



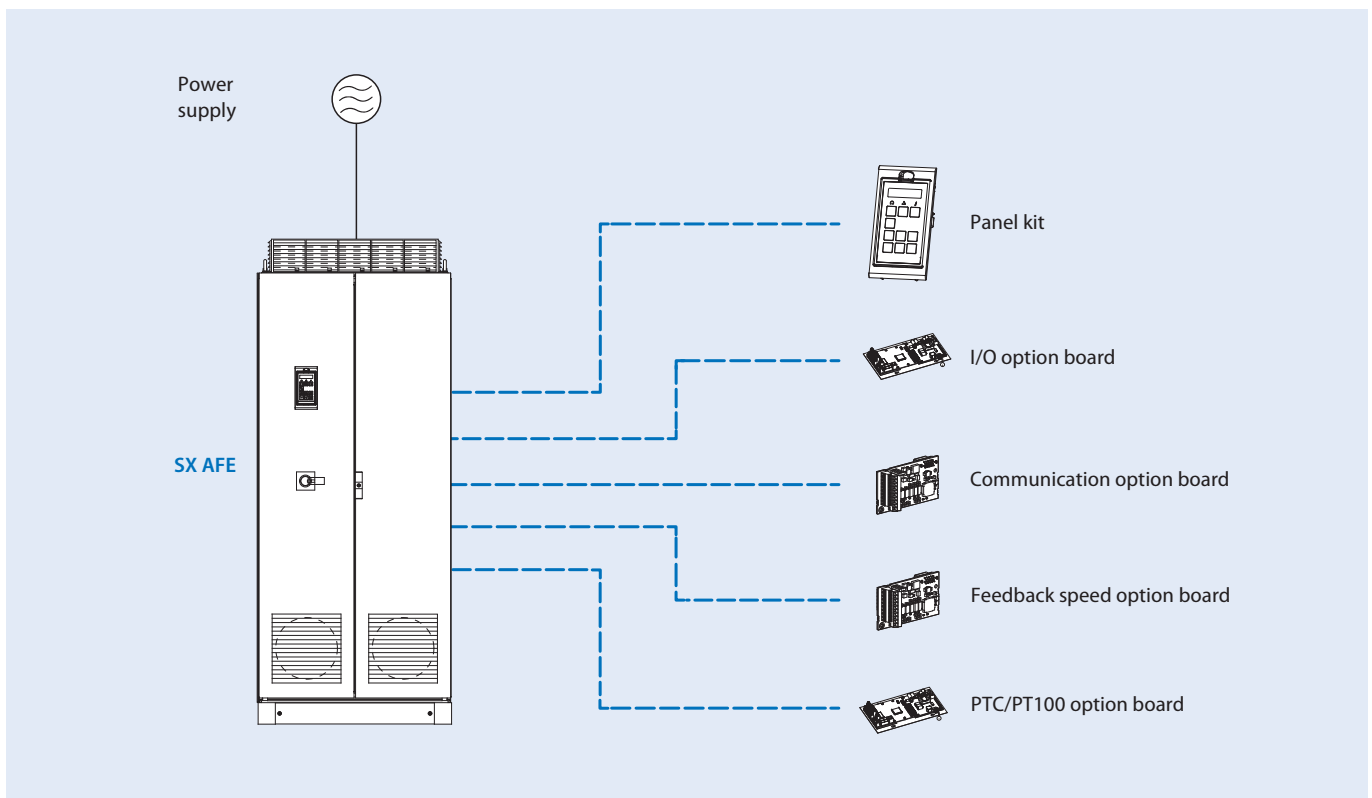
**High performance Vector Control**

- Low harmonic or regenerative drive
- IP54 full range
- Compact design and robustness
- Built-in filter (according to C3 class)
- Built-in fuses (from 200 kW)
- Safety according EN 13849-1 and EN 62061 standards
- Options flexibility: I/O's, Fieldbus, PTC/PT100
- Communication options: EtherCAT, PROFINET, Modbus, DeviceNet, PROFIBUS, Modbus TCP
- CE, UL, RoHS

**Ratings**

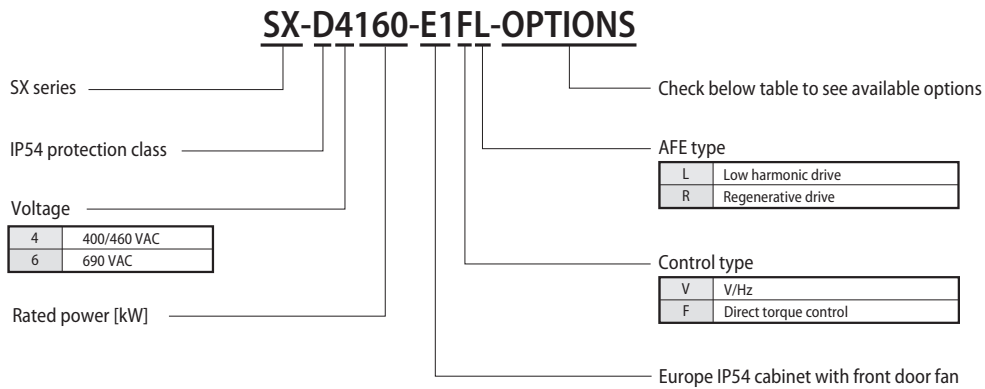
- 400 V class three-phase: 55 to 900 kW
- 690 V class three-phase: 110 to 1100 kW

**System configuration**



Type designation

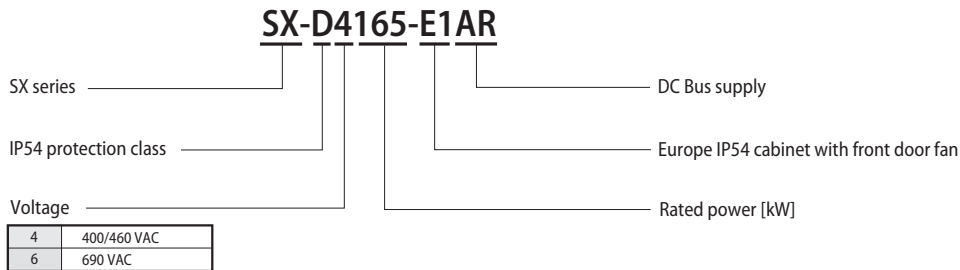
Inverter with Regenerative Active Front End



Options available

| Options              | Letter (? means no character)   | Options                          | Letter (? means no character)   |
|----------------------|---|----------------------------------|---|
| Control panel        | ? = Standard control panel (Std. PPU)<br>A = Blank control panel (Blank PPU)          | Option board position 1/2/3      | ? = No option<br>H = Crane I/O<br>I = Encoder<br>J = PTC/PT100<br>K = Extended I/O  |
| Built-in EMC filter  | ? = Standard EMC inside (Category C3)<br>B = IT-Net (filter disconnected from ground) | Option board Fieldbus position 4 | ? = No option<br>L = DeviceNet<br>M = PROFIBUS-DP<br>M1 = PROFINET<br>N = RS232/485<br>O = Ethernet Modbus TCP<br>O1 = EtherCAT |
| Standby power supply | ? = Not included<br>E = Standby power supply included                                 | Liquid cooling                   | ? = No liquid cooling<br>P = Liquid cooling   |
| Coated boards        | ? = No coating<br>G = Coated boards   | -                                | -   |

DC Supply with Regenerative Active Front End



Specifications

Common specifications

| Model number: SX_         |   | Specifications  |   |
|---------------------------|---|---|---|
| General specifications    | Mains voltage                             | 400 V models<br>380 to 460 V, +10%/–15%   |   |
|                           |   | 690 V models<br>480 to 690 V, +10%/–15%   |   |
|                           | Frequency                                 | 48 to 52 Hz and 58 to 62 Hz   |   |
|                           | Input total power factor                  | 1.0   |   |
|                           | Output AC voltage                         | Inverter<br>(0-1.2) * mains supply voltage  |   |
|                           | Output DC voltage                         | DC Supply<br>(1.0-1.2) *√2 * mains supply voltage   |   |
|                           | Output frequency                          | Inverter<br>0 to 400 Hz   |   |
|                           | Switching frequency                       | Inverter  | 3 kHz (adjustable 1.5 to 6 kHz, SX-VL only) |
|                           |   | DC Supply   | 3 kHz (adjustable 3 to 6 kHz)               |
|                           | Efficiency at nominal load                | Inverter  | 97%   |
| DC Supply                 |   | 98%   |   |
| Harmonics to supply, THDI |   | < 5%  |   |
| Ambient conditions        | Ambient temperature                       | 0 to 40°C, up to 45°C with derating   |   |
|                           | Ambient humidity                          | 90% RH or less (without condensation)   |   |
|                           | Storage temperature                       | –20 to 60°C   |   |
|                           | Altitude                                  | Up to 1,000 meters  |   |
|                           | Vibration / shock                         | According to IEC 600068-2-6, sinusoidal vibrations: 10<f<57 Hz, 0.075 mm, 57<f<150 Hz, 1 g  |   |
|                           | Contamination, according to IEC 60721-3-3 | No electrically conductive dust allowed. Cooling air must be clean and free from corrosive materials. Chemical gases, class 3C2 (coated boards 3C3). Solid particles, class 3S2 |   |
|                           | Protection design                         | IP54 enclosure according to the EN 60529  |   |

Inverter with Regenerative Active Front End 400 V class

| Three-phase: SX-D4_    |                                   | 055 | 075                            | 090 | 110 | 132 | 160 | 200 | 220 | 250 | 315   | 355   | 400   | 450   | 500   | 560   | 630   | 800   | 900        |       |     |
|------------------------|-----------------------------------|-----|--------------------------------|-----|-----|-----|-----|-----|-----|-----|-------|-------|-------|-------|-------|-------|-------|-------|------------|-------|-----|
| Output power           | For HD setting                    | kW  | 45                             | 55  | 75  | 90  | 110 | 132 | 160 | 200 | 220   | 250   | 315   | 355   | 400   | 450   | 500   | 560   | 630        | 800   | 900 |
|                        | For ND setting                    | kW  | 55                             | 75  | 90  | 110 | 132 | 160 | 200 | 220 | 250   | 315   | 355   | 400   | 450   | 500   | 560   | 630   | 800        | 900   |     |
| Output characteristics | Max. output current               | A   | 131                            | 175 | 210 | 252 | 300 | 360 | 450 | 516 | 600   | 720   | 780   | 900   | 1,032 | 1,080 | 1,200 | 1,440 | 1,800      | 2,100 |     |
|                        | Rated output current at HD        | A   | 87                             | 117 | 140 | 168 | 200 | 240 | 300 | 344 | 400   | 480   | 520   | 600   | 688   | 750   | 800   | 960   | 1,200      | 1,400 |     |
|                        | Rated output current at ND        | A   | 109                            | 146 | 175 | 210 | 250 | 300 | 375 | 430 | 500   | 600   | 650   | 750   | 860   | 900   | 1,000 | 1,200 | 1,500      | 1,750 |     |
|                        | Output voltage                    | V   | 0 to Mains supply voltage      |     |     |     |     |     |     |     |       |       |       |       |       |       |       |       |            |       |     |
| Power supply           | Max. output frequency             | Hz  | 400 Hz                         |     |     |     |     |     |     |     |       |       |       |       |       |       |       |       |            |       |     |
|                        | Rated input voltage and frequency |     | 3-phase 380 to 460 V, 50/60 Hz |     |     |     |     |     |     |     |       |       |       |       |       |       |       |       |            |       |     |
|                        | Allowable voltage fluctuation     |     | 10% to –15%                    |     |     |     |     |     |     |     |       |       |       |       |       |       |       |       |            |       |     |
| Weight                 | kg                                | 380 | 400                            | 480 | 500 | 500 | 700 | 750 | 830 | 880 | 1,040 | 1,210 | 1,210 | 1,370 | 1,370 | 1,600 | 1,700 | 2,250 | On request |       |     |

Note: Assembled in IP54 cabinet including main switch, main contactor and output choke.

Inverter with Regenerative Active Front End 690 V class

| Three-phase: SX-D6_    |                                   | 110 | 132                            | 160 | 250 | 315 | 355 | 450   | 560   | 710        | 1K0 | 1K1   |       |
|------------------------|-----------------------------------|-----|--------------------------------|-----|-----|-----|-----|-------|-------|------------|-----|-------|-------|
| Output power           | For HD setting                    | kW  | 90                             | 110 | 132 | 200 | 250 | 315   | 355   | 450        | 600 | 900   |       |
|                        | For ND setting                    | kW  | 110                            | 132 | 160 | 250 | 315 | 355   | 450   | 560        | 710 | 1,000 | 1,100 |
| Output characteristics | Max. output current               | A   | 131                            | 175 | 222 | 300 | 360 | 450   | 516   | 672        | 900 | 1,200 | 1,344 |
|                        | Rated output current at HD        | A   | 87                             | 117 | 148 | 200 | 240 | 300   | 344   | 448        | 600 | 800   | 896   |
|                        | Rated output current at ND        | A   | 109                            | 146 | 185 | 250 | 300 | 375   | 430   | 560        | 750 | 1,000 | 1,120 |
|                        | Output voltage                    | V   | 0 to Mains supply voltage      |     |     |     |     |       |       |            |     |       |       |
| Power supply           | Max. output frequency             | Hz  | 400 Hz                         |     |     |     |     |       |       |            |     |       |       |
|                        | Rated input voltage and frequency |     | 3-phase 480 to 690 V, 50/60 Hz |     |     |     |     |       |       |            |     |       |       |
|                        | Allowable voltage fluctuation     |     | 10% to –15%                    |     |     |     |     |       |       |            |     |       |       |
| Weight                 | kg                                | 410 | 430                            | 540 | 870 | 870 | 910 | 1,350 | 1,390 | On request |     |       |       |

Note: Assembled in IP54 cabinet including main switch, main contactor or motor driven circuit breaker and output choke.

## DC Supply with Regenerative Active Front End 400 V class

| Three-phase: SX-D4_-E1AR |                                   |                                | 115                       | 165 | 250 | 330 | 500   | 660   | 1K0   |
|--------------------------|-----------------------------------|--------------------------------|---------------------------|-----|-----|-----|-------|-------|-------|
| DC power                 | For ND setting                    | kW                             | 115                       | 165 | 250 | 330 | 500   | 660   | 1,000 |
|                          | Max. input current                | A                              | 210                       | 300 | 450 | 600 | 900   | 1,200 | 1,800 |
| In/Out characteristics   | Rated input current at ND         | A                              | 175                       | 250 | 375 | 500 | 750   | 1,000 | 1,500 |
|                          | Output voltage                    | V                              | 0 to Mains supply voltage |     |     |     |       |       |       |
|                          | Max. output frequency             | Hz                             | 400 Hz                    |     |     |     |       |       |       |
| Power supply             | Rated input voltage and frequency | 3-phase 380 to 460 V, 50/60 Hz |                           |     |     |     |       |       |       |
|                          | Allowable voltage fluctuation     | 10% to -15%                    |                           |     |     |     |       |       |       |
| Weight                   | kg                                | 290                            | 400                       | 560 | 660 | 830 | 1,100 | 1,600 |       |

**Note:** Assembled in IP54 cabinet including main switch and main contactor.

## DC Supply with Regenerative Active Front End 690 V class

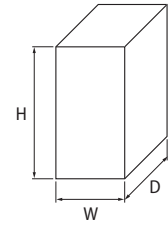
| Three-phase: SX-D6_-E1AR |                                   |                                | 200                       | 400 | 600        | 800 | 1K2   |
|--------------------------|-----------------------------------|--------------------------------|---------------------------|-----|------------|-----|-------|
| DC power                 | For ND setting                    | kW                             | 200                       | 400 | 600        | 800 | 1,200 |
|                          | Max. input current                | A                              | 210                       | 420 | 630        | 840 | 1,260 |
| In/Out characteristics   | Rated input current at ND         | A                              | 175                       | 350 | 525        | 700 | 1,050 |
|                          | Output voltage                    | V                              | 0 to Mains supply voltage |     |            |     |       |
|                          | Max. output frequency             | Hz                             | 400 Hz                    |     |            |     |       |
| Power supply             | Rated input voltage and frequency | 3-phase 480 to 690 V, 50/60 Hz |                           |     |            |     |       |
|                          | Allowable voltage fluctuation     | 10% to -15%                    |                           |     |            |     |       |
| Weight                   | kg                                | 320                            | 590                       | 860 | On request |     |       |

**Note:** Assembled in IP54 cabinet including main switch and main contactor or motor driven circuit breaker.

Dimensions

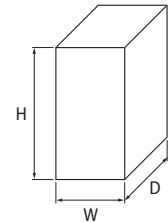
Inverter with Regenerative Active Front End

| Voltage class | Inverter model | Dimensions in mm |            |     | Weight (kg) |  |  |
|---------------|----------------|------------------|------------|-----|-------------|--|--|
|               |                | H                | W          | D   |             |  |  |
| 400 V         | SX-D4055-E1_   | 2,250            | 800        | 600 | 380         |  |  |
|               | SX-D4075-E1_   |                  |            |     | 400         |  |  |
|               | SX-D4090-E1_   |                  | 900        |     | 480         |  |  |
|               | SX-D4110-E1_   |                  |            |     | 500         |  |  |
|               | SX-D4132-E1_   |                  |            |     |             |  |  |
|               | SX-D4160-E1_   |                  | 1,300      |     | 700         |  |  |
|               | SX-D4200-E1_   |                  | 1,500      |     | 750         |  |  |
|               | SX-D4220-E1_   |                  |            |     | 830         |  |  |
|               | SX-D4250-E1_   |                  |            |     | 880         |  |  |
|               | SX-D4315-E1_   |                  | 1,900      |     | 1,040       |  |  |
|               | SX-D4355-E1_   |                  | 2,200      |     | 1,210       |  |  |
|               | SX-D4400-E1_   |                  |            |     |             |  |  |
|               | SX-D4450-E1_   |                  | 2,500      |     | 1,370       |  |  |
|               | SX-D4500-E1_   |                  |            |     |             |  |  |
|               | SX-D4560-E1_   |                  | 3,000      |     | 1,600       |  |  |
|               | SX-D4630-E1_   |                  | 3,300      |     | 1,700       |  |  |
| SX-D4800-E1_  | 4,500          | 2,250            |            |     |             |  |  |
| SX-D4900-E1_  | On request     |                  |            |     |             |  |  |
| 690 V         | SX-D6110-E1_   | 2,250            | 800        | 600 | 410         |  |  |
|               | SX-D6132-E1_   |                  |            |     | 430         |  |  |
|               | SX-D6160-E1_   |                  | 900        |     | 540         |  |  |
|               | SX-D6250-E1_   |                  | 1,800      |     | 870         |  |  |
|               | SX-D6315-E1_   |                  |            |     |             |  |  |
|               | SX-D6355-E1_   |                  |            |     | 910         |  |  |
|               | SX-D6450-E1_   |                  | 2,800      |     | 1,350       |  |  |
|               | SX-D6560-E1_   |                  |            |     | 1,390       |  |  |
|               | SX-D6710-E1_   |                  | On request |     |             |  |  |
|               | SX-D61K0-E1_   |                  |            |     |             |  |  |
| SX-D61K1-E1_  |                |                  |            |     |             |  |  |

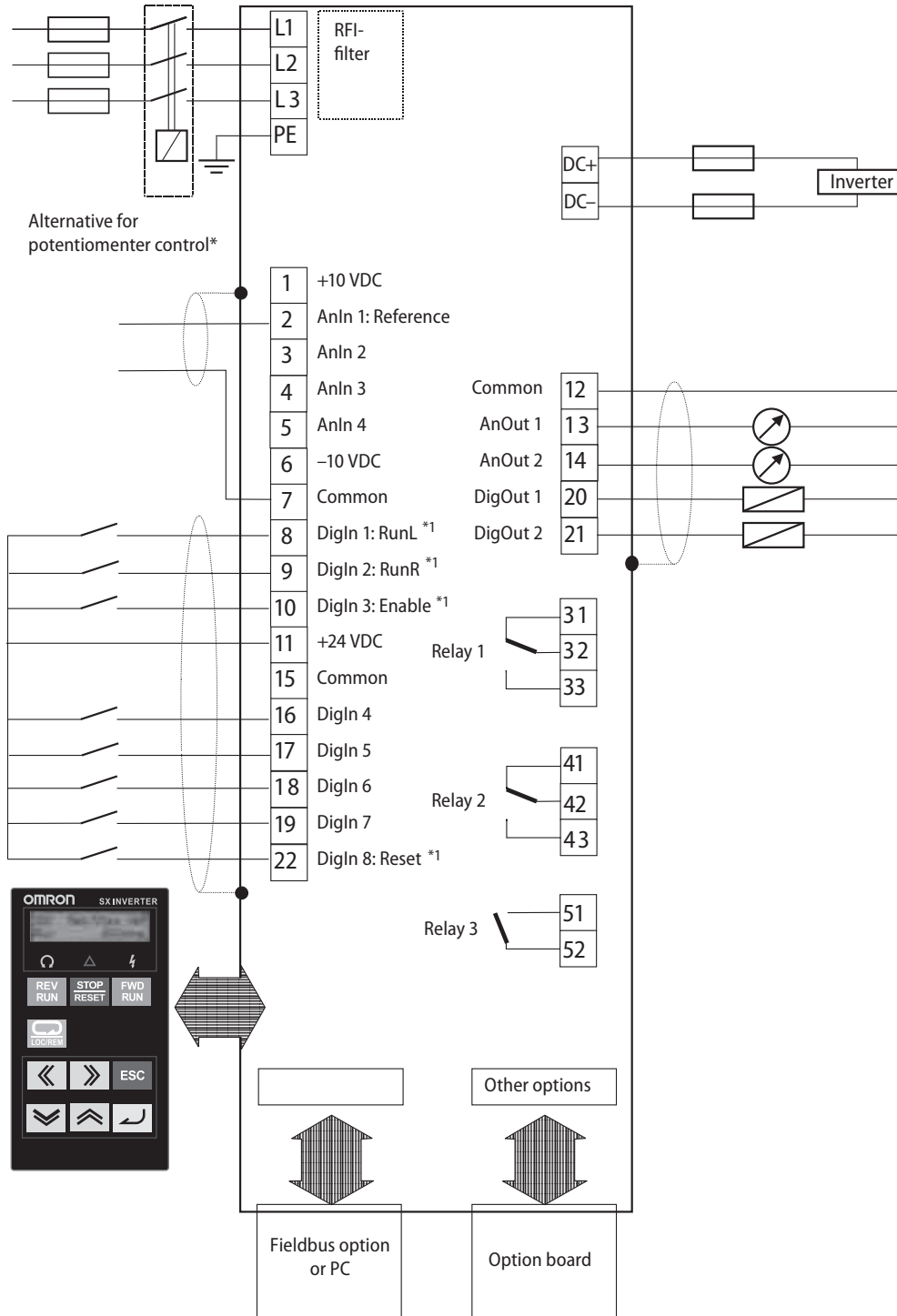


DC Supply with Regenerative Active Front End

| Voltage class | AFR model     | Dimensions in mm |       |     | Weight (kg) |
|---------------|---------------|------------------|-------|-----|-------------|
|               |               | H                | W     | D   |             |
| 400 V         | SX-D4115-E1AR | 2,250            | 600   | 600 | 290         |
|               | SX-D4165-E1AR |                  | 800   |     | 400         |
|               | SX-D4250-E1AR |                  | 1,000 |     | 560         |
|               | SX-D4330-E1AR |                  | 1,200 |     | 660         |
|               | SX-D4500-E1AR |                  | 1,500 |     | 830         |
|               | SX-D4660-E1AR |                  | 1,800 |     | 1,100       |
|               | SX-D41K0-E1AR |                  | 2,700 |     | 1,600       |
|               | SX-D6200-E1AR |                  | 2,250 |     | 800         |
| SX-D6400-E1AR |               | 1,200            |       | 590 |             |
| SX-D6600-E1AR |               | 1,700            |       | 860 |             |
| SX-D6800-E1AR | On request    |                  |       |     |             |
| SX-D61K2-E1AR |               |                  |       |     |             |



Installation



\*1 Default settings.

Main circuit

| Terminal   | Name                            | Function (signal level)                 |
|------------|---------------------------------|---|
| L1, L2, L3 | Main circuit power supply input | Used to connect line power to the drive |
| DC-, DC+   | DC link connections             | DC bus output                           |
| PE         | Safety earth                    | Protected earth                         |

Control circuit

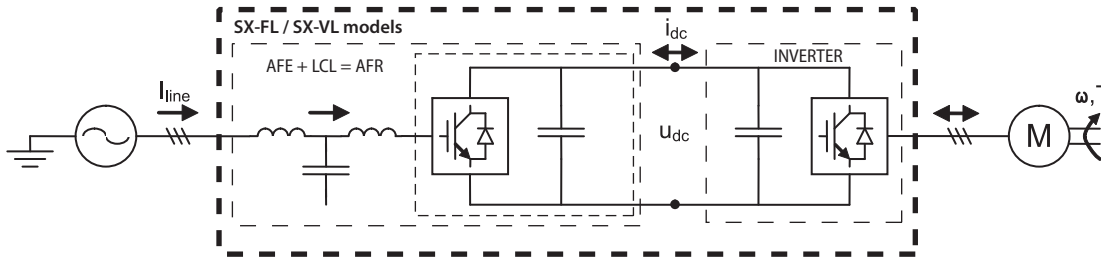
| Type                   | No.     | Signal name    | Function (default)  | Signal level  |
|------------------------|---------|----------------|---|---|
| Analog input signals   | 1       | +10 VDC        | +10 VDC supply voltage  | +10 VDC, max 10 mA  |
|                        | 2       | AnIn 1         | Process reference   | 0 to 10 VDC or 0/4 to 20 mA<br>bipolar: -10 to 10 VDC or -20 to 20 mA |
|                        | 3       | AnIn 2         | Off   |   |
|                        | 4       | AnIn 3         | Dedicated for supply voltage measurement option               |   |
|                        | 5       | AnIn V 4       | Dedicated for supply voltage measurement option               | -10 VDC, max 10 mA  |
|                        | 6       | -10 VDC        | -10 VDC supply voltage  |   |
|                        | 7       | Common         | Signal ground   | 0 V   |
| Digital input signals  | 8       | DigIn 1        | RunL (reverse)  | 0 to 8/24 VDC   |
|                        | 9       | DigIn 2        | RunR (forward)  |   |
|                        | 10      | DigIn 3        | Enable  |   |
|                        | 11      | +24 VDC        | +24 VDC supply voltage  | +24 VDC, 100 mA   |
|                        | 15      | Common         | Signal ground   | 0 V   |
|                        | 16      | DigIn 4        | Off   | 0 to 8/24 VDC   |
|                        | 17      | DigIn 5        | Off   |   |
|                        | 18      | DigIn 6        | Off   |   |
|                        | 19      | DigIn 7        | Off   |   |
| 22                     | DigIn 8 | RESET          |   |   |
| Analog output signals  | 12      | Common         | Signal ground   | 0 V   |
|                        | 13      | AnOut 1        | Min speed to max speed  | 0 to 10 VDC or 0/4 to 20 mA   |
|                        | 14      | AnOut 2        | 0 to max torque   |   |
| Digital output signals | 12      | Common         | Signal ground   | 0 V   |
|                        | 20      | DigOut 1       | Option (active when AFR is running)                           | 24 VDC, 100 mA  |
|                        | 21      | DigOut 2       | LZ (trip pulse of 1 s)  |   |
|                        | 31      | N/C 1          | Relay output 1  | 0.1 to 2 A<br>250 VAC or 42 VDC                                       |
|                        | 32      | COM 1          | N/C is opened when the relay is active (valid for all relays) |   |
|                        | 33      | N/O 1          | N/O is closed when the relay is active (valid for all relays) |   |
|                        | 41      | N/C 2          | Relay output 2  | Option (active when AFR is running)                                   |
|                        | 42      | COM 2          |   |   |
|                        | 43      | N/O 2          |   |   |
| 51                     | COM 2   | Relay output 3 | Dedicated for main contactor K1                               |   |
| 52                     | N/O 3   |                |   |   |

## Type configuration

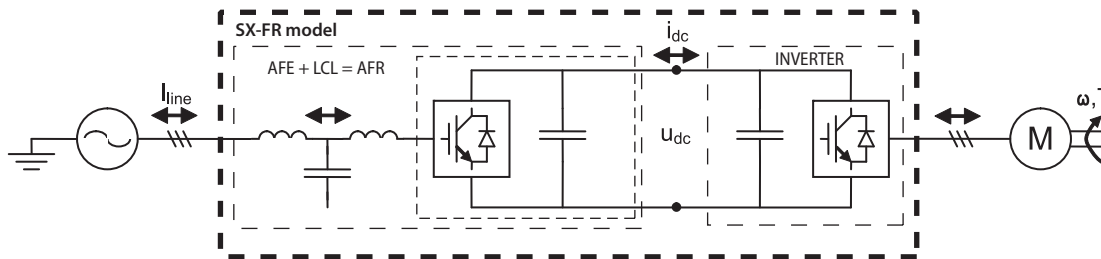
There are 3 configurations possible:

### Inverter with Regenerative Active Front End

Low harmonic drive

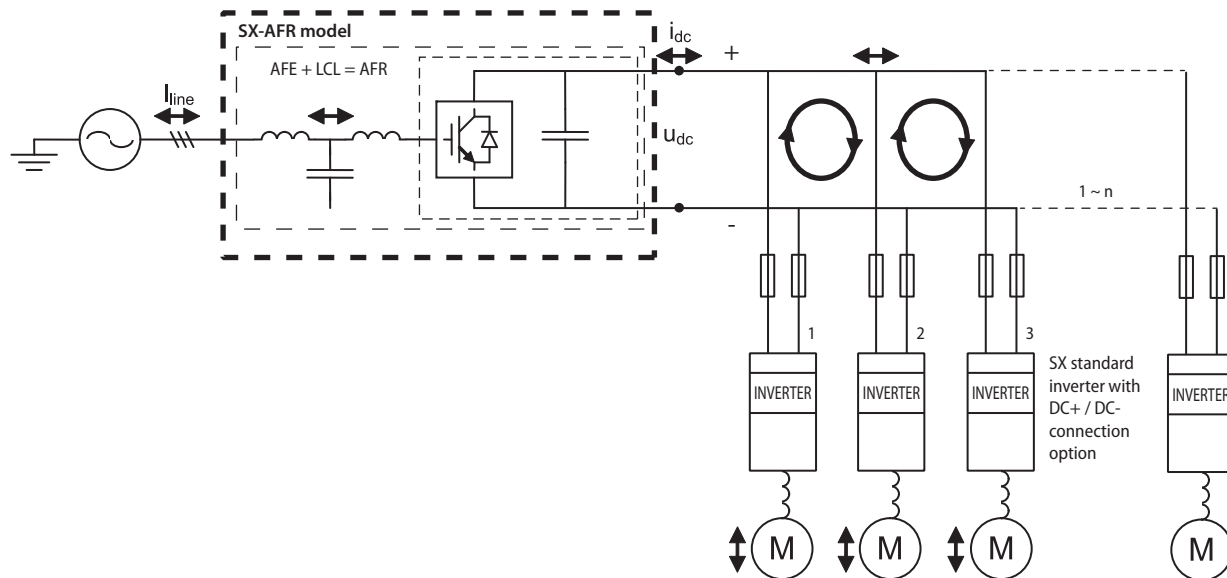


Regenerative + low harmonic drive



### DC Supply with Regenerative Active Front End

Regenerative + low harmonic DC bus supply unit AFR



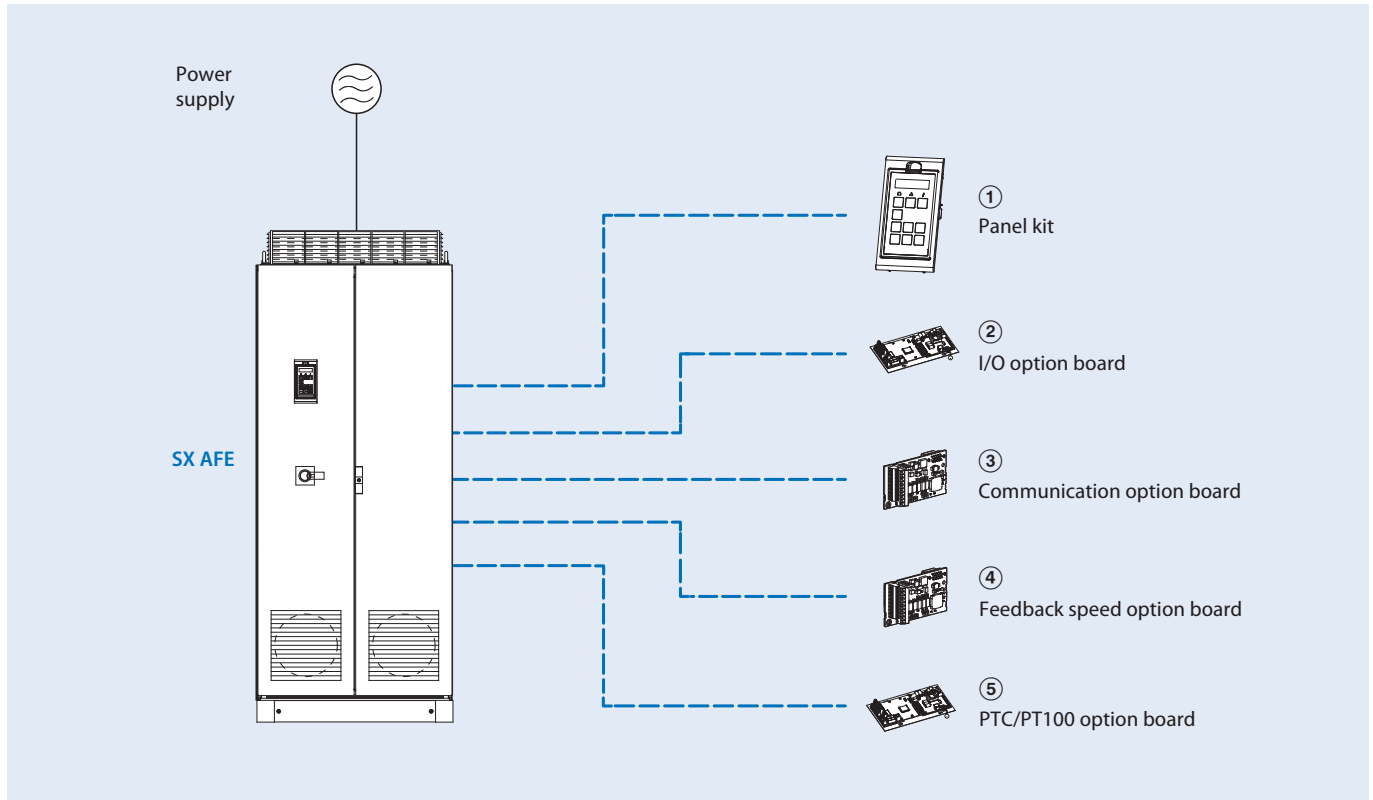
### Type designation examples:

- SX-D4055-E1FL: Low harmonic vector control drive
- SX-D6160-E1VL: Low harmonic V/Hz control drive
- SX-D4200-E1FR: Regenerative + low harmonic vector control drive
- SX-D4330-E1AR: Regenerative + low harmonic DC bus supply unit (the inverter is not included).  
The inverter should have the DC+ / DC- connection option.

**Note:** There is no physical difference between a regenerative drive and a low harmonic drive. The difference will be in the software of the drives.



Ordering information



Inverter with Regenerative Active Front End

| Specifications |            |          |             |               | IP54 model            |               |                                   |
|----------------|------------|----------|-------------|---------------|-----------------------|---------------|-----------------------------------|
|                |            |          |             |               | Low harmonic drive    |               | Regenerative + low harmonic drive |
| Voltage        | Heavy duty |          | Normal duty |               | Direct torque control | V/F control   | Direct torque control             |
| 400 V          | 45 kW      | 87 A     | 55 kW       | 109 A         | SX-D4055-E1FL         | SX-D4055-E1VL | SX-D4055-E1FR                     |
|                | 55 kW      | 117 A    | 75 kW       | 146 A         | SX-D4075-E1FL         | SX-D4075-E1VL | SX-D4075-E1FR                     |
|                | 75 kW      | 140 A    | 90 kW       | 175 A         | SX-D4090-E1FL         | SX-D4090-E1VL | SX-D4090-E1FR                     |
|                | 90 kW      | 168 A    | 110 kW      | 210 A         | SX-D4110-E1FL         | SX-D4110-E1VL | SX-D4110-E1FR                     |
|                | 110 kW     | 200 A    | 132 kW      | 250 A         | SX-D4132-E1FL         | SX-D4132-E1VL | SX-D4132-E1FR                     |
|                | 132 kW     | 240 A    | 160 kW      | 300 A         | SX-D4160-E1FL         | SX-D4160-E1VL | SX-D4160-E1FR                     |
|                | 160 kW     | 300 A    | 200 kW      | 375 A         | SX-D4200-E1FL         | SX-D4200-E1VL | SX-D4200-E1FR                     |
|                | 200 kW     | 344 A    | 220 kW      | 430 A         | SX-D4220-E1FL         | SX-D4220-E1VL | SX-D4220-E1FR                     |
|                | 220 kW     | 400 A    | 250 kW      | 500 A         | SX-D4250-E1FL         | SX-D4250-E1VL | SX-D4250-E1FR                     |
|                | 250 kW     | 480 A    | 315 kW      | 600 A         | SX-D4315-E1FL         | SX-D4315-E1VL | SX-D4315-E1FR                     |
|                | 315 kW     | 520 A    | 355 kW      | 650 A         | SX-D4355-E1FL         | SX-D4355-E1VL | SX-D4355-E1FR                     |
|                | 355 kW     | 600 A    | 400 kW      | 750 A         | SX-D4400-E1FL         | SX-D4400-E1VL | SX-D4400-E1FR                     |
|                | 400 kW     | 688 A    | 450 kW      | 860 A         | SX-D4450-E1FL         | SX-D4450-E1VL | SX-D4450-E1FR                     |
|                | 450 kW     | 750 A    | 500 kW      | 900 A         | SX-D4500-E1FL         | SX-D4500-E1VL | SX-D4500-E1FR                     |
|                | 450 kW     | 800 A    | 560 kW      | 1,000 A       | SX-D4560-E1FL         | SX-D4560-E1VL | SX-D4560-E1FR                     |
|                | 690 V      | 500 kW   | 960 A       | 630 kW        | 1,200 A               | SX-D4630-E1FL | SX-D4630-E1VL                     |
| 630 kW         |            | 1,200 A  | 800 kW      | 1,500 A       | SX-D4800-E1FL         | SX-D4800-E1VL | SX-D4800-E1FR                     |
| 800 kW         |            | 1,400 A  | 900 kW      | 1,750 A       | SX-D4900-E1FL         | SX-D4900-E1VL | SX-D4900-E1FR                     |
| 90 kW          |            | 87 A     | 110 kW      | 109 A         | SX-D6110-E1FL         | SX-D6110-E1VL | SX-D6110-E1FR                     |
| 110 kW         |            | 117 A    | 132 kW      | 146 A         | SX-D6132-E1FL         | SX-D6132-E1VL | SX-D6132-E1FR                     |
| 132 kW         |            | 148 A    | 160 kW      | 185 A         | SX-D6160-E1FL         | SX-D6160-E1VL | SX-D6160-E1FR                     |
| 200 kW         |            | 200 A    | 250 kW      | 250 A         | SX-D6250-E1FL         | SX-D6250-E1VL | SX-D6250-E1FR                     |
| 250 kW         |            | 240 A    | 315 kW      | 300 A         | SX-D6315-E1FL         | SX-D6315-E1VL | SX-D6315-E1FR                     |
| 315 kW         |            | 300 A    | 355 kW      | 375 A         | SX-D6355-E1FL         | SX-D6355-E1VL | SX-D6355-E1FR                     |
| 355 kW         |            | 344 A    | 450 kW      | 430 A         | SX-D6450-E1FL         | SX-D6450-E1VL | SX-D6450-E1FR                     |
| 450 kW         |            | 448 A    | 560 kW      | 560 A         | SX-D6560-E1FL         | SX-D6560-E1VL | SX-D6560-E1FR                     |
| 600 kW         | 600 A      | 710 kW   | 750 A       | SX-D6710-E1FL | SX-D6710-E1VL         | SX-D6710-E1FR |                                   |
| 800 kW         | 800 A      | 1,000 kW | 1,000 A     | SX-D61K0-E1FL | SX-D61K0-E1VL         | SX-D61K0-E1FR |                                   |
| 900 kW         | 896 A      | 1,100 kW | 1,120 A     | SX-D61K1-E1FL | SX-D61K1-E1VL         | SX-D61K1-E1FR |                                   |

DC Supply with Regenerative Active Front End

| Specifications |             |         | Order code    |
|----------------|-------------|---------|---------------|
| Voltage        | Normal duty |         |               |
| 400 V          | 115 kW      | 175 A   | SX-D4115-E1AR |
|                | 165 kW      | 250 A   | SX-D4165-E1AR |
|                | 250 kW      | 375 A   | SX-D4250-E1AR |
|                | 330 kW      | 500 A   | SX-D4330-E1AR |
|                | 500 kW      | 750 A   | SX-D4500-E1AR |
|                | 660 kW      | 1,000 A | SX-D4660-E1AR |
|                | 1,000 kW    | 1,500 A | SX-D41K0-E1AR |
| 690 V          | 200 kW      | 175 A   | SX-D6200-E1AR |
|                | 400 kW      | 350 A   | SX-D6400-E1AR |
|                | 600 kW      | 525 A   | SX-D6600-E1AR |
|                | 800 kW      | 700 A   | SX-D6800-E1AR |
|                | 1,200 kW    | 1,050 A | SX-D61K2-E1AR |

① Panel kit

| Description |                        | Function                                      | Order code   |
|-------------|------------------------|---|--------------|
| Panel kit   | Panel kit              | Complete panel kit including operator         | SX-OP02-00-E |
|             | Blank panel kit        | Complete panel kit including a blank operator | SX-OP02-01-E |
| Operator    | Handheld control panel | Complete handheld control panel               | SX-OPHH-00-E |
|             | Digital operator       | Inverter digital operator                     | SX-OP01-00-E |
|             | Blank operator         | Inverter blank operator                       | SX-OP01-11-E |

② I/O option board

| Description           | Function   | Order code |
|-----------------------|--|------------|
| Additional I/O option | Provides 3 extra relay outputs and 3 additional digital inputs                       | 01-3876-01 |
| Crane option          | Dedicated option board for crane application, including additional I/O and functions | 01-3876-07 |

③ Communication option board

| Description          | Function   | Order code |
|----------------------|--|------------|
| RS232/485            | MODBUS RTU serial communication by RS232 or RS485 interface with galvanic isolation        | 01-3876-04 |
| PROFIBUS-DP          | Used for operating the inverter through PROFIBUS-DP communication with the host controller | 01-3876-05 |
| DeviceNet            | Used for operating the inverter through DeviceNet communication with the host controller   | 01-3876-06 |
| Modbus/TCP, Ethernet | Used for operating the inverter through Modbus/TCP communication with the host controller  | 01-3876-09 |
| EtherCAT             | Used for operating the inverter through EtherCAT communication with the host controller    | 01-3876-10 |
| PROFINET (1-port)    | Used for operating the inverter through PROFINET communication with the host controller    | 01-3876-11 |
| PROFINET (2-ports)   |  | 01-3876-12 |

④ Encoder feedback option board

| Description    | Function  | Order code |
|----------------|---|------------|
| Encoder option | Used for connection of the actual motor speed via encoder<br>Up to 100 kHz with TTL and HTL incremental encoders with 5/24 V power supply | 01-3876-03 |

⑤ PTC/PT100 option board

| Description        | Function   | Order code |
|--------------------|--|------------|
| Thermal protection | Allows to connect a motor thermistor to the inverter | 01-3876-08 |

ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.  
To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.