

SVX FreqD 2.2 kW 230 V IP21



Part no. SVX003A1-2A1B1  
 Catalog No. 125716  
 Alternate Catalog No. SVX003A1-2A1B1  
 EL-Nummer 4132522  
 (Norway)

**Delivery program**

|                                    |                 |    |   |
|------------------------------------|-----------------|----|---|
| Product range                      |                 |    | Variable frequency drives   |
| Part group reference (e.g. DIL)    |                 |    | SVX   |
| Rated operational voltage          | U <sub>e</sub>  |    | 230 V AC, 3-phase<br>240 V AC, 3-phase  |
| Output voltage with V <sub>e</sub> | U <sub>2</sub>  |    | 230 V AC, 3-phase<br>240 V AC, 3-phase  |
| Mains voltage (50/60Hz)            | U <sub>LN</sub> | V  | 208 (-15%) - 240 (+10%)   |
| <b>Rated operational current</b>   |                 |    |   |
| At 150% overload                   | I <sub>e</sub>  | A  | 11  |
| At 110% overload                   | I <sub>e</sub>  | A  | 12.5  |
| <b>Assigned motor rating</b>       |                 |    |   |
| Note                               |                 |    | For AC motors with internal and external ventilation with 50 Hz / 60 Hz   |
| Note                               |                 |    | Overload cycle for 60 s every 600 s   |
| Note                               |                 |    | at 230 V, 50 Hz   |
| 150 % Overload                     | P               | kW | 2.2   |
| 110 % Overload                     | P               | kW | 3   |
| 150 % Overload                     | I <sub>M</sub>  | A  | 8.7   |
| 110 % Overload                     | I <sub>M</sub>  | A  | 11.5  |
| Note                               |                 |    | at 230 V, 60 Hz   |
| 150 % Overload                     | P               | HP | 3   |
| 150 % Overload                     | I <sub>M</sub>  | A  | 9.6   |
| Degree of Protection               |                 |    | IP21  |
| Fieldbus connection (optional)     |                 |    | PROFIBUS-DP<br>PROFINET<br>EtherCAT<br>EtherNet/IP<br>LonWorks<br>CANopen®<br>DeviceNet<br>Modbus-TCP<br>Modbus-RTU<br>BACnet MS/TP |
| Fitted with                        |                 |    | Radio interference suppression filter<br>Brake chopper<br>OLED display  |
| Frame size                         |                 |    | FR4   |
| Connection to SmartWire-DT         |                 |    | no  |

**Technical data**

**General**

|                                    |                |    |   |
|------------------------------------|----------------|----|---|
| Standards                          |                |    | General requirements: IEC/EN 61800-2<br>EMV requirements: IEC/EN 61800-3<br>Safety requirements: IEC/EN 61800-5-1 |
| Certifications                     |                |    | CE, UL, cUL, RCM  |
| Approvals                          |                |    | DNV   |
| Production quality                 |                |    | RoHS, ISO 9001  |
| Climatic proofing                  | ρ <sub>w</sub> | %  | < 95% relative humidity, no condensation, no corrosion, no dripping water   |
| <b>Ambient temperature</b>         |                |    |   |
| Operating ambient temperature min. |                | °C | -10   |
| Operating ambient temperature max. |                | °C | + 50  |
| operation (110 % overload)         | θ              | °C | -10 - +40   |

|                                   |   |    |   |
|-----------------------------------|---|----|---|
| Storage                           | θ | °C | -40 - +70   |
| Radio interference level          |   |    |   |
| Radio interference class (EMC)    |   |    | C2, C3, depending on the motor cable length, the connected load, and ambient conditions. External radio interference suppression filters (optional) may be necessary. |
| Environment (EMC)                 |   |    | 1st and 2nd environments as per EN 61800-3  |
| Mounting position                 |   |    | Vertical  |
| Altitude                          |   | m  | 0 - 1000 m above sea level<br>above 1000 m with 1 % performance reduction per 100 m<br>max. 3000 m  |
| Degree of Protection              |   |    | IP21  |
| Protection against direct contact |   |    | BGV A3 (VBG4, finger- and back-of-hand proof)   |

## Main circuit

|                                       |            |     |   |
|---------------------------------------|------------|-----|---|
| Supply                                |            |     |   |
| Rated operational voltage             | $U_e$      |     | 230 V AC, 3-phase<br>240 V AC, 3-phase                                  |
| Mains voltage (50/60Hz)               | $U_{LN}$   | V   | 208 (-15%) - 240 (+10%)   |
| System configuration                  |            |     | AC supply systems with earthed center point                             |
| Supply frequency                      | $f_{LN}$   | Hz  | 50/60   |
| Frequency range                       | $f_{LN}$   | Hz  | 45–66 (± 0%)  |
| Power section                         |            |     |   |
| Function                              |            |     | Variable frequency drive with internal DC link and IGBT inverter        |
| Output voltage with $V_e$             | $U_2$      |     | 230 V AC, 3-phase<br>240 V AC, 3-phase                                  |
| Output Frequency                      | $f_2$      | Hz  | 0 - 50/60 (max. 320)  |
| Switching frequency                   | $f_{PWM}$  | kHz | 10<br>adjustable 1 - 16   |
| Operation Mode                        |            |     | U/f control<br>sensorless vector control (SLV)                          |
| Frequency resolution (setpoint value) | $\Delta f$ | Hz  | 0.01  |
| Rated operational current             |            |     |   |
| At 150% overload                      | $I_e$      | A   | 11  |
| At 110% overload                      | $I_e$      | A   | 12.5  |
| Fitted with                           |            |     | Radio interference suppression filter<br>Brake chopper<br>OLED display  |
| Frame size                            |            |     | FR4   |
| Motor feeder                          |            |     |   |
| Note                                  |            |     | For AC motors with internal and external ventilation with 50 Hz / 60 Hz |
| Note                                  |            |     | Overload cycle for 60 s every 600 s                                     |
| Note                                  |            |     | at 230 V, 50 Hz   |
| 150 % Overload                        | P          | kW  | 2.2   |
| 110 % Overload                        | P          | kW  | 3   |
| Note                                  |            |     | at 230 V, 60 Hz   |
| 150 % Overload                        | P          | HP  | 3   |

## Control section

|                          |       |   |  |
|--------------------------|-------|---|--|
| External control voltage | $U_c$ | V | 24 V DC (max. 250 mA)  |
| Reference voltage        | $U_s$ | V | 10 V DC (max. 10 mA)   |
| Analog inputs            |       |   | 2, parameterizable, 0 - 10 V DC, 0/4 - 20 mA                               |
| Analog outputs           |       |   | 1, parameterizable, 0/4 - 20 mA  |
| Digital inputs           |       |   | 6, parameterizable, max. 30 V DC   |
| Digital outputs          |       |   | 1, parameterizable, 48 V DC/50 mA  |
| Relay outputs            |       |   | 2, parameterizable, N/O, 8 A (24 V DC) / 8 A (250 V AC) / 0,4 A (125 V DC) |

## Assigned switching and protective elements

|   |  |  |            |
|---|--|--|------------|
| Motor feeder                                  |  |  |            |
| motor choke                                   |  |  |            |
| 150 % overload (CT/I <sub>H</sub> , at 50 °C) |  |  | DX-LM3-011 |
| 110 % overload (VT/I <sub>L</sub> , at 40 °C) |  |  | DX-LM3-016 |
| Sine filter                                   |  |  |            |

|   |  |  |             |
|---|--|--|-------------|
| 150 % overload (CT/I <sub>H</sub> , at 50 °C) |  |  | DX-SIN3-016 |
| 110 % overload (VT/I <sub>L</sub> , at 40 °C) |  |  | DX-SIN3-016 |

## Design verification as per IEC/EN 61439

|  |  |    |     |
|--|--|----|-----|
| Technical data for design verification |  |    |     |
| Operating ambient temperature min.     |  | °C | -10 |
| Operating ambient temperature max.     |  | °C | 50  |

## Assets (links)

### Declaration of CE Conformity

00002807

## Additional product information (links)

|   |   |
|---|---|
| <b>IL04020008Z Frequency inverter 9000X</b> |   |
| IL04020008Z Frequency inverter 9000X        | <a href="ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL04020008Z2018_05.pdf">ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL04020008Z2018_05.pdf</a> |