

## Altivar® 61/71 Spare Parts Kits

### Required Documentation

### For Use with CD-ROM 8800EP0801 V4.0

Retain for future use.

## Introduction

This bulletin provides basic safety precautions and lists the documentation required for installing Altivar® 61 (ATV61) and Altivar® 71 (ATV71) spare parts kits. Read and understand all of the instructions in this bulletin and in the other referenced documents before installing the kits. Read "Before You Begin" on page 3 before performing any procedure with the drive.

## Required Documentation

To find the documentation required for installing your spare parts kit:

1. Locate the catalog number of your kit in column 1 of Table 1 beginning on page 7.
2. Locate the catalog number of your drive in column 2 of Table 1.
3. Read across to column 3 for the number of the document required for installing the kit in your drive. Locate the document on CD-ROM 8800EP0801 and read it before attempting to install the kit.

The documentation listed in Table 1 is provided on the accompanying CD-ROM. Compare the version number of the CD-ROM to the version number in the title of this bulletin to ensure that they match. If the version numbers do not match, you may not have the correct documentation to install the spare parts kit. Contact your Schneider Electric representative for a replacement CD.

## About This Revision

Power board kit VX5A1HD37N4 and IGBT (insulated-gate bipolar transistor) module kit VZ3IM2195M1271 are obsolete. They have been replaced by a new kit, VX5IM2195M1271. See page 12.

Kit VX5IM2195M1271 contains a power board and IGBT modules. The power board and IGBT modules must be replaced together so that the gating circuit between the two parts matches.

## Related Documentation

For complete drive installation instructions, refer to the following documents: All documentation referenced in this bulletin is provided with the drive or on the CD-ROM included with the spare parts kits. You can also download the documentation from the Technical Library at [www.schneider-electric.us](http://www.schneider-electric.us).

- *Altivar® 61 Installation Manual 0.5 to 100 HP*, module no. 1760643.
- *Supplementary Instructions to ATV61 Variable Speed Drives Installation Manual—Low Horsepower*, document no. 30072-452-63.
- *Altivar® 61 Installation Manual 75 to 900 HP*, module no. 1760655.
- *Supplementary Instructions to ATV61 Variable Speed Drives Installation Manual—High Horsepower and ATV61 Programming Manual*, document no. 30072-452-49.
- *Altivar® 71 Installation Manual 0.5 to 100 HP*, module no. 1755843.
- *Altivar® 71 Installation Manual 75 to 700 HP*, module no. 1755849.
- *Altivar® 71 Drive Controllers Errata to Bulletin atv71e\_installation\_manual\_en\_v3*, document no. 30072-452-25.

## Qualified Personnel

For the protection of personnel and equipment, a qualified person must perform the procedures detailed in this instruction bulletin. A qualified person is one who has skills and knowledge related to the construction and operation of this electrical equipment and the installation, and has received safety training to recognize and avoid the hazards involved. Refer to the most current release of NFPA 70E®, “Standard for Electrical Safety in the Workplace,” for safety training requirements.

In addition, the person must be:

- Able to read, interpret, and follow the instructions and precautions in this instruction bulletin and the other documentation referenced.
- Able to use the required tools listed in this instruction bulletin in a safe and correct manner.

## Hazard Categories and Special Symbols

Read these instructions carefully and look at the equipment to become familiar with the device before trying to install, operate, service, or maintain it. The following special messages may appear throughout this bulletin or on the equipment to warn of hazards or to call attention to information that clarifies or simplifies a procedure.



The addition of either symbol to a “Danger” or “Warning” safety label indicates that an electrical hazard exists which will result in personal injury if the instructions are not followed.



This is the safety alert symbol. It is used to alert you to personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

### **DANGER**

**DANGER** indicates a hazardous situation which, if not avoided, will result in death or serious injury.

### **WARNING**

**WARNING** indicates a hazardous situation which, if not avoided, can result in death or serious injury.

### **CAUTION**

**CAUTION** indicates a hazardous situation which, if not avoided, **can result** in minor or moderate injury.

### **NOTICE**

**NOTICE** is used to address practices not related to physical injury. The safety alert symbol is not used with this signal word.

## Product Support

For support and assistance, contact the Product Support Group. The Product Support Group is staffed from Monday through Friday, 8:00 am until 8:00 pm Eastern time, to assist with product selection, start-up, and diagnosis of product or application problems. Emergency phone support is available 24 hours a day, 365 days a year.

|           |                                               |
|-----------|-----------------------------------------------|
| Toll free | 1-888-778-2733                                |
| E-mail    | drive.products.support@schneider-electric.com |
| Fax       | 919-217-6508                                  |

## Before You Begin

Read and follow these precautions before performing any procedure with this drive.

The word “drive” as used in this bulletin refers to the controller portion of the adjustable speed drive as defined in the National Electrical Code (NEC).

### DANGER

#### HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

- Read and understand this manual before installing or operating the Altivar 61 or 71 drive. Installation, adjustment, repair, and maintenance must be performed by qualified personnel.
- The user is responsible for compliance with all international and national electrical code requirements with respect to grounding of all equipment.
- Many parts of this drive, including the printed circuit boards, operate at the line voltage. DO NOT TOUCH. Use only electrically insulated tools.
- DO NOT touch unshielded components or terminal strip screw connections with voltage present.
- DO NOT short across terminals PA/+ and PC/– or across the DC bus capacitors.
- Before servicing the drive:
  - Disconnect all power, including external control power that may be present.
  - Place a “DO NOT TURN ON” label on all power disconnects.
  - Lock all power disconnects in the open position.
  - WAIT 15 MINUTES to allow the DC bus capacitors to discharge. Then follow the “Bus Voltage Measurement Procedure” on page 5 to verify that the DC voltage is less than 42 V. The drive LED is not an indicator of the absence of DC bus voltage.
- Install and close all covers before applying power or starting and stopping the drive.

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

## Receiving, Handling, and Storage

### Electrostatic Precautions

#### CAUTION

##### STATIC SENSITIVE COMPONENTS

Circuit boards and option cards can be damaged by static electricity. Observe the electrostatic precautions below when handling controller circuit boards or testing components.

**Failure to follow these instructions can result in injury or equipment damage.**

Observe the following precautions for handling static-sensitive components:

- Keep static-producing material such as plastic, upholstery, and carpeting out of the immediate work area.
- Store static-sensitive components in protective packaging when it is not installed in the drive.
- When handling static-sensitive components, wear a conductive wrist strap connected to the card through a minimum of 1 megohm resistance.
- Avoid touching exposed conductors and component leads with skin or clothing.

### Inspecting the Spare Part Kits

After receiving the ATV61/ATV71 spare part kits:

- Ensure that the catalog number printed on the kit label is the same as that on the packing slip and corresponding purchase order. Contact your Schneider Electric representative if there are any errors.
- Remove the kit from its packaging and inspect it for damage. If any damage is found, notify the carrier and your Schneider Electric representative.
- To store the kit, replace any static-sensitive parts in their protective packaging and store them at -25 to +70 °C (-13 to +158 °F).

#### WARNING

##### DAMAGED PACKAGING

If the drive packaging appears damaged, it can be dangerous to open or handle it.

**Failure to follow these instruction can result in death, serious injury, or equipment damage.**

#### WARNING

##### DAMAGED EQUIPMENT

Do not install or operate any equipment that appears damaged.

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

## Power Removal and Bus Voltage Measurement

### DANGER

#### HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

Read and understand the precautions in Before You Begin starting on page 3 before performing this procedure.

**Failure to follow this instruction will result in death or serious injury.**

The DC bus voltage can exceed 1,000 Vdc. Use a properly rated voltage-sensing device when performing this procedure. To measure the DC bus voltage:

1. Disconnect all power.
2. Wait 15 minutes to allow the DC bus to discharge.
3. Measure the voltage of the DC bus between the PA/+ and PC/- terminals to ensure that the voltage is less than 42 Vdc. These terminals are clearly labeled on each drive.
4. If the DC bus capacitors do not discharge completely, contact your local Schneider Electric representative. Do not repair or operate the drive.

### CAUTION

#### IMPROPER DRIVE OPERATION

- If no power is applied to the drive for a long period, the performance of its electrolytic capacitors will be reduced.
- If the drive is not in active service, apply power to the drive every two years using the following procedure. Do not initially connect the drive directly to full line voltage. Without a motor connected to the drive, gradually increase the voltage using an adjustable AC source connected between drive terminals L1 and L2:
  - 25% of rated voltage for 30 minutes
  - 50% of rated voltage for 30 minutes
  - 75% of rated voltage for 30 minutes
  - 100% of rated voltage for at least 5 hours
- Check drive operation before placing the drive into service.

**Failure to follow these instructions can result in injury or equipment damage.**

## Discharging Stored Energy in Capacitors

### **DANGER**

#### **HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH**

- When the controller is damaged, voltage may remain on certain energy storage capacitors after de-energization of the controller and discharge of the main capacitor bank.
- Before working on or near assemblies containing energy storage capacitors, verify that the capacitor voltages are less than 42 Vdc.
- The following assemblies have energy-storing capacitors:
  - Filter board
  - Rectifier snubber board
  - Snubber capacitors
- Always check for the presence of voltage using a voltmeter set to the 1000 Vdc scale. When voltage is present, allow the voltmeter to discharge the capacitor's stored charge.

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

Capacitors are used throughout the drives as energy storage devices. Some of the capacitors can store potentially lethal amounts of energy during normal controller operation.

When power is removed from an undamaged controller, the stored energy in these capacitors is automatically discharged to nonhazardous levels. However, the discharge mechanisms in a damaged controller may not be operating properly, and stored energy may be present on printed circuit boards.

**Do not** touch traces on printed circuit boards, such as the filter board and rectifier snubber board, unless you have first checked for voltage with a voltmeter!

To discharge capacitors on assemblies, use a voltmeter set to the 1000 Vdc scale. It will take approximately 6.6 minutes for a 10 megohm input impedance voltmeter to discharge a 10 microfarad capacitor from 700 V to less than 42 V. It will take approximately 40 seconds for a 1 megohm input impedance voltmeter to discharge a 10 microfarad capacitor from 700 V to less than 50 V.

### **DANGER**

#### **HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH**

- Do not use a voltmeter to discharge stored energy on the DC bus capacitors.
- If the energy on the DC bus capacitors remains greater than 42 Vdc after 15 minutes, contact Product Support.

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

## Reference Table

See page 25 for footnotes to Table 1.

**Table 1: Kit Contents and Required Documentation**

| <b>1—Identify Your Spare Parts Kit:</b> |                                       |                  |                                                                                          | <b>2—Identify Your Drive:</b> |                                                                                              | <b>3—Locate and Read Document:</b> |
|-----------------------------------------|---------------------------------------|------------------|------------------------------------------------------------------------------------------|-------------------------------|----------------------------------------------------------------------------------------------|------------------------------------|
| Kit Catalog Number                      | Description                           | Qty              | Kit Contents                                                                             | Frame Size                    | Catalog Number                                                                               |                                    |
| VX4A1103                                | Control front cover with 4x7 Segments | 1                | Front cover assembly                                                                     | All ATV61/ATV71               | All ATV61/ATV71                                                                              | <b>30072-453-01</b>                |
| VX4A1104                                | Control terminal board kit            | 1<br>2<br>1<br>1 | Terminal PCBA<br>Insulated jumpers<br>Terminal PCBA lower cap<br>Terminal PCBA upper cap | All ATV61/ATV71               | All ATV61/ATV71                                                                              | <b>30072-452-06</b>                |
| VX4A1106                                | Filter board                          | 1                | Filter board                                                                             | 6                             | ATV61HD18M3X<br>ATV61HD22M3X<br>ATV71HD18M3X<br>ATV71HD22M3X                                 | <b>30072-452-72</b>                |
| VX4A1107                                | Filter board                          | 1                | Filter board                                                                             | 6                             | ATV61HD22N4<br>ATV71HD22N4                                                                   | <b>30072-452-72</b>                |
| VX4A1108                                | Filter board                          | 1                | Filter board                                                                             | 7A                            | ATV61HD30N4<br>ATV61HD37N4<br>ATV71HD30N4<br>ATV71HD37N4                                     | <b>30072-452-73</b>                |
| VX4A1109                                | Filter board                          | 1                | Filter board                                                                             | 7B                            | ATV61HD30M3X<br>ATV61HD37M3X<br>ATV61HD45M3X<br>ATV71HD30M3X<br>ATV71HD37M3X<br>ATV71HD45M3X | <b>30072-452-74</b>                |
| VX4A1110                                | Filter board                          | 1                | Filter board                                                                             | 8                             | ATV61HD45N4<br>ATV61HD55N4<br>ATV61HD75N4<br>ATV71HD45N4<br>ATV71HD55N4<br>ATV71HD75N4       | <b>30072-452-74</b>                |
| VX4A1113                                | Filter board                          | 1                | Filter board                                                                             | 11                            | ATV61HC16N4<br>ATV71HC13N4                                                                   | <b>30072-452-78</b>                |
| VX4A1114                                | Filter board                          | 1                | Filter board                                                                             | 12                            | ATV71HC16N4<br>ATV61HC22N4                                                                   | <b>30072-452-79</b>                |
| VX4A1115                                | Filter board                          | 1                | Filter board                                                                             | 13                            | ATV61HC25N4<br>ATV61HC31N4<br>ATV71HC20N4<br>ATV71HC25N4<br>ATV71HC28N4                      | <b>30072-452-80</b>                |
| VX4A1116                                | Filter board                          | 1                | Filter board                                                                             | 9                             | ATV61HD75M3X<br>ATV61HD90N4<br>ATV61HD55M3X<br>ATV61HC11N4<br>ATV71HD90N4<br>ATV71HD55M3X    | <b>30072-452-75</b>                |
|                                         |                                       | 1                | Filter board                                                                             | 10                            | ATV61HC13N4<br>ATV61HD90M3X<br>ATV71HC11N4<br>ATV71HD75M3X                                   | <b>30072-452-77</b>                |
| VX4A1117                                | Filter board                          | 1                | Filter board                                                                             | 14B                           | ATV61HC50N4<br>ATV71HC40N4                                                                   | <b>30072-452-98</b>                |
|                                         |                                       |                  |                                                                                          | 15                            | ATV61HC63N4<br>ATV71HC50N4                                                                   | <b>30072-452-82</b>                |
| VX4A1118                                | Filter board                          | 1                | Filter board                                                                             | 14A                           | ATV61HC40N4<br>ATV71HC31N4                                                                   | <b>30072-452-81</b>                |

**Table 1: Kit Contents and Required Documentation** *(continued)*

| <b>1—Identify Your Spare Parts Kit:</b> |                                    |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>2—Identify Your Drive:</b> |                                                                                                                                                                                                                                                                                                                                                                                                              | <b>3—Locate and Read Document:</b> |
|-----------------------------------------|------------------------------------|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|
| Kit Catalog Number                      | Description                        | Qty | Kit Contents                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Frame Size                    | Catalog Number                                                                                                                                                                                                                                                                                                                                                                                               |                                    |
| VX4A1200                                | SCR <sup>1</sup> Snubber Board     | 1   | SCR snubber board                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 11                            | ATV61HC16N4<br>ATV71HC13N4                                                                                                                                                                                                                                                                                                                                                                                   | 30072-452-78                       |
|                                         |                                    |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 12                            | ATV71HC16N4<br>ATV61HC22N4                                                                                                                                                                                                                                                                                                                                                                                   | 30072-452-79                       |
|                                         |                                    |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 13                            | ATV61HC25N4<br>ATV61HC31N4<br>ATV71HC20N4<br>ATV71HC25N4<br>ATV71HC28N4                                                                                                                                                                                                                                                                                                                                      | 30072-452-80                       |
|                                         |                                    |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 14A                           | ATV61HC40N4<br>ATV71HC31N4                                                                                                                                                                                                                                                                                                                                                                                   | 30072-452-81                       |
|                                         |                                    |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 14B                           | ATV61HC50N4<br>ATV71HC40N4                                                                                                                                                                                                                                                                                                                                                                                   | 30072-452-98                       |
|                                         |                                    |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 15                            | ATV61HC63N4<br>ATV71HC50N4                                                                                                                                                                                                                                                                                                                                                                                   | 30072-452-82                       |
| VX4A61100Y                              | ATV61 Control board kit,<br><90 kW | 1   | 1 Screw, captive washer, M4 x 8<br>1 Screw, captive washer, M4 x 10<br>4 Screws with washers, M3 x 8<br>1 Spring, 5 mm x 14 mm<br>9 Screws, M3 x 8, thread forming<br>1 Application PCBA insulate sheet<br>1 Flat washer, M4<br>1 Screw, M4 x 20<br>1 Control ground bar<br>1 Terminal PCBA lower cap<br>1 Control support<br>1 Display support<br>1 Terminal PCBA upper cap<br>1 Keyboard<br>1 Application PCBA<br>1 Motor control PCBA<br>1 Display PCBA<br>1 Terminal PCBA<br>1 Application PCBA / motor control<br>1 Option LED label<br>1 Brand marking label<br>1 Relay label<br>1 AI label<br>1 LI label<br>1 Control switch label<br>1 Modbus label<br>1 Motor control insulate sheet | 2, 3, 4, 5A, 5B, 6, 7A, 7B, 8 | ATV61H075M3<br>H075N4, HU15N4<br>HU22N4, HU22M3<br>HU15M3, HU30M3<br>HU30N4, HU40M3<br>HU40N4, HU55M3<br>HU55N4, HU75N4<br>HD11N4, HU75M3<br>HD11M3X, HD15M3X,<br>HD15N4<br>HD18N4, HD18M3X<br>HD22M3X, HD22N4<br>HU30Y, HU40Y<br>HU55Y, HU75Y<br>HD11Y, HD15Y<br>HD18Y, HD22Y<br>HD30Y, HD30N4<br>HD37N4, HD30M3X<br>HD37M3X<br>HD45M3X, HD45N4<br>HD55N4, HD75N4<br>HD37Y, HD45Y<br>HD55Y, HD75Y<br>HD90Y, | 30072-451-86                       |



[illegible]

[illegible]

**Table 1: Kit Contents and Required Documentation** *(continued)*

| <b>1—Identify Your Spare Parts Kit:</b> |                   |                  |                                                                                                                             | <b>2—Identify Your Drive:</b> |                                                                                           | <b>3—Locate and Read Document:</b> |
|-----------------------------------------|-------------------|------------------|-----------------------------------------------------------------------------------------------------------------------------|-------------------------------|-------------------------------------------------------------------------------------------|------------------------------------|
| Kit Catalog Number                      | Description       | Qty              | Kit Contents                                                                                                                | Frame Size                    | Catalog Number                                                                            |                                    |
| VX5A1300                                | Soft charge board | 1<br>4<br>4<br>4 | Soft charge board<br>Mounting standoffs,<br>8/18/BM4/SNAP4<br>Mounting standoffs,<br>8/22.2/BM4/SNAP4<br>Mounting standoffs | 9                             | ATV61HD75M3X<br>ATV61HD90N4<br>ATV61HD55M3X<br>ATV61HC11N4<br>ATV71HD90N4<br>ATV71HD55M3X | 30072-452-75                       |
|                                         |                   |                  |                                                                                                                             | 10                            | ATV61HC13N4<br>ATV61HD90M3X<br>ATV71HC11N4<br>ATV71HD75M3X                                | 30072-452-77                       |
|                                         |                   |                  |                                                                                                                             | 11                            | ATV61HC16N4<br>ATV71HC13N4                                                                | 30072-452-78                       |
|                                         |                   |                  |                                                                                                                             | 12                            | ATV71HC16N4<br>ATV61HC22N4                                                                | 30072-452-79                       |
|                                         |                   |                  |                                                                                                                             | 13                            | ATV61HC25N4<br>ATV61HC31N4<br>ATV71HC20N4<br>ATV71HC25N4<br>ATV71HC28N4                   | 30072-452-80                       |
|                                         |                   |                  |                                                                                                                             | 14A                           | ATV61HC40N4<br>ATV71HC31N4                                                                | 30072-452-81                       |
|                                         |                   |                  |                                                                                                                             | 14B                           | ATV61HC50N4<br>ATV71HC40N4                                                                | 30072-452-98                       |
|                                         |                   |                  |                                                                                                                             | 15                            | ATV61HC63N4<br>ATV71HC50N4                                                                | 30072-452-82                       |
| VX5A1400                                | Fan control board | 1                | Fan control board                                                                                                           | 10                            | ATV61HC13N4<br>ATV61HD90M3X<br>ATV71HC11N4<br>ATV71HD75M3X                                | 30072-452-77                       |
|                                         |                   |                  |                                                                                                                             | 11                            | ATV61HC16N4<br>ATV71HC13N4                                                                | 30072-452-78                       |
|                                         |                   |                  |                                                                                                                             | 12                            | ATV71HC16N4<br>ATV61HC22N4                                                                | 30072-452-79                       |
|                                         |                   |                  |                                                                                                                             | 13                            | ATV61HC25N4<br>ATV61HC31N4<br>ATV71HC20N4<br>ATV71HC25N4<br>ATV71HC28N4                   | 30072-452-80                       |
|                                         |                   |                  |                                                                                                                             | 14A                           | ATV61HC40N4<br>ATV71HC31N4                                                                | 30072-452-81                       |
|                                         |                   |                  |                                                                                                                             | 14B                           | ATV61HC50N4<br>ATV71HC40N4                                                                | 30072-452-98                       |
|                                         |                   |                  |                                                                                                                             | 15                            | ATV61HC63N4<br>ATV71HC50N4                                                                | 30072-452-82                       |
| VX5A1HC1113                             | Power board       | 1                | Power board                                                                                                                 | 10                            | ATV61HC13N4<br>ATV71HC11N4                                                                | 30072-452-77                       |
| VX5A1HC1316                             | Power board       | 1<br>5<br>4      | Power board<br>PCBA mounting standoffs<br>Cable clamps                                                                      | 11                            | ATV61HC16N4<br>ATV71HC13N4                                                                | 30072-452-78                       |
| VX5A1HC1622                             | Power board       | 1<br>5<br>4      | Power board<br>PCBA mounting standoffs<br>Cable clamps                                                                      | 12                            | ATV71HC16N4<br>ATV61HC22N4                                                                | 30072-452-79                       |
| VX5A1HC2025                             | Power board       | 1<br>5<br>5      | Power board<br>PCBA mounting standoffs<br>Cable clamps                                                                      | 13                            | ATV61HC25N4<br>ATV71HC20N4                                                                | 30072-452-80                       |
| VX5A1HC2531                             | Power board       | 1<br>5<br>5      | Power board<br>PCBA mounting standoffs<br>Cable clamps                                                                      | 13                            | ATV71HC25N4<br>ATV61HC31N4                                                                |                                    |
| VX5A1HC3140                             | Power board       | 1<br>7<br>1      | Power board<br>PCBA mounting standoffs<br>Cable clamp                                                                       | 14A                           | ATV61HC40N4<br>ATV71HC31N4                                                                | 30072-452-81                       |

**Table 1: Kit Contents and Required Documentation** (continued)

| <b>1—Identify Your Spare Parts Kit:</b> |                                                 |                            |                                                                                                                   | <b>2—Identify Your Drive:</b> |                                           | <b>3—Locate and Read Document:</b> |
|-----------------------------------------|-------------------------------------------------|----------------------------|-------------------------------------------------------------------------------------------------------------------|-------------------------------|-------------------------------------------|------------------------------------|
| Kit Catalog Number                      | Description                                     | Qty                        | Kit Contents                                                                                                      | Frame Size                    | Catalog Number                            |                                    |
| VX5A1HC4050                             | Power board                                     | 1<br>8<br>1                | Power board<br>PCBA mounting standoffs<br>Cable clamp                                                             | 14B                           | ATV61HC50N4<br>ATV71HC40N4                | <b>30072-452-98</b>                |
| VX5A1HC5063                             | Power board                                     | 1<br>8<br>1                | Power board<br>PCBA mounting standoffs<br>Cable clamp                                                             | 15                            | ATV61HC63N4<br>ATV71HC50N4                | <b>30072-452-82</b>                |
| VX5A1HD18M3X                            | Power board                                     | 5<br>4<br>1<br>1<br>1      | Lock spacers<br>Screws, M4 x 10<br>Power board<br>Fan control cable<br>Power supply cable                         | 6                             | ATV61HD18M3X<br>ATV71HD18M3X              | <b>30072-452-72</b>                |
| VX5A1HD22M3X                            | Power board                                     | 5<br>4<br>1<br>1<br>1<br>1 | Lock spacers<br>Screws, M4 x 10<br>Power board<br>Fan control cable<br>Power supply cable<br>Power insulate sheet | 6                             | ATV61HD22M3X<br>ATV71HD22M3X              | <b>30072-452-72</b>                |
| VX5A1HD22N4                             | Power board                                     | 5<br>4<br>1<br>1<br>1<br>1 | Lock spacers<br>Screws, M4 x 10<br>Power board<br>Fan control cable<br>Power supply cable<br>Power insulate sheet | 6                             | ATV61HD22N4<br>ATV71HD22N4                | <b>30072-452-72</b>                |
| VX5A1HD30M3X                            | Power board                                     | 6<br>3<br>1<br>1<br>1      | Lock spacers<br>Screws, M4 x 10<br>Power board<br>Fan control cable<br>Power insulate sheet                       | 7B                            | ATV61HD30M3X<br>ATV71HD30M3X              | <b>30072-452-74</b>                |
| VX5A1HD37M3X                            | Power board                                     | 6<br>3<br>1<br>1<br>1      | Lock spacers<br>Screws, M4 x 10<br>Power board<br>Fan control cable<br>Power insulate sheet                       | 7B                            | ATV61HD37M3X<br>ATV71HD37M3X              | <b>30072-452-74</b>                |
| VX5A1HD45M3X                            | Power board                                     | 6<br>3<br>1<br>1<br>1      | Lock spacers<br>Screws, M4 x 10<br>Power board<br>Fan control cable<br>Power insulate sheet                       | 7B                            | ATV61HD45M3X<br>ATV71HD45M3X              | <b>30072-452-74</b>                |
| VX5A1HD5575                             | Power board                                     | 1                          | Power board                                                                                                       | 9                             | ATV61HD55M3X<br>ATV71HD55M3X              | <b>30072-452-75</b>                |
| VX5A1HD7590                             | Power board                                     | 1                          | Power board                                                                                                       | 9                             | ATV61HD75M3X                              | <b>30072-452-75</b>                |
|                                         |                                                 |                            |                                                                                                                   | 10                            | ATV61HD90M3X<br>ATV71HD75M3X              | <b>30072-452-77</b>                |
| VX5A1HD9011                             | Power board                                     | 1                          | Power board                                                                                                       | 9                             | ATV61HD90N4<br>ATV61HC11N4<br>ATV71HD90N4 | <b>30072-452-75</b>                |
| VX5A71HC13N4                            | Measuring board                                 | 1<br>5<br>7                | Measuring board<br>PCBA mounting standoffs<br>Cable clamps                                                        | 11                            | ATV61HC16N4<br>ATV71HC13N4                | <b>30072-452-78</b>                |
| VX5A71HC28N4                            | Power board                                     | 1<br>5<br>5                | Power board<br>PCBA mounting standoffs<br>Cable clamps                                                            | 13                            | ATV71HC28N4                               | <b>30072-452-80</b>                |
| VX5IM2145M1271                          | Power board and power IGBT <sup>2</sup> modules | 3<br>1<br>1                | IGBT 1200 V, 200 A modules<br>Power board 30 kW, 480 V<br>Thermal compound                                        | 7A                            | ATV61HD30N4<br>ATV71HD30N4                | <b>30072-452-73</b>                |
| VX5IM2195M1271                          | Power board and power IGBT modules              | 3<br>1<br>1                | IGBT 1200 V, 200 A modules<br>Power board 37kW, 480 V<br>Thermal compound                                         | 7A                            | ATV61HD37N4<br>ATV71HD37N4                | <b>30072-452-73</b>                |
| VX5IM2200M1271                          | Power board and power IGBT modules              | 3<br>1<br>1                | IGBT 1200 V, 300 A modules<br>Power board 45 kW, 480 V<br>Thermal compound                                        | 8                             | ATV61HD45N4<br>ATV71HD45N4                | <b>30072-452-74</b>                |
| VX5IM2300M1271                          | Power board and power IGBT modules              | 3<br>1<br>1                | IGBT 1200 V, 300 A modules<br>Power board<br>Thermal compound                                                     | 8                             | ATV61HD55N4<br>ATV71HD55N4                | <b>30072-452-74</b>                |

**Table 1: Kit Contents and Required Documentation** *(continued)*

| <b>1—Identify Your Spare Parts Kit:</b> |                                    |                                 |                                                                                                              | <b>2—Identify Your Drive:</b> |                                                                                                                                                                   | <b>3—Locate and Read Document:</b> |
|-----------------------------------------|------------------------------------|---------------------------------|--------------------------------------------------------------------------------------------------------------|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|
| Kit Catalog Number                      | Description                        | Qty                             | Kit Contents                                                                                                 | Frame Size                    | Catalog Number                                                                                                                                                    |                                    |
| VX5IM2400M1271                          | Power board and power IGBT modules | 3<br>1<br>1                     | IGBT 1200 V, 400 A modules<br>Power board 75 kW, 480 V<br>Thermal compound                                   | 8                             | ATV61HD75N4<br>ATV71HD75N4                                                                                                                                        | <b>30072-452-74</b>                |
| VY1A1105                                | Current sensor                     | 3                               | Motor current sensors, 314 A                                                                                 | 9                             | ATV61HD75M3X<br>ATV61HD90N4<br>ATV61HD55M3X<br>ATV61HC11N4<br>ATV71HD90N4<br>ATV71HD55M3X                                                                         | <b>30072-452-75</b>                |
|                                         |                                    |                                 |                                                                                                              | 10                            | ATV61HC13N4<br>ATV61HD90M3X<br>ATV71HC11N4<br>ATV71HD75M3X                                                                                                        | <b>30072-452-77</b>                |
| VY1A1107                                | Current sensor                     | 1                               | Motor current sensor, 366 A                                                                                  | 11                            | ATV61HC16N4<br>ATV71HC13N4                                                                                                                                        | <b>30072-452-78</b>                |
| VY1A1108                                | Current sensor                     | 1                               | Motor current sensor, 622 A                                                                                  | 12                            | ATV71HC16N4<br>ATV61HC22N4                                                                                                                                        | <b>30072-452-79</b>                |
|                                         |                                    |                                 |                                                                                                              | 13                            | ATV61HC25N4<br>ATV61HC31N4<br>ATV71HC20N4<br>ATV71HC25N4<br>ATV71HC28N4                                                                                           | <b>30072-452-80</b>                |
| VY1A1109                                | Current sensor                     | 1                               | Motor current sensor, 1188 A                                                                                 | 14A                           | ATV61HC40N4<br>ATV71HC31N4                                                                                                                                        | <b>30072-452-81</b>                |
|                                         |                                    |                                 |                                                                                                              | 14B                           | ATV61HC50N4<br>ATV71HC40N4                                                                                                                                        | <b>30072-452-98</b>                |
|                                         |                                    |                                 |                                                                                                              | 15                            | ATV61HC63N4<br>ATV71HC50N4                                                                                                                                        | <b>30072-452-82</b>                |
| VY1A1202                                | Plastic parts                      | 1<br>1<br>1<br>2<br>1<br>1      | IP4X top cover<br>Wiring trap cover<br>Power trap cover<br>Side caps<br>Top cap<br>Danger label              | 2                             | ATV61H075M3<br>ATV61HU15M3<br>ATV61H075N4<br>ATV61HU15N4<br>ATV61HU22N4<br>ATV71H075M3<br>ATV71HU15M3<br>ATV71H037M3<br>ATV71H075N4<br>ATV71HU15N4<br>ATV71HU22N4 | <b>30072-453-27</b>                |
| VY1A1203                                | Plastic parts                      | 1<br>1<br>1<br>2<br>1<br>1<br>1 | Front cap<br>Wiring trap cover<br>Power trap cover<br>Side caps<br>Top cap<br>IP4X top cover<br>Danger label | 3                             | ATV61HU22M3<br>ATV61HU30M3<br>ATV61HU40M3<br>ATV61HU30N4<br>ATV61HU40N4<br>ATV71HU22M3<br>ATV71HU30M3<br>ATV71HU40M3<br>ATV71HU30N4<br>ATV71HU40N4                | <b>30072-453-27</b>                |
| VY1A1204                                | Plastic parts                      | 1<br>1<br>1<br>1<br>1<br>2<br>1 | Top cap<br>IP4X top cover<br>Front cap<br>Wiring trap cover<br>Power trap cover<br>Side caps<br>Danger label | 4                             | ATV61HU55M3<br>ATV61HU55N4<br>ATV61HU75N4<br>ATV71HU55M3<br>ATV71HU55N4<br>ATV71HU75N4                                                                            | <b>30072-453-27</b>                |
| VY1A1205                                | Plastic parts                      | 1<br>1<br>1<br>1<br>1<br>2<br>1 | Top cap<br>IP4X top cover<br>Front cap<br>Wiring trap cover<br>Power trap cover<br>Side caps<br>Danger label | 5B                            | ATV61HD11M3X<br>ATV61HD15M3X<br>ATV61HD15N4<br>ATV61HD18N4<br>ATV71HD11M3X<br>ATV71HD15M3X<br>ATV71HD15N4<br>ATV71HD18N4                                          | <b>30072-453-27</b>                |

**Table 1: Kit Contents and Required Documentation** *(continued)*

| <b>1—Identify Your Spare Parts Kit:</b> |                                    |                                                |                                                                                                                                                                                               | <b>2—Identify Your Drive:</b> |                                                                                           | <b>3—Locate and Read Document:</b> |
|-----------------------------------------|------------------------------------|------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|-------------------------------------------------------------------------------------------|------------------------------------|
| Kit Catalog Number                      | Description                        | Qty                                            | Kit Contents                                                                                                                                                                                  | Frame Size                    | Catalog Number                                                                            |                                    |
| VY1A1210                                | Front cover and I/O terminal cover | 1                                              | Front cover assembly                                                                                                                                                                          | 9                             | ATV61HD75M3X<br>ATV61HD90N4<br>ATV61HD55M3X<br>ATV61HC11N4<br>ATV71HD90N4<br>ATV71HD55M3X | <b>30072-452-75</b>                |
| VY1A1211                                | Front cover and I/O terminal cover | 1                                              | Front cover assembly                                                                                                                                                                          | 10                            | ATV61HC13N4<br>ATV61HD90M3X<br>ATV71HC11N4<br>ATV71HD75M3X                                | <b>30072-452-77</b>                |
| VY1A1212                                | Front cover assembly               | 1                                              | Front cover assembly                                                                                                                                                                          | 11                            | ATV61HC16N4<br>ATV71HC13N4                                                                | <b>30072-452-78</b>                |
| VY1A1213                                | Front cover assembly               | 1                                              | Front cover assembly                                                                                                                                                                          | 12                            | ATV71HC16N4<br>ATV61HC22N4                                                                | <b>30072-452-79</b>                |
| VY1A1214                                | Front cover assembly               | 1                                              | Front cover assembly                                                                                                                                                                          | 13                            | ATV61HC25N4<br>ATV61HC31N4<br>ATV71HC20N4<br>ATV71HC25N4<br>ATV71HC28N4                   | <b>30072-452-80</b>                |
| VY1A1215                                | Plastic parts kit                  | 1<br>1<br>1<br>2<br>1<br>1<br>1                | IP4X top cover<br>Front cap<br>Power trap cover<br>Side caps<br>Top cap<br>Wiring trap cover<br>Danger label                                                                                  | 5A                            | ATV61HU75M3<br>ATV61HD11N4<br>ATV71HU75M3<br>ATV71HD11N4                                  | <b>30072-453-27</b>                |
| VY1A1216                                | Front cover assembly               | 1                                              | Front cover assembly                                                                                                                                                                          | 14A                           | ATV61HC40N4<br>ATV71HC31N4                                                                | <b>30072-452-81</b>                |
|                                         |                                    |                                                |                                                                                                                                                                                               | 14B                           | ATV61HC50N4<br>ATV71HC40N4                                                                | <b>30072-452-98</b>                |
| VY1A1217                                | Front cover assembly               | 1                                              | Front cover assembly                                                                                                                                                                          | 15                            | ATV61HC63N4<br>ATV71HC50N4                                                                | <b>30072-452-82</b>                |
| VY1A1401                                | Plastic parts kit                  | 1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1 | EMC tray<br>Conduit tray<br>Power terminal shield<br>Soft charge board tray<br>Fan control board plate<br>DC reactor terminal shield<br>Filter board shield<br>Labels size 11<br>Danger label | 11                            | ATV61HC16N4<br>ATV71HC13N4                                                                | <b>30072-452-78</b>                |
| VY1A1402                                | Plastic parts kit                  | 1<br>1<br>1<br>1<br>1<br>1<br>1                | EMC tray<br>Conduit tray<br>Power terminal shield<br>SCR snubber board shield<br>Filter board shield<br>IT jumper warning label<br>Danger label                                               | 12                            | ATV61HC22N4<br>ATV71HC16N4                                                                | <b>30072-452-79</b>                |
| VY1A1403                                | Plastic parts kit                  | 1<br>1<br>1<br>1<br>1<br>1<br>1                | EMC tray<br>Conduit tray<br>Power terminal shield<br>SCR assembly shield<br>Filter board shield<br>IT jumper warning label<br>Danger label                                                    | 13                            | ATV61HC25N4<br>ATV61HC31N4<br>ATV71HC20N4<br>ATV71HC25N4<br>ATV71HC28N4                   | <b>30072-452-80</b>                |
| VY1A1404                                | EMC tray and power terminal shield | 1<br>1                                         | Control channel box<br>Terminal cover with lid                                                                                                                                                | 9                             | ATV61HD75M3X<br>ATV61HD90N4<br>ATV61HD55M3X<br>ATV61HC11N4<br>ATV71HD90N4<br>ATV71HD55M3X | <b>30072-452-75</b>                |
| VY1A1405                                | EMC tray and power terminal shield | 1<br>1                                         | Control channel box<br>Terminal cover with lid                                                                                                                                                | 10                            | ATV61HC13N4<br>ATV61HD90M3X<br>ATV71HC11N4<br>ATV71HD75M3X                                | <b>30072-452-77</b>                |

**Table 1: Kit Contents and Required Documentation** *(continued)*

| <b>1—Identify Your Spare Parts Kit:</b> |                    |                                                                    |                                                                                                                                                                                                                                                                                                              | <b>2—Identify Your Drive:</b> |                                                                                           | <b>3—Locate and Read Document:</b> |
|-----------------------------------------|--------------------|--------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|-------------------------------------------------------------------------------------------|------------------------------------|
| Kit Catalog Number                      | Description        | Qty                                                                | Kit Contents                                                                                                                                                                                                                                                                                                 | Frame Size                    | Catalog Number                                                                            |                                    |
| VY1A1406                                | Plastic parts kit  | 4<br>6<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1      | Bus bar brackets<br>Insulation tubes for bus bar brackets<br>Rectifier shield<br>Conduit tray<br>Right terminal shield<br>Left terminal shield<br>EMC tray<br>Motor control board insulator<br>Brake board insulator<br>Power board insulator<br>Bus plate shield<br>IT jumper warning label<br>Danger label | 14A                           | ATV61HC40N4<br>ATV71HC31N4                                                                | 30072-452-81                       |
|                                         |                    |                                                                    |                                                                                                                                                                                                                                                                                                              | 14B                           | ATV61HC50N4<br>ATV71HC40N4                                                                | 30072-452-98                       |
| VY1A1407                                | Plastic parts kit  | 4<br>6<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1 | Bus bar brackets<br>Insulation tubes for bus bar brackets<br>Rectifier shield<br>Conduit tray<br>Right terminal shield<br>Left terminal shield<br>EMC tray<br>Motor control board insulator<br>Brake board insulator<br>Power board insulator<br>Bus plate shield<br>IT jumper warning label<br>Danger label | 15                            | ATV61HC63N4<br>ATV71HC50N4                                                                | 30072-452-82                       |
| VY1ADC1110                              | Capacitor assembly | 1                                                                  | 4-capacitor assembly                                                                                                                                                                                                                                                                                         | 9                             | ATV61HD90N4<br>ATV61HC11N4<br>ATV71HD90N4                                                 | 30072-452-75                       |
| VY1ADC1111                              | Capacitor assembly | 1                                                                  | 6-capacitor assembly                                                                                                                                                                                                                                                                                         | 10                            | ATV61HC13N4<br>ATV71HC11N4                                                                | 30072-452-77                       |
| VY1ADC1112                              | Capacitors         | 6<br>6                                                             | Capacitors<br>Gaskets                                                                                                                                                                                                                                                                                        | 11                            | ATV61HC16N4<br>ATV71HC13N4                                                                | 30072-452-78                       |
|                                         |                    |                                                                    |                                                                                                                                                                                                                                                                                                              | 13                            | ATV61HC31N4<br>ATV71HC25N4<br>ATV71HC28N4                                                 | 30072-452-80                       |
|                                         |                    |                                                                    |                                                                                                                                                                                                                                                                                                              | 14B                           | ATV61HC50N4<br>ATV71HC40N4                                                                | 30072-452-98                       |
|                                         |                    |                                                                    |                                                                                                                                                                                                                                                                                                              | 15                            | ATV61HC63N4<br>ATV71HC50N4                                                                | 30072-452-82                       |
| VY1ADC1113                              | Capacitors         | 8<br>8                                                             | Capacitors, 5200 $\mu$ F / 400 V<br>Gaskets                                                                                                                                                                                                                                                                  | 12                            | ATV71HC16N4<br>ATV61HC22N4                                                                | 30072-452-79                       |
| VY1ADC1114                              | Capacitors         | 6<br>6                                                             | Capacitors, 3600 $\mu$ F / 400 V<br>Gaskets                                                                                                                                                                                                                                                                  | 13                            | ATV61HC25N4<br>ATV71HC20N4                                                                | 30072-452-80                       |
|                                         |                    |                                                                    |                                                                                                                                                                                                                                                                                                              | 14A                           | ATV61HC40N4<br>ATV71HC31N4                                                                | 30072-452-81                       |
| VY1ADC1115                              | Capacitor assembly | 1                                                                  | 3-capacitor assembly                                                                                                                                                                                                                                                                                         | 9                             | ATV61HD75M3X<br>ATV61HD55M3X<br>ATV71HD55M3X                                              | 30072-452-75                       |
| VY1ADC1116                              | Capacitor assembly | 1                                                                  | 4-capacitor assembly                                                                                                                                                                                                                                                                                         | 10                            | ATV61HD90M3X<br>ATV71HD75M3X                                                              | 30072-452-77                       |
| VY1ADV1105                              | Screw kit          | 1                                                                  | Set of screws, bolts, and nuts used in the drive                                                                                                                                                                                                                                                             | 9                             | ATV61HD75M3X<br>ATV61HD90N4<br>ATV61HD55M3X<br>ATV61HC11N4<br>ATV71HD90N4<br>ATV71HD55M3X | 30072-452-75                       |
| VY1ADV1106                              | Screw kit          | 1                                                                  | Set of screws, bolts, and nuts used in the drive                                                                                                                                                                                                                                                             | 10                            | ATV61HC13N4<br>ATV61HD90M3X<br>ATV71HC11N4<br>ATV71HD75M3X                                | 30072-452-77                       |
| VY1ADV1107                              | Screw kit          | 1                                                                  | Set of screws, bolts, and nuts used in the drive                                                                                                                                                                                                                                                             | 11                            | ATV61HC16N4<br>ATV71HC13N4                                                                | 30072-452-78                       |

**Table 1: Kit Contents and Required Documentation** *(continued)*

| <b>1—Identify Your Spare Parts Kit:</b> |                         |     |                                                                                                                                                                      | <b>2—Identify Your Drive:</b> |                                                                                           | <b>3—Locate and Read Document:</b> |
|-----------------------------------------|-------------------------|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|-------------------------------------------------------------------------------------------|------------------------------------|
| Kit Catalog Number                      | Description             | Qty | Kit Contents                                                                                                                                                         | Frame Size                    | Catalog Number                                                                            |                                    |
| VY1ADV1108                              | Screw kit               | 1   | Set of screws, bolts, and nuts used in the drive                                                                                                                     | 12                            | ATV71HC16N4<br>ATV61HC22N4                                                                | <b>30072-452-79</b>                |
| VY1ADV1109                              | Screw kit               | 1   | Set of screws, bolts, and nuts used in the drive                                                                                                                     | 13                            | ATV61HC25N4<br>ATV61HC31N4<br>ATV71HC20N4<br>ATV71HC25N4<br>ATV71HC28N4                   | <b>30072-452-80</b>                |
| VY1ADV1110                              | Screw kit               | 1   | Set of screws, bolts, and nuts used in the drive                                                                                                                     | 14A                           | ATV61HC40N4<br>ATV71HC31N4                                                                | <b>30072-452-81</b>                |
|                                         |                         |     |                                                                                                                                                                      | 14B                           | ATV61HC50N4<br>ATV71HC40N4                                                                | <b>30072-452-98</b>                |
| VY1ADV1111                              | Screw kit               | 1   | Set of screws, bolts, and nuts used in the drive                                                                                                                     | 15                            | ATV61HC63N4<br>ATV71HC50N4                                                                | <b>30072-452-82</b>                |
| VZ3DM1600M1671                          | Diode module            | 1   | Diode module, 600A, 1600V<br>Thermal compound                                                                                                                        | 13                            | ATV61HC25N4<br>ATV61HC31N4<br>ATV71HC20N4<br>ATV71HC25N4<br>ATV71HC28N4                   | <b>30072-452-80</b>                |
|                                         |                         |     |                                                                                                                                                                      | 14A                           | ATV61HC40N4<br>ATV71HC31N4                                                                | <b>30072-452-81</b>                |
|                                         |                         |     |                                                                                                                                                                      | 14B                           | ATV61HC50N4<br>ATV71HC40N4                                                                | <b>30072-452-98</b>                |
|                                         |                         |     |                                                                                                                                                                      | 15                            | ATV61HC63N4<br>ATV71HC50N4                                                                | <b>30072-452-82</b>                |
| VZ3F1110                                | Dynamic braking kit     | 1   | Braking control PCBA<br>Diode module, 75 A, 1200 V<br>Brackets<br>Bus bars<br>Input PA bus bar<br>Input PB bus bar<br>IGBT module, 600 A, 1200 V<br>Thermal compound | 11                            | ATV61HC16N4<br>ATV71HC13N4                                                                | <b>30072-452-78</b>                |
|                                         |                         |     |                                                                                                                                                                      | 12                            | ATV71HC16N4<br>ATV61HC22N4                                                                | <b>30072-452-79</b>                |
| VZ3F1113                                | Dynamic braking kit     | 1   | Brake board<br>PCB standoffs                                                                                                                                         | 14A                           | ATV61HC40N4<br>ATV71HC31N4                                                                | <b>30072-452-81</b>                |
|                                         |                         |     |                                                                                                                                                                      | 14B                           | ATV61HC50N4<br>ATV71HC40N4                                                                | <b>30072-452-98</b>                |
|                                         |                         |     |                                                                                                                                                                      | 15                            | ATV61HC63N4<br>ATV71HC50N4                                                                | <b>30072-452-82</b>                |
| VZ3G1102                                | Temperature sensor wire | 1   | Temperature sensor                                                                                                                                                   | 9                             | ATV61HD75M3X<br>ATV61HD90N4<br>ATV61HD55M3X<br>ATV61HC11N4<br>ATV71HD90N4<br>ATV71HD75M3X | <b>30072-452-75</b>                |
|                                         |                         |     |                                                                                                                                                                      | 10                            | ATV61HC13N4<br>ATV61HD90M3X<br>ATV71HC11N4<br>ATV71HD75M3X                                | <b>30072-452-77</b>                |
| VZ3G1104                                | Temperature sensor wire | 2   | Temperature sensors                                                                                                                                                  | 11                            | ATV61HC16N4<br>ATV71HC13N4                                                                | <b>30072-452-78</b>                |
|                                         |                         |     |                                                                                                                                                                      | 12                            | ATV71HC16N4<br>ATV61HC22N4                                                                | <b>30072-452-79</b>                |
|                                         |                         |     |                                                                                                                                                                      | 13                            | ATV61HC25N4<br>ATV61HC31N4<br>ATV71HC20N4<br>ATV71HC25N4<br>ATV71HC28N4                   | <b>30072-452-80</b>                |
|                                         |                         |     |                                                                                                                                                                      | 14A                           | ATV61HC40N4<br>ATV71HC31N4                                                                | <b>30072-452-81</b>                |
|                                         |                         |     |                                                                                                                                                                      | 14B                           | ATV61HC50N4<br>ATV71HC40N4                                                                | <b>30072-452-98</b>                |
|                                         |                         |     |                                                                                                                                                                      | 15                            | ATV61HC63N4<br>ATV71HC50N4                                                                | <b>30072-452-82</b>                |



**Table 1: Kit Contents and Required Documentation** *(continued)*

| <b>1—Identify Your Spare Parts Kit:</b> |                               |                                 |                                                                                                                                                                                              | <b>2—Identify Your Drive:</b> |                                                                                                                          | <b>3—Locate and Read Document:</b> |
|-----------------------------------------|-------------------------------|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|--------------------------------------------------------------------------------------------------------------------------|------------------------------------|
| Kit Catalog Number                      | Description                   | Qty                             | Kit Contents                                                                                                                                                                                 | Frame Size                    | Catalog Number                                                                                                           |                                    |
| VZ3IM1145M1271                          | Braking IGBT module           | 1<br>1                          | IGBT module, 1200 V, 175 A<br>Thermal compound                                                                                                                                               | 7A                            | ATV61HD30N4<br>ATV61HD37N4<br>ATV71HD30N4<br>ATV71HD37N4                                                                 | <b>30072-452-73</b>                |
| VZ3IM1195M0671                          | Braking IGBT module           | 1<br>1                          | IGBT module, 600 V, 250 A<br>Thermal compound                                                                                                                                                | 7B                            | ATV61HD30M3X<br>ATV71HD30M3X                                                                                             | <b>30072-452-74</b>                |
| VZ3IM1300M0671                          | Braking IGBT module           | 1<br>1                          | IGBT module, 600 V, 400 A<br>Thermal compound                                                                                                                                                | 7B                            | ATV61HD37M3X<br>ATV61HD45M3X<br>ATV71HD37M3X<br>ATV71HD45M3X                                                             | <b>30072-452-74</b>                |
| VZ3IM1300M1271                          | Braking IGBT module           | 1<br>1                          | IGBT module, 1200 V, 345 A<br>Thermal compound                                                                                                                                               | 8                             | ATV61HD45N4<br>ATV61HD55N4<br>ATV61HD75N4<br>ATV71HD45N4<br>ATV71HD55N4<br>ATV71HD75N4                                   | <b>30072-452-74</b>                |
| VZ3IM1400M1271                          | Power IGBT module             | 1<br>1                          | IGBT module, 1200 V, 400 A<br>Thermal compound                                                                                                                                               | 9                             | ATV61HD90N4<br>ATV61HC11N4<br>ATV71HD90N4                                                                                | <b>30072-452-75</b>                |
|                                         |                               |                                 |                                                                                                                                                                                              | 10                            | ATV61HC13N4<br>ATV61HC11N4                                                                                               | <b>30072-452-77</b>                |
| VZ3IM1402M1271                          | Power IGBT module             | 1<br>1                          | IGBT module, 1200 V, 400 A<br>Thermal compound                                                                                                                                               | 12                            | ATV71HC16N4<br>ATV61HC22N4                                                                                               | <b>30072-452-79</b>                |
|                                         |                               |                                 |                                                                                                                                                                                              | 13                            | ATV61HC25N4<br>ATV71HC20N4                                                                                               | <b>30072-452-80</b>                |
| VZ3IM1600M0671                          | Power and braking IGBT module | 1<br>1                          | IGBT module, 1200 V, 400 A<br>Thermal compound                                                                                                                                               | 9                             | ATV61HD75M3X<br>ATV61HD55M3X<br>ATV71HD55M3X                                                                             | <b>30072-452-75</b>                |
|                                         |                               |                                 |                                                                                                                                                                                              | 10                            | ATV61HD90M3X<br>ATV71HD75M3X                                                                                             | <b>30072-452-77</b>                |
| VZ3IM1600M1271                          | Power IGBT module             | 1<br>1                          | IGBT module, 1200 V, 600 A<br>Thermal compound                                                                                                                                               | 11                            | ATV61HC16N4<br>ATV71HC13N4                                                                                               | <b>30072-452-78</b>                |
| VZ3IM1602M1271                          | Power IGBT module             | 2<br>1                          | IGBT modules, 1200 V, 600 A<br>Thermal compound                                                                                                                                              | 13                            | ATV61HC31N4<br>ATV71HC25N4<br>ATV71HC28N4                                                                                | <b>30072-452-80</b>                |
| VZ3IM1603M1271                          | Power IGBT module             | 3<br>2                          | IGBT modules, 1200 V, 600 A<br>Thermal compound                                                                                                                                              | 14A                           | ATV61HC40N4<br>ATV71HC31N4                                                                                               | <b>30072-452-81</b>                |
|                                         |                               |                                 |                                                                                                                                                                                              | 14B                           | ATV61HC50N4<br>ATV71HC40N4                                                                                               | <b>30072-452-98</b>                |
| VZ3IM1604M1271                          | Power IGBT module             | 4<br>2                          | IGBT modules, 1200 V, 600 A<br>Thermal compound                                                                                                                                              | 15                            | ATV61HC63N4<br>ATV71HC50N4                                                                                               | <b>30072-452-82</b>                |
| VZ3IM2201M1271                          | Power IGBT modules            | 3<br>1                          | IGBT modules, 600 V, 200 A<br>Thermal compound                                                                                                                                               | 7B                            | ATV61HD30M3X<br>ATV71HD30M3X                                                                                             | <b>30072-452-74</b>                |
| VZ3IM2301M1271                          | Power IGBT modules            | 3<br>1                          | IGBT modules, 600 V, 300 A<br>Thermal compound                                                                                                                                               | 7B                            | ATV61HD37M3X<br>ATV71HD37M3X                                                                                             | <b>30072-452-74</b>                |
| VZ3IM2401M1271                          | Power IGBT modules            | 3<br>1                          | IGBT modules, 600 V, 400 A<br>Thermal compound                                                                                                                                               | 7B                            | ATV61HD45M3X<br>ATV71HD45M3X                                                                                             | <b>30072-452-74</b>                |
| VZ3N1205                                | Power terminal block          | 1<br>1<br>1<br>1<br>1           | Power terminal<br>DC warning label<br>Motor warning label<br>Input warning label (240 V)<br>Input warning label (480 V)                                                                      | 5B                            | ATV61HD11M3X<br>ATV61HD15M3X<br>ATV61HD15N4<br>ATV61HD18N4<br>ATV71HD11M3X<br>ATV71HD15M3X<br>ATV71HD15N4<br>ATV71HD18N4 | <b>30072-453-27</b>                |
| VZ3N1206                                | Power terminal block          | 1<br>1<br>1<br>1<br>1<br>1<br>1 | Bottom power terminal block<br>Top power terminal block<br>DC warning label A#1<br>DC warning label A#2<br>Motor warning label<br>Input warning label (240 V)<br>Input warning label (480 V) | 6                             | ATV61HD18M3X<br>ATV61HD22M3X<br>ATV71HD18M3X<br>ATV71HD22M3X<br>ATV61HD22N4<br>ATV71HD22N4                               | <b>30072-452-72</b>                |

**Table 1: Kit Contents and Required Documentation** *(continued)*

| <b>1—Identify Your Spare Parts Kit:</b> |                       |                                                     |                                                                                                                                                       | <b>2—Identify Your Drive:</b> |                                                                                              | <b>3—Locate and Read Document:</b> |
|-----------------------------------------|-----------------------|-----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|----------------------------------------------------------------------------------------------|------------------------------------|
| Kit Catalog Number                      | Description           | Qty                                                 | Kit Contents                                                                                                                                          | Frame Size                    | Catalog Number                                                                               |                                    |
| VZ3N1207                                | Power terminal block  | 1<br>1<br>1<br>1<br>1<br>1                          | Bottom power terminal block<br>Top power terminal block<br>DC warning label A#1<br>DC warning label A#2<br>Motor warning label<br>Input warning label | 7A                            | ATV61HD30N4<br>ATV61HD37N4<br>ATV71HD30N4<br>ATV71HD37N4                                     | <b>30072-452-73</b>                |
| VZ3N1301                                | Wire kit <sup>3</sup> | 1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1      | Brake cable<br>DCCT cable<br>LR cable<br>Charge LED<br>Fan control cable<br>DR cable<br>Fan supply cable<br>PSU cable<br>SCR cable                    | 6                             | ATV61HD18M3X<br>ATV61HD22M3X<br>ATV71HD18M3X<br>ATV71HD22M3X                                 | <b>30072-452-72</b>                |
| VZ3N1302                                | Wire kit <sup>3</sup> | 1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1      | Brake cable<br>DCCT cable<br>LR cable<br>Charge LED<br>Fan control cable<br>DR cable<br>Fan supply cable<br>PSU cable<br>SCR cable                    | 6                             | ATV61HD22N4<br>ATV71HD22N4                                                                   | <b>30072-452-72</b>                |
| VZ3N1307                                | Wire kit <sup>3</sup> | 1<br>3<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1 | Fan supply cable<br>IGBT cables<br>PSU cable<br>SCR cable<br>LR cable<br>Charge LED<br>DCCT cable<br>Brake cable<br>Fan control cable<br>DR cable     | 7A                            | ATV61HD30N4<br>ATV61HD37N4<br>ATV71HD30N4<br>ATV71HD37N4                                     | <b>30072-452-73</b>                |
| VZ3N1310                                | Wire kit <sup>3</sup> | 1<br>3<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1 | Fan supply cable<br>IGBT cables<br>SCR cable<br>DCCT cable<br>LR cable<br>Charge LED<br>PSU cable<br>Brake cable<br>Fan control cable<br>DR cable     | 7B                            | ATV61HD30M3X<br>ATV61HD37M3X<br>ATV61HD45M3X<br>ATV71HD30M3X<br>ATV71HD37M3X<br>ATV71HD45M3X | <b>30072-452-74</b>                |
| VZ3N1313                                | Wire kit <sup>3</sup> | 1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1 | Fan supply cable<br>IGBT cables<br>SCR cable<br>DCCT cable<br>LR cable<br>Charge LED<br>PSU cable<br>Brake cable<br>Fan control cable<br>DR cable     | 8                             | ATV61HD45N4<br>ATV61HD55N4<br>ATV61HD75N4<br>ATV71HD45N4<br>ATV71HD55N4<br>ATV71HD75N4       | <b>30072-452-74</b>                |

**Table 1: Kit Contents and Required Documentation** *(continued)*

| <b>1—Identify Your Spare Parts Kit:</b> |                       |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>2—Identify Your Drive:</b> |                            | <b>3—Locate and Read Document:</b> |
|-----------------------------------------|-----------------------|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|----------------------------|------------------------------------|
| Kit Catalog Number                      | Description           | Qty | Kit Contents                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Frame Size                    | Catalog Number             |                                    |
| VZ3N1316                                | Wire kit <sup>3</sup> | 1   | Flat cable A1:X3-A4:X31<br>Cable A2:X81-A4:X81<br>Cable A1:X8-A2:X82<br>Cable A4:X21/22/23-A1:X5<br>SCR 1 gate cable (CNL1G)<br>SCR 2 gate cable (CNL2G)<br>SCR 3 gate cable (CNL3G)<br>Cable RFS board X1 (Green)<br>Cable RFS board X4 (Red)<br>Cable RFS board X5 (Black)<br>Cable UD0-A2 X50(Blue)<br>Cable UD0-A4 X51 (Blue)<br>Cable UD(+)-A2:UD+1 Red<br>Cable A30:X11/2/3-A7:X1<br>Cable A30:X11/12/13-A2:X7<br>Cable A2:X10 -A31:X10/X11<br>Cable A6:CN2A-A1:X30/A2:X20<br>Cable A1:X31-A6:CN7A Cable<br>T1,T2,T3-A1:X11<br>Cable A1:X21-X31 (internal fan)<br>Cable A7:X2-A1:X14<br>Cable A1:X6<br>Flat cable A10:X3-A3:X3<br>Flat cable A1:X4-A10:X4<br>Flat cable A1:X2-A2:X2<br>Cable X3-A7:X4<br>DBB A20 X6 (Red) | 11                            | ATV61HC16N4<br>ATV71HC13N4 | <b>30072-452-78</b>                |
| VZ3N1317                                | Wire kit <sup>3</sup> | 1   | Flat cable A3:X32-A4:X31<br>Flat cable A4:X32-A5:X31-A1:X3<br>Flat cable A1:X8-A3:X81<br>2 Flat cables A3/A4:X82-A4/A5:X81<br>SCR 1 gate cable (CNL1G)<br>SCR 2 gate cable (CNL2G)<br>SCR 3 gate cable (CNL3G)<br>Cable A3/A4/A5:X2-A1:X5<br>3 Cables RFS board<br>2 Cables UD0-A1/A5<br>2 Cables UD0-A3/A4/A5<br>Cable A1:X21-X31<br>Cable A30-A1/A7<br>Cable A7:X2-A1:X14<br>Cable A1:X30-A6:CN2A<br>Cable A1:X31-A6:CN7A<br>Cable T1/T2/T3-A1:X11<br>Cable A1:X6<br>Flat cable A10:X3-A3:X3<br>Flat cable A1:X4-A10:X4<br>Flat cable A1:X2-A2:X2<br>Cable X3-A7:X4<br>1 Connector, fan feed through                                                                                                                          | 12                            | ATV71HC16N4<br>ATV61HC22N4 | <b>30072-452-79</b>                |

[illegible]

| 1—Identify Your Spare Parts Kit: |                       |     |                                                      | 2—Identify Your Drive: |                                                            | 3—Locate and Read Document: |
|----------------------------------|-----------------------|-----|------------------------------------------------------|------------------------|------------------------------------------------------------|-----------------------------|
| Kit Catalog Number               | Description           | Qty | Kit Contents                                         | Frame Size             | Catalog Number                                             |                             |
| VZ3N1324                         | Wire kit <sup>3</sup> | 1   | Relay connector                                      | 10                     | ATV61HC13N4<br>ATV61HD90M3X<br>ATV71HC11N4<br>ATV71HD75M3X | 30072-452-77                |
|                                  |                       | 1   | Charge LED cable w/ LED                              |                        |                                                            |                             |
|                                  |                       | 1   | Wire power for motor control board (CNX2)            |                        |                                                            |                             |
|                                  |                       | 1   | IGBT U gate cable (CNU)                              |                        |                                                            |                             |
|                                  |                       | 1   | IGBT X gate cable (CNX)                              |                        |                                                            |                             |
|                                  |                       | 1   | IGBT V gate cable (CNV)                              |                        |                                                            |                             |
|                                  |                       | 1   | IGBT Y gate cable (CNY)                              |                        |                                                            |                             |
|                                  |                       | 1   | IGBT W gate cable (CNW)                              |                        |                                                            |                             |
|                                  |                       | 1   | IGBT Z gate cable (CNZ)                              |                        |                                                            |                             |
|                                  |                       | 1   | Thyristor R gate cable (blue wire with 2 connectors) |                        |                                                            |                             |
|                                  |                       | 1   | Braking IGBT (CNPB)                                  |                        |                                                            |                             |
|                                  |                       | 1   | SCR1 gate cable (CNL1G)                              |                        |                                                            |                             |
|                                  |                       | 1   | SCR2 gate cable (CNL2G)                              |                        |                                                            |                             |
|                                  |                       | 1   | SCR3 gate cable (CNL3G)                              |                        |                                                            |                             |
|                                  |                       | 1   | Cable red sleeve (CN7)                               |                        |                                                            |                             |
|                                  |                       | 1   | Line sense (CN5)                                     |                        |                                                            |                             |
|                                  |                       | 1   | SCR control cable (CN2)                              |                        |                                                            |                             |
|                                  |                       | 1   | Jumper (CNX5-CNX6)                                   |                        |                                                            |                             |
|                                  |                       | 1   | Bus sense (CN6)                                      |                        |                                                            |                             |
|                                  |                       | 1   | Current sense (red)                                  |                        |                                                            |                             |
|                                  |                       | 1   | Current sense (white)                                |                        |                                                            |                             |
|                                  |                       | 1   | Current sense (blue)                                 |                        |                                                            |                             |
|                                  |                       | 1   | Internal fan cable (CN12)                            |                        |                                                            |                             |
|                                  |                       | 1   | Internal fan cable (INT)                             |                        |                                                            |                             |
|                                  |                       | 1   | Internal fan cable (EXT)                             |                        |                                                            |                             |
|                                  |                       | 1   | Control module cable, 26 position (CNX1)             |                        |                                                            |                             |
|                                  |                       | 1   | PA power cable (red)                                 |                        |                                                            |                             |
|                                  |                       | 1   | PB power cable (white)                               |                        |                                                            |                             |
|                                  |                       | 1   | Braking IGBT cable (white) (TAB1)                    |                        |                                                            |                             |
|                                  |                       | 1   | Snubber cap cable, 400 V                             |                        |                                                            |                             |
|                                  |                       | 1   | CN13 X2 cable                                        |                        |                                                            |                             |
| VZ3N1333                         | Wire kit <sup>3</sup> | 1   | Cable A30-A70-A1                                     | 14A                    | ATV61HC40N4<br>ATV71HC31N4                                 | 30072-452-81                |
|                                  |                       | 1   | Cable SCB-V31/33/35                                  |                        |                                                            |                             |
|                                  |                       | 1   | Cable L1,L2,L3-A31                                   |                        |                                                            |                             |
|                                  |                       | 1   | Cable A30-A70-A71                                    |                        |                                                            |                             |
|                                  |                       | 1   | Cable A70-A71-X3                                     |                        |                                                            |                             |
|                                  |                       | 1   | Cable A1:X7-A30/A40                                  |                        |                                                            |                             |
|                                  |                       | 1   | Cable SCB-V31/33/35                                  |                        |                                                            |                             |
|                                  |                       | 1   | Cable L1,L2,L3-A31,A32                               |                        |                                                            |                             |
|                                  |                       | 2   | Cable UD(+)-A31:X4                                   |                        |                                                            |                             |
|                                  |                       | 1   | Cable UD(+)-A32:X11                                  |                        |                                                            |                             |
|                                  |                       | 2   | Cable UD(-)-A31:X5                                   |                        |                                                            |                             |
|                                  |                       | 1   | Cable A5:X62-A41:X10                                 |                        |                                                            |                             |
|                                  |                       | 1   | Cable A70/A71-X11,X12,X13                            |                        |                                                            |                             |
|                                  |                       | 1   | Flat Cable A10:X3-A3:X3                              |                        |                                                            |                             |
|                                  |                       | 1   | Flat Cable A1:X4-A10:X4                              |                        |                                                            |                             |
|                                  |                       | 1   | Flat Cable A4:X82-A5:X81                             |                        |                                                            |                             |
|                                  |                       | 1   | Flat Cable A1:X8-A4:X81-A3:X82                       |                        |                                                            |                             |
|                                  |                       | 2   | Flat Cable A4:X31-A3:X32                             |                        |                                                            |                             |
|                                  |                       | 1   | Flat Cable A1:X3-A5:X31                              |                        |                                                            |                             |
|                                  |                       | 2   | Cable UD0 connectors                                 |                        |                                                            |                             |
|                                  |                       | 1   | Cable UD0-A1:UD0                                     |                        |                                                            |                             |
|                                  |                       | 1   | Cable UD0-A4:X52                                     |                        |                                                            |                             |
|                                  |                       | 2   | Cable gate drive UD0 connectors                      |                        |                                                            |                             |
|                                  |                       | 1   | Cable A5:X53-test connector                          |                        |                                                            |                             |
|                                  |                       | 1   | Cable motor voltage measurement A1:X5                |                        |                                                            |                             |
|                                  |                       | 1   | Cable A1:X30-A60:CN2A                                |                        |                                                            |                             |
|                                  |                       | 1   | Cable A1:X31-A6:CN7A                                 |                        |                                                            |                             |
|                                  |                       | 1   | Cable A1:X30-A6:CN2A                                 |                        |                                                            |                             |
|                                  |                       | 1   | Cable A1:X31-A6:CN7A                                 |                        |                                                            |                             |
|                                  |                       | 1   | Cable A1:X21/X22-X30,31,32                           |                        |                                                            |                             |
|                                  |                       | 2   | Flat Cable A1:X2-A2:X2                               |                        |                                                            |                             |

| 1—Identify Your Spare Parts Kit: |                       |                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 2—Identify Your Drive: |                                              | 3—Locate and Read Document: |
|----------------------------------|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|----------------------------------------------|-----------------------------|
| Kit Catalog Number               | Description           | Qty                                                                                                                                                                                        | Kit Contents                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Frame Size             | Catalog Number                               |                             |
| VZ3N1334                         | Wire kit <sup>3</sup> | 1<br>1<br>1<br>1<br>1<br>1<br>3<br>2<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>2<br>1<br>2<br>1<br>1<br>2<br>1<br>1<br>1<br>1<br>1<br>1<br>2<br>1<br>1<br>1<br>1<br>1<br>2<br>2<br>1<br>1<br>1 | Cable A30-A70-A71<br>Cable A70-A71-X3<br>Cable A1:X7-A30/A40<br>Cable SCB-V31/33/35<br>Cable L1,L2,L3-A31,A32<br>Cable UD(+)-A31/A32:X4-A32:X11<br>Cable UD(-)-A31:X5<br>Cable A5:X62-A41:X10<br>Cable A70/A71-X11-X14<br>Flat cable A10:X3-A3:X3<br>Flat cable A1:X4-A10:X4<br>Flat cable A4:X82-A5:X81<br>Flat cable A4:X81-A1:X8-A3:X82<br>Flat cable A4:X31-A3:X32<br>Flat cable A1:X3-A5:X31<br>Cable UD0 connectors<br>Cable UD0-A1:UD0<br>Cable UD0-A4:X52<br>Cable gate drive UD0 connectors<br>Cable A5:X53-test connector<br>Cable motor voltage measurement<br>Cable A1:X30-A60:CN2A<br>Cable A1:X31-A6:CN7A<br>Cable A1:X30-A6:CN2A<br>Cable A1:X31-A6:CN7A<br>Cable A1:X21/X22-X30-33<br>Flat cable A1:X2-A2:X2<br>Cable A7:X2-A1:X14<br>Cable A1:X6<br>Cable T1/T2/T3-A1:X11 | 15                     | ATV61HC63N4<br>ATV71HC50N4                   | 30072-452-82                |
| VZ3S1910                         | Snubber capacitor kit | 1<br>1<br>1<br>3<br>2<br>2<br>1                                                                                                                                                            | Snubber board<br>Negative DC link bus bar<br>Positive DC link bus bar<br>Snubber capacitors (1200 V-0.47 µF)<br>Hexagonal metal supports, M4, 20 mm length<br>Torx <sup>®</sup> screws w/ captive washers, M4 x 10<br>Wire                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 9                      | ATV61HD90N4<br>ATV61HC11N4<br>ATV71HD90N4    | 30072-452-75                |
| VZ3S1911                         | Snubber capacitor kit | 1<br>3<br>1<br>1                                                                                                                                                                           | Snubber board<br>Capacitors<br>Snubber capacitor (1200 V-0.47 µF)<br>Plastic nylon tie                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 9                      | ATV61HD75M3X<br>ATV61HD55M3X<br>ATV71HD55M3X | 30072-452-75                |
|                                  |                       |                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 10                     | ATV61HD90M3X<br>ATV71HD75M3X                 | 30072-452-77                |
| VZ3S1912                         | Snubber capacitor kit | 1<br>1<br>1<br>3<br>2<br>2<br>2<br>1                                                                                                                                                       | Snubber board<br>Link N thyristor<br>Link P thyristor<br>Snubber capacitors (1200 V-0.47 µF)<br>Hexagonal metal supports, M4, 20 mm length<br>Torx screws w/ captive washers, M4 x 10<br>Wire                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 10                     | ATV61HC13N4<br>ATV71HC11N4                   | 30072-452-77                |
| VZ3TD1057M1671                   | SCR modules           | 3<br>1                                                                                                                                                                                     | Thyristor/diode modules, 1600 V, 55 A<br>Thermal compound                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 7A                     | ATV61HD30N4<br>ATV71HD30N4                   | 30072-452-73                |
| VZ3TD1072M1671                   | SCR modules           | 3<br>1                                                                                                                                                                                     | Thyristor/diode modules, 1600 V, 72 A<br>Thermal compound                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 7A                     | ATV61HD37N4<br>ATV71HD37N4                   | 30072-452-73                |
|                                  |                       |                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 8                      | ATV61HD45N4<br>ATV71HD45N4                   | 30072-452-74                |
| VZ3TD1092M1671                   | SCR modules           | 3<br>1                                                                                                                                                                                     | Thyristor/diode modules, 1600 V, 92 A<br>Thermal compound                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 7B                     | ATV61HD30M3X<br>ATV71HD30M3X                 | 30072-452-74                |
|                                  |                       |                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 8                      | ATV61HD55N4<br>ATV71HD55N4                   | 30072-452-74                |

**Table 1: Kit Contents and Required Documentation** *(continued)*

| <b>1—Identify Your Spare Parts Kit:</b> |                     |        |                                                            | <b>2—Identify Your Drive:</b> |                                                                                                                                                                   | <b>3—Locate and Read Document:</b> |
|-----------------------------------------|---------------------|--------|------------------------------------------------------------|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|
| Kit Catalog Number                      | Description         | Qty    | Kit Contents                                               | Frame Size                    | Catalog Number                                                                                                                                                    |                                    |
| VZ3TD1132M1671                          | SCR modules         | 3      | Thyristor/diode modules, 1600 V, 132 A<br>Thermal compound | 7B                            | ATV61HD37M3X<br>ATV71HD37M3X                                                                                                                                      | <b>30072-452-74</b>                |
|                                         |                     | 1      |                                                            | 8                             | ATV61HD75N4<br>ATV71HD75N4                                                                                                                                        | <b>30072-452-74</b>                |
| VZ3TD1162M1671                          | SCR modules         | 3<br>1 | Thyristor/diode modules, 1600 V, 162 A<br>Thermal compound | 7B                            | ATV61HD45M3X<br>ATV71HD45M3X                                                                                                                                      | <b>30072-452-74</b>                |
| VZ3TD1250M1671                          | SCR module          | 1<br>1 | Thyristor/diode module, 1600 V, 250 A<br>Thermal compound  | 9                             | ATV61HD90N4<br>ATV61HC11N4<br>ATV71HD90N4                                                                                                                         | <b>30072-452-75</b>                |
| VZ3TD1285M1671                          | SCR module          | 1      | Thyristor/diode module, 1600 V, 285 A<br>Thermal compound  | 10                            | ATV61HC13N4<br>ATV71HC11N4                                                                                                                                        | <b>30072-452-77</b>                |
|                                         |                     | 1      |                                                            | 11                            | ATV61HC16N4<br>ATV71HC13N4                                                                                                                                        | <b>30072-452-78</b>                |
| VZ3TD1330M1601                          | SCR module          | 1      | Thyristor/diode module, 1200 V, 330 A<br>Thermal compound  | 9                             | ATV61HD75M3X<br>ATV61HD55M3X<br>ATV71HD55M3X                                                                                                                      | <b>30072-452-75</b>                |
|                                         |                     | 1      |                                                            | 10                            | ATV61HC13N4<br>ATV61HD90M3X<br>ATV71HC11N4<br>ATV71HD75M3X                                                                                                        | <b>30072-452-77</b>                |
|                                         |                     | 1      |                                                            | 12                            | ATV71HC16N4<br>ATV61HC22N4                                                                                                                                        | <b>30072-452-79</b>                |
| VZ3TM1400M0671                          | Braking IGBT module | 1<br>1 | IGBT module, 600 V, 400 A<br>Thermal compound              | 9                             | ATV61HD75M3X<br>ATV61HD55M3X<br>ATV71HD55M3X                                                                                                                      | <b>30072-452-75</b>                |
| VZ3TM1400M1271                          | Braking IGBT module | 1<br>1 | IGBT module, 1200 V, 400 A<br>Thermal compound             | 9                             | ATV61HD90N4<br>ATV61HC11N4<br>ATV71HD90N4                                                                                                                         | <b>30072-452-77</b>                |
|                                         |                     | 1      |                                                            | 10                            | ATV61HC13N4<br>ATV71HC11N4                                                                                                                                        | <b>30072-452-77</b>                |
| VZ3TM1425M1671                          | SCR module          | 1<br>1 | SCR module, 425 A, 1600 V<br>Thermal compound              | 13                            | ATV61HC25N4<br>ATV71HC20N4                                                                                                                                        | <b>30072-452-80</b>                |
|                                         |                     | 1      |                                                            | 14B                           | ATV61HC50N4<br>ATV71HC40N4                                                                                                                                        | <b>30072-452-98</b>                |
| VZ3TM1600M1671                          | SCR module          | 1      | SCR module, 600 A, 1200 V<br>Thermal compound              | 13                            | ATV61HC31N4<br>ATV71HC25N4<br>ATV71HC28N4                                                                                                                         | <b>30072-452-80</b>                |
|                                         |                     | 1      |                                                            | 14A                           | ATV61HC40N4<br>ATV71HC31N4                                                                                                                                        | <b>30072-452-81</b>                |
|                                         |                     | 1      |                                                            | 15                            | ATV61HC63N4<br>ATV71HC50N4                                                                                                                                        | <b>30072-452-82</b>                |
| VZ3V1203                                | Fan kit             | 1<br>1 | Fan support<br>Fan, 50x50x10 mm, 24 Vdc, IP21              | 2                             | ATV61H075M3<br>ATV61HU15M3<br>ATV61H075N4<br>ATV61HU15N4<br>ATV61HU22N4<br>ATV71H075M3<br>ATV71HU15M3<br>ATV71H037M3<br>ATV71H075N4<br>ATV71HU15N4<br>ATV71HU22N4 | <b>30072-452-08</b>                |
| VZ3V1204                                | Fan kit             | 1<br>1 | Fan support<br>Fan, 60x60x25 mm, 24 Vdc, IP55              | 4                             | ATV61HU55M3<br>ATV61HU55N4<br>ATV61HU75N4<br>ATV71HU55M3<br>ATV71HU55N4<br>ATV71HU75N4                                                                            | <b>30072-452-09</b>                |

**Table 1: Kit Contents and Required Documentation** *(continued)*

| <b>1—Identify Your Spare Parts Kit:</b> |                  |             |                                                                              | <b>2—Identify Your Drive:</b> |                                                                                                                                                    | <b>3—Locate and Read Document:</b> |
|-----------------------------------------|------------------|-------------|------------------------------------------------------------------------------|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|
| Kit Catalog Number                      | Description      | Qty         | Kit Contents                                                                 | Frame Size                    | Catalog Number                                                                                                                                     |                                    |
| VZ3V1205                                | Fan kit          | 1<br>1      | Fan support<br>Fan assembled, 80x38 mm                                       | 5B                            | ATV61HD11M3X<br>ATV61HD15M3X<br>ATV61HD15N4<br>ATV61HD18N4<br>ATV71HD11M3X<br>ATV71HD15M3X<br>ATV71HD15N4<br>ATV71HD18N4                           | <b>30072-452-09</b>                |
| VZ3V1206                                | Fan kit          | 2<br>2<br>4 | Fans, 92x92x38 mm, 24 Vdc IP55<br>Fan supports<br>Screws with washers, M4x16 | 7A                            | ATV61HD30N4<br>ATV61HD37N4<br>ATV71HD30N4<br>ATV71HD37N4                                                                                           | <b>30072-452-10</b>                |
| VZ3V1207                                | Fan kit          | 4<br>1<br>2 | Screws with washers, M4x16<br>Fan support<br>Fans, 92x92x38 mm, 24 Vdc, IP55 | 7B                            | ATV61HD30M3X<br>ATV61HD37M3X<br>ATV61HD45M3X<br>ATV71HD30M3X<br>ATV71HD37M3X<br>ATV71HD45M3X                                                       | <b>30072-452-10</b>                |
| VZ3V1208                                | Fan kit          | 4<br>1<br>2 | Screws with washers, M4x16<br>Fan support<br>Fans, IP55                      | 8                             | ATV61HD45N4<br>ATV61HD55N4<br>ATV61HD75N4<br>ATV71HD45N4<br>ATV71HD55N4<br>ATV71HD75N4                                                             | <b>30072-452-10</b>                |
| VZ3V1209                                | Fan kit          | 1<br>2      | Fan Support<br>Fans, 60x60x25 mm, 24 Vdc, IP55                               | 3                             | ATV61HU22M3<br>ATV61HU30M3<br>ATV61HU40M3<br>ATV61HU30N4<br>ATV61HU40N4<br>ATV71HU22M3<br>ATV71HU30M3<br>ATV71HU40M3<br>ATV71HU30N4<br>ATV71HU40N4 | <b>30072-452-08</b>                |
| VZ3V1210                                | Fan kit          | 1<br>1<br>1 | Fan support<br>Fan, 60x25 mm<br>Fan, 80x38 mm                                | 5A                            | ATV61HU75M3<br>ATV61HD11N4<br>ATV71HU75M3<br>ATV71HD11N4                                                                                           | <b>30072-452-09</b>                |
| VZ3V1211                                | Fan kit          | 2<br>1<br>1 | Screws with washers, M4X16<br>Fan support<br>Fan, 92x92x38 mm, 24 Vdc, IP55  | 6                             | ATV61HD18M3X<br>ATV61HD22M3X<br>ATV61HD22N4<br>ATV71HD18M3X<br>ATV71HD22M3X<br>ATV71HD22N4                                                         | <b>30072-452-10</b>                |
| VZ3V1212                                | Heatsink fan kit | 1           | Blower, 400 V                                                                | 10                            | ATV61HC13N4<br>ATV71HC11N4                                                                                                                         | <b>30072-452-48</b>                |
|                                         |                  |             |                                                                              | 11                            | ATV61HC16N4<br>ATV71HC13N4                                                                                                                         |                                    |
|                                         |                  |             |                                                                              | 12                            | ATV61HC22N4<br>ATV71HC16N4                                                                                                                         |                                    |
|                                         |                  |             |                                                                              | 13                            | ATV61HC25N4<br>ATV61HC31N4<br>ATV71HC20N4<br>ATV71HC25N4<br>ATV71HC28N4                                                                            |                                    |
|                                         |                  |             |                                                                              | 14A                           | ATV61HC40N4<br>ATV71HC31N4                                                                                                                         |                                    |
|                                         |                  |             |                                                                              | 14B                           | ATV61HC50N4<br>ATV71HC40N4                                                                                                                         |                                    |
|                                         |                  |             |                                                                              | 15                            | ATV61HC63N4<br>ATV71HC50N4                                                                                                                         |                                    |



**Table 1: Kit Contents and Required Documentation** *(continued)*

| <b>1—Identify Your Spare Parts Kit:</b> |                  |             |                                                                     | <b>2—Identify Your Drive:</b> |                                                                                           | <b>3—Locate and Read Document:</b> |
|-----------------------------------------|------------------|-------------|---------------------------------------------------------------------|-------------------------------|-------------------------------------------------------------------------------------------|------------------------------------|
| Kit Catalog Number                      | Description      | Qty         | Kit Contents                                                        | Frame Size                    | Catalog Number                                                                            |                                    |
| VZ3V1213                                | Internal fan     | 1           | Fan, 24 Vdc                                                         | 11                            | ATV61HC16N4<br>ATV71HC13N4                                                                | <b>30072-452-78</b>                |
|                                         |                  |             |                                                                     | 12                            | ATV71HC16N4<br>ATV61HC22N4                                                                | <b>30072-452-79</b>                |
|                                         |                  |             |                                                                     | 13                            | ATV61HC25N4<br>ATV61HC31N4<br>ATV71HC20N4<br>ATV71HC25N4<br>ATV71HC28N4                   | <b>30072-452-80</b>                |
|                                         |                  |             |                                                                     | 14A                           | ATV61HC40N4<br>ATV71HC31N4                                                                | <b>30072-452-81</b>                |
|                                         |                  |             |                                                                     | 14B                           | ATV61HC50N4<br>ATV71HC40N4                                                                | <b>30072-452-98</b>                |
|                                         |                  |             |                                                                     | 15                            | ATV61HC63N4<br>ATV71HC50N4                                                                | <b>30072-452-82</b>                |
| VZ3V1214                                | Internal fan     | 1<br>1      | Fan, 80x80<br>Finger guard                                          | 9                             | ATV61HD75M3X<br>ATV61HD90N4<br>ATV61HD55M3X<br>ATV61HC11N4<br>ATV71HD90N4<br>ATV71HD55M3X | <b>30072-452-75</b>                |
|                                         |                  |             |                                                                     | 10                            | ATV61HC13N4<br>ATV61HD90M3X<br>ATV71HC11N4<br>ATV71HD75M3X                                | <b>30072-452-77</b>                |
| VZ3V1215                                | Fan kit          | 3<br>1<br>6 | Fans, 92x92<br>Fan Support<br>Screws with captive washers,<br>M4x10 | 9                             | ATV61HD75M3X<br>ATV61HD90N4<br>ATV61HD55M3X<br>ATV61HC11N4<br>ATV71HD90N4<br>ATV71HD55M3X | <b>30072-452-11</b>                |
| VZ3V1216                                | Heatsink fan kit | 1           | Blower, 200 V                                                       | 10                            | ATV61HD90M3X<br>ATV71HD75M3X                                                              | <b>30072-452-48</b>                |

<sup>1</sup> SCR: Silicon controlled rectifier

<sup>2</sup> IGBT: Insulated-gate bipolar transistor

<sup>3</sup> Letter designations in the wire kit contents correspond to component and terminal designations on the wiring diagrams in the associated document.







# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

## Schneider Electric:

[VX4A45107](#) [VX4A45117](#) [VX4A45119](#) [VX4A45142](#) [VX4A581S313U](#) [VX5A452U40N02](#) [VX5A1300](#)  
[VX5A71HC13N4](#) [GVX750K1250GS](#) [VX5A452075M02](#) [VX4A45115](#) [VX4A1103](#)