The NPCU-01 PC Connection Unit is a galvanically-isolated RS-232/485 converter that enables the use of a PC – instead of the Control Panel – for controlling ABB DCS 500, ACS 600 or ACS 1000 series drives.

The NPCU-01 is plugged into a serial port on the PC. The drive is connected to the NPCU-01 using the 3-metre (also the maximum length) flat oval telephone cable included. Locating the PC up to 1200 metres away from the drive is possible by constructing a panel bus using two NBCI Panel Bus Interface Connection Modules (available separately).

**Computer System Requirements**

- A free serial (COM) port, equipped with a male 9-pin D connector. Note that the port has to be supported by the drive controlling program to be used. (DriveWindow and DriveWindow Light support all four COM ports.)

- A Modbus-protocol compatible program for controlling the drive, e.g. DriveWindow running under Windows 3.1x or Windows 95, or DriveWindow Light running under Windows 3.1x

- The system requirements of the above-mentioned program. For DriveWindow and DriveWindow Light, the following minimum requirements apply:
  - 486/DX class processor
  - 8 MB system RAM
  - VGA display
  - 10 MB hard disk space.
**WARNING!** Do not work on a powered drive. Before work inside the drive unit or drive cabinet, switch off the mains and other dangerous voltages (e.g. from external control circuits) to the drive. After switching off the mains, allow the intermediate circuit capacitors 5 minutes to discharge before starting work on the drive.

**Installation**

1. Switch off the mains supply and other dangerous voltages (e.g. from external control circuits) to the drive. Switch off the PC.

2. Plug the D connector of the NPCU-01 into a free COM port on the PC. Tighten the jackscrews to secure the connection.

3. Connect the jack labelled *RS-485* to the Control Panel connector of the drive with the flat cable included in the package. At the drive, connect the cable screen wire to drive chassis or PE terminal. Use grommets at cable lead-throughs.

   The Control Panel connector in the drive can be determined by the type of the NAMC (Application and Motor Control) board as follows:

<table>
<thead>
<tr>
<th>NAMC Board Type</th>
<th>Control Panel Connector</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAMC-03, NAMC-04</td>
<td>NIOC – X29</td>
</tr>
<tr>
<td>NAMC-11</td>
<td>NAMC – X19</td>
</tr>
<tr>
<td>NAMC-21, NAMC-22</td>
<td>NAMC – X3</td>
</tr>
</tbody>
</table>

4. Configure the PC program to use the COM port the NPCU-01 is connected to. (*DriveWindow* has an autodetect feature.)

**NPCU-01 Block Diagram**

**Technical Data**

- Data transfer rate: 9.6 or 19.2 kbit/s
- Supply voltage: 24 V d.c., from the drive via the flat telephone cable
- Dimensions (without cables): 63 × 42 × 22 mm. Length (including RS-232 cable): 250 mm
- All materials are UL/CSA recognised.
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