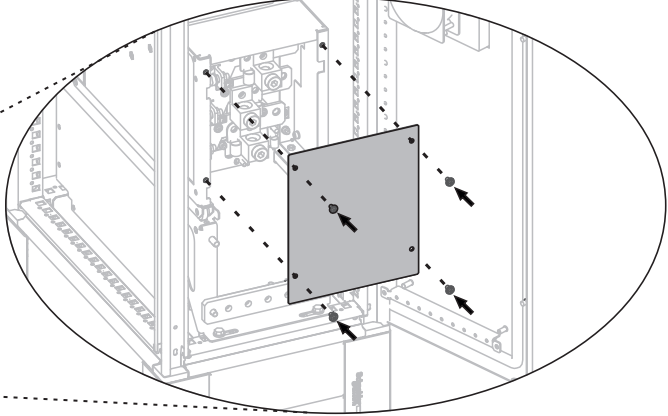
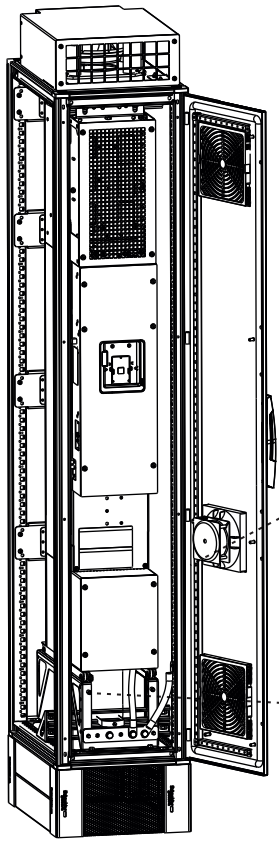


Standard Single Drives

Low Harmonic / Regen Single Drives

Optional Braking Unit

Standard Single Drives Reduced Height



Standard Single Drives

Low Harmonic / Regen
Single Drives

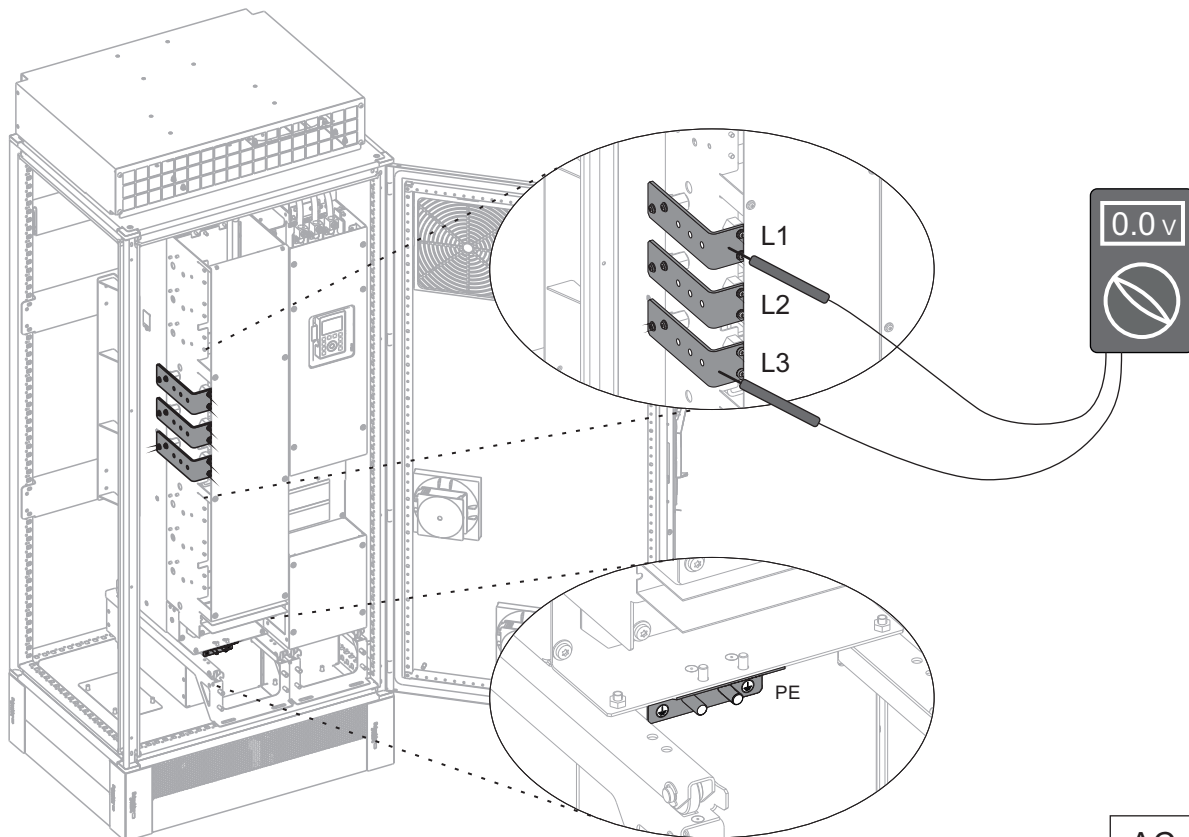
Optional Braking Unit

Standard Single Drives
Reduced Height

Verifying the Absence of Voltage valid for APM•A0••••4RH, APM•A0••••6RH

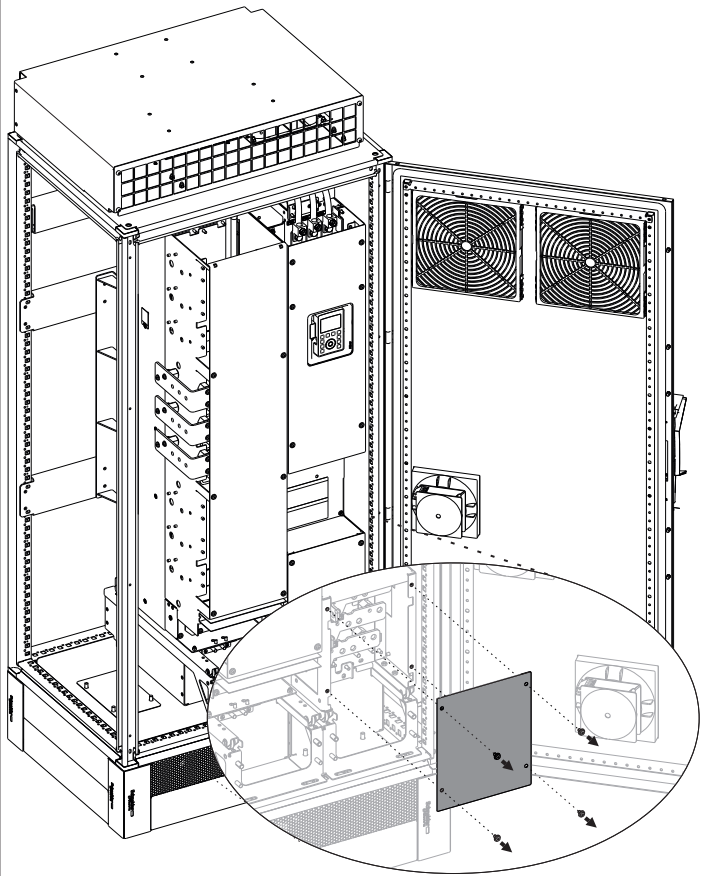
1. Measure the voltage (in AC mode and DC mode) on all mains input terminals and the motor output terminals between the phases and between each phase to ground to verify that no hazardous voltage is present.
2. Measure the voltage on the DC bus between the DC bus terminals (PA/+ and PC/-) to verify that the voltage is less than 10 Vdc.
3. If there is still voltage present on the terminals or if the DC bus capacitors do not discharge properly, contact your local Schneider Electric representative. Do not repair or operate the product.
4. Verify that no other voltage is present on the module.
5. Ground and short-circuit the mains input terminals and the motor output terminals.

1

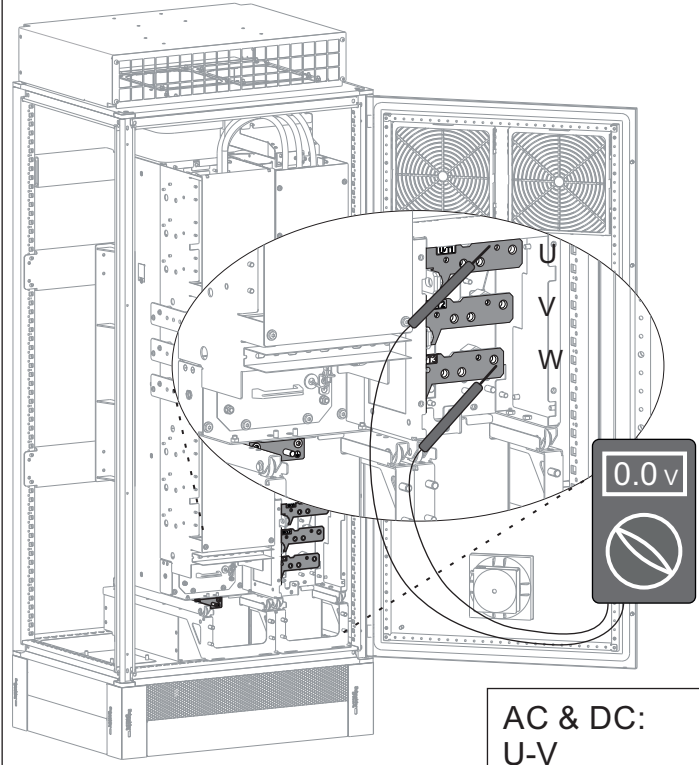


AC & DC:
L1-L2
L2-L3
L1-L3
L1,L2,L3 - PE

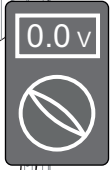
2



3



AC & DC:
U-V
V-W
U-W
U,V,W - PE

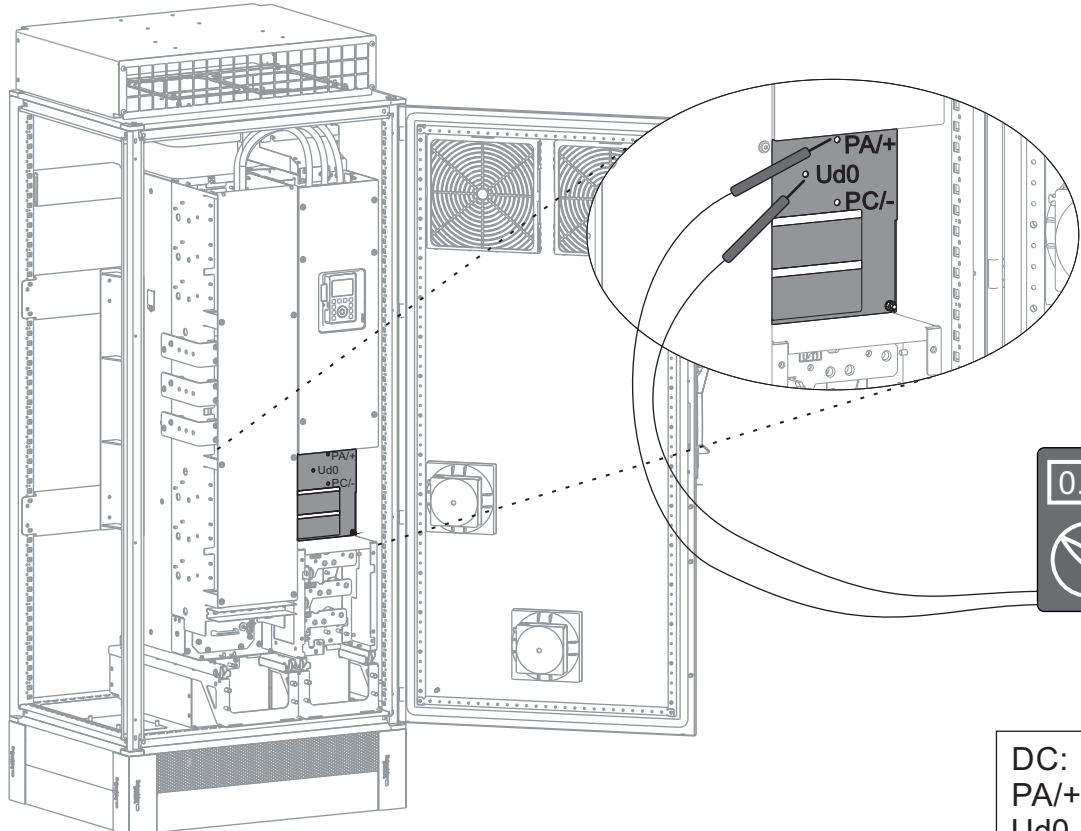


Standard Single Drives

Low Harmonic / Regen
Single Drives

Optional Braking Unit

4






DC:
PA/+ - PC/-
Ud0 - PA/+
Ud0 - PC/-



Standard Single Drives
Reduced Height

Fan Exchange Procedure for APM•A0••••4RH, APM•A0••••6RH

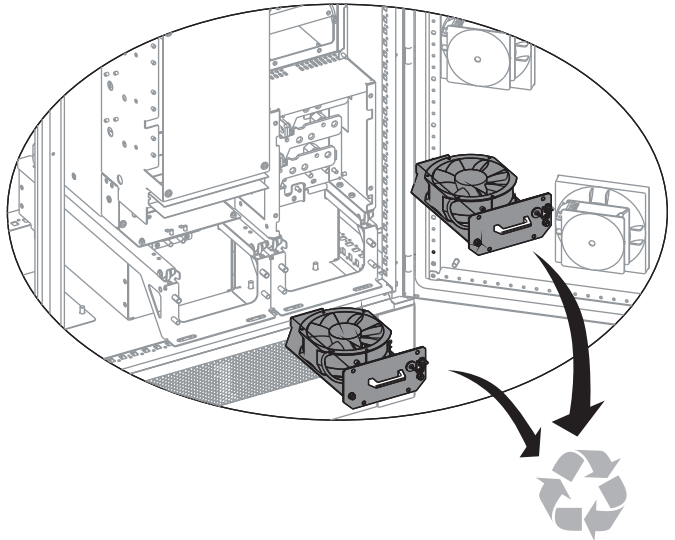
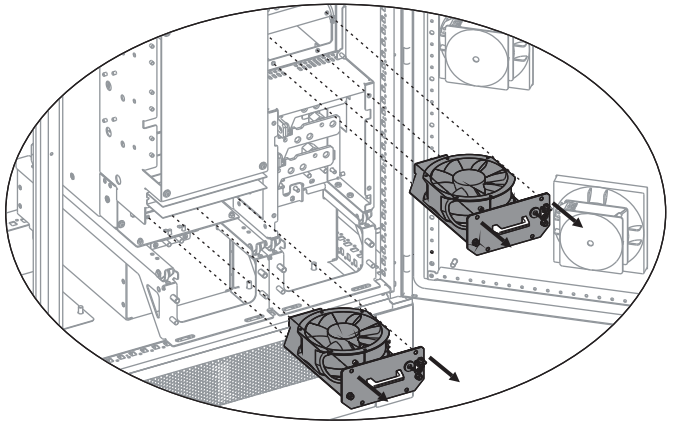
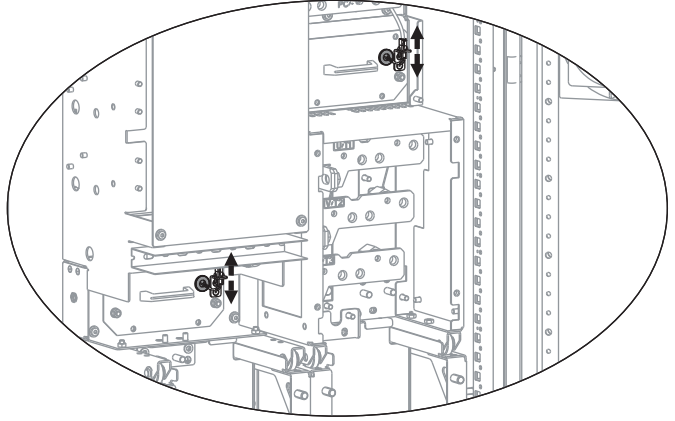
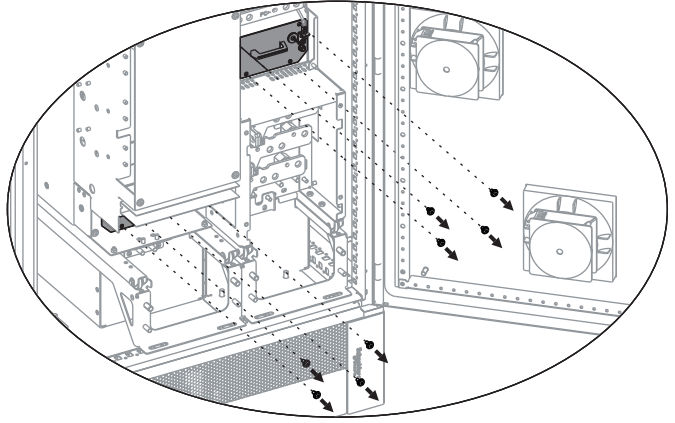
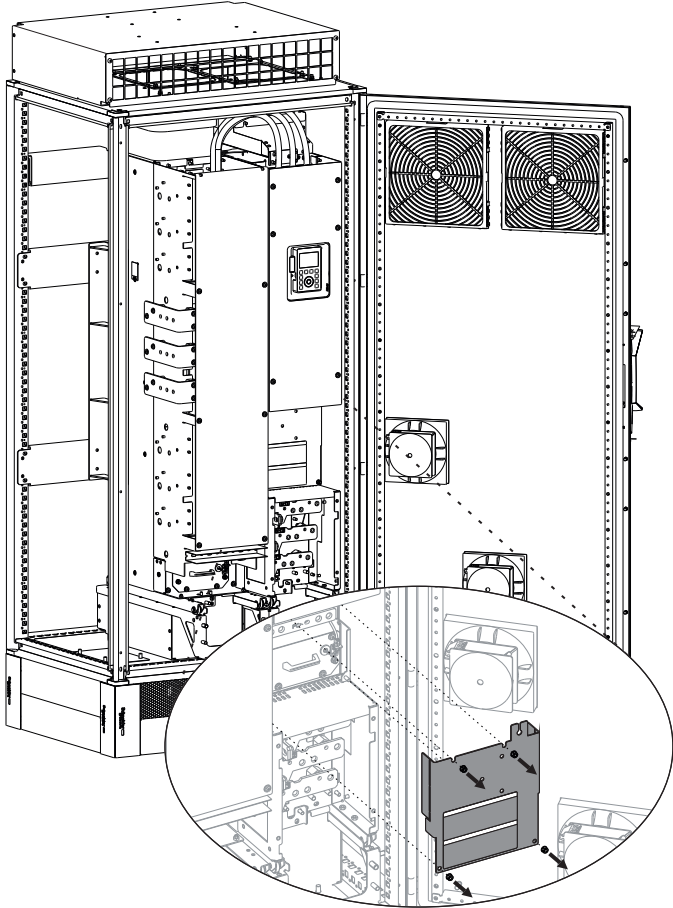
1  10 

2  T30 

3 

4 

5 



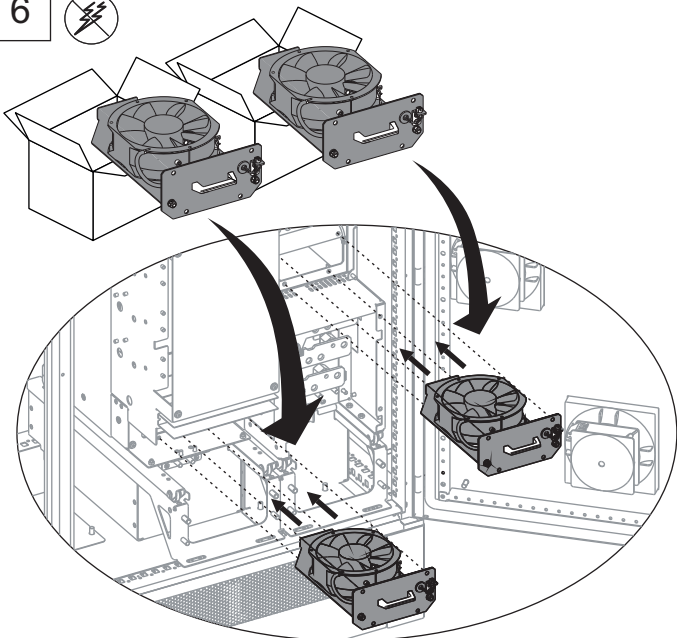
Standard Single Drives

Low Harmonic / Regen
Single Drives

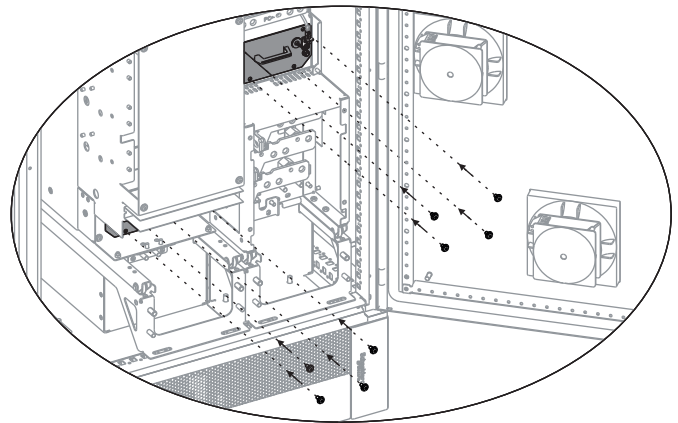
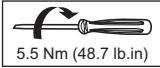
Optional Braking Unit

Standard Single Drives
Reduced Height

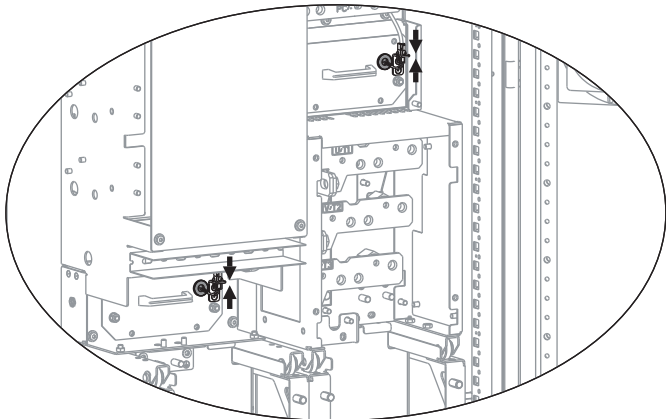
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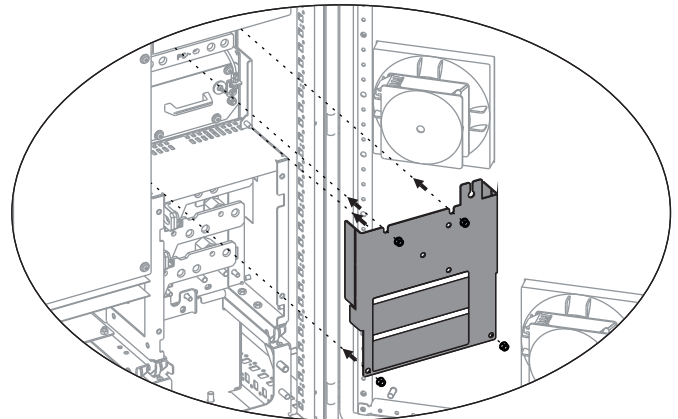
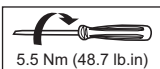
7



8



9



10

