Getting Started With ATV320

Download the manuals

You must have detailed information to be able to carry out the installation and commissioning. This information can be found in the following manuals that can be downloaded on www.schneider-electric.com.
- The ATV320 Installation manual (NVE41289)
- The ATV320 Programming manual (NVE41295)

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

Information below is designed to use single drive connected to single asynchronous motor with a motor cable length less than 50 m (164 ft). Verify your cables before connecting the drive with motor (length, power, shielded or unshielded).

Verify the delivery of the drive

- Unpack the drive and verify that it has not been damaged.

Damaged products or accessories may cause electric shock or unanticipated equipment operation.

Contact your local Schneider Electric sales office if you detect any damage whatsoever.

- Verify that the drive catalog number printed on the label is the same as that on the delivery note corresponding to the purchase order.

- Write the drive Model Reference: ____________________ and Serial Number: _______________________

For ATV320U15N4C, 1.5kW-3HP-380/480V, remove the output connector from the packaging and verify that it has not been damaged.
3 Verify The Supply Mains Compatibility

- Verify that the supply mains is compatible with the supply range of the drive.

Line voltage _______ Volts  Drive voltage range _______ Volts

Drive range: ATV320●●●M2● = 200 V single phase, ATV320●●●M3C = 200 V three-phase, ATV320●●●N4● = 400 V three-phase, ATV320●●●S6C = 600 V three-phase

4 Mount The Drive Vertically

For a surrounding air temperature up to 40 °C (104°F) up to 4 kHz. See the ATV320 Installation manual (NVE41289) for other mounting and thermal conditions.

5 Connect The Drive: Power

- Connect the drive to the ground.
- Verify circuit breaker rating or fuse rating (see SCCR annex NVE21777)
- Verify that the nominal motor voltage is compatible with the drive voltage. Nominal motor voltage ______volts.
- Connect the drive to the motor.
- Connect the drive to the supply mains.

**DANGER**

HAZARD OF FIRE OR ELECTRIC SHOCK

Wire cross sections and tightening torques must comply with the specifications provided in the installation manual.

Failure to follow these instructions will result in death or serious injury.
6 Connect The Drive: Control by External Reference ($F_r I = A R_1 I$)

- Connect the speed reference:

- Connect the command:
  Control command 2-wire: Parameter $t_{CC} = 2C$

7 Apply power to the drive

- Ensure that used digital Inputs are not active (DI1, DI2 see step 6 diagram above).
- Apply power to the drive.
- At first power up, the drive displays $bFr$, in the menu $SIM[\text{SIMPLY START}]$

8 Set motor parameters for asynchronous motor (3).

- Refer to the motor Nameplate for the following parameters settings:

<table>
<thead>
<tr>
<th>Menu</th>
<th>Code</th>
<th>Description</th>
<th>Factory setting</th>
<th>Customer setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>$Conf &gt; F u l l &gt; S i m$ [SIMPLY START]</td>
<td>$bFr$</td>
<td>[Standard mot. freq]: Standard motor frequency (Hz)</td>
<td>50.0</td>
<td>50.0</td>
</tr>
<tr>
<td></td>
<td>$nP_r$</td>
<td>[Rated motor power]: Nominal motor power on motor nameplate (KW)</td>
<td>drive rating</td>
<td>drive rating</td>
</tr>
<tr>
<td></td>
<td>$nS$</td>
<td>[Rated motor volt.]: Nominal motor voltage on motor nameplate (V)</td>
<td>drive rating</td>
<td>drive rating</td>
</tr>
<tr>
<td></td>
<td>$nC_r$</td>
<td>[Rated motor current.]: Nominal motor current on motor nameplate (A)</td>
<td>drive rating</td>
<td>drive rating</td>
</tr>
<tr>
<td></td>
<td>$FrS$</td>
<td>[Rated motor freq.]: Nominal motor frequency on motor nameplate (Hz)</td>
<td>50.0</td>
<td>50.0</td>
</tr>
<tr>
<td></td>
<td>$nSP$</td>
<td>[Rated motor speed]: Nominal motor speed on motor nameplate (rpm)</td>
<td>drive rating</td>
<td>drive rating</td>
</tr>
<tr>
<td></td>
<td>$H_tH$</td>
<td>[Mot. therm. current]: Nominal motor current on motor nameplate (A)</td>
<td>drive rating</td>
<td>drive rating</td>
</tr>
</tbody>
</table>


9 Set basic parameters

<table>
<thead>
<tr>
<th>Menu</th>
<th>Code</th>
<th>Description</th>
<th>Factory setting</th>
<th>Customer setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>$Conf &gt; F u l l &gt; S i m$ [SIMPLY START]</td>
<td>$R C C$</td>
<td>[Acceleration]: Acceleration time (s)</td>
<td>3.0</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>$d E C$</td>
<td>[Deceleration]: Deceleration time (s)</td>
<td>3.0</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>$L S P$</td>
<td>[Low speed]: Motor frequency at minimum reference (Hz)</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td>$H S P$</td>
<td>[High speed]: Motor frequency at maximum reference (Hz)</td>
<td>5.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

10 Start the motor

- Switch on DI1
Menus structure

A dash appears after menu codes to differentiate them from parameter codes. Example: [SIMPLY START] S, n, tCC parameter.

Refer to the ATV320 Programming manual (NVE41295) for comprehensive menu descriptions and troubleshooting explanations.