

# PowerFlex 750-Series EMC Plate and Cores - Frames 1...7

Catalog Numbers 20F and 20G

Frames 1...5 (200...240/400...480V AC)

Frames 3...5 (600V AC)

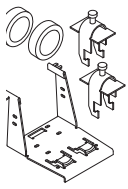
Frame 6 and Frame 7 (600/690V AC)

Topic	Page
Summary of Changes	1
200...240/400...480V AC Input Drives – Frames 1...5	3
600/690V AC Input Drives – Frames 3...7	6

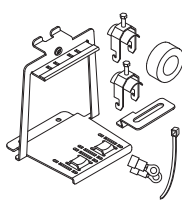
## Summary of Changes

This publication contains new and updated information as indicated in the following table.

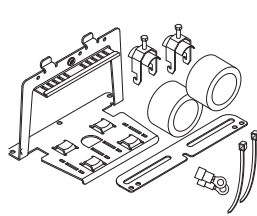
Topic	Page
Added Frames 1...5 (200...240V AC)	Throughout



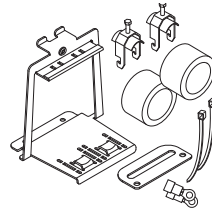
20-750-EMC1-F1  
Frame 1  
200...240/400...480V AC



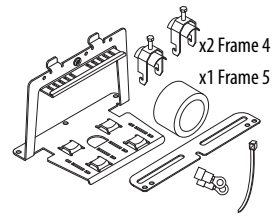
20-750-EMC1-F2,F3  
Frames 2 and Frame 3  
200...240/400...480V AC



20-750-EMC1-F4,F5<sup>(1)</sup>  
Frames 4 and Frame 5  
200...240/400...480V AC

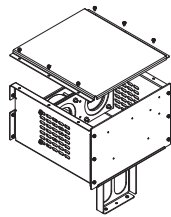


20-750-EMC3-F3  
Frame 3  
600V AC



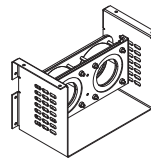
20-750-EMC3-F4, F5  
Frames 4 and Frame 5  
600V AC

(1) Frames 6 and Frame 7, 200...240/400...480V AC drives do not require EMC cores or plates to meet EMC requirements.



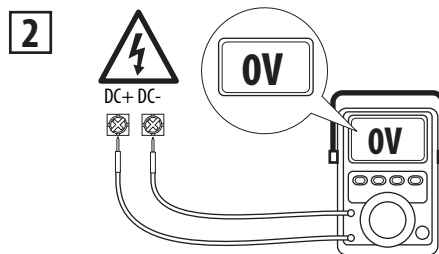
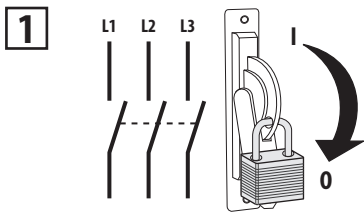
20-750-EMC3-F6, F7  
Frames 6 and Frame 7 (IP20 after installation)  
600/690V AC

Frame 6 Shown

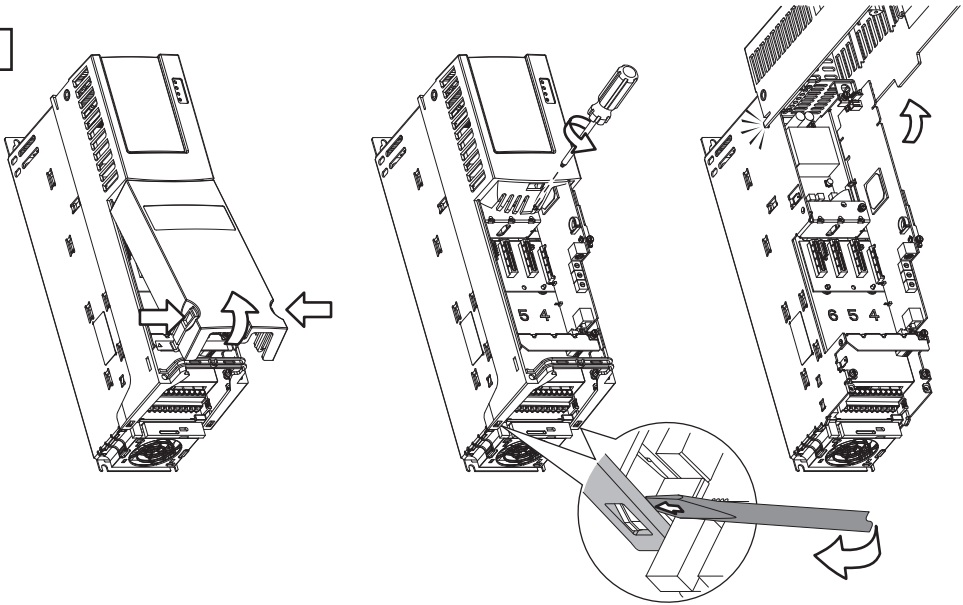


20-750-EMC5-F6, F7  
Frames 6 and Frame 7  
600/690V AC

**IMPORTANT** Grounding and power jumper configuration must be appropriate for EMC applications. See Drive Power Jumper Configuration in the PowerFlex® 750-Series AC Drives Installation Instructions, publication [750-IN001](#) for details.



3




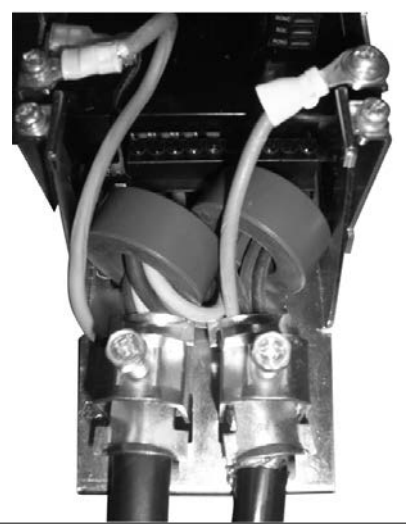



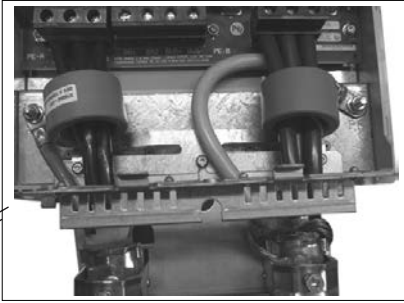
4

600/690V – see [page 6](#)

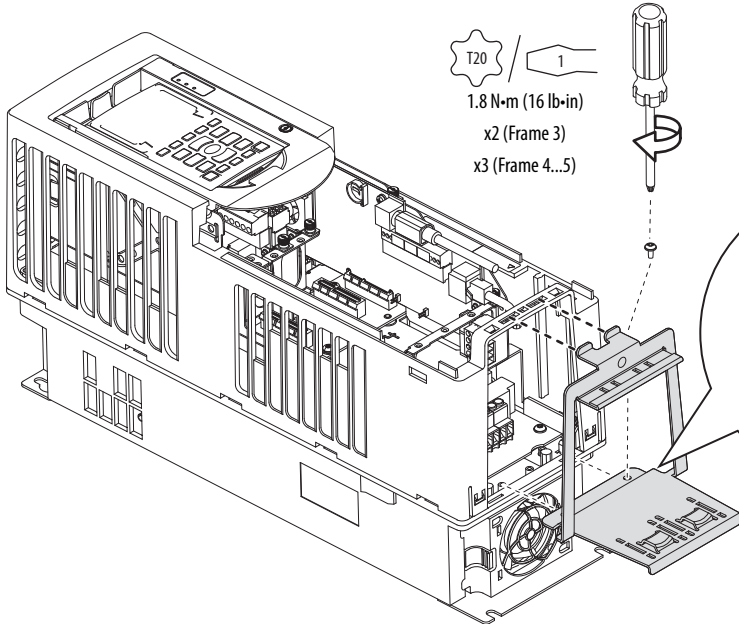
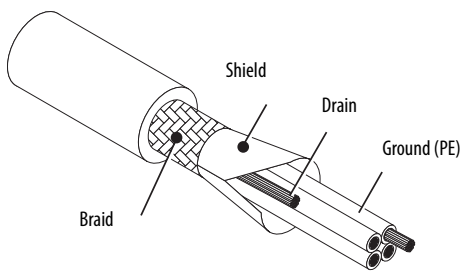
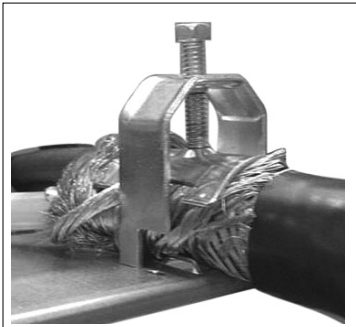
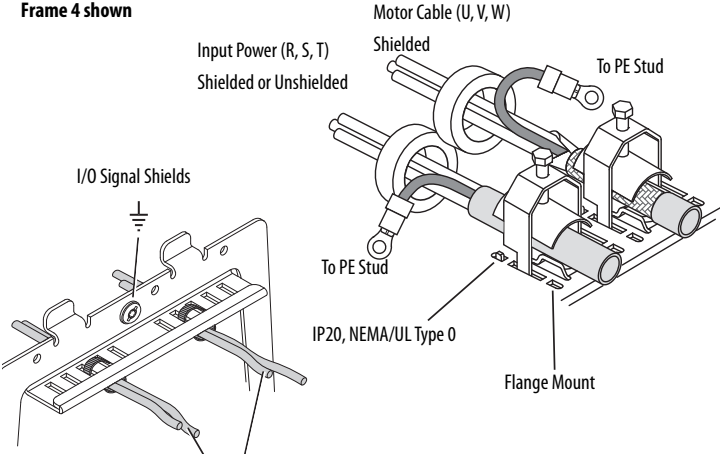
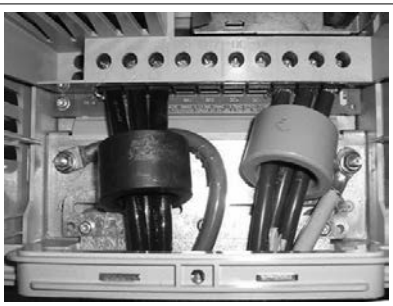
200...240/400...480V AC Input Drives – Frames 1...5

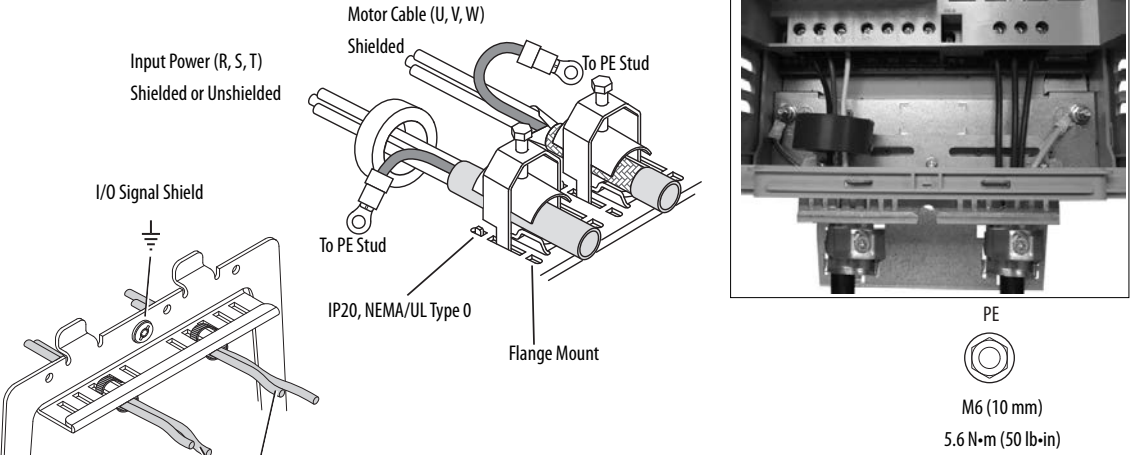
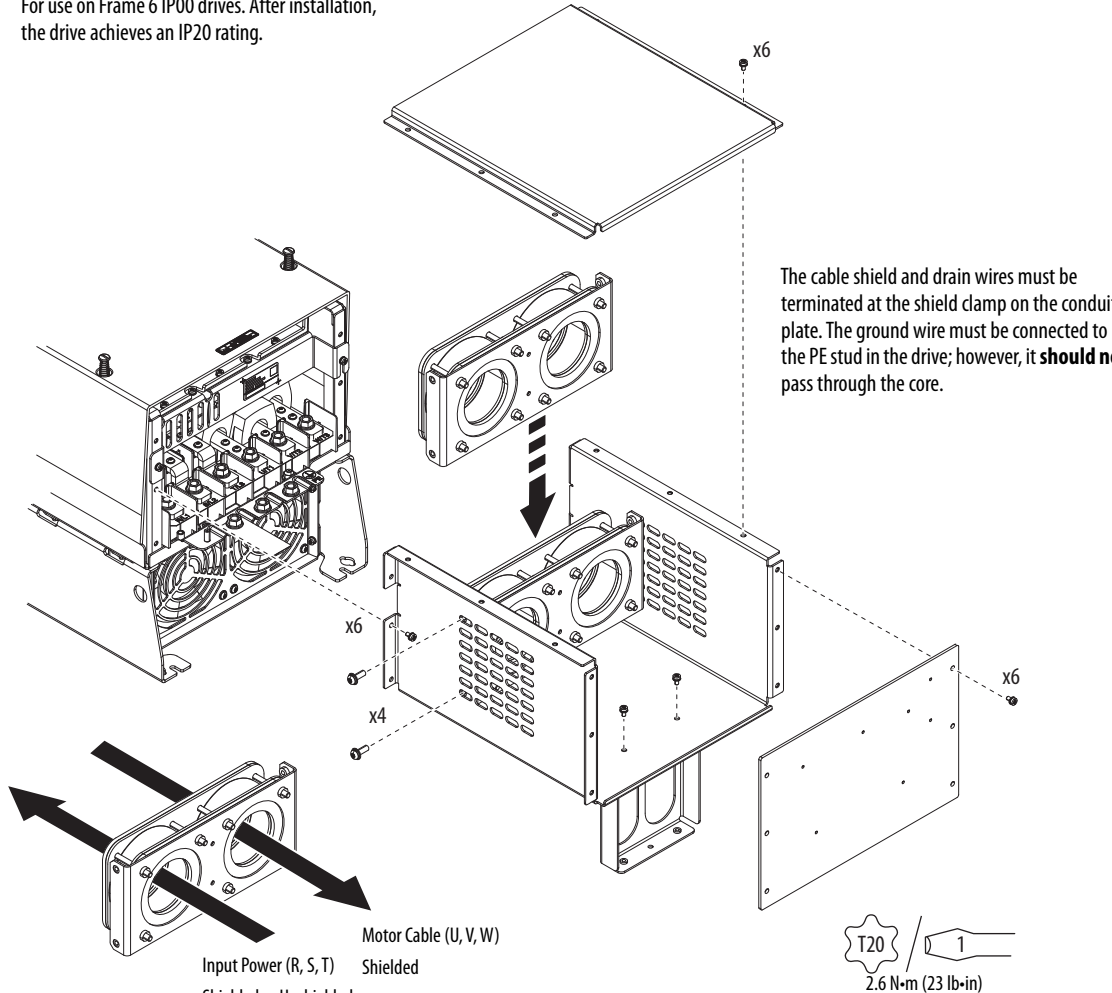
Step	Frame	Procedure
4	1	<p>T20 / #1 1.81 N·m (16.0 lb·in) x2 (Frame 1)</p>

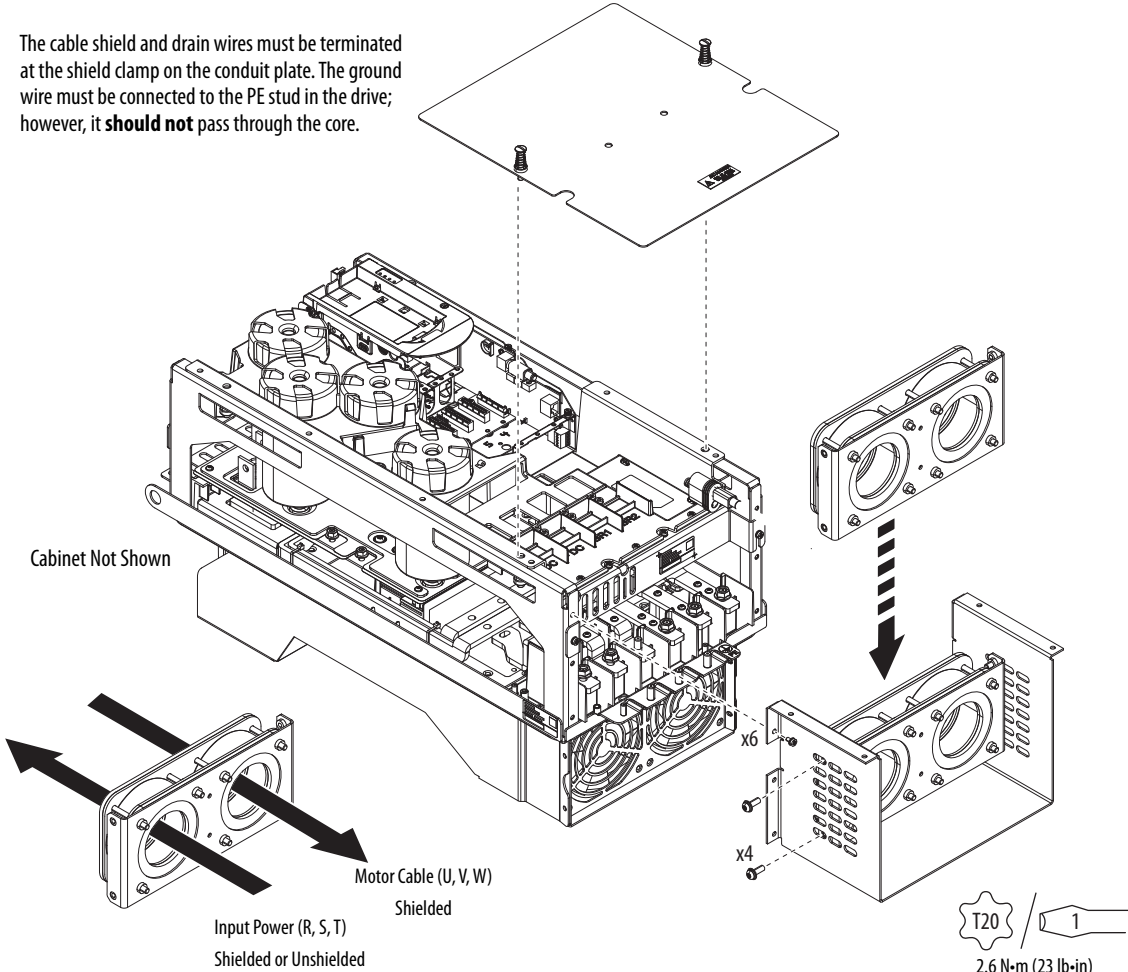
Step	Frame	Procedure
<p><b>4</b> continued</p>	<p>2...5</p>	<p>T20 / #1 1.81 N·m (16.0 lb·in) x2 (Frame 2) x3 (Frame 3...5)</p> <p><b>Frame 2 shown</b></p> <p><b>Environments with vibration:</b> support plate is recommended to provide core support.</p>
<p><b>5</b></p>	<p>All</p>	<p>Shield Drain Ground (PE) Braid</p> <p>Drain wires must be pulled back and wrapped in a 360 degree pattern over the shield/braided surface. <b>Do not</b> fold the shield back.</p> <p>Clamp M10 / #2 5.6 N·m (50 lb·in)</p>

Step	Frame	Procedure
	1	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>Motor Cable (U, V, W) Shielded</p> <p>Input Power (R, S, T) Shielded or Unshielded</p> <p>To PE Stud</p> <p>To PE Stud</p> <p>1 Loop (each wire)</p> <p>I/O Shield</p> <p>PE  T20 or F - 6.4 (0.25 in.) 1.8 N-m (16 lb-in)</p> </div> <div style="width: 45%; text-align: right;">  </div> </div>
<b>6</b>	2...3	<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p>Frame 2 shown</p> <p>I/O Signal Shields</p> <p>I/O Signal Wires</p> </div> <div style="width: 40%;"> <p>Motor Cable (U, V, W) Shielded</p> <p>Input Power (R, S, T) Shielded or Unshielded</p> <p>To PE Stud</p> <p>To PE Stud</p> <p>IP20, NEMA/UL Type 0</p> <p>Flange Mount</p> <p>PE  M4 (7mm) 5.6 N-m (50 lb-in)</p> </div> <div style="width: 25%; text-align: right;">  </div> </div>
	4...5	<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p>Frame 5 shown</p> <p>I/O Signal Shields</p> <p>I/O Signal Wires</p> </div> <div style="width: 40%;"> <p>Motor Cable (U, V, W) Shielded</p> <p>Input Power (R, S, T) Shielded or Unshielded</p> <p>To PE Stud</p> <p>To PE Stud</p> <p>IP20, NEMA/UL Type 0</p> <p>Flange Mount</p> <p>PE  M6 (10 mm) 5.6 N-m (50 lb-in)</p> </div> <div style="width: 25%; text-align: right;">  </div> </div> <p>The motor cable ground wire connects to the motor PE stud in the drive, however it <b>should not</b> go through the core. See Wiring and Grounding Guidelines for Pulse-width Modulated (PWM) AC Drives, publication <a href="#">DRIVES-INO01</a> for details.</p>

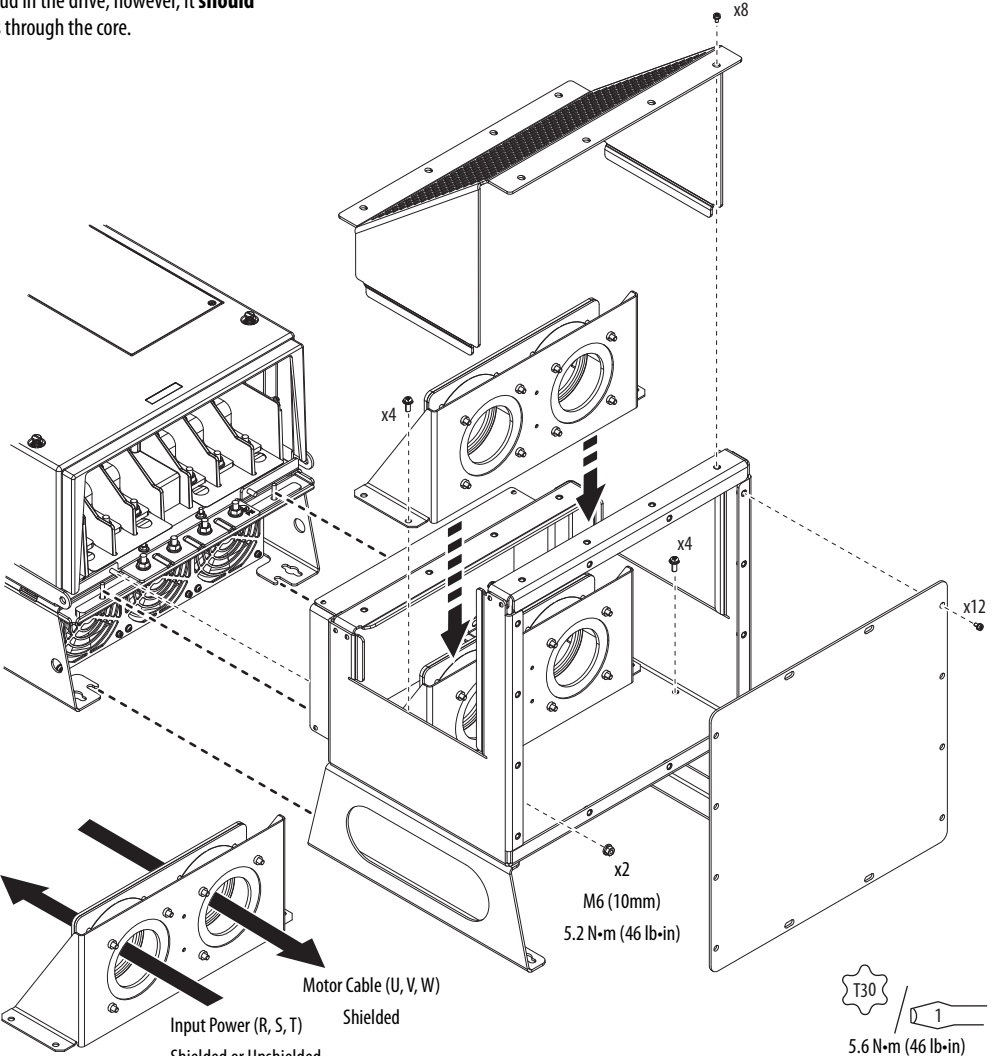
### 600/690V AC Input Drives – Frames 3...7

Step	Frame	Procedure
4	3...5	 <p>T20 / 1 1.8 N·m (16 lb·in) x2 (Frame 3) x3 (Frame 4...5)</p> <p><b>Environments with vibration:</b> support plate is recommended to provide core support.</p>
5	All	 <p>Shield Drain Ground (PE) Braid</p> <p>Clamp M10 / #2 5.6 N·m (50 lb·in)</p> <p>Drain wires must be pulled back and wrapped in a 360 degree pattern over the shield/braided surface. <b>Do not</b> fold the shield back.</p> 
6	3...4	<p><b>Frame 4 shown</b></p>  <p>Input Power (R, S, T) Shielded or Unshielded</p> <p>Motor Cable (U, V, W) Shielded</p> <p>To PE Stud</p> <p>To PE Stud</p> <p>IP20, NEMA/UL Type 0</p> <p>Flange Mount</p>  <p>I/O Signal Shields</p> <p>I/O Signal Wires</p> <p>PE M6 (10 mm) 5.6 N·m (50 lb·in)</p> <p>The motor cable ground wire connects to the motor PE stud in the drive, however it <b>should not</b> go through the core. See Wiring and Grounding Guidelines for Pulse-width Modulated (PWM) AC Drives, publication <a href="#">DRIVES-IN001</a> for details.</p>

Step	Frame	Procedure
	5	 <p>The motor cable ground wire connects to the motor PE stud in the drive, however it <b>should not</b> go through the core. See <i>Wiring and Grounding Guidelines for Pulse-width Modulated (PWM) AC Drives</i>, publication <a href="#">DRIVES-IN001</a> for details.</p>
<div style="border: 1px solid black; padding: 2px; display: inline-block; width: 20px; height: 20px; text-align: center; line-height: 20px;">6</div> continued	6 IP00	<p>For use on Frame 6 IP00 drives. After installation, the drive achieves an IP20 rating.</p>  <p>The cable shield and drain wires must be terminated at the shield clamp on the conduit plate. The ground wire must be connected to the PE stud in the drive; however, it <b>should not</b> pass through the core.</p>

Step	Frame	Procedure
<p data-bbox="172 716 215 758" style="border: 1px solid black; padding: 2px; display: inline-block; width: 20px; height: 20px; text-align: center; line-height: 20px;">6</p> <p data-bbox="155 779 215 800">continued</p>	<p data-bbox="245 237 289 296" style="text-align: center;"><b>6 IP54</b></p>	<p data-bbox="337 306 724 411">The cable shield and drain wires must be terminated at the shield clamp on the conduit plate. The ground wire must be connected to the PE stud in the drive; however, it <b>should not</b> pass through the core.</p>  <p data-bbox="350 814 493 835">Cabinet Not Shown</p> <p data-bbox="532 1182 686 1241">Input Power (R, S, T) Shielded or Unshielded</p> <p data-bbox="672 1129 813 1188">Motor Cable (U, V, W) Shielded</p> <p data-bbox="1279 1161 1446 1245">T20 / 1 2.6 N-m (23 lb-in)</p>



Step	Frame	Procedure
<p data-bbox="175 825 215 867"><b>6</b></p> <p data-bbox="155 884 215 905">continued</p>	<p data-bbox="245 237 289 296"><b>7 IP00</b></p>	<p data-bbox="326 237 662 296">For use on Frame 7 IP00 drives. After installation, the drive achieves an IP20 rating.</p> <p data-bbox="326 310 662 443">The cable shield and drain wires must be terminated at the shield clamp on the conduit plate. The ground wire must be connected to the PE stud in the drive; however, it <b>should not</b> pass through the core.</p> 

Step	Frame	Procedure
<p><b>6</b> continued</p>	<p><b>7</b> <b>IP54</b></p>	<p>The cable shield and drain wires must be terminated at the shield clamp on the conduit plate. The ground wire must be connected to the PE stud in the drive; however, it <b>should not</b> pass through the core.</p> <p>Cabinet Not Shown</p> <p>Adheres to Cabinet</p> <p>Motor Cable (U, V, W) Shielded</p> <p>Input Power (R, S, T) Shielded or Unshielded</p> <p>x2</p> <p>x4</p> <p>x6</p> <p>T30 / 1 5.6 N-m (46 lb-in)</p>
<p><b>7</b></p>	<p><b>6...7</b></p>	<p>Frame 6</p> <p>Frame 7</p> <p>USE FOR UL TYPE 4 PARTS</p> <p>USE FOR UL TYPE 1 PARTS</p>

**Notes:**

# Rockwell Automation Support

Use the following resources to access support information.

<b>Technical Support Center</b>	Knowledgebase Articles, How-to Videos, FAQs, Chat, User Forums, and Product Notification Updates.	<a href="https://rockwellautomation.custhelp.com/">https://rockwellautomation.custhelp.com/</a>
<b>Local Technical Support Phone Numbers</b>	Locate the phone number for your country.	<a href="http://www.rockwellautomation.com/global/support/get-support-now.page">http://www.rockwellautomation.com/global/support/get-support-now.page</a>
<b>Direct Dial Codes</b>	Find the Direct Dial Code for your product. Use the code to route your call directly to a technical support engineer.	<a href="http://www.rockwellautomation.com/global/support/direct-dial.page">http://www.rockwellautomation.com/global/support/direct-dial.page</a>
<b>Literature Library</b>	Installation Instructions, Manuals, Brochures, and Technical Data.	<a href="http://www.rockwellautomation.com/global/literature-library/overview.page">http://www.rockwellautomation.com/global/literature-library/overview.page</a>
<b>Product Compatibility and Download Center (PCDC)</b>	Get help determining how products interact, check features and capabilities, and find associated firmware.	<a href="http://www.rockwellautomation.com/global/support/pcdc.page">http://www.rockwellautomation.com/global/support/pcdc.page</a>

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Rockwell Automation maintains current product environmental information on its website at <http://www.rockwellautomation.com/rockwellautomation/about-us/sustainability-ethics/product-environmental-compliance.page>.

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