

# **New Unit Information**



1.435-...

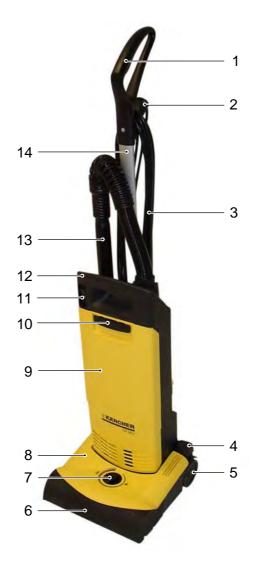
#### Design:

- Single-motor brush vacuum cleaner.
- Adjustable height handle.
- Adjustable height brush head for adjusting to the carpet pile.
- Triple filter
  - Dust filter (felt filter)
  - Protective motor filter
  - Exhaust air filter
- Filter full display.
- CV 30/1, working width 300 mm (11.8 in)
- CV 38/1, working width 380 mm (14.9 in)

#### **Drive unit**

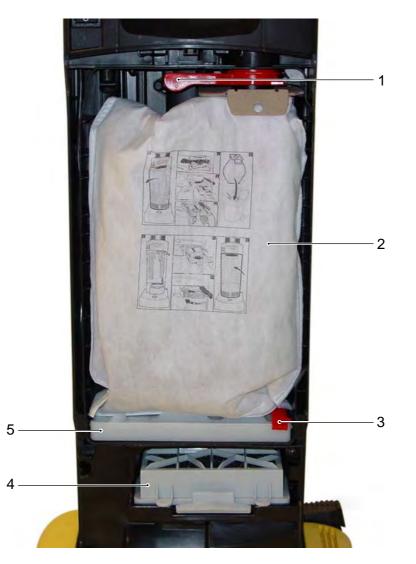
- Suction motor drives the brush roller via two toothed belts.
- Brush roller with centrifugal clutch for protecting the brush drive assembly in case of blockages.

## View from the front



- 1 Handle
- 2 Cable hook, top
- 3 Mains connection cable
- 4 Foot lever, brush head unlocking device
- 5 Rollers (2x)
- 6 Brush head
- 7 Rotary height adjustment knob for brush head
- 8 Brush head cover
- 9 Dust filter cover
- 10 Cover latch
- 11 Unit switch
- 12 Top cover
- 13 Suction tube with suction hose
- 14 Handle column

## View from the front, opened dust filter cover

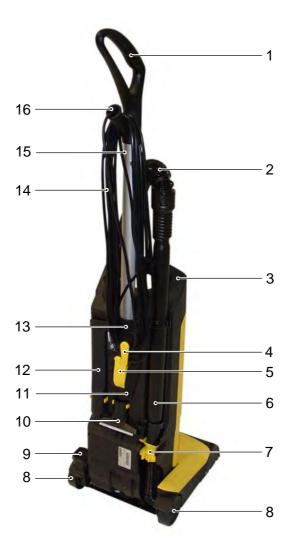


- 1 Retaining lever for dust filter
- 2 Dust filter (felt filter)
- 3 Retaining lever for protective motor filter
- 4 Exhaust air filter
- 5 Protective motor filter

#### Note:

The dust filter (2) and the protective motor filter (5) can only be replaced if the corresponding retaining levers (1, 3) are released.

## **Rear view**



- 1 Handle
- 2 Suction hose
- 3 Top cover
- 4 Lower cable hook
- 5 Clamping lever for handle height adjustment
- 6 Suction tube
- 7 Connection for suction tube
- 8 Rollers (2x)

- 9 Foot lever, brush head unlocking device
- 10 Upholstery nozzle (accessories)
- 11 Rear cover
- 12 Crevice tool (accessories)
- 13 Locking device for handle column
- 14 Mains connection cable
- 15 Handle column
- 16 Top cable hook

## Rear view, rear cover



- 1 Handle column
- 2 Retaining screws for rear cover (4x)
- 3 Rear cover
- 4 Clamping lever for handle height adjustment
- 5 Lower cable hook
- 6 Locking device for handle column

#### Note:

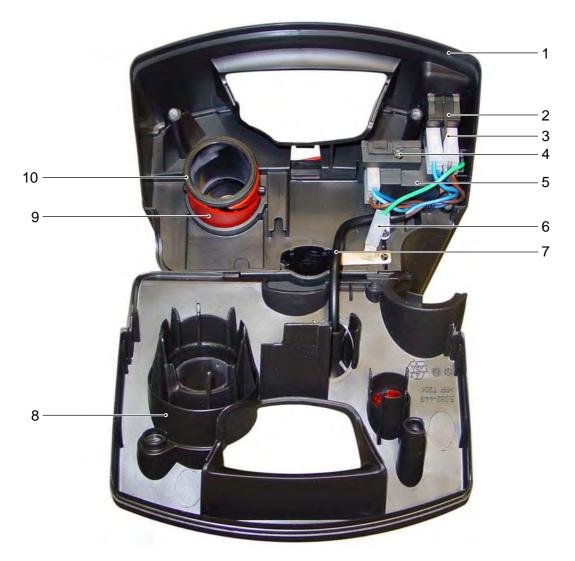
The clamping lever (4) and the lower cable hook (5) can be replaced once the rear cover (3) has been removed.

## View from above



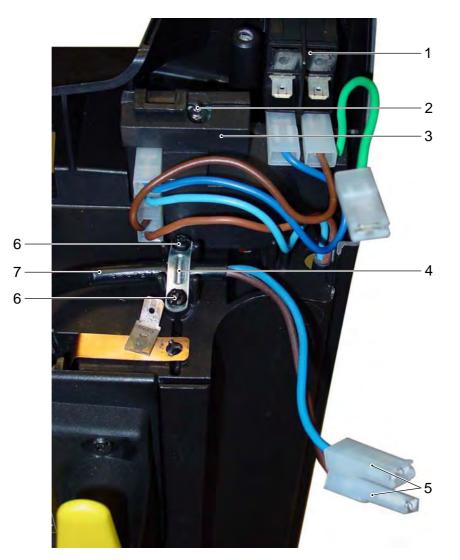
- 1 Top cover
- 2 Retaining screws for upper cover (2x)
- 3 Control lamp (red), filter status
- 4 Mains connection cable
- 5 Circlip
- 6 Suction hose connection

## Upper cover open



- 1 Top cover
- 2 Unit switch
- 3 Unit switch connections
- 4 Control lamp, filter status
- 5 Housing for control printed circuit board
- 6 Earth connection plug
- 7 Mains connection cable
- 8 Suction hose connection
- 9 Circlip
- 10 Suction hose connection socket

## Mains connection cable

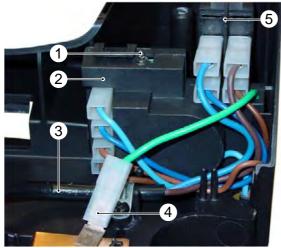


- 1 Unit switch
- 2 Control lamp, filter status
- 3 Housing for control printed circuit board
- 4 Clamp for mains connection cable
- 5 Connection plug
- 6 Retaining screw for clamp (2x)
- 7 Mains connection cable

#### Replace the mains connection cable

- Pull the connection plug (5) off the unit switch (1).
- Screw out the retaining screws (6).
- Remove the clamp (4).
- Remove the mains connection cable (7) from the cable guide.
- Fit new mains connection cable in reverse order.

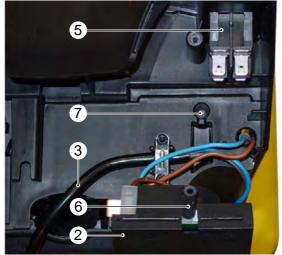
## Printed circuit board



Electrical connection, printed circuit board

#### Replace the printed circuit board

When installing the printed circuit board with housing (2) ensure that the vacuum hose (6) is correctly pushed onto the connection (7). The vacuum sensor on the printed circuit board measures the vacuum in the suction system. The control lamp lights up if the vacuum increases (filter bag full). If the printed circuit board is defective, it must be replaced together with the housing (2).



Vacuum hose connection

- 1 Control lamp, filter status
- 2 Housing for control printed circuit board
- 3 Mains connection cable
- 4 Earth connection plug
- 5 Unit switch
- 6 Vacuum hose on the printed circuit board
- 7 Vacuum hose connection

## Brush head, view from below

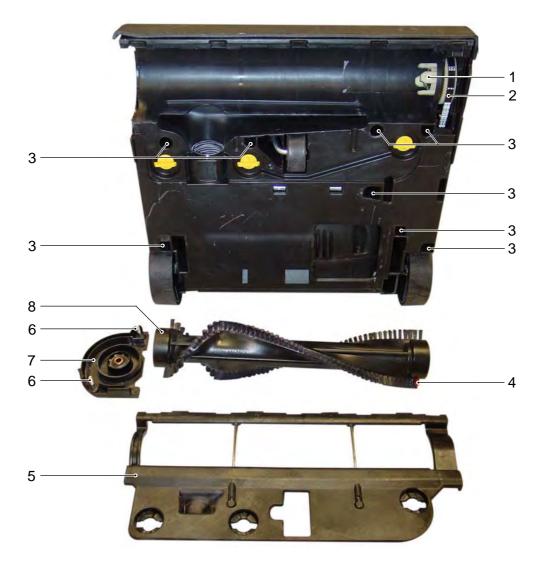


- 1 Brush roller
- 2 Locking pin (3x) for skid plate
- 3 Skid plate
- 4 Roller
- 5 Running wheel for adjusting height of brush head

## Removing skid plate

- Rotate the locking pins (2) through 90° in an counter-clockwise direction.
- Pull up and remove the skid plate (3).

## Brush head, view from below



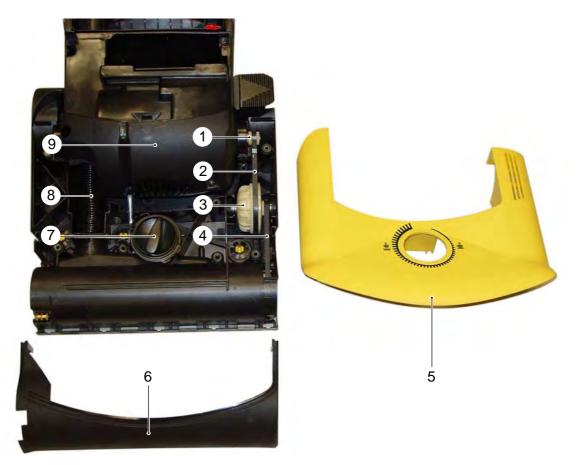
- 1 Brush roller drive
- 2 Brush roller drive belt
- 3 Retaining screws (8x) for brush head cover (see page 13)
- 4 Indicator bristles (red)
- 5 Skid plate
- 6 Retaining screws (2x) for counter bearing
- 7 Brush roller counter bearing
- 8 Brush roller

#### Replace the brush roller

- Remove the retaining screws (6) for the counter bearing (7).
- Remove the counter bearing (7) and pull the brush roller and (8) off the brush roller drive.

#### Note:

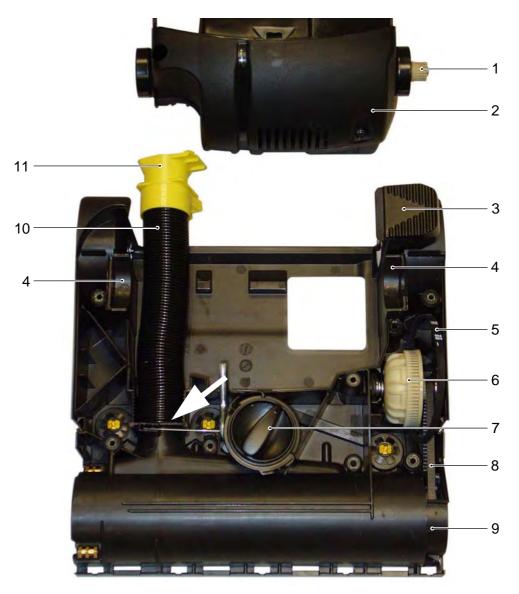
The brush roller (8) should be replaced if the bristles have the same length as the indicator bristles (4). When new, the red indicator bristles are approx. 2mm shorter than the working bristles.



- 1 Driving gear
- 2 Centrifugal clutch drive belt
- 3 Centrifugal clutch
- 4 Brush roller drive belt
- 5 Brush head cover
- 6 Bumper
- 7 Rotary height adjustment knob for brush head
- 8 Suction hose
- 9 Suction motor housing

#### Remove brush head cover

- Remove the retaining screws (Item 3, page 12).
- Remove the brush head cover (5).
- Remove the bumper (6).



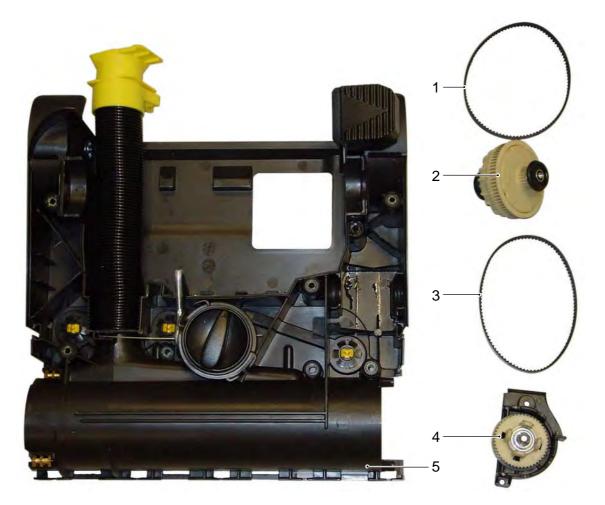
- 1 Driving gear
- 2 Suction motor housing
- 3 Foot lever, brush head unlocking device
- 4 Bearing shells for suction motor housing
- 5 Drive belt for centrifugal clutch
- 6 Centrifugal clutch
- 7 Rotary height adjustment knob for brush head
- 8 Brush roller drive belt
- 9 Brush head housing
- 10 Suction hose
- 11 Connection for suction tube

#### Dismantle the suction motor

- Pull the drive belt (5) off the driving gear (1).
- Remove the suction motor housing (2) from the bearing shells (4).

#### Note:

If the suction hose (10) is replaced, it must be fitted flush with the brush head housing (arrow) to prevent false air from being drawn in.



- 1 Drive belt for centrifugal clutch
- 2 Centrifugal clutch
- 3 Brush roller drive belt
- 4 Drive gear for brush roller
- 5 Brush head housing

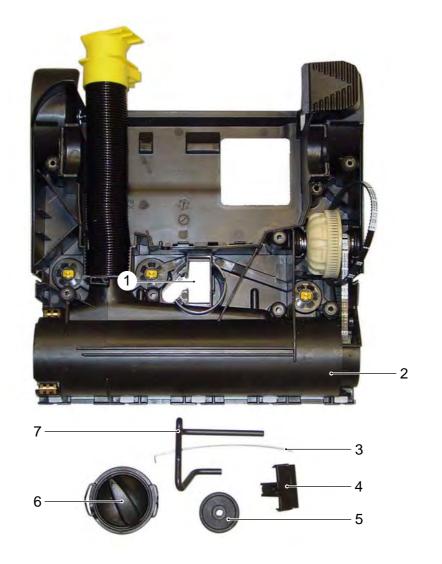
#### Remove the centrifugal clutch

- Take out the centrifugal clutch (2).
- Remove the drive belts (1, 3).

The centrifugal clutch (2) disengages if the brush roller is blocked. This disconnects the brush roller from the drive. The centrifugal clutch (2) does not engage again until the unit has been switched off, a loud clattering sound can be heard.

#### Note:

The centrifugal clutch (2) is set in the factory and must not be dismantled. If necessary it must be completely replaced.

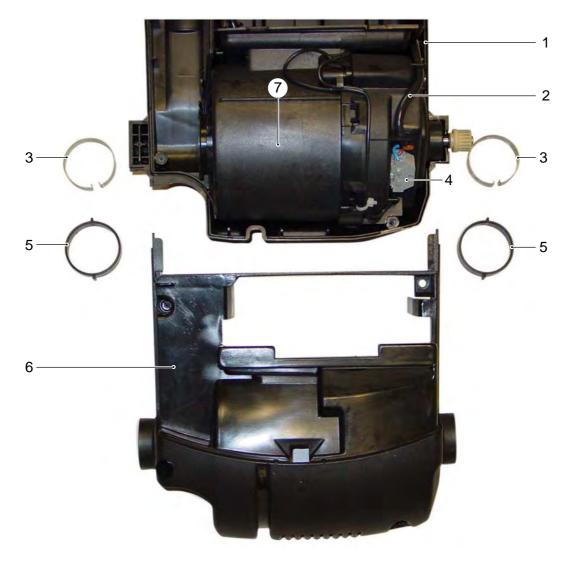


## Height adjustment, brush head disassembled

- 1 Opening for running wheel, height adjustment
- 2 Brush head housing
- 3 Steel spring
- 4 Running wheel cover
- 5 Running wheel, height adjustment
- 6 Rotary knob
- 7 Metal bracket for running wheel



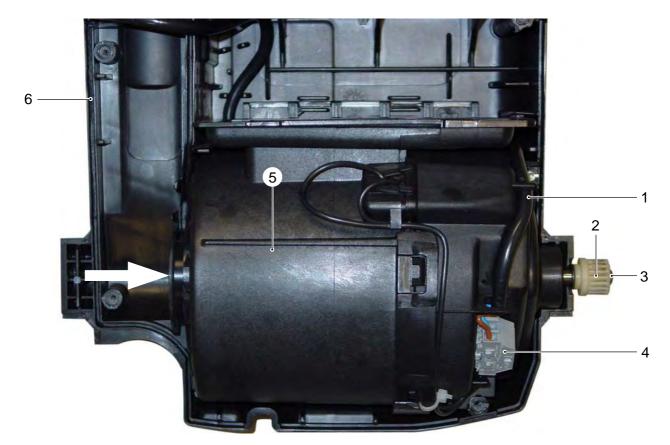
- 1 Retaining screw (4x) for upper section of housing
- 2 Lower section of housing
- 3 Suction motor driving gear
- 4 Upper housing section



- 1 Lower section of housing
- 2 Mains connection cable
- 3 Spring clip for bearing shell
- 4 Terminal strip/connection for suction motor
- 5 Bearing shell
- 6 Upper housing section
- 7 Suction motor

#### Dismantle upper housing section

- Remove the retaining screws (Item 1, page 17).
- Pull off the bearing shell (5) with spring clips(3) from the side.
- Remove the upper housing section (6).



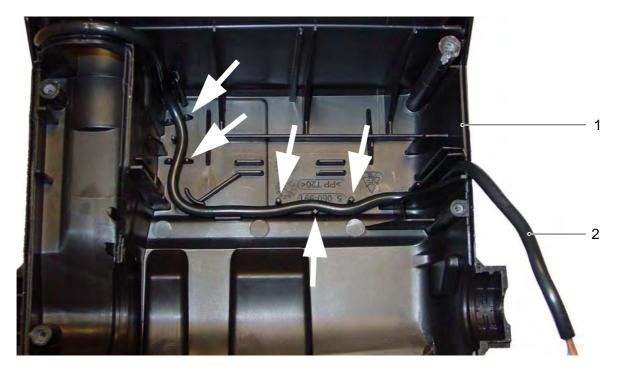
- 1 Connection cable
- 2 Driving gear
- 3 Hexagon nut M5
- 4 Terminal strip/connection for suction motor
- 5 Suction motor
- 6 Lower section of housing

#### Replace the suction motor

- Disconnect the connection cable (1) from the terminal strip (4).
- Remove the suction motor (5).

#### Replace the driving gear

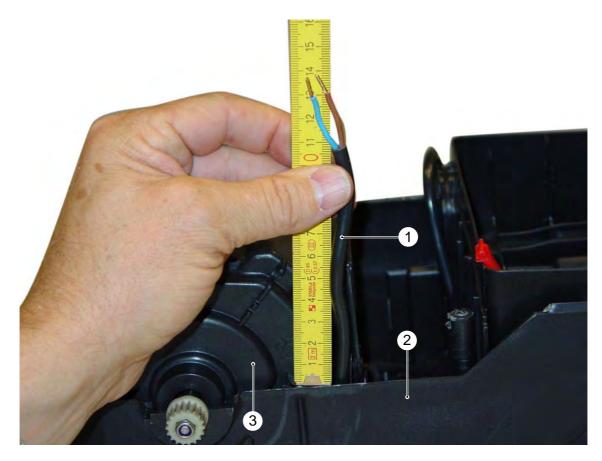
- Use flat nose pliers to hold the motor axle on the rear of the electric motor (see arrow).
- Unscrew the hexagon nut (3) in a counterclockwise direction.
- Pull off the driving gear (2),
- Install a new driving gear in reverse order.



- 1 Lower section of housing
- 2 Mains connection cable for suction motor

#### Insert mains connection cable

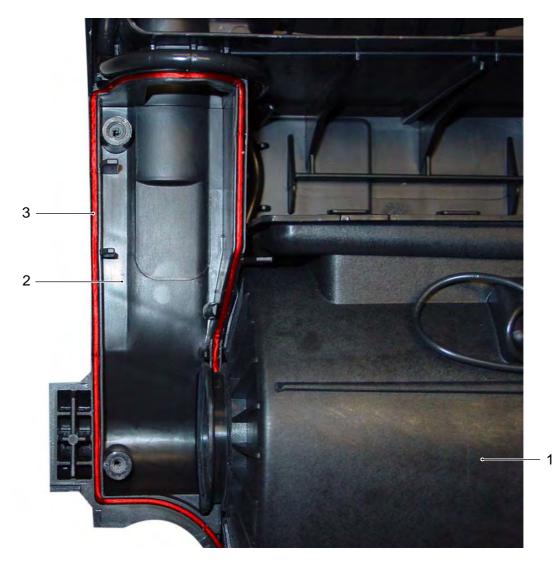
The mains connection cable (2) must be laid inside the pins provided (see arrow) as shown in the figure above.



- 1 Mains connection cable
- 2 Lower section of housing
- 3 Suction motor

#### Insert mains connection cable

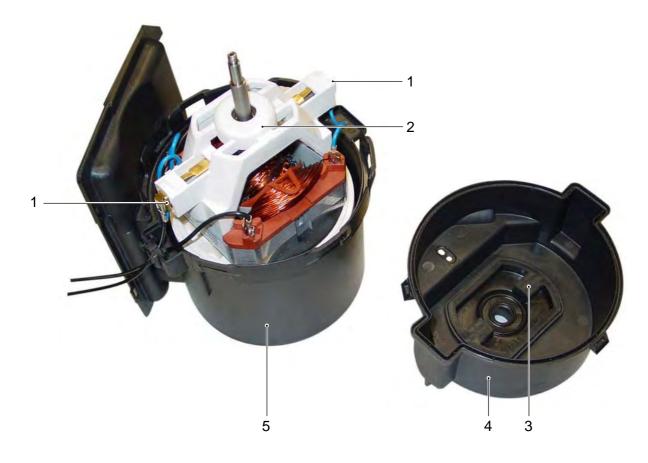
The length of the mains connection cable (1), measured from the upper edge of the lower housing section (2), must be 14 cm (5.5 in). This length is measured with the suction motor installed.



- 1 Suction motor
- 2 Lower section of housing
- 3 Seal (marked in red)

## Replace seal.

The seal (3) must be placed exactly in the guide groove of the lower housing section (2) to protect the suction motor (1) from dust and dirt.



- 1 Carbon brush (2x)
- 2 Suction motor
- 3 Hard rubber bracket
- 4 Motor cover
- 5 Protective motor housing

#### Open the suction motor housing

- Remove the motor cover (4) from the protective motor housing (5).
- The suction motor (2) can now be removed from the protective motor housing (5).

## Troubleshooting

Fault	Solution		
Motor not running	<ul> <li>Check cable, plug, fuse and socket.</li> <li>Thermal contact has switched off the suction motor because of overheating, leave the suction motor to cool.</li> </ul>		
Clattering noise when switched off	<ul> <li>The centrifugal clutch has triggered, check brush for blocking objects and remove them.</li> </ul>		
Cleaning result unsatisfactory	<ul> <li>Check/clean brush head, suction tube and suction hose for blockage.</li> <li>Clean/Replace the dust filter.</li> <li>Check/Replace the air outlet filter and protective motor filter.</li> <li>Adjust brush to correct pile height.</li> <li>Check the brush for wear (indicator bristles) and replace if necessary.</li> </ul>		
Red control lamp lit	<ul> <li>Check/clean brush head, suction tube and suction hose for blockage.</li> <li>Replace dust filter.</li> </ul>		

## **Technical specifications**

Unit Type	Unit No.	Circuit diagram	Operating instructions	Spare parts list
CV 30/1 EU (220-240 Volt / 50-60 Hz)	1.023-101	0.088-614	5.960-522	5.970-067
CV 38/1 EU (220-240 Volt / 50-60 Hz)	1.435-101	0.088-614	5.960-522	5.970-067
CV 30/1 USA (120 Volt / 60 Hz)	1.023-105	0.088-614	5.960-943	5.970-067
CV 38/1 USA (120 Volt / 60 Hz)	1.435-105	0.088-614	5.960-943	5.970-067

The technical data sheet and the circuit diagram will be included in the next issue of the spare parts CD-ROM (DISIS) and are available in the Intranet.

Technical data sheet: Folder: "Central / Service Info Int'l / Technical Specifications"

Circuit diagram: Folder: "Central / Service Info Int'l / Circuit Diagram"

If required, the operating instructions and the spare parts lists can be ordered as a paper copy from the spare parts service by quoting the relevant part number.

## Special tools

No special tools are required.

## **Tightening torque**

No details.