

SC SERIES

ARTICLE PROPERTIES

PRODUCT TYPE	SC Series EC Bus Servo Driver
LOCAL INPUT	5 points inputs , including 2 high-speed DIs (response < 10 μ s) and 3 ordinary DIs (response < 50 μ s)
LOCAL OUTPUT	4 points output , single-channel maximum withstand voltage DC 30 V, maximum continuous current DC 50 mA

ELECTRICAL PARAMETERS

POWER INPUT VOLTAGE	AC 200 V ... AC 240 V / AC 345 V ... AC 440 V
POWER INPUT FREQUENCY	50 / 60 Hz
POWER OUTPUT	AC 0 ... 220 V / AC 0 ... 400 V
OUTPUT FREQUENCY	0 ... 600 Hz
COMMUNICATION	EtherCAT / Profinet
INTERNAL DC 24V OUTPUT POWER	5 W

ENVIRONMENTAL CONDITIONS

IP RATING	IP20
STORAGE TEMPERATURE	-25 ... +65 °C
TRANSPORT TEMPERATURE	-25 ... +70 °C
OPERATING TEMPERATURE	0 ... +45 °C
RELATIVE HUMIDITY	95%, non-condensing
OPERATING ALTITUDE	0 ... 2000 m, above 1000 meters, the rating decreases by 1.1% for every 100 meters of elevation.
VIBRATION RESISTANCE	4.9 m/s ²
SHOCK RESISTANCE	19.6 m/s ²
FLAME RETARDANT GRADE	V 0
WORK ENVIRONMENT	Non-corrosive, non-flammable gases, free of oil droplets, non-conductive dust, and dust-free

STANDARDS AND DIRECTIVES

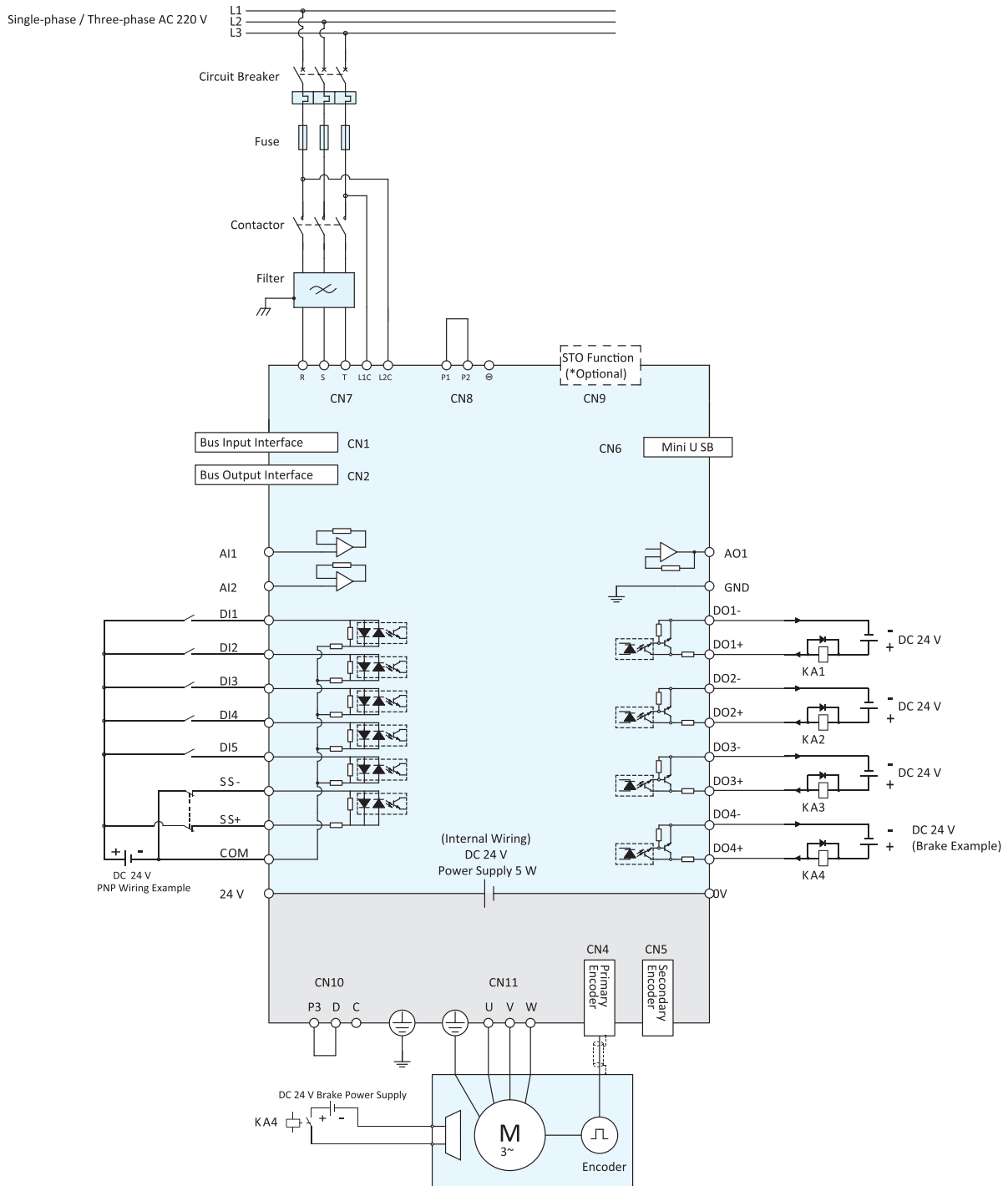
SAFETY TORQUE SHUT-OFF STANDARD *	IEC 61800-5-2, SIL3 Ple
SAFETY STOP STANDARD	

APPROVALS

SC SERIES

WIRING DIAGRAMS

AC 220 V Class A1 / A2 Standard Type



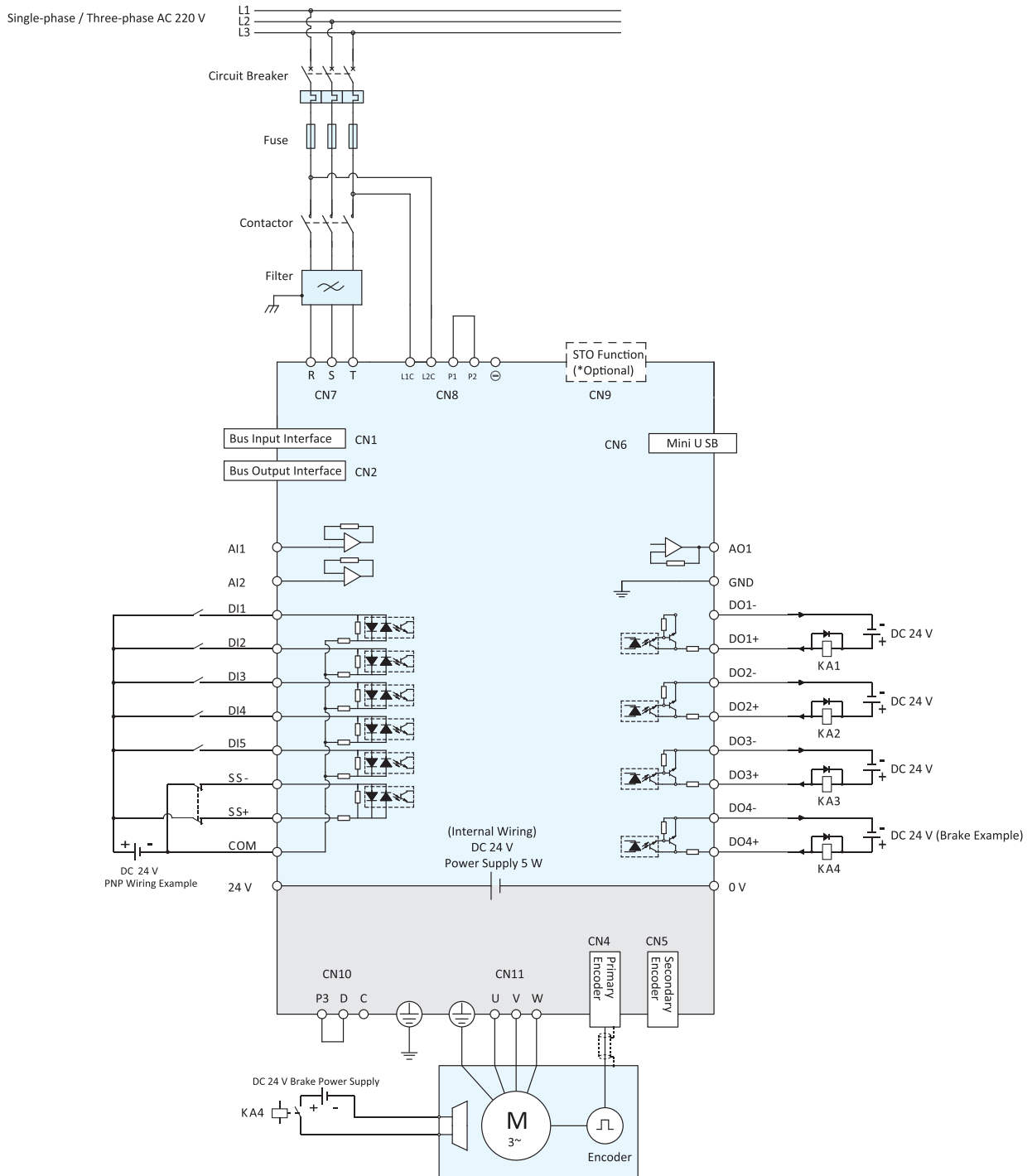
Note:

1. This is a wiring example. Actual wiring may vary depending on drive specifications. See user manual or consult for details.
- 2) For single-phase, connect any two phases from R, S, T.
- 3) DI1 and DI2 are high-speed DI.
- 4) For custom types, refer to user manual or consult for details.

SC SERIES

WIRING DIAGRAMS

AC 220 V Class A3 Standard Type



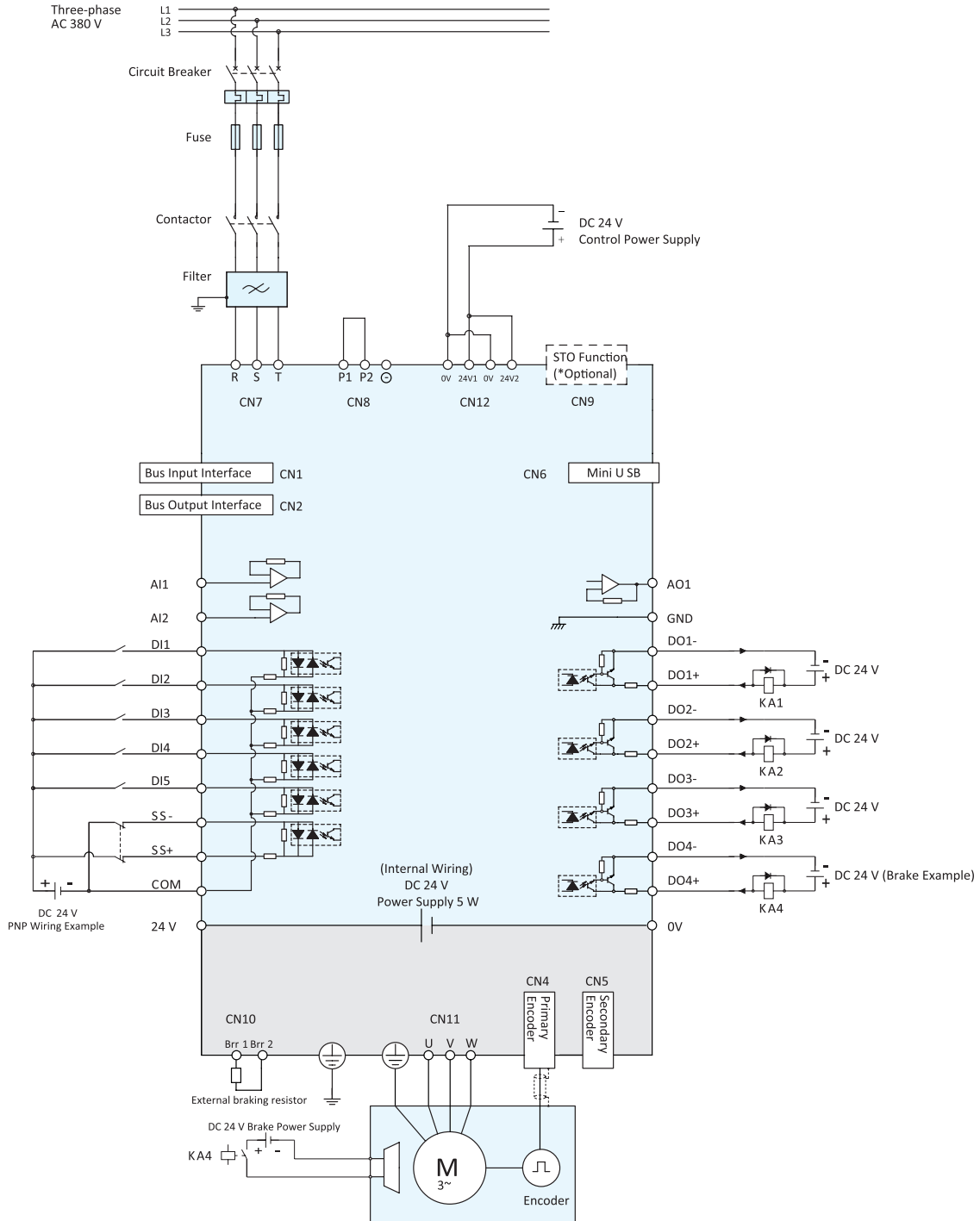
Notes:

- 1) This wiring diagram is for reference only. Actual wiring may vary depending on drive specifications. Please refer to the user manual or consult technical support.
- 2) For single-phase connection, use any two phases from R, S, T.
- 3) DI1 and DI2 are high-speed digital inputs.
- 4) For custom models, please refer to the user manual or contact us for details.

SC SERIES

WIRING DIAGRAMS

AC 380 V Class B1 / B2 standard specification



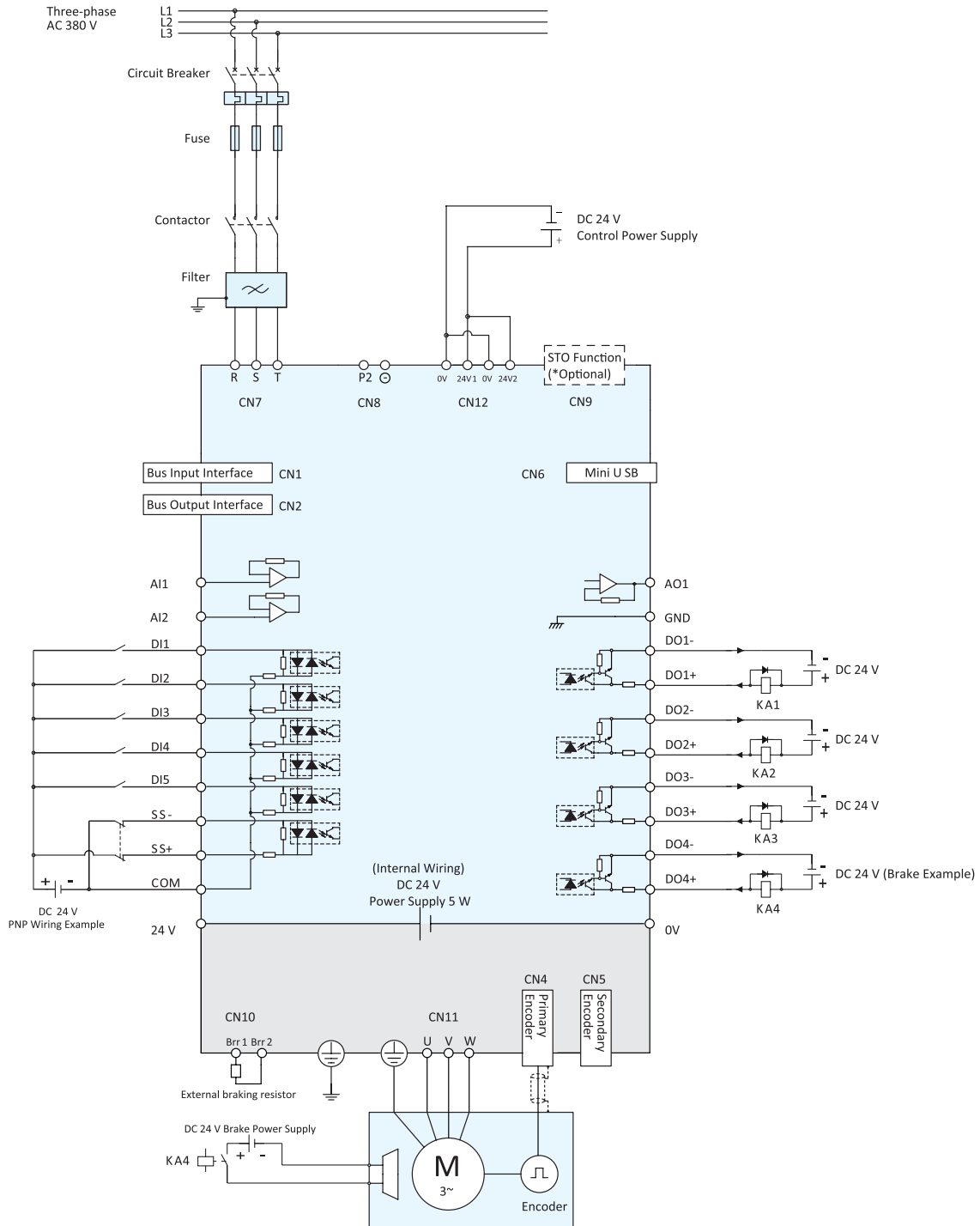
Note:

- 1) This is a wiring example. Actual connections may vary by drive specification. Refer to the user manual or consult technical support.
- 2) This wiring example is for B1 / B2 specification drives ONLY. Never use
- 3) DI1 and DI2 are high-speed digital inputs (DIs).
- 4) For custom models, refer to the user manual or contact support.

SC SERIES

WIRING DIAGRAMS

AC 380 V Class B3 Standard Specification



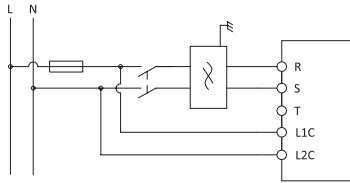
Note:

- 1) Wiring example shown. Actual wiring may vary depending on drive specifications. Refer to user manual or contact technical support.
- 2) DI1 and DI2 are high-speed digital inputs (DIs).
- 3) For custom models, refer to user manual or consult technical support.

SC SERIES

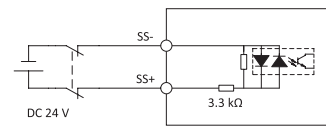
WIRING DIAGRAMS

Main power wiring for single-phase AC 220 V (can be connected to any two of RST phases)



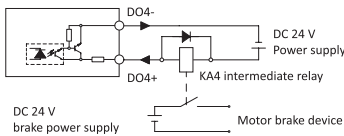
Emergency stop wiring diagram (normally closed contact example)

Note: Emergency stop channel configuration must match actual wiring

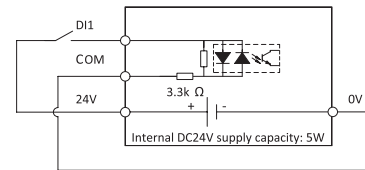


DO output wiring - brake holding example

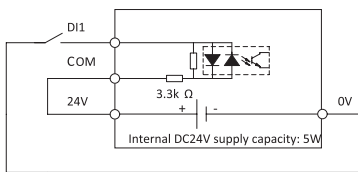
Caution: Observe current direction and use external circuit with freewheeling diode, ensure correct diode polarity. Also verify DO channel is configured for brake output.



PNP signal input wiring using internal DC 24 V supply



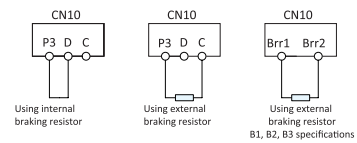
NPN signal input wiring using internal DC 24 V supply



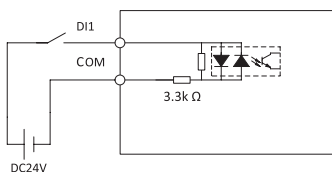
Wiring for internal/external braking resistor applications

Note: Remove jumper between P3-D when using external braking resistor.

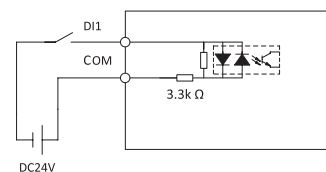
Note: A1 series partial models and B1/B2/B3 drives have no built-in braking resistor.



PNP signal input wiring using internal DC 24 V supply



NPN signal input wiring using internal DC 24 V supply

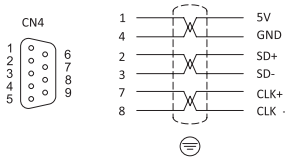


SC SERIES

WIRING DIAGRAMS

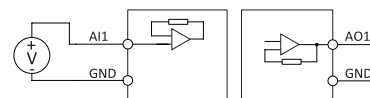
CN4 Encoder pin definition example

Note: Max current between 5 V-GND pins: 200 mA.



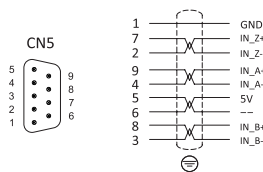
Analog wiring example (standard)

Input / output range: -10 ... +10 V, 12-bit resolution.
Important: Must use twisted-pair shielded cable.

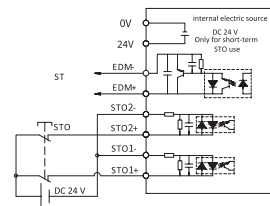


CN5 Encoder - ABZ encoder input wiring

Note: Max current between 5 V-GND pins: 200 mA.

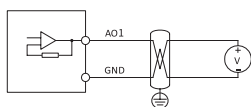


CN9 STO Functional wiring (Custom type)



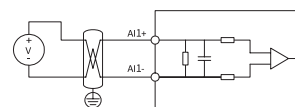
Analog output wiring example (Custom type)

Output range: -10 ... +10 V, 12-bit resolution, max output capacity 1 mA.
Note: Please be sure to use twisted shielded wire.



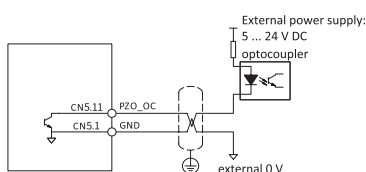
Analog input wiring example (Custom type)

Input range: -10 ... +10 V, 16-bit resolution.
Note: Please be sure to use twisted shielded wire.



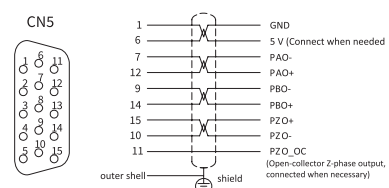
CN5 Open-collector Z-phase output wiring (Custom type)

Note: Open-collector only supports NPN type, max current output 50 mA. Use appropriate current-limiting resistor.



CN5 Secondary encoder - frequency division output wiring (Custom type)

Note: Max current between 5 V-GND pins: 200mA.

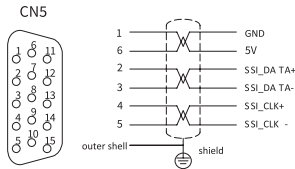


SC SERIES

WIRING DIAGRAMS

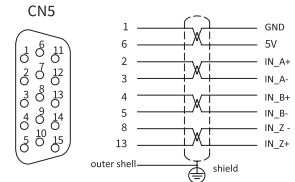
CN5 Secondary encoder - SSI encoder input wiring (Custom type)

Note: Max current between 5V-GND pins: 200mA.



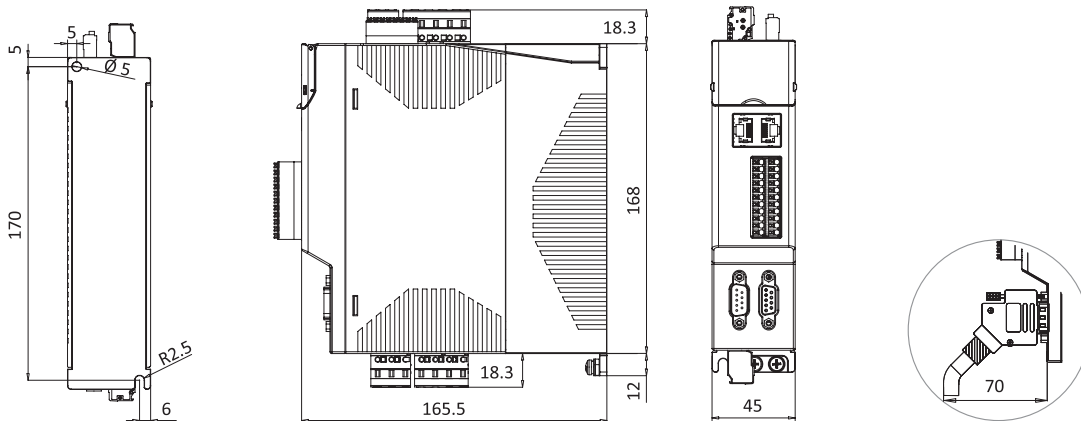
CN5 Secondary encoder - ABZ encoder input wiring (Custom type)

Note: Max current between 5V-GND pins: 200 mA.

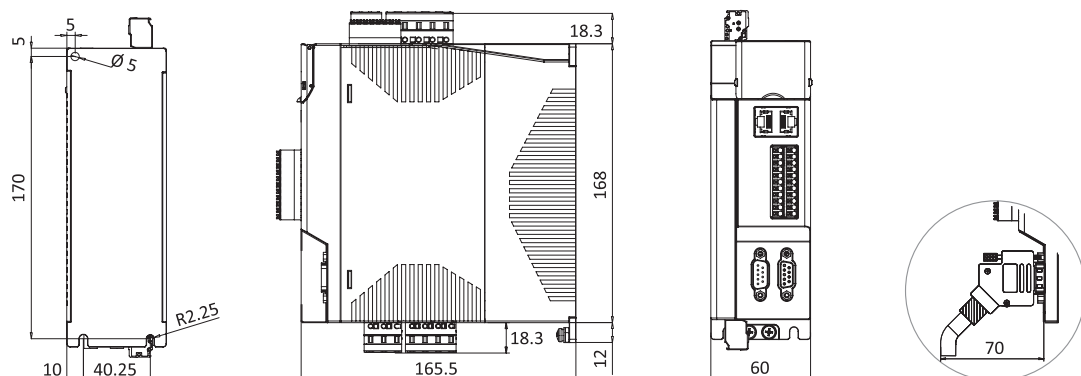


DIMENSIONS (mm)

AC 220 V Class SC Drive (SC2-E1R8MS / SC2-E2R8MS / SC2-E4R2MS)



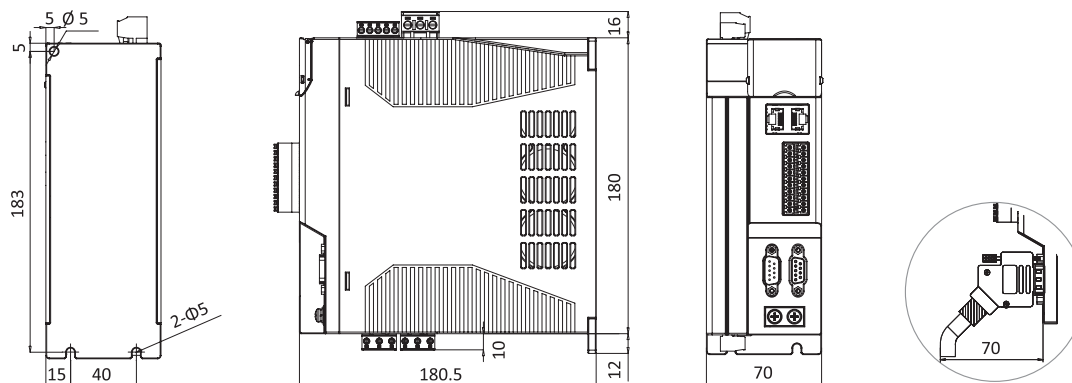
AC 220 V Class SC Drive (SC2-E060HS / SC2-E100MS / SC2-E120MS)



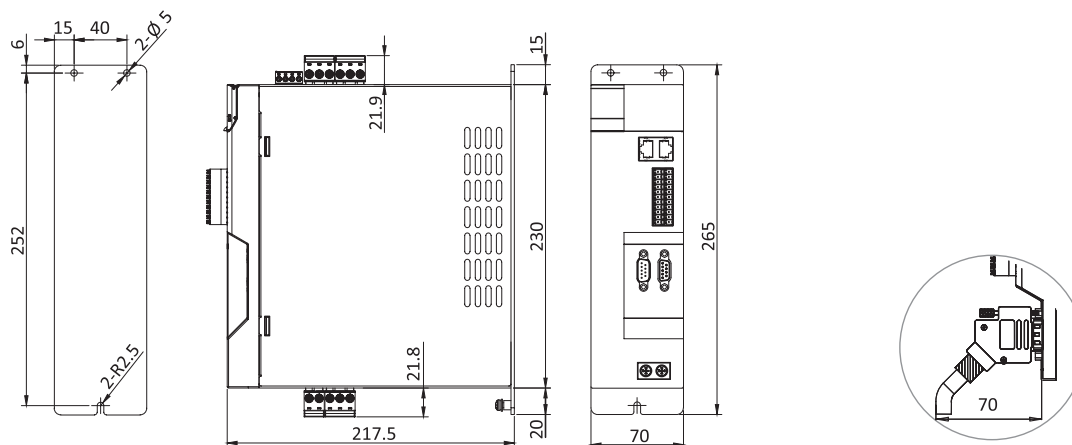
SC SERIES

DIMENSIONS (mm)

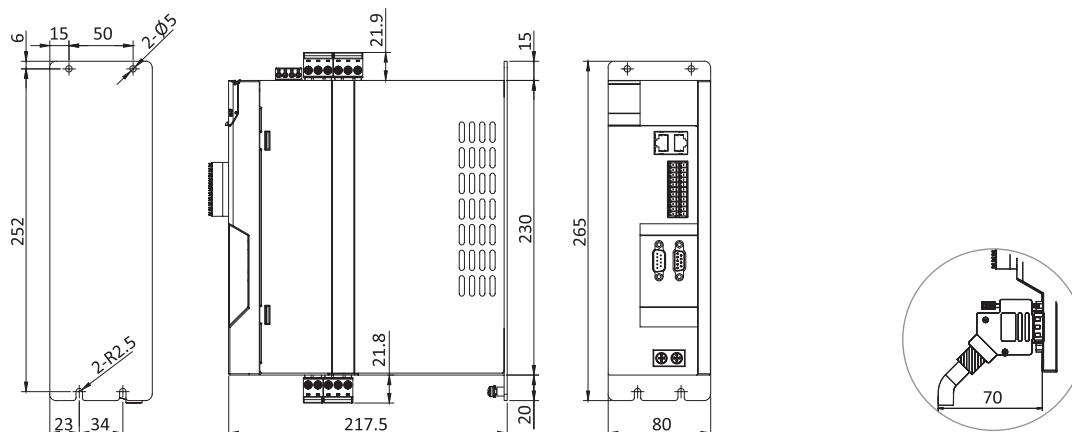
AC 220 V Class SC Drive (SC2-E120HS / SC2-E140MS)



AC 380 V Class SC Drive (SC2-E5R4MT / SC2-E6R8MT / SC2-E8R3MT)



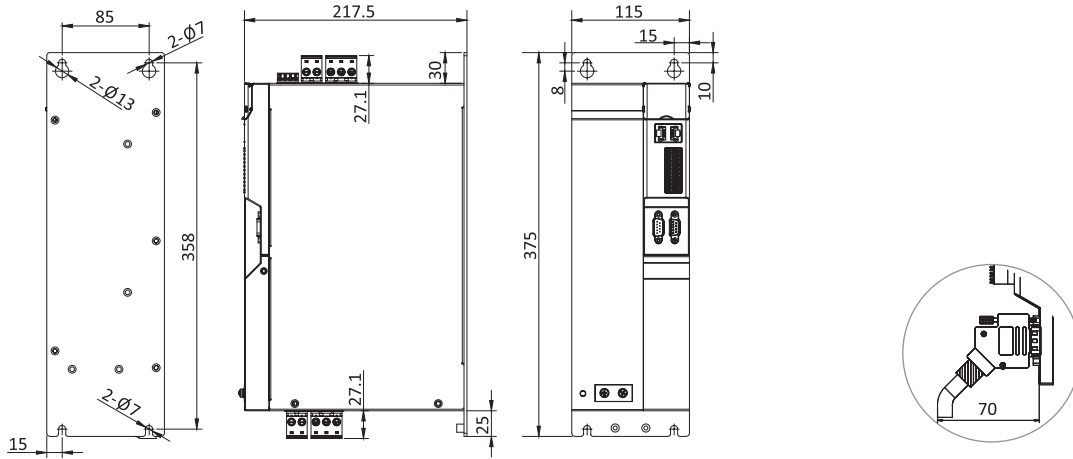
AC 380 V Class SC Drive (SC2-E100MH / SC2-E120MH / SC2-E140MH)



SC SERIES

DIMENSIONS (mm)

AC 380 V Class SC Drive (SC2-E210MH / SC2-E250MH / SC2-E340MH)



SC SERIES

SALES AND SERVICE

Tianjin Elco Automation Co., Ltd

No. 12, 4th XEDA Branch Road
Xiqing Economic-Technological Development Area
Tianjin 300385, P.R. China
Office Phone: 022 23788282
E-Mail: info@elco.cn
www.elco-holding.com.cn

Elco Industrie Automation GmbH

Benzstrasse 7
71720 Oberstenfeld,
Deutschland
Office Phone: +49 7062 / 6599-260
E-Mail: info@elco-automation.de
www.elco-automation.de

Elco Automation LLC

1097 Highway 101 South, Suite D-3 Greer
South Carolina 29651, USA
Office Phone: +1 864-581-7431
E-Mail: infousa@elcoautomation.com
www.elcoautomation.com

Elco Industrial Automation Pvt Ltd.

No 80, 1st Main, 2nd Cross, Royal Enclave,
Sidedahalli, Nagasandra Bangalore 560073, India
Office Phone: +91-7259931777
E-Mail: info@elcoautomation.in
www.elcoautomation.com

Elco Automation Korea Ltd.

706, 17 Daehak 4-ro, Yeongtong-gu, Suwon-si,
Gyeonggi-do, Republic of Korea, 16226
Office Phone: +82-31-216-7890
E-Mail: sales@elcoautomation.co.kr
www.elcoautomation.com