

SVX FreqD 3.0 kW 230 V IP21



Part no. **SVX004A1-2A1B1**
 Catalog No. **125681**
 Alternate Catalog No. **SVX004A1-2A1B1**
 EL-Nummer **4132517**
 (Norway)

Delivery program

Product range			Variable frequency drives
Part group reference (e.g. DIL)			SVX
Rated operational voltage	U _e		230 V AC, 3-phase 240 V AC, 3-phase
Output voltage with V _e	U ₂		230 V AC, 3-phase 240 V AC, 3-phase
Mains voltage (50/60Hz)	U _{LN}	V	208 (-15%) - 240 (+10%)
Rated operational current			
At 150% overload	I _e	A	12.5
At 110% overload	I _e	A	17.5
Assigned motor rating			
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	3
110 % Overload	P	kW	4
150 % Overload	I _M	A	11.5
110 % Overload	I _M	A	14.8
Note			at 230 V, 60 Hz
110 % Overload	P	HP	5
110 % Overload	I _M	A	15.2
Degree of Protection			IP21
Fieldbus connection (optional)			PROFIBUS-DP PROFINET EtherCAT EtherNet/IP LonWorks CANopen® DeviceNet Modbus-TCP Modbus-RTU BACnet MS/TP
Fitted with			Radio interference suppression filter Brake chopper OLED display
Frame size			FR5
Connection to SmartWire-DT			no

Technical data

General

Standards			General requirements: IEC/EN 61800-2 EMV requirements: IEC/EN 61800-3 Safety requirements: IEC/EN 61800-5-1
Certifications			CE, UL, cUL, RCM
Approvals			DNV
Production quality			RoHS, ISO 9001
Climatic proofing	ρ _w	%	< 95% relative humidity, no condensation, no corrosion, no dripping water
Ambient temperature			
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 above 1000 m with 1 % performance reduction per 100 m 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 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 240 V AC, 3-phase
Output Frequency	f_2	Hz	0 - 50/60 (max. 320)
Switching frequency	f_{PWM}	kHz	10 adjustable 1 - 16
Operation Mode			U/f control sensorless vector control (SLV)
Frequency resolution (setpoint value)	Δf	Hz	0.01
Rated operational current			
At 150% overload	I_e	A	12.5
At 110% overload	I_e	A	17.5
Fitted with			Radio interference suppression filter Brake chopper OLED display
Frame size			FR5
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	3
110 % Overload	P	kW	4
Note			at 230 V, 60 Hz
110 % Overload	P	HP	5

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 _H , at 50 °C)			DX-LM3-016
110 % overload (VT/I _L , at 40 °C)			DX-LM3-035
Sine filter			

150 % overload (CT/I _H , at 50 °C)		DX-SIN3-016
110 % overload (VT/I _L , at 40 °C)		DX-SIN3-023

Design verification as per IEC/EN 61439

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

Dimensions

