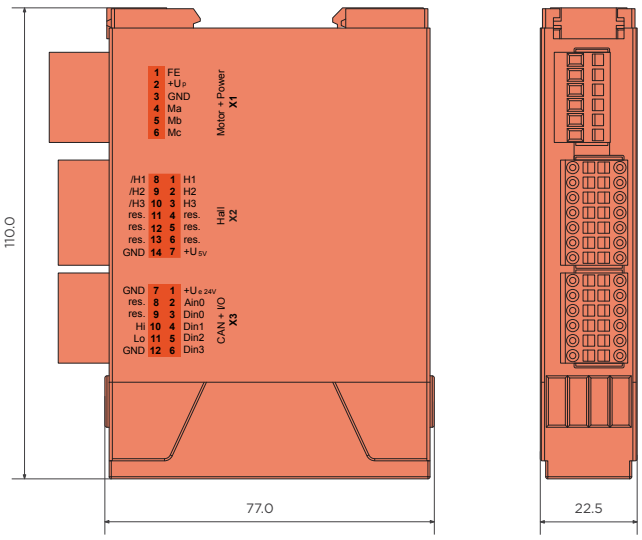
servotecnica

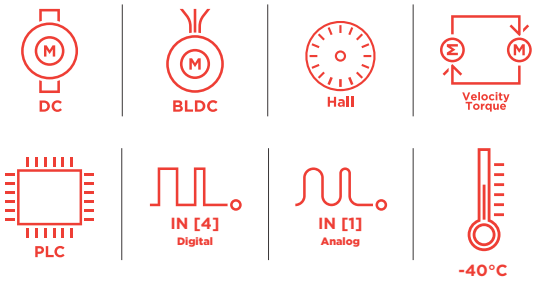
# Drives


Connecting dots.
Providing solutions.

# SVTE-A-B40-CanOpen
## Servo Drives

60VDC | 10A
DC motors, BLDC motors




CANopen

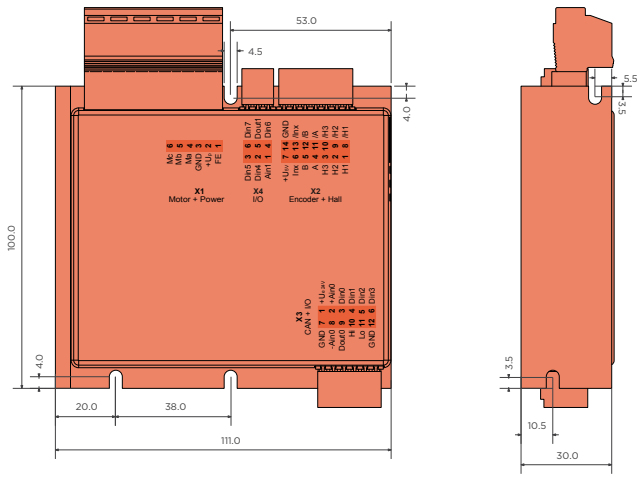
| | Values | Unit | |
|---|---|---|---|
| | **Power** | | |
| 1 | Electronic supply voltage Ue | VDC | 9..30 |
| 2 | Power supply voltage Up | VDC | 9..60 |
| 3 | Max. output current | A | 30 |
| 4 | Continuous output current @ Up=24VDC | A | 10 |
| 5 | Continuous output current @ Up=48VDC | A | 8.5 |
| 6 | Output voltage | | Up to 90% |
| | **Motor types** | | |
| 7 | DC motors | | yes |
| 8 | BLDC motors | | yes |
| 9 | Stepper motors | | no |
| | **Mechanical** | | |
| 10 | Size LxWxH | mm | 110 x 22.5 x 77 |
| | **CAN bus** | | |
| 11 | Protocol | | DS301 |
| 12 | Galvanically isolated | | no |
| | **Hall sensors** | | |
| 13 | Input voltage (24VDC tolerant) | VDC | 0..5 |
| 14 | Signal type | | differential, open collector, single ended, 5VDC pull up intern 920 Ohm |
| | **Digital input** | | |
| 15 | Number | | 4 (Din0..3) |
| | **Analog inputs** | | |
| 16 | Number | | 1 (Ain0) |
| | **Environment** | | |
| 17 | Operating temperature | °C | -40...+70 |

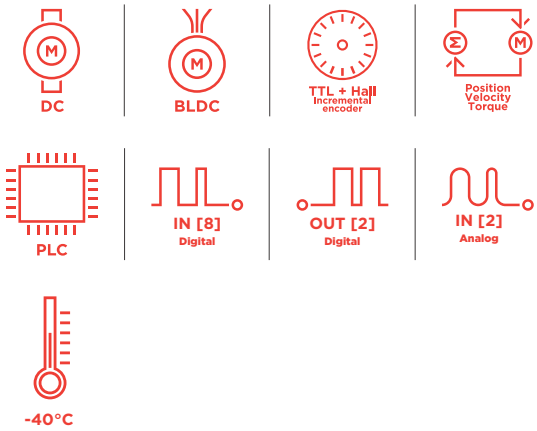
## Connection

| | | |
|---|---|---|
| X1 | Motor | |
| 1 | FE | Functional earth |
| 2 | +Up | Power supply voltage |
| 3 | GND | Ground for power supply voltage |
| 4 | Ma | Motor phase A |
| 5 | Mb | Motor phase B |
| 6 | Mc | Motor phase C |
| X2 | Hall and inc. encoder | |
| 1 | H1 | Hall sensor 1 |
| 2 | H2 | Hall sensor 2 |
| 3 | H3 | Hall sensor 3 |
| 4 | res. | Reserved |
| 5 | res. | Reserved |
| 6 | res. | Reserved |
| 7 | +U5V | 5V output voltage for sensor supply<br>Sensors: encoder, hall |
| 8 | /H1 | Hall sensor 1 inverted |
| 9 | /H2 | Hall sensor 2 inverted |
| 10 | /H3 | Hall sensor 3 inverted |
| 11 | res. | Reserved |
| 12 | res. | Reserved |
| 13 | res. | Reserved |
| 14 | GND | Ground for sensor supply (don´t connect with system GND) |
| X3 | I/O's and CAN | |
| 1 | +Ue24V | Electronic supply voltage |
| 2 | Ain0 | Analog input 0 |
| 3 | Din0 | Digital input 0 |
| 4 | Din1 | Digital input 1 |
| 5 | Din2 | Digital input 2 |
| 6 | Din3 | Digital input 3 |
| 7 | GND | Ground for electronic supply voltage |
| 8 | res. | Reserved |
| 9 | res. | Reserved |
| 10 | CAN Hi | CAN High |
| 11 | CAN Lo | CAN Low |
| 12 | CAN GND | CAN Ground |

# SVTE-A-E25-CanOpen
## Servo Drives

60VDC | 35A
DC motors, BLDC motors




CANopen

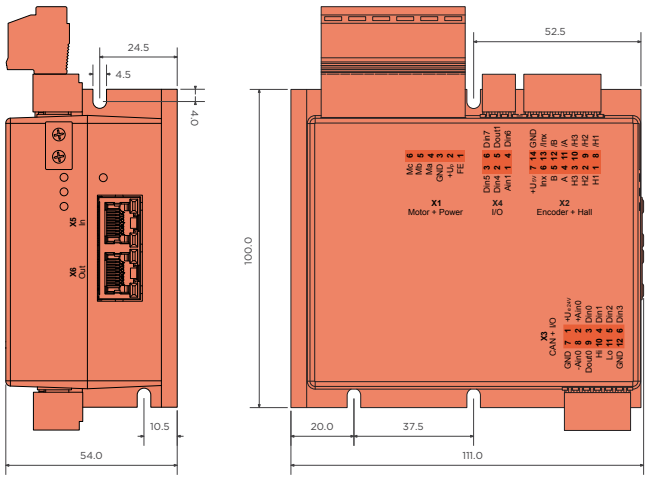
| | Values | Unit | |
|---|---|---|---|
| | **Power** | | |
| 1 | Electronic supply voltage Ue | VDC | 9..30 |
| 2 | Power supply voltage Up | VDC | 9..60 |
| 3 | Max. output current | A | 100 |
| 4 | Continuous output current @ Up=24VDC | A | 35 |
| 5 | Continuous output current @ Up=48VVDC | A | 26 |
| 6 | Output voltage | | Up to 100% |
| | **Motor types** | | |
| 7 | DC motors | | yes |
| 8 | BLDC motors | | yes |
| 9 | Stepper motors | | no |
| | **Mechanical** | | |
| 10 | Size LxWxH | mm | 111 x 100 x 30 |
| | **CAN bus** | | |
| 11 | Protocol | | DS301 |
| 12 | Device profile | | DS402 |
| 13 | Galvanically isolated | | yes |
| | **Incremental encoder** | | |
| 14 | Input voltage (24VDC tolerant) | VDC | 0..5 |
| 15 | Signal type | | differential, open collector, single ended |
| | **Hall sensors** | | |
| 16 | Input voltage (24VDC tolerant) | VDC | 0..5 |
| 17 | Signal type | | differential, open collector, single ended |
| | **Digital input** | | |
| 18 | Number | | 8 (Din0..7) |
| | **Digital output** | | |
| 19 | Number | | 2 (Dout0..1) |
| 20 | Continuous output current | A | 1.5 (Load: resistive, inductive) |
| | **Analog inputs** | | |
| 21 | Number | | 2 (Ain0..1) |
| 22 | Signal type - Ain0 | | +/- 10 VDC, 12 Bit, differential |
| 23 | Signal type - Ain1 | | +/- 10 VDC, 12 Bit, single ended |
| | **Environment** | | |
| 24 | Operating temperature | °C | -40...+70 |

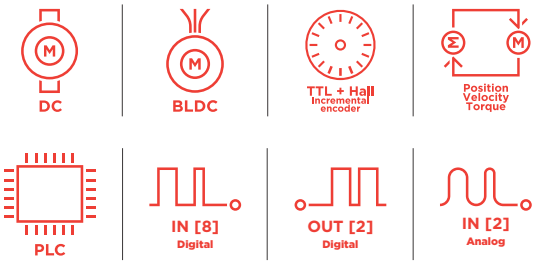
## Connection

| | | |
|---|---|---|
| X1 | Motor | |
| 1 | FE | Functional earth |
| 2 | +Up | Power supply voltage |
| 3 | GND | Ground for power supply voltage |
| 4 | Ma | Motor phase A |
| 5 | Mb | Motor phase B |
| 6 | Mc | Motor phase C |
| X2 | Hall and inc. encoder | |
| 1 | H1 | Hall sensor 1 |
| 2 | H2 | Hall sensor 2 |
| 3 | H3 | Hall sensor 3 |
| 4 | A | Inc. encoder, A channel |
| 5 | B | Inc. encoder, B channel |
| 6 | Inx | Inc. encoder, index channel |
| 7 | +U5V | 5V output voltage for sensor supply<br>Sensors: encoder, hall |
| 8 | /H1 | Hall sensor 1 inverted |
| 9 | /H2 | Hall sensor 2 inverted |
| 10 | /H3 | Hall sensor 3 inverted |
| 11 | /A | Inc. encoder, A channel invert |
| 12 | /B | Inc. encoder, B channel inverted |
| 13 | /Inx | Inc. encoder, index channel inverted |
| 14 | GND | Ground for sensor supply (don´t connect with system GND) |
| X3 | I/O's and CAN | |
| 1 | +Ue24V | Electronic supply voltage |
| 2 | +Ain0 | Analog input 0, positive |
| 3 | Din0 | Digital input 0 |
| 4 | Din1 | Digital input 1 |
| 5 | Din2 | Digital input 2 |
| 6 | Din3 | Digital input 3 |
| 7 | GND | Ground for electronic supply voltage |
| 8 | -Ain0 | Analog input 0, negative |
| 9 | Dout0 | Digital output 0 |
| 10 | CAN Hi | CAN High |
| 11 | CAN Lo | CAN Low |
| 12 | CAN GND | CAN Ground |
| X4 | I/O's | |
| 1 | Ain1 | Analog input 1 |
| 2 | Din4 | Digital input 4 |
| 3 | Din5 | Digital input 5 |
| 4 | Din6 | Digital input 6 |
| 5 | Dout1 | Digital output 1 |
| 6 | Din7 | Digital input 7 |

# SVTE-A-E25-EtherCAT
## Servo Drives

60VDC | 35A
DC motors, BLDC motors




CANopen | EtherCAT

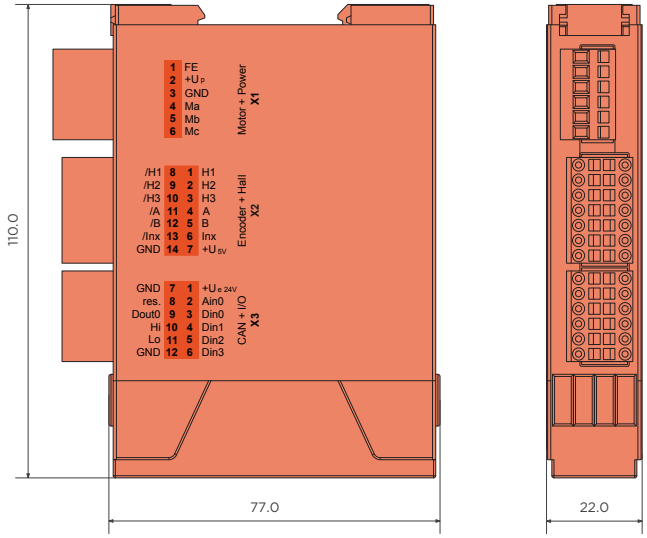
| | Values | Unit | |
|---|---|---|---|
| | **Power** | | |
| 1 | Electronic supply voltage Ue | VDC | 9..30 |
| 2 | Power supply voltage Up | VDC | 9..60 |
| 3 | Max. output current | A | 100 |
| 4 | Continuous output current @ Up=24VDC | A | 35 |
| 5 | Continuous output current @ Up=48VDC | A | 26 |
| 6 | Output voltage | | Up to 100% |
| | **Motor types** | | |
| 7 | DC motors | | yes |
| 8 | BLDC motors | | yes |
| 9 | Stepper motors | | no |
| | **Mechanical** | | |
| 10 | Size LxWxH | mm | 111 x 100 x 54 |
| | **CAN bus** | | |
| 11 | Protocol | | DS301 |
| 12 | Device profile | | DS402 |
| 13 | Galvanically isolated | | yes |
| | **EtherCAT** | | |
| 14 | Type | | EtherCAT Slave |
| 15 | Physical layer | | 100 Base-Tx EtherCAT |
| 16 | Max. baudrate | | 100 Mbit/s |
| 17 | Number of ports | | 2xRJ45 (In,Out) |
| 18 | Protocol | | CoE (CANopen over EtherCAT) |
| | **Incremental encoder** | | |
| 19 | Input voltage (24VDC tolerant) | VDC | 0..5 |
| 20 | Signal type | | differential, open collector, single ended |
| | **Hall sensors** | | |
| 21 | Input voltage (24VDC tolerant) | VDC | 0..5 |
| 22 | Signal type | | differential, open collector, single ended |
| | **Digital input** | | |
| 23 | Number | | 8 (Din0..7) |
| | **Digital output** | | |
| 24 | Number | | 2 (Dout0..1) |
| 25 | Continuous output current | A | 1.5 (Load: resistive, inductive) |
| | **Analog inputs** | | |
| 26 | Number | | 2 (Ain0..1) |
| 27 | Signal type - Ain0 | | +/- 10 VDC, 12 Bit, differential |
| 28 | Signal type - Ain1 | | +/- 10 VDC, 12 Bit, single ended |
| | **Environment** | | |
| 29 | Operating temperature | °C | -25...+70 |

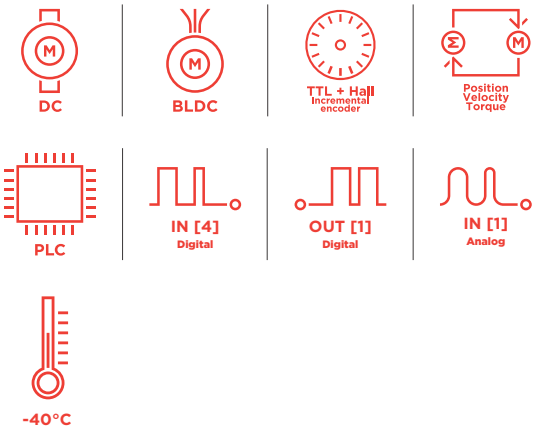
## Connection

| | | |
|---|---|---|
| X1 | Motor | |
| 1 | FE | Functional earth |
| 2 | +Up | Power supply voltage |
| 3 | GND | Ground for power supply voltage |
| 4 | Ma | Motor phase A |
| 5 | Mb | Motor phase B |
| 6 | Mc | Motor phase C |
| X2 | Hall and inc. encoder | |
| 1 | H1 | Hall sensor 1 |
| 2 | H2 | Hall sensor 2 |
| 3 | H3 | Hall sensor 3 |
| 4 | A | Inc. encoder, A channel |
| 5 | B | Inc. encoder, B channel |
| 6 | Inx | Inc. encoder, index channel |
| 7 | +U5V | 5V output voltage for sensor supply<br>Sensors: encoder, hall |
| 8 | /H1 | Hall sensor 1 inverted |
| 9 | /H2 | Hall sensor 2 inverted |
| 10 | /H3 | Hall sensor 3 inverted |
| 11 | /A | Inc. encoder, A channel invert |
| 12 | /B | Inc. encoder, B channel inverted |
| 13 | /Inx | Inc. encoder, index channel inverted |
| 14 | GND | Ground for sensor supply (don´t connect with system GND) |
| X3 | I/O's and CAN | |
| 1 | +Ue24V | Electronic supply voltage |
| 2 | +Ain0 | Analog input 0, positive |
| 3 | Din0 | Digital input 0 |
| 4 | Din1 | Digital input 1 |
| 5 | Din2 | Digital input 2 |
| 6 | Din3 | Digital input 3 |
| 7 | GND | Ground for electronic supply voltage |
| 8 | -Ain0 | Analog input 0, negative |
| 9 | Dout0 | Digital output 0 |
| 10 | CAN Hi | CAN High |
| 11 | CAN Lo | CAN Low |
| 12 | CAN GND | CAN Ground |
| X4 | I/O's | |
| 1 | Ain1 | Analog input 1 |
| 2 | Din4 | Digital input 4 |
| 3 | Din5 | Digital input 5 |
| 4 | Din6 | Digital input 6 |
| 5 | Dout1 | Digital output 1 |
| 6 | Din7 | Digital input 7 |
| X5 | EtherCAT - In port | |
| X6 | EtherCAT - Out port | |

# SVTE-A-E40-CanOpen
## Servo Drives

60VDC | 10A
DC motors, BLDC motors




CANopen

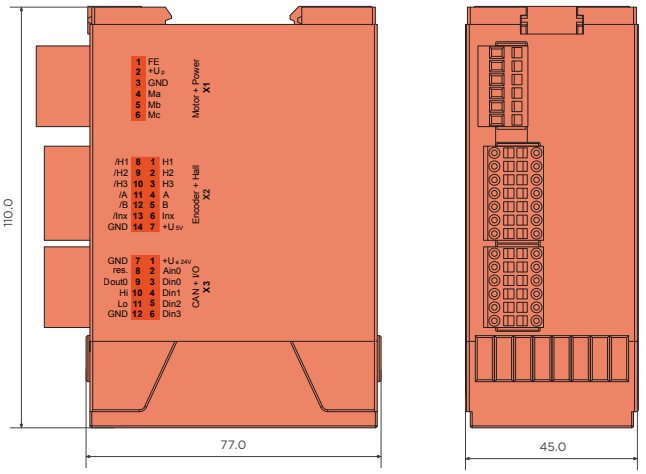
| | Values | Unit | |
|---|---|---|---|
| | **Power** | | |
| 1 | Electronic supply voltage Ue | VDC | 9..30 |
| 2 | Power supply voltage Up | VDC | 9..60 |
| 3 | Max. output current | A | 30 |
| 4 | Continuous output current @ Up=24VDC | A | 10 |
| 5 | Continuous output current @ Up=48VDC | A | 8.5 |
| 6 | Output voltage | | Up to 90% |
| | **Motor types** | | |
| 7 | DC motors | | yes |
| 8 | BLDC motors | | yes |
| 9 | Stepper motors | | no |
| | **Mechanical** | | |
| 10 | Size LxWxH | mm | 110 x 22.5 x 77 |
| | **CAN bus** | | |
| 11 | Protocol | | DS301 |
| 12 | Device profile | | DS402 |
| 13 | Galvanically isolated | | yes |
| | **Incremental encoder** | | |
| 14 | Input voltage (24VDC tolerant) | VDC | 0..5 |
| 15 | Signal type | | differential, open collector, single ended |
| | **Hall sensors** | | |
| 16 | Input voltage (24VDC tolerant) | VDC | 0..5 |
| 17 | Signal type | | differential, open collector, single ended |
| | **Digital input** | | |
| 18 | Number | | 4 (Din0..3) |
| | **Digital output** | | |
| 19 | Number | | 1 (Dout0..1) |
| 20 | Continuous output current | A | 1.5 (Load: resistive, inductive) |
| | **Analog inputs** | | |
| 21 | Number | | 1 (Ain0..1) |
| 22 | Signal type | | 0..10 VDC, 12 Bit, single ended |
| | **Environment** | | |
| 23 | Operating temperature | °C | -40...+70 |

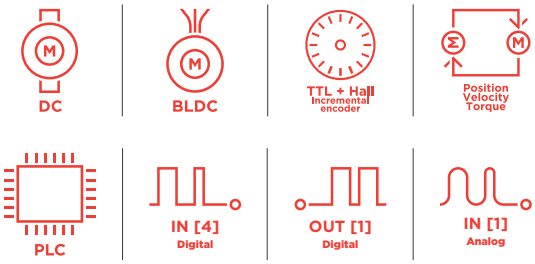
## Connection

| | | |
|---|---|---|
| X1 | Motor | |
| 1 | FE | Functional earth |
| 2 | +Up | Power supply voltage |
| 3 | GND | Ground for power supply voltage |
| 4 | Ma | Motor phase A |
| 5 | Mb | Motor phase B |
| 6 | Mc | Motor phase C |
| X2 | Hall and inc. encoder | |
| 1 | H1 | Hall sensor 1 |
| 2 | H2 | Hall sensor 2 |
| 3 | H3 | Hall sensor 3 |
| 4 | A | Inc. encoder, A channel |
| 5 | B | Inc. encoder, B channel |
| 6 | Inx | Inc. encoder, index channel |
| 7 | +U5V | 5V output voltage for sensor supply<br>Sensors: encoder, hall |
| 8 | /H1 | Hall sensor 1 inverted |
| 9 | /H2 | Hall sensor 2 inverted |
| 10 | /H3 | Hall sensor 3 inverted |
| 11 | /A | Inc. encoder, A channel invert |
| 12 | /B | Inc. encoder, B channel inverted |
| 13 | /Inx | Inc. encoder, index channel inverted |
| 14 | GND | Ground for sensor supply (don´t connect with system GND) |
| X3 | I/O's and CAN | |
| 1 | +Ue24V | Electronic supply voltage |
| 2 | Ain0 | Analog input 0 |
| 3 | Din0 | Digital input 0 |
| 4 | Din1 | Digital input 1 |
| 5 | Din2 | Digital input 2 |
| 6 | Din3 | Digital input 3 |
| 7 | GND | Ground for electronic supply voltage |
| 8 | res. | Reserved |
| 9 | Dout0 | Digital output 0 |
| 10 | CAN Hi | CAN High |
| 11 | CAN Lo | CAN Low |
| 12 | CAN GND | CAN Ground |

# SVTE-A-E40-EtherCAT
## Servo Drives

60VDC | 10A
DC motors, BLDC motors




CANopen | EtherCAT

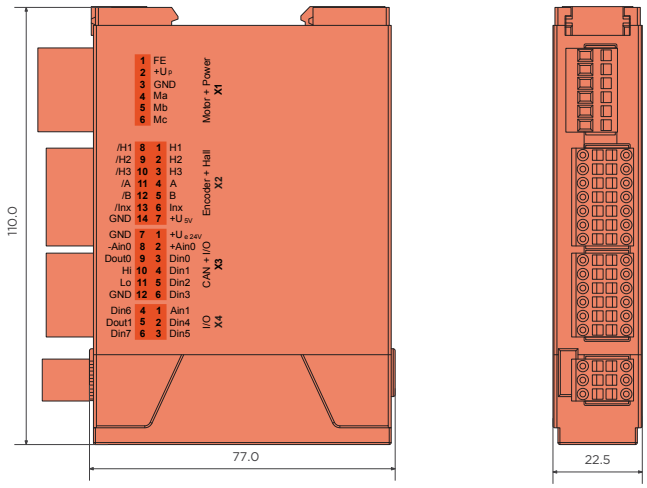
| | Values | Unit | |
|---|---|---|---|
| | **Power** | | |
| 1 | Electronic supply voltage Ue | VDC | 9..30 |
| 2 | Power supply voltage Up | VDC | 9..60 |
| 3 | Max. output current | A | 30 |
| 4 | Continuous output current @ Up=24VDC | A | 10 |
| 5 | Continuous output current @ Up=48VDC | A | 8.5 |
| 6 | Output voltage | | Up to 90% |
| | **Motor types** | | |
| 7 | DC motors | | yes |
| 8 | BLDC motors | | yes |
| 9 | Stepper motors | | no |
| | **Mechanical** | | |
| 10 | Size LxWxH | mm | 110 x 45 x 77 |
| | **CAN bus** | | |
| 11 | Protocol | | DS301 |
| 12 | Device profile | | DS402 |
| 13 | Galvanically isolated | | no |
| | **EtherCAT** | | |
| 14 | Type | | EtherCAT Slave |
| 15 | Physical layer | | 100 Base-Tx EtherCAT |
| 16 | Max. baudrate | | 100 Mbit/s |
| 17 | Number of ports | | 2xRJ45 (In,Out) |
| 18 | Protocol | | CoE (CANopen over EtherCAT) |
| | **Incremental encoder** | | |
| 19 | Input voltage (24VDC tolerant) | VDC | 0..5 |
| 20 | Signal type | | differential, open collector, single ended |
| | **Hall sensors** | | |
| 21 | Input voltage (24VDC tolerant) | VDC | 0..5 |
| 22 | Signal type | | differential, open collector, single ended |
| | **Digital input** | | |
| 23 | Number | | 4 (Din0..3) |
| | **Digital output** | | |
| 24 | Number | | 1 (Dout0..1) |
| 25 | Continuous output current | A | 1.5 (Load: resistive, inductive) |
| | **Analog inputs** | | |
| 26 | Number | | 1 (Ain0..1) |
| 27 | Signal type - Ain0 | | 0..10 VDC, 12 Bit, single ended |
| | **Environment** | | |
| 28 | Operating temperature | °C | -25...+70 |

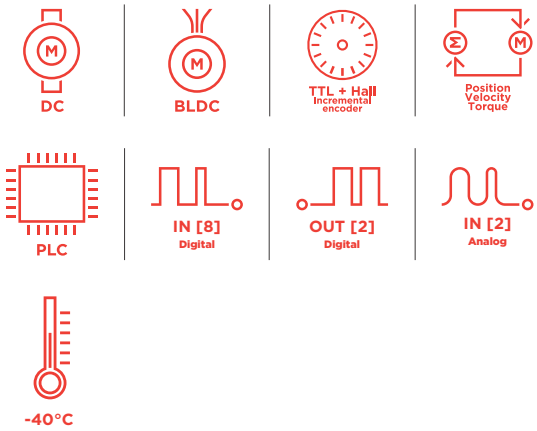
## Connection

| | | |
|---|---|---|
| X1 | Motor | |
| 1 | FE | Functional earth |
| 2 | +Up | Power supply voltage |
| 3 | GND | Ground for power supply voltage |
| 4 | Ma | Motor phase A |
| 5 | Mb | Motor phase B |
| 6 | Mc | Motor phase C |
| X2 | Hall and inc. encoder | |
| 1 | H1 | Hall sensor 1 |
| 2 | H2 | Hall sensor 2 |
| 3 | H3 | Hall sensor 3 |
| 4 | A | Inc. encoder, A channel |
| 5 | B | Inc. encoder, B channel |
| 6 | Inx | Inc. encoder, index channel |
| 7 | +U5V | 5V output voltage for sensor supply<br>Sensors: encoder, hall |
| 8 | /H1 | Hall sensor 1 inverted |
| 9 | /H2 | Hall sensor 2 inverted |
| 10 | /H3 | Hall sensor 3 inverted |
| 11 | /A | Inc. encoder, A channel invert |
| 12 | /B | Inc. encoder, B channel inverted |
| 13 | /Inx | Inc. encoder, index channel inverted |
| 14 | GND | Ground for sensor supply (don´t connect with system GND) |
| X3 | I/O's and CAN | |
| 1 | +Ue24V | Electronic supply voltage |
| 2 | Ain0 | Analog input 0 |
| 3 | Din0 | Digital input 0 |
| 4 | Din1 | Digital input 1 |
| 5 | Din2 | Digital input 2 |
| 6 | Din3 | Digital input 3 |
| 7 | GND | Ground for electronic supply voltage |
| 8 | res. | Reserved |
| 9 | Dout0 | Digital output 0 |
| 10 | CAN Hi | CAN High |
| 11 | CAN Lo | CAN Low |
| 12 | CAN GND | CAN Ground |
| X5 | EtherCAT - In port | |
| X6 | EtherCAT - Out port | |

# SVTE-A-E45-CanOpen
## Servo Drives

60VDC | 10A
DC motors, BLDC motors




CANopen

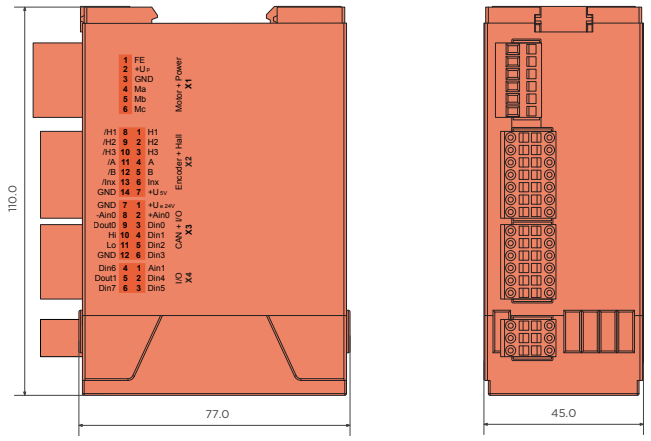
| | Values | Unit | |
|---|---|---|---|
| | **Power** | | |
| 1 | Electronic supply voltage Ue | VDC | 9..30 |
| 2 | Power supply voltage Up | VDC | 9..60 |
| 3 | Max. output current | A | 50 |
| 4 | Continuous output current @ Up=24VDC | A | 10 |
| 5 | Continuous output current @ Up=48VDC | A | 8.5 |
| 6 | Output voltage | | Up to 100% |
| | **Motor types** | | |
| 7 | DC motors | | yes |
| 8 | BLDC motors | | yes |
| 9 | Stepper motors | | no |
| | **Mechanical** | | |
| 10 | Size LxWxH | mm | 110 x 22.5 x 77 |
| | **CAN bus** | | |
| 11 | Protocol | | DS301 |
| 12 | Device profile | | DS402 |
| 13 | Galvanically isolated | | no |
| | **Incremental encoder** | | |
| 14 | Input voltage (24VDC tolerant) | V | 0..5 |
| 15 | Signal type | | differential, open collector, single ended |
| | **Hall sensors** | | |
| 16 | Input voltage (24VDC tolerant) | V | 0..5 |
| 17 | Signal type | | differential, open collector, single ended |
| | **Digital input** | | |
| 18 | Number | | 8 (Din0..7) |
| | **Digital output** | | |
| 19 | Number | | 2 (Dout0..1) |
| 20 | Continuous output current | A | 1.5 (Load: resistive, inductive) |
| | **Analog inputs** | | |
| 21 | Number | | 2 (Ain0..1) |
| 22 | Signal type - Ain0 | | +/- 10 VDC, 12 Bit, differential |
| 23 | Signal type - Ain1 | | +/- 10 VDC, 12 Bit, single ended |
| | **Environment** | | |
| 24 | Operating temperature | °C | -40...+70 |

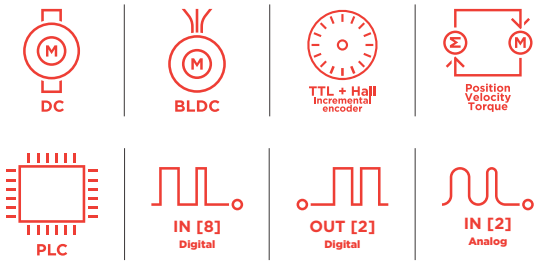
## Connection

| | | |
|---|---|---|
| X1 | Motor | |
| 1 | FE | Functional earth |
| 2 | +Up | Power supply voltage |
| 3 | GND | Ground for power supply voltage |
| 4 | Ma | Motor phase A |
| 5 | Mb | Motor phase B |
| 6 | Mc | Motor phase C |
| X2 | Hall and inc. encoder | |
| 1 | H1 | Hall sensor 1 |
| 2 | H2 | Hall sensor 2 |
| 3 | H3 | Hall sensor 3 |
| 4 | A | Inc. encoder, A channel |
| 5 | B | Inc. encoder, B channel |
| 6 | Inx | Inc. encoder, index channel |
| 7 | +U5V | 5V output voltage for sensor supply<br>Sensors: encoder, hall |
| 8 | /H1 | Hall sensor 1 inverted |
| 9 | /H2 | Hall sensor 2 inverted |
| 10 | /H3 | Hall sensor 3 inverted |
| 11 | /A | Inc. encoder, A channel invert |
| 12 | /B | Inc. encoder, B channel inverted |
| 13 | /Inx | Inc. encoder, index channel inverted |
| 14 | GND | Ground for sensor supply (don´t connect with system GND) |
| X3 | I/O's and CAN | |
| 1 | +Ue24V | Electronic supply voltage |
| 2 | +Ain0 | Analog input 0, positive |
| 3 | Din0 | Digital input 0 |
| 4 | Din1 | Digital input 1 |
| 5 | Din2 | Digital input 2 |
| 6 | Din3 | Digital input 3 |
| 7 | GND | Ground for electronic supply voltage |
| 8 | -Ain0 | Analog input 0, negative |
| 9 | Dout0 | Digital output 0 |
| 10 | CAN Hi | CAN High |
| 11 | CAN Lo | CAN Low |
| 12 | CAN GND | CAN Ground |
| X4 | I/O's | |
| 1 | Ain1 | Analog input 1 |
| 2 | Din4 | Digital input 4 |
| 3 | Din5 | Digital input 5 |
| 4 | Din6 | Digital input 6 |
| 5 | Dout1 | Digital output 1 |
| 6 | Din7 | Digital input 7 |

# SVTE-A-E45-EtherCAT
## Servo Drives

60VDC | 10A
DC motors, BLDC motors




CANopen | EtherCAT

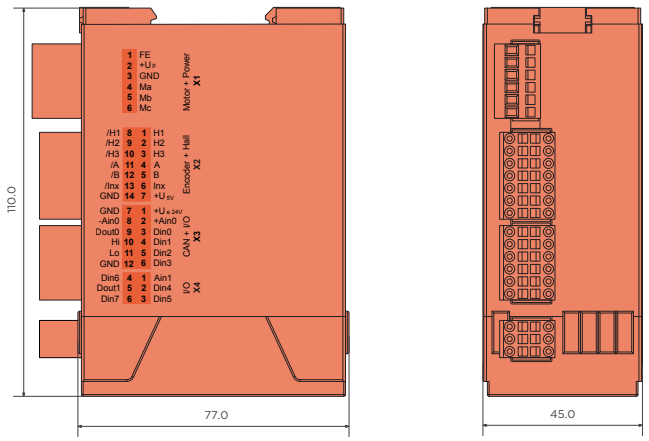
| | Values | Unit | |
|---|---|---|---|
| | **Power** | | |
| 1 | Electronic supply voltage Ue | VDC | 9..30 |
| 2 | Power supply voltage Up | VDC | 9..60 |
| 3 | Max. output current | A | 50 |
| 4 | Continuous output current @ Up=24VDC | A | 10 |
| 5 | Continuous output current @ Up=48VDC | A | 8.5 |
| 6 | Output voltage | | Up to 100% |
| | **Motor types** | | |
| 7 | DC motors | | yes |
| 8 | BLDC motors | | yes |
| 9 | Stepper motors | | no |
| | **Mechanical** | | |
| 10 | Size LxWxH | mm | 110 x 45 x 77 |
| | **CAN bus** | | |
| 11 | Protocol | | DS301 |
| 12 | Device profile | | DS402 |
| 13 | Galvanically isolated | | no |
| | **EtherCAT** | | |
| 14 | Type | | EtherCAT Slave |
| 15 | Physical layer | | 100 Base-Tx EtherCAT |
| 16 | Max. baudrate | | 100 Mbit/s |
| 17 | Number of ports | | 2xRJ45 (In,Out) |
| 18 | Protocol | | CoE (CANopen over EtherCAT) |
| | **Incremental encoder** | | |
| 19 | Input voltage (24VDC tolerant) | VDC | 0..5 |
| 20 | Signal type | | differential, open collector, single ended |
| | **Hall sensors** | | |
| 21 | Input voltage (24VDC tolerant) | VDC | 0..5 |
| 22 | Signal type | | differential, open collector, single ended |
| | **Digital input** | | |
| 23 | Number | | 8 (Din0..7) |
| | **Digital output** | | |
| 24 | Number | | 2 (Dout0..1) |
| 25 | Continuous output current | A | 1.5 (Load: resistive, inductive) |
| | **Analog inputs** | | |
| 26 | Number | | 2 (Ain0..1) |
| 27 | Signal type - Ain0 | | +/- 10 VDC, 12 Bit, differential |
| 28 | Signal type - Ain1 | | +/- 10 VDC, 12 Bit, single ended |
| | **Environment** | | |
| 29 | Operating temperature | °C | -25...+70 |

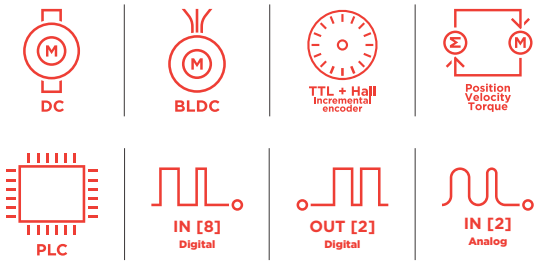
## Connection

| | | |
|---|---|---|
| X1 | Motor | |
| 1 | FE | Functional earth |
| 2 | +Up | Power supply voltage |
| 3 | GND | Ground for power supply voltage |
| 4 | Ma | Motor phase A |
| 5 | Mb | Motor phase B |
| 6 | Mc | Motor phase C |
| X2 | Hall and inc. encoder | |
| 1 | H1 | Hall sensor 1 |
| 2 | H2 | Hall sensor 2 |
| 3 | H3 | Hall sensor 3 |
| 4 | A | Inc. encoder, A channel |
| 5 | B | Inc. encoder, B channel |
| 6 | Inx | Inc. encoder, index channel |
| 7 | +U5V | 5V output voltage for sensor supply<br>Sensors: encoder, hall |
| 8 | /H1 | Hall sensor 1 inverted |
| 9 | /H2 | Hall sensor 2 inverted |
| 10 | /H3 | Hall sensor 3 inverted |
| 11 | /A | Inc. encoder, A channel invert |
| 12 | /B | Inc. encoder, B channel inverted |
| 13 | /Inx | Inc. encoder, index channel inverted |
| 14 | GND | Ground for sensor supply (don´t connect with system GND) |
| X3 | I/O's and CAN | |
| 1 | +Ue24V | Electronic supply voltage |
| 2 | +Ain0 | Analog input 0, positive |
| 3 | Din0 | Digital input 0 |
| 4 | Din1 | Digital input 1 |
| 5 | Din2 | Digital input 2 |
| 6 | Din3 | Digital input 3 |
| 7 | GND | Ground for electronic supply voltage |
| 8 | -Ain0 | Analog input 0, negative |
| 9 | Dout0 | Digital output 0 |
| 10 | CAN Hi | CAN High |
| 11 | CAN Lo | CAN Low |
| 12 | CAN GND | CAN Ground |
| X4 | I/O's | |
| 1 | Ain1 | Analog input 1 |
| 2 | Din4 | Digital input 4 |
| 3 | Din5 | Digital input 5 |
| 4 | Din6 | Digital input 6 |
| 5 | Dout1 | Digital output 1 |
| 6 | Din7 | Digital input 7 |
| X5 | EtherCAT - In port | |
| X6 | EtherCAT - Out port | |

# SVTE-A-E45-Profinet
## Servo Drives

60VDC | 10A
DC motors, BLDC motors




CANopen | PROFINET

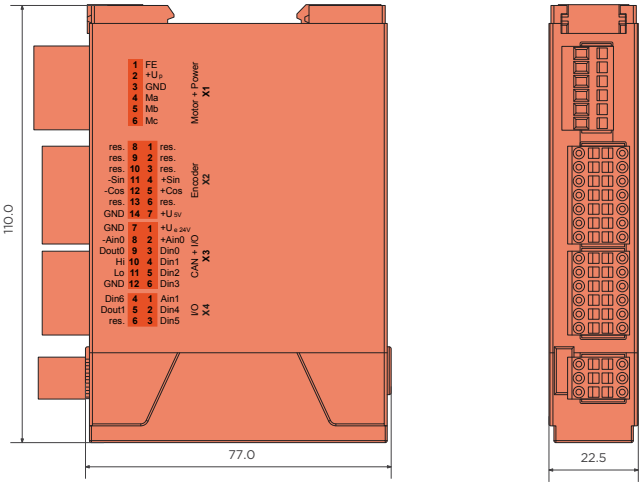
| | Values | Unit | |
|---|---|---|---|
| | **Power** | | |
| 1 | Electronic supply voltage Ue | VDC | 9..30 |
| 2 | Power supply voltage Up | VDC | 9..60 |
| 3 | Max. output current | A | 50 |
| 4 | Continuous output current @ Up=24VDC | A | 10 |
| 5 | Continuous output current @ Up=48VDC | A | 8.5 |
| 6 | Output voltage | | Up to 100% |
| | **Motor types** | | |
| 7 | DC motors | | yes |
| 8 | BLDC motors | | yes |
| 9 | Stepper motors | | no |
| | **Mechanical** | | |
| 10 | Size LxWxH | mm | 110 x 45 x 77 |
| | **CAN bus** | | |
| 11 | Protocol | | DS301 |
| 12 | Device profile | | DS402 |
| 13 | Galvanically isolated | | no |
| | **Profinet** | | |
| 14 | Type | | Slave |
| 15 | Physical layer | | 100 Base-Tx |
| 16 | Max. baudrate | | 100 Mbit/s |
| 17 | Number of ports | | 2xRJ45 (PORT1,PORT2) |
| | **Incremental encoder** | | |
| 18 | Input voltage (24VDC tolerant) | VDC | 0..5 |
| 19 | Signal type | | differential, open collector, single ended |
| | **Hall sensors** | | |
| 20 | Input voltage (24VDC tolerant) | VDC | 0..5 |
| 21 | Signal type | | differential, open collector, single ended |
| | **Digital input** | | |
| 22 | Number | | 8 (Din0..7) |
| | **Digital output** | | |
| 23 | Number | | 2 (Dout0..1) |
| 24 | Continuous output current | A | 1.5 (Load: resistive, inductive) |
| | **Analog inputs** | | |
| 25 | Number | | 2 (Ain0..1) |
| 26 | Signal type - Ain0 | | +/- 10 VDC, 12 Bit, differential |
| 27 | Signal type - Ain1 | | +/- 10 VDC, 12 Bit, single ended |
| | **Environment** | | |
| 28 | Operating temperature | °C | -25...+40 |

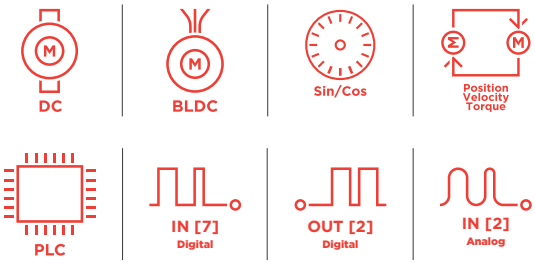
## Connection

| | | |
|---|---|---|
| X1 | Motor | |
| 1 | FE | Functional earth |
| 2 | +Up | Power supply voltage |
| 3 | GND | Ground for power supply voltage |
| 4 | Ma | Motor phase A |
| 5 | Mb | Motor phase B |
| 6 | Mc | Motor phase C |
| X2 | Hall and inc. encoder | |
| 1 | H1 | Hall sensor 1 |
| 2 | H2 | Hall sensor 2 |
| 3 | H3 | Hall sensor 3 |
| 4 | A | Inc. encoder, A channel |
| 5 | B | Inc. encoder, B channel |
| 6 | Inx | Inc. encoder, index channel |
| 7 | +U5V | 5V output voltage for sensor supply<br>Sensors: encoder, hall |
| 8 | /H1 | Hall sensor 1 inverted |
| 9 | /H2 | Hall sensor 2 inverted |
| 10 | /H3 | Hall sensor 3 inverted |
| 11 | /A | Inc. encoder, A channel invert |
| 12 | /B | Inc. encoder, B channel inverted |
| 13 | /Inx | Inc. encoder, index channel inverted |
| 14 | GND | Ground for sensor supply (don´t connect with system GND) |
| X3 | I/O's and CAN | |
| 1 | +Ue24V | Electronic supply voltage |
| 2 | +Ain0 | Analog input 0, positive |
| 3 | Din0 | Digital input 0 |
| 4 | Din1 | Digital input 1 |
| 5 | Din2 | Digital input 2 |
| 6 | Din3 | Digital input 3 |
| 7 | GND | Ground for electronic supply voltage |
| 8 | -Ain0 | Analog input 0, negative |
| 9 | Dout0 | Digital output 0 |
| 10 | CAN Hi | CAN High |
| 11 | CAN Lo | CAN Low |
| 12 | CAN GND | CAN Ground |
| X4 | I/O's | |
| 1 | Ain1 | Analog input 1 |
| 2 | Din4 | Digital input 4 |
| 3 | Din5 | Digital input 5 |
| 4 | Din6 | Digital input 6 |
| 5 | Dout1 | Digital output 1 |
| 6 | Din7 | Digital input 7 |
| X5 | Profinet - PORT1 | |
| X6 | Profinet - PORT2 | |

# SVTE-A-E47-CanOpen
## Servo Drives

60VDC | 10A
DC motors, BLDC motors




CANopen

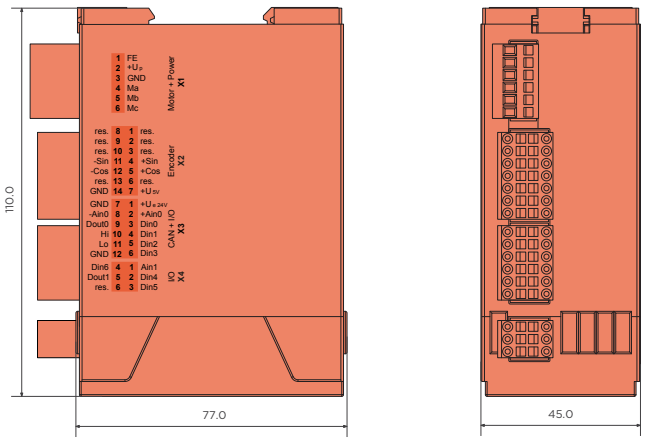
| | Values | Unit | |
|---|---|---|---|
| | **Power** | | |
| 1 | Electronic supply voltage Ue | VDC | 9..30 |
| 2 | Power supply voltage Up | VDC | 9..60 |
| 3 | Max. output current | A | 50 |
| 4 | Continuous output current @ Up=24VDC | A | 10 |
| 5 | Continuous output current @ Up=48VDC | A | 8.5 |
| 6 | Output voltage | | Up to 100% |
| | **Motor types** | | |
| 7 | DC motors | | yes |
| 8 | BLDC motors | | yes |
| 9 | Stepper motors | | no |
| | **Mechanical** | | |
| 10 | Size LxWxH | mm | 110 x 22.5 x 77 |
| | **CAN bus** | | |
| 11 | Protocol | | DS301 |
| 12 | Device profile | | DS402 |
| 13 | Galvanically isolated | | no |
| | **Encoder** | | |
| 14 | Input voltage | VDC | 1 V peak-peak, differential |
| 15 | Signal type | | sin / cos, analog, differential |
| 16 | Resolution | | 13 bit per sine period |
| | **Digital input** | | |
| 17 | Number | | 7 (Din0..6) |
| | **Digital output** | | |
| 18 | Number | | 2 (Dout0..1) |
| 19 | Continuous output current | A | 1.5 (Load: resistive, inductive) |
| | **Analog inputs** | | |
| 20 | Number | | 2 (Ain0..1) |
| 21 | Signal type - Ain0 | | +/- 10 VDC, 12 Bit, differential |
| 22 | Signal type - Ain1 | | +/- 10 VDC, 12 Bit, single ended |
| | **Environment** | | |
| 23 | Operating temperature | °C | -40...+70 |

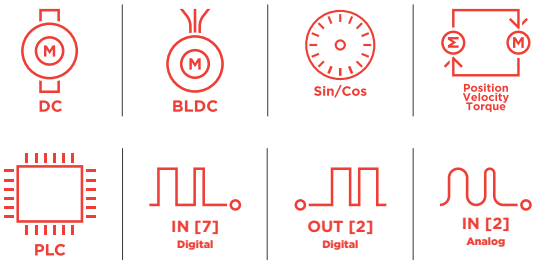
## Connection

| | | |
|---|---|---|
| X1 | Motor | |
| 1 | FE | Functional earth |
| 2 | +Up | Power supply voltage |
| 3 | GND | Ground for power supply voltage |
| 4 | Ma | Motor phase A |
| 5 | Mb | Motor phase B |
| 6 | Mc | Motor phase C |
| X2 | Encoder sin/cos | |
| 1 | res. | Reserved |
| 2 | res. | Reserved |
| 3 | res. | Reserved |
| 4 | +Sin | Sine + signal |
| 5 | +Cos | Cosine + signal |
| 6 | res. | Reserved |
| 7 | +U5V | 5V output voltage for sensor supply<br>Sensors: encoder |
| 8 | res. | Reserved |
| 9 | res. | Reserved |
| 10 | res. | Reserved |
| 11 | -Sin | Sine - signal |
| 12 | -Cos | Cosine - signal |
| 13 | res. | Reserved |
| 14 | GND | Ground for sensor supply<br>Notice: don´t connect with system GND |
| X3 | I/O's and CAN | |
| 1 | +Ue24V | Electronic supply voltage |
| 2 | +Ain0 | Analog input 0, positive |
| 3 | Din0 | Digital input 0 |
| 4 | Din1 | Digital input 1 |
| 5 | Din2 | Digital input 2 |
| 6 | Din3 | Digital input 3 |
| 7 | GND | Ground for electronic supply voltage |
| 8 | -Ain0 | Analog input 0, negative |
| 9 | Dout0 | Digital output 0 |
| 10 | CAN Hi | CAN High |
| 11 | CAN Lo | CAN Low |
| 12 | CAN GND | CAN Ground |
| X4 | I/O's | |
| 1 | Ain1 | Analog input 1 |
| 2 | Din4 | Digital input 4 |
| 3 | Din5 | Digital input 5 |
| 4 | Din6 | Digital input 6 |
| 5 | Dout1 | Digital output 1 |
| 6 | res. | Reserved |

# SVTE-A-E47-EtherCAT
## Servo Drives

60VDC | 10A
DC motors, BLDC motors




CANopen | EtherCAT

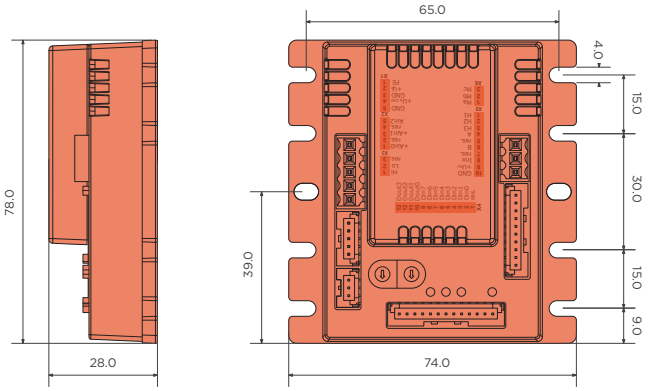
| | Values | Unit | |
|---|---|---|---|
| | **Power** | | |
| 1 | Electronic supply voltage Ue | VDC | 9..30 |
| 2 | Power supply voltage Up | VDC | 9..60 |
| 3 | Max. output current | A | 50 |
| 4 | Continuous output current @ Up=24VDC | A | 10 |
| 5 | Continuous output current @ Up=48VDC | A | 8.5 |
| 6 | Output voltage | | Up to 100% |
| | **Motor types** | | |
| 7 | DC motors | | yes |
| 8 | BLDC motors | | yes |
| 9 | Stepper motors | | no |
| | **Mechanical** | | |
| 10 | Size LxWxH | mm | 110 x 45 x 77 |
| | **CAN bus** | | |
| 11 | Protocol | | DS301 |
| 12 | Device profile | | DS402 |
| 13 | Galvanically isolated | | no |
| | **EtherCAT** | | |
| 14 | Type | | EtherCAT Slave |
| 15 | Physical layer | | 100 Base-Tx EtherCAT |
| 16 | Max. baudrate | | 100 Mbit/s |
| 17 | Number of ports | | 2xRJ45 (In,Out) |
| 18 | Protocol | | CoE (CANopen over EtherCAT) |
| | **Encoder** | | |
| 19 | Input voltage | | sin / cos |
| 20 | Signal type | | 1 VDC peak-peak, differential |
| 21 | Resolution | | 13 bit per sine period |
| | **Digital input** | | |
| 22 | Number | | 7 (Din0..6) |
| | **Digital output** | | |
| 23 | Number | | 2 (Dout0..1) |
| 24 | Continuous output current | A | 1.5 (Load: resistive, inductive) |
| | **Analog inputs** | | |
| 25 | Number | | 2 (Ain0..1) |
| 26 | Signal type - Ain0 | | +/- 10 VDC, 12 Bit, differential |
| 27 | Signal type - Ain1 | | +/- 10 VDC, 12 Bit, single ended |
| | **Environment** | | |
| 28 | Operating temperature | °C | -25...+70 |

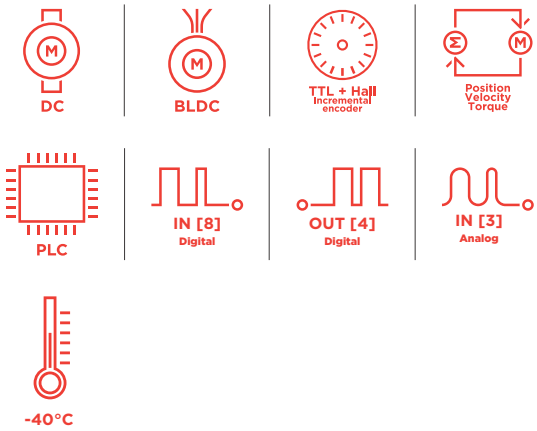
## Connection

| | | |
|---|---|---|
| X1 | Motor | |
| 1 | FE | Functional earth |
| 2 | +Up | Power supply voltage |
| 3 | GND | Ground for power supply voltage |
| 4 | Ma | Motor phase A |
| 5 | Mb | Motor phase B |
| 6 | Mc | Motor phase C |
| X2 | Encoder sin/cos | |
| 1 | res. | Reserved |
| 2 | res. | Reserved |
| 3 | res. | Reserved |
| 4 | +Sin | Sine + signal |
| 5 | +Cos | Cosine + signal |
| 6 | res. | Reserved |
| 7 | +U5V | 5V output voltage for sensor supply<br>Sensors: encoder |
| 8 | res. | Reserved |
| 9 | res. | Reserved |
| 10 | res. | Reserved |
| 11 | -Sin | Sine - signal |
| 12 | -Cos | Cosine - signal |
| 13 | res. | Reserved |
| 14 | GND | Ground for sensor supply (don´t connect with system GND) |
| X3 | I/O's and CAN | |
| 1 | +Ue24V | Electronic supply voltage |
| 2 | +Ain0 | Analog input 0, positive |
| 3 | Din0 | Digital input 0 |
| 4 | Din1 | Digital input 1 |
| 5 | Din2 | Digital input 2 |
| 6 | Din3 | Digital input 3 |
| 7 | GND | Ground for electronic supply voltage |
| 8 | -Ain0 | Analog input 0, negative |
| 9 | Dout0 | Digital output 0 |
| 10 | CAN Hi | CAN High |
| 11 | CAN Lo | CAN Low |
| 12 | CAN GND | CAN Ground |
| X4 | I/O's | |
| 1 | Ain1 | Analog input 1 |
| 2 | Din4 | Digital input 4 |
| 3 | Din5 | Digital input 5 |
| 4 | Din6 | Digital input 6 |
| 5 | Dout1 | Digital output 1 |
| 6 | res. | Reserved |
| X5 | EtherCAT - PORT1 | |
| X6 | EtherCAT - PORT2 | |

# SVTE-A-E50-CanOpen
## Servo Drives

60VDC | 7.5A
DC motors, BLDC motors




CANopen

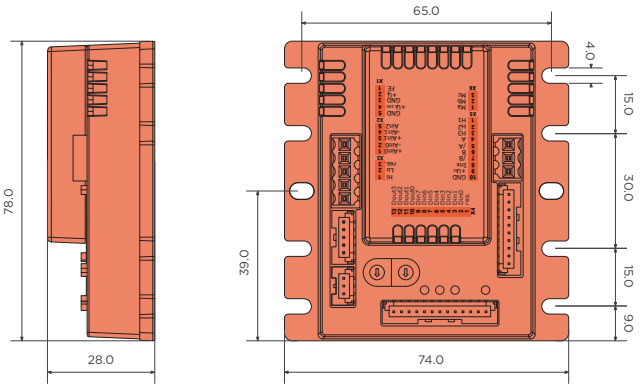
| | Values | Unit | |
|---|---|---|---|
| | **Power** | | |
| 1 | Electronic supply voltage Ue | VDC | 9..30 |
| 2 | Power supply voltage Up | VDC | 9..60 |
| 3 | Max. output current | A | 25 |
| 4 | Continuous output current @ Up=24VDC (certified UL) | A | 7.5 |
| 5 | Continuous output current @ Up=60VDC (certified UL) | A | 7 |
| 6 | Output voltage | | Up to 90% |
| | **Motor types** | | |
| 7 | DC motors | | Yes |
| 8 | BLDC motors | | Yes |
| 9 | Stepper motors | | No |
| | **Mechanical** | | |
| 10 | Size LxWxH | mm | 78 x 74 x 28 |
| | **CAN bus** | | |
| 11 | Protocol | | DS301 |
| 12 | Device profile | | DS402 |
| 13 | Galvanically isolated | | no |
| | **Incremental encoder** | | |
| 14 | Input voltage | VDC | 0..5 |
| 15 | Signal type | | open collector, single ended |
| | **Hall sensors** | | |
| 16 | Input voltage | VDC | 0..5 |
| 17 | Signal type | | open collector, single ended |
| | **Digital input** | | |
| 18 | Number | | 8 (Din0..7) |
| | **Digital output** | | |
| 19 | Number | | 4 (Dout0..3) |
| 20 | Continuous output current | A | 0.3 (Load: resistive, inductive) |
| | **Analog inputs** | | |
| 21 | Number | | 3 (Ain0..2) |
| 22 | Signal type - Ain0..1 | | 0..10V, 12 Bit, Single Ended |
| 23 | Signal type - Ain2 | | 0..5V, 12 Bit, Single Ended |
| | **Environment** | | |
| 24 | Operating temperature | °C | -40..+70°C |

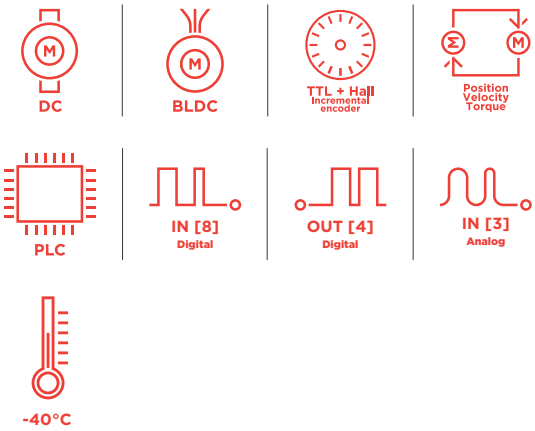
## Connection

| | | |
|---|---|---|
| X1 | Supply | |
| 1 | FE | Functional earth |
| 2 | +Up | Power supply voltage |
| 3 | GND | Ground for power supply voltage |
| 4 | +Ue24V | Electronic supply voltage |
| 5 | GND | Ground for electronic supply voltage |
| X2 | Analog Inputs | |
| 1 | Ain0 | Analog input 0 |
| 2 | res. | Reserved |
| 3 | Ain1 | Analog input 1 |
| 4 | res. | Reserved |
| 5 | Ain2 | Analog Input 2 (5V) |
| X3 | CAN bus | |
| 1 | CAN Hi | CAN High |
| 2 | CAN Lo | CAN Low |
| 3 | res. | Reserved |
| X4 | Digital inputs/outputs | |
| 1 | res. | Reserved |
| 2 | Din0 | Digital input 0 |
| 3 | Din1 | Digital input 1 |
| 4 | Din2 | Digital input 2 |
| 5 | Din3 | Digital input 3 |
| 6 | Din4 | Digital input 4 |
| 7 | Din5 | Digital input 5 |
| 8 | Din6 | Digital input 6 |
| 9 | Din7 | Digital input 7 |
| 10 | Dout0 | Digital output 0 |
| 11 | Dout1 | Digital output 1 |
| 12 | Dout2 | Digital output 2 |
| 13 | Dout3 | Digital output 3 |
| X5 | Hall and inc. encoder | |
| 1 | H1 | Hall sensor 1 |
| 2 | H2 | Hall sensor 2 |
| 3 | H3 | Hall sensor 3 |
| 4 | A | Inc. encoder, A channel |
| 5 | res. | Reserved |
| 6 | B | Inc. encoder, B channel |
| 7 | res. | Reserved |
| 8 | Inx | Inc. encoder, index channel |
| 9 | +U5V | 5V output voltage for sensor supply |
| 10 | GND | Ground for sensor supply (don´t connect with system GND) |
| X6 | Motor | |
| 1 | Ma | Motor phase A |
| 2 | Mb | Motor phase B |
| 3 | Mc | Motor phase C |

# SVTE-A-E55-CanOpen
## Servo Drives

60VDC | 10A
DC motors, BLDC motors




CANopen

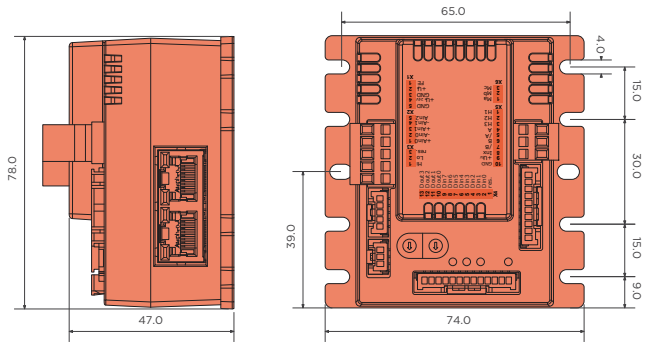
| | Values | Unit | |
|---|---|---|---|
| | **Power** | | |
| 1 | Electronic supply voltage Ue | VDC | 9..30 |
| 2 | Power supply voltage Up | VDC | 9..60 |
| 3 | Max. output current | A | 50 |
| 4 | Continuous output current @ Up=24VDC | A | 10 |
| 5 | Continuous output current @ Up=48VDC | A | 8.5 |
| 6 | Output voltage | | Up to 100% |
| | **Motor types** | | |
| 7 | DC motors | | yes |
| 8 | BLDC motors | | yes |
| 9 | Stepper motors | | no |
| | **Mechanical** | | |
| 10 | Size LxWxH | mm | 78 x 74 x 28 |
| | **CAN bus** | | |
| 11 | Protocol | | DS301 |
| 12 | Device profile | | DS402 |
| 13 | Galvanically isolated | | no |
| | **Incremental encoder** | | |
| 14 | Input voltage (24VDC tolerant) | VDC | 0..5 |
| 15 | Signal type | | differential, open collector, single ended, 2,5 kOhm input impedance |
| | **Hall sensor** | | |
| 16 | Input voltage | VDC | 0..5 |
| 17 | Signal type | | open collector, single ended, 5VDC pull up intern 920 Ohm |
| | **Digital input** | | |
| 18 | Number | | 8 (Din0..7) |
| | **Digital output** | | |
| 19 | Number | | 4 (Dout0..3) |
| 20 | Continuous output current | A | 0.3 (Load: resistive, inductive) |
| | **Analog inputs** | | |
| 21 | Number | | 3 (Ain0..2) |
| 22 | Signal type - Ain0..1 | | +/- 10VDC, 12 Bit, differential, 200 kOhm input impedance |
| 23 | Signal type - Ain2 | | 0..5 VDC, 12 Bit, single ended, 5VDC pull up intern 1,5 kOhm |
| | **Environment** | | |
| 24 | Operating temperature | °C | -40...+70 |

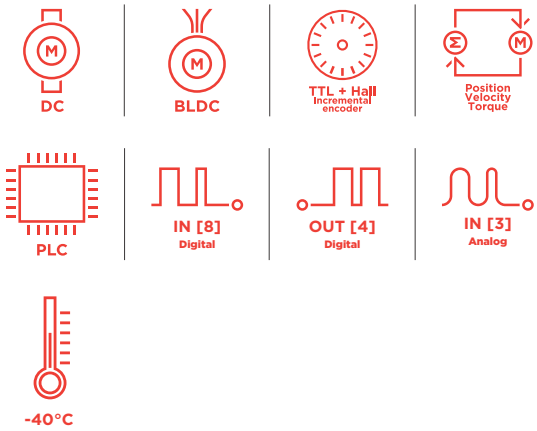
## Connection

| | | |
|---|---|---|
| X1 | Supply | |
| 1 | FE | Functional earth |
| 2 | +Up | Power supply voltage |
| 3 | GND | Ground for power supply voltage |
| 4 | +Ue24V | Electronic supply voltage |
| 5 | GND | Ground for electronic supply voltage |
| X2 | Analog Inputs | |
| 1 | +Ain0 | Analog input 0, positive |
| 2 | -Ain0 | Analog input 0, negative |
| 3 | +Ain1 | Analog input 1, positive |
| 4 | -Ain1 | Analog input 1, negative |
| 5 | Ain2 | Analog Input 2 (5V) |
| X3 | CAN bus | |
| 1 | CAN Hi | CAN High |
| 2 | CAN Lo | CAN Low |
| 3 | res. | Reserved |
| X4 | Digital inputs/outputs | |
| 1 | res. | Reserved |
| 2 | Din0 | Digital input 0 |
| 3 | Din1 | Digital input 1 |
| 4 | Din2 | Digital input 2 |
| 5 | Din3 | Digital input 3 |
| 6 | Din4 | Digital input 4 |
| 7 | Din5 | Digital input 5 |
| 8 | Din6 | Digital input 6 |
| 9 | Din7 | Digital input 7 |
| 10 | Dout0 | Digital output 0 |
| 11 | Dout1 | Digital output 1 |
| 12 | Dout2 | Digital output 2 |
| 13 | Dout3 | Digital output 3 |
| X5 | Hall and inc. encoder | |
| 1 | H1 | Hall sensor 1 |
| 2 | H2 | Hall sensor 2 |
| 3 | H3 | Hall sensor 3 |
| 4 | A | Inc. encoder, A channel |
| 5 | /A | Inc. encoder, A channel invert |
| 6 | B | Inc. encoder, B channel |
| 7 | /B | Inc. encoder, B channel inverted |
| 8 | Inx | Inc. encoder, index channel |
| 9 | +U5V | 5V output voltage for sensor supply |
| 10 | GND | Ground for sensor supply (don´t connect with system GND) |
| X6 | Motor | |
| 1 | Ma | Motor phase A |
| 2 | Mb | Motor phase B |
| 3 | Mc | Motor phase C |

# SVTE-A-E55-EtherCAT
## Servo Drives

60VDC | 8A
DC motors, BLDC motors




CANopen | EtherCAT

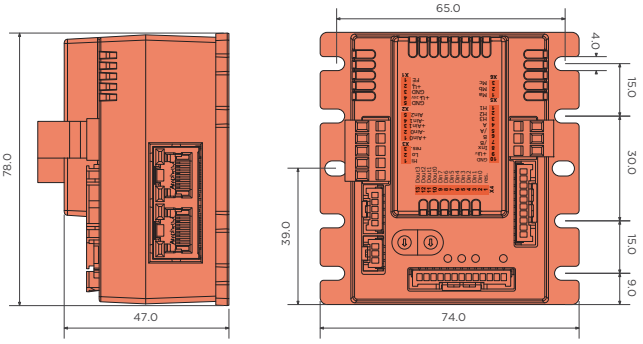
| | Values | Unit | |
|---|---|---|---|
| | **Power** | | |
| 1 | Electronic supply voltage Ue | VDC | 9..30 |
| 2 | Power supply voltage Up | VDC | 9..60 |
| 3 | Max. output current | A | 50 |
| 4 | Continuous output current | A | 8 |
| 5 | Output voltage | | Up to 100% |
| | **Motor types** | | |
| 6 | DC motors | | yes |
| 7 | BLDC motors | | yes |
| 8 | Stepper motors | | no |
| | **Mechanical** | | |
| 9 | Size LxWxH | mm | 78x74x47 |
| | **CAN bus** | | |
| 10 | Protocol | | DS301 |
| 11 | Device profile | | DS402 |
| 12 | Galvanically isolated | | no |
| | **EtherCAT** | | |
| 13 | Type | | EtherCAT Slave |
| 14 | Physical layer | | 100 Base-Tx EtherCAT |
| 15 | Max. baudrate | | 100 Mbit/s |
| 16 | Number of ports | | 2xRJ45 (In,Out) |
| 17 | Protocol | | CoE (CANopen over EtherCAT) |
| | **Incremental encoder** | | |
| 18 | Input voltage (24VDC tolerant) | | 0..5 |
| 19 | Signal type | | differential, open collector, single ended |
| | **Hall sensors** | | |
| 20 | Input voltage | | 0..5 |
| 21 | Signal type | | open collector, single ended |
| | **Digital input** | | |
| 22 | Number | | 8 (Din0..7) |
| | **Digital output** | | |
| 23 | Number | | 4 (Dout0..3) |
| 24 | Continuous output current | A | 0.3 (Load: resistive, inductive) |
| | **Analog inputs** | | |
| 25 | Number | | 3 (Ain0..2) |
| 26 | Signal type - Ain0...1 | | +/- 10 VDC, 12 Bit, differential |
| 27 | Signal type - Ain2 | | 0..5VDC, 12 Bit, single ended |
| | **Environment** | | |
| 28 | Operating temperature | °C | -40...+70 |

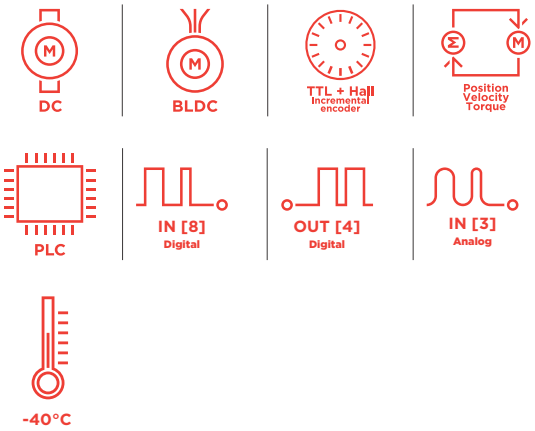
## Connection

| | | |
|---|---|---|
| X1 | Supply | |
| 1 | FE | Functional earth |
| 2 | +Up | Power supply voltage |
| 3 | GND | Ground for power supply voltage |
| 4 | +Ue24V | Electronic supply voltage |
| 5 | GND | Ground for electronic supply voltage |
| X2 | Analog Inputs | |
| 1 | +Ain0 | Analog input 0, positive |
| 2 | -Ain0 | Analog input 0, negative |
| 3 | +Ain1 | Analog input 1, positive |
| 4 | -Ain1 | Analog input 1, negative |
| 5 | Ain2 | Analog Input 2 (5V) |
| X3 | CAN bus | |
| 1 | CAN Hi | CAN High |
| 2 | CAN Lo | CAN Low |
| 3 | res. | Reserved |
| X4 | Digital inputs/outputs | |
| 1 | res. | Reserved |
| 2 | Din0 | Digital input 0 |
| 3 | Din1 | Digital input 1 |
| 4 | Din2 | Digital input 2 |
| 5 | Din3 | Digital input 3 |
| 6 | Din4 | Digital input 4 |
| 7 | Din5 | Digital input 5 |
| 8 | Din6 | Digital input 6 |
| 9 | Din7 | Digital input 7 |
| 10 | Dout0 | Digital output 0 |
| 11 | Dout1 | Digital output 1 |
| 12 | Dout2 | Digital output 2 |
| 13 | Dout3 | Digital output 3 |
| X5 | Hall and inc. encoder | |
| 1 | H1 | Hall sensor 1 |
| 2 | H2 | Hall sensor 2 |
| 3 | H3 | Hall sensor 3 |
| 4 | A | Inc. encoder, A channel |
| 5 | /A | Inc. encoder, A channel invert |
| 6 | B | Inc. encoder, B channel |
| 7 | /B | Inc. encoder, B channel inverted |
| 8 | Inx | Inc. encoder, index channel |
| 9 | +U5V | 5V output voltage for sensor supply |
| 10 | GND | Ground for sensor supply (don´t connect with system GND) |
| X6 | Motor | |
| 1 | Ma | Motor phase A |
| 2 | Mb | Motor phase B |
| 3 | Mc | Motor phase C |
| X7 | EtherCAT - In port | |
| X8 | EtherCAT - Out port | |

# SVTE-A-E55-Profinet
## Servo Drives

60VDC | 9A
DC motors, BLDC motors




CANopen | PROFINET

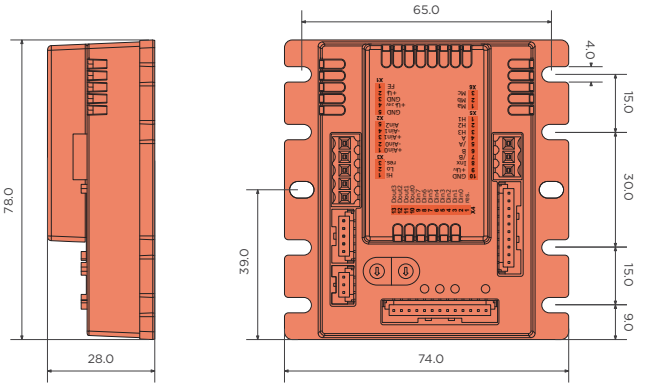
| | Values | Unit | |
|---|---|---|---|
| | **Power** | | |
| 1 | Electronic supply voltage Ue | VDC | 9..30 |
| 2 | Power supply voltage Up | VDC | 9..60 |
| 3 | Max. output current | A | 50 |
| 4 | Continuous output current @ Up=24VDC | A | 9 |
| 5 | Continuous output current @ Up=48VDC | A | 8 |
| 6 | Output voltage | | Up to 100% |
| | **Motor types** | | |
| 7 | DC motors | | yes |
| 8 | BLDC motors | | yes |
| 9 | Stepper motors | | no |
| | **Mechanical** | | |
| 10 | Size LxWxH | mm | 78 x 74 x 47 |
| | **CAN bus** | | |
| 11 | Protocol | | DS301 |
| 12 | Device profile | | DS402 |
| 13 | Galvanically isolated | | no |
| | **Profinet** | | |
| 14 | Type | | Slave |
| 15 | Physical layer | | 100 Base-Tx |
| 16 | Max. baudrate | | 100 Mbit/s |
| 17 | Number of ports | | 2xRJ45 (PORT1, PORT2) |
| | **Incremental encoder** | | |
| 18 | Input voltage (24VDC tolerant) | VDC | 0..5 |
| 19 | Signal type | | differential, open collector, single ended, 2.5 kOhm input impedance |
| | **Hall sensors** | | |
| 20 | Input voltage | VDC | 0..5 |
| 21 | Signal type | | open collector, single ended, 5VDC pull up intern 920 Ohm |
| | **Digital input** | | |
| 22 | Number | | 8 (Din0..7) |
| | **Digital output** | | |
| 23 | Number | | 4 (Dout0..3) |
| 24 | Continuous output current | A | 0.3 (Load: resistive, inductive) |
| | **Analog inputs** | | |
| 25 | Number | | 3 (Ain0..2) |
| 26 | Signal type - Ain0...1 | | +/- 10 VDC, 12 Bit, differential, 20 kOhm input impedance |
| 27 | Signal type - Ain2 | | 0..5 VDC, 12 Bit, single ended, 5VDC pull up intern 1.5 kOhm |
| | **Environment** | | |
| 28 | Operating temperature | °C | -40...+70 |

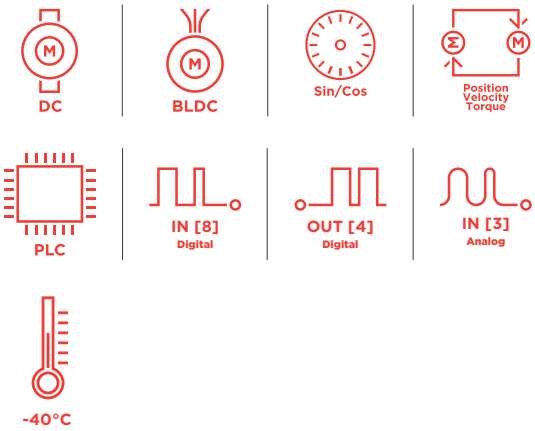
## Connection

| | | |
|---|---|---|
| X1 | Supply | |
| 1 | FE | Functional earth |
| 2 | +Up | Power supply voltage |
| 3 | GND | Ground for power supply voltage |
| 4 | +Ue24V | Electronic supply voltage |
| 5 | GND | Ground for electronic supply voltage |
| X2 | Analog Inputs | |
| 1 | +Ain0 | Analog input 0, positive |
| 2 | -Ain0 | Analog input 0, negative |
| 3 | +Ain1 | Analog input 1, positive |
| 4 | -Ain1 | Analog input 1, negative |
| 5 | Ain2 | Analog Input 2 (5V) |
| X3 | CAN bus | |
| 1 | CAN Hi | CAN High |
| 2 | CAN Lo | CAN Low |
| 3 | res. | Reserved |
| X4 | Digital inputs/outputs | |
| 1 | res. | Reserved |
| 2 | Din0 | Digital input 0 |
| 3 | Din1 | Digital input 1 |
| 4 | Din2 | Digital input 2 |
| 5 | Din3 | Digital input 3 |
| 6 | Din4 | Digital input 4 |
| 7 | Din5 | Digital input 5 |
| 8 | Din6 | Digital input 6 |
| 9 | Din7 | Digital input 7 |
| 10 | Dout0 | Digital output 0 |
| 11 | Dout1 | Digital output 1 |
| 12 | Dout2 | Digital output 2 |
| 13 | Dout3 | Digital output 3 |
| X5 | Hall and inc. encoder | |
| 1 | H1 | Hall sensor 1 |
| 2 | H2 | Hall sensor 2 |
| 3 | H3 | Hall sensor 3 |
| 4 | A | Inc. encoder, A channel |
| 5 | /A | Inc. encoder, A channel invert |
| 6 | B | Inc. encoder, B channel |
| 7 | /B | Inc. encoder, B channel inverted |
| 8 | Inx | Inc. encoder, index channel |
| 9 | +U5V | 5V output voltage for sensor supply |
| 10 | GND | Ground for sensor supply (don´t connect with system GND) |
| X6 | Motor | |
| 1 | Ma | Motor phase A |
| 2 | Mb | Motor phase B |
| 3 | Mc | Motor phase C |
| X7 | Profinet - In port | |
| X8 | Profinet - Out port | |

# SVTE-A-E57-CanOpen
## Servo Drives

60VDC | 10A
DC motors, BLDC motors




CANopen

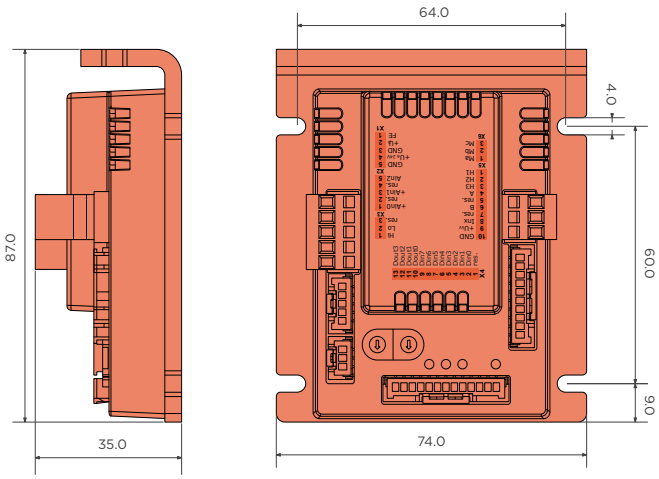
| | Values | Unit | |
|---|---|---|---|
| | **Power** | | |
| 1 | Electronic supply voltage Ue | VDC | 9..30 |
| 2 | Power supply voltage Up | VDC | 9..60 |
| 3 | Max. output current | A | 50 |
| 4 | Continuous output current @ Up=24VDC | A | 10 |
| 5 | Output voltage | | Up to 100% |
| | **Motor types** | | |
| 6 | DC motors | | yes |
| 7 | BLDC motors | | yes |
| 8 | Stepper motors | | no |
| | **Mechanical** | | |
| 9 | Size LxWxH | mm | 78 x 74 x 28 |
| | **CAN bus** | | |
| 10 | Protocol | | DS301 |
| 11 | Device profile | | DS402 |
| 12 | Galvanically isolated | | no |
| | **Encoder** | | |
| 13 | Input voltage | VDC | 1 VDC peak-peak, differential |
| 14 | Signal type | | sin / cos, analog, differential, 1085 kOhm input impedance |
| 15 | Resolution | | 13 bit per sine period |
| | **Digital input** | | |
| 16 | Number | | 8 (Din0..7) |
| | **Digital output** | | |
| 17 | Number | | 4 (Dout0..3) |
| 18 | Continuous output current | A | 0.3 (Load: resistive, inductive) |
| | **Analog inputs** | | |
| 19 | Number | | 3 (Ain0..2) |
| 20 | Signal type - Ain0..1 | | +/- 10VDC, 12 Bit, differential, 200 kOhm input impedance |
| 21 | Signal type - Ain2 | | 0..5 VDC, 12 Bit, single ended, 5VDC pull up intern 1.5 kOhm |
| | **Environment** | | |
| 21 | Operating temperature | °C | -40...+70 |

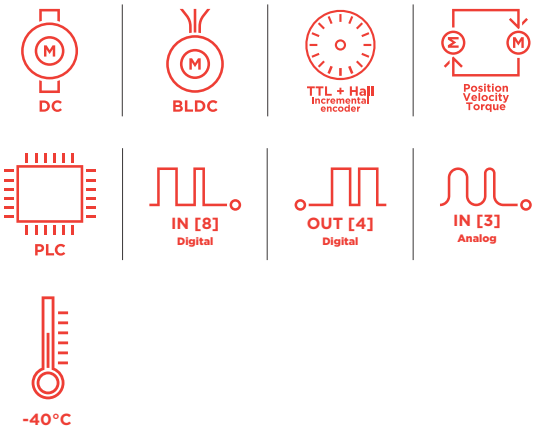
## Connection

| | | |
|---|---|---|
| X1 | Supply | |
| 1 | FE | Functional earth |
| 2 | +Up | Power supply voltage |
| 3 | GND | Ground for power supply voltage |
| 4 | +Ue24V | Electronic supply voltage |
| 5 | GND | Ground for electronic supply voltage |
| X2 | Analog Inputs | |
| 1 | +Ain0 | Analog input 0, positive |
| 2 | -Ain0 | Analog input 0, negative |
| 3 | +Ain1 | Analog input 1, positive |
| 4 | -Ain1 | Analog input 1, negative |
| 5 | Ain2 | Analog Input 2 (5V) |
| X3 | CAN bus | |
| 1 | CAN Hi | CAN High |
| 2 | CAN Lo | CAN Low |
| 3 | res. | Reserved |
| X4 | Digital inputs/outputs | |
| 1 | res. | Reserved |
| 2 | Din0 | Digital input 0 |
| 3 | Din1 | Digital input 1 |
| 4 | Din2 | Digital input 2 |
| 5 | Din3 | Digital input 3 |
| 6 | Din4 | Digital input 4 |
| 7 | Din5 | Digital input 5 |
| 8 | Din6 | Digital input 6 |
| 9 | Din7 | Digital input 7 |
| 10 | Dout0 | Digital output 0 |
| 11 | Dout1 | Digital output 1 |
| 12 | Dout2 | Digital output 2 |
| 13 | Dout3 | Digital output 3 |
| X5 | Encoder SinCos | |
| 1 | res. | Reserved |
| 2 | res. | Reserved |
| 3 | res. | Reserved |
| 4 | +Sin | Encoder, plus sine signal |
| 5 | -Sin | Encoder, minus sine signal |
| 6 | +Cos | Encoder, plus cosine signal |
| 7 | -Cos | Encoder, minus cosine signal |
| 8 | res. | Reserved |
| 9 | +U5V | 5V output voltage for sensor supply |
| 10 | GND | Ground for sensor supply (don´t connect with system GND) |
| X6 | Motor | |
| 1 | Ma | Motor phase A |
| 2 | Mb | Motor phase B |
| 3 | Mc | Motor phase C |

# SVTE-A-E50-HC-CanOpen
## Servo Drives

60VDC | 14.5A
DC motors, BLDC motors




CANopen

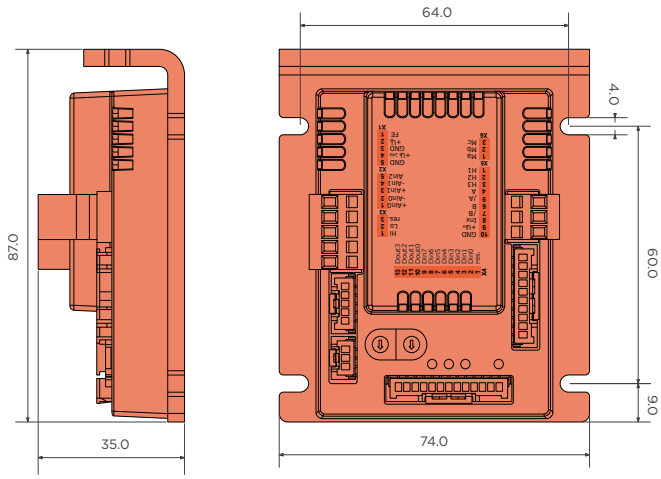
| | Values | Unit | |
|---|---|---|---|
| | **Power** | | |
| 1 | Electronic supply voltage Ue | VDC | 9..30 |
| 2 | Power supply voltage Up | VDC | 9..60 |
| 3 | Max. output current | A | 25 |
| 4 | Continuous output current | A | 14.5 |
| 5 | Continuous output current @ Up=24VDC (certified UL) | A | 9.5 |
| 6 | Continuous output current @ Up=60VDC (certified UL) | A | 9 |
| 7 | Output voltage | | Up to 90% |
| | **Motor types** | | |
| 8 | DC motors | | Yes |
| 9 | BLDC motors | | Yes |
| 10 | Stepper motors | | No |
| | **Mechanical** | | |
| 11 | Size LxWxH | mm | 87 x 74 x 28 |
| | **CAN bus** | | |
| 12 | Protocol | | DS301 |
| 13 | Device profile | | DS402 |
| 14 | Galvanically isolated | | no |
| | **Incremental encoder** | | |
| 15 | Input voltage | VDC | 0..5 |
| 16 | Signal type | | open collector, single ended |
| | **Hall sensors** | | |
| 17 | Input voltage | VDC | 0..5 |
| 18 | Signal type | | open collector, single ended |
| | **Digital input** | | |
| 19 | Number | | 8 (Din0..7) |
| | **Digital output** | | |
| 20 | Number | | 4 (Dout0..3) |
| 21 | Continuous output current | A | 0.3 (Load: resistive, inductive) |
| | **Analog inputs** | | |
| 22 | Number | | 3 (Ain0..2) |
| 23 | Signal type - Ain0..1 | | 0..10V, 12 Bit, Single Ended |
| 24 | Signal type - Ain2 | | 0..5V, 12 Bit, Single Ended |
| | **Environment** | | |
| 25 | Operating temperature | °C | -40..+70°C |

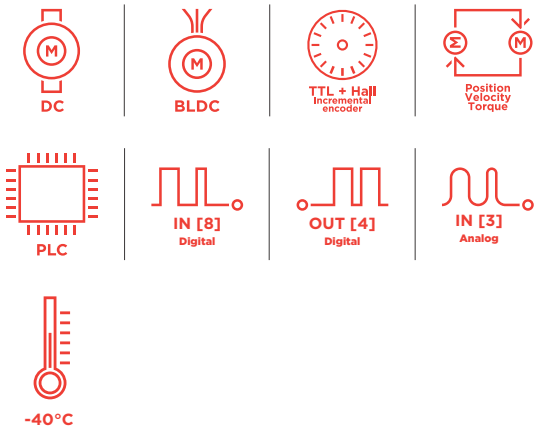
## Connection

| | | |
|---|---|---|
| X1 | Supply | |
| 1 | FE | Functional earth |
| 2 | +Up | Power supply voltage |
| 3 | GND | Ground for power supply voltage |
| 4 | +Ue24V | Electronic supply voltage |
| 5 | GND | Ground for electronic supply voltage |
| X2 | Analog Inputs | |
| 1 | Ain0 | Analog input 0 |
| 2 | res. | Reserved |
| 3 | Ain1 | Analog input 1 |
| 4 | res. | Reserved |
| 5 | Ain2 | Analog Input 2 (5V) |
| X3 | CAN bus | |
| 1 | CAN Hi | CAN High |
| 2 | CAN Lo | CAN Low |
| 3 | res. | Reserved |
| X4 | Digital inputs/outputs | |
| 1 | res. | Reserved |
| 2 | Din0 | Digital input 0 |
| 3 | Din1 | Digital input 1 |
| 4 | Din2 | Digital input 2 |
| 5 | Din3 | Digital input 3 |
| 6 | Din4 | Digital input 4 |
| 7 | Din5 | Digital input 5 |
| 8 | Din6 | Digital input 6 |
| 9 | Din7 | Digital input 7 |
| 10 | Dout0 | Digital output 0 |
| 11 | Dout1 | Digital output 1 |
| 12 | Dout2 | Digital output 2 |
| 13 | Dout3 | Digital output 3 |
| X5 | Hall and inc. encoder | |
| 1 | H1 | Hall sensor 1 |
| 2 | H2 | Hall sensor 2 |
| 3 | H3 | Hall sensor 3 |
| 4 | A | Inc. encoder, A channel |
| 5 | res. | Reserved |
| 6 | B | Inc. encoder, B channel |
| 7 | res. | Reserved |
| 8 | Inx | Inc. encoder, index channel |
| 9 | +U5V | 5V output voltage for sensor supply |
| 10 | GND | Ground for sensor supply (don´t connect with system GND) |
| X6 | Motor | |
| 1 | Ma | Motor phase A |
| 2 | Mb | Motor phase B |
| 3 | Mc | Motor phase C |

# SVTE-A-E55-HC-CanOpen
## Servo Drives

60VDC | 14.5A
DC motors, BLDC motors




CANopen

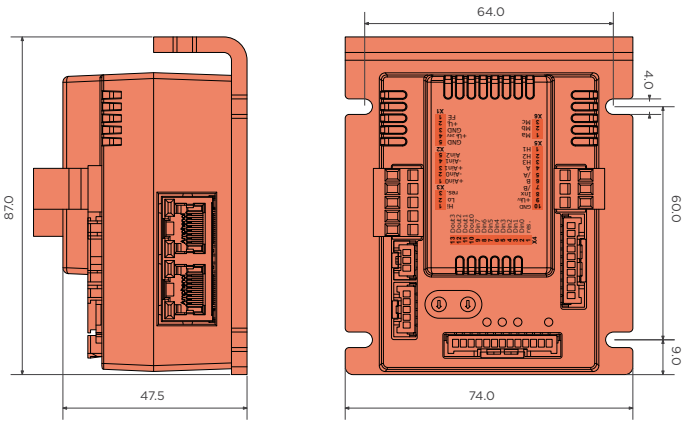
| | Values | Unit | |
|---|---|---|---|
| | **Power** | | |
| 1 | Electronic supply voltage Ue | VDC | 9..30 |
| 2 | Power supply voltage Up | VDC | 9..60 |
| 3 | Max. output current | A | 50 |
| 4 | Continuous output current | A | 14.5 |
| 5 | Continuous output current @ Up=24VDC (certified UL) | A | 9.5 |
| 6 | Continuous output current @ Up=60VDC (certified UL) | A | 9 |
| 7 | Output voltage | | Up to 100% |
| | **Motor types** | | |
| 8 | DC motors | | yes |
| 9 | BLDC motors | | yes |
| 10 | Stepper motors | | no |
| | **Mechanical** | | |
| 11 | Size LxWxH | mm | 87 x 74 x 28 |
| | **CAN bus** | | |
| 12 | Protocol | | DS301 |
| 13 | Device profile | | DS402 |
| 14 | Galvanically isolated | | no |
| | **Incremental encoder** | | |
| 15 | Input voltage | VDC | 0..5 |
| 16 | Signal type | | open collector, single ended |
| | **Hall sensors** | | |
| 17 | Input voltage | VDC | 0..5 |
| 18 | Signal type | | open collector, single ended |
| | **Digital input** | | |
| 19 | Number | | 8 (Din0..7) |
| | **Digital output** | | |
| 20 | Number | | 4 (Dout0..3) |
| 21 | Continuous output current | A | 0.3 (Load: resistive, inductive) |
| | **Analog inputs** | | |
| 22 | Number | | 3 (Ain0..2) |
| 23 | Signal type - Ain0..1 | | 0..10V, 12 Bit, Single Ended |
| 24 | Signal type - Ain2 | | 0..5V, 12 Bit, Single Ended |
| | **Environment** | | |
| 24 | Operating temperature | °C | -40..+70°C |

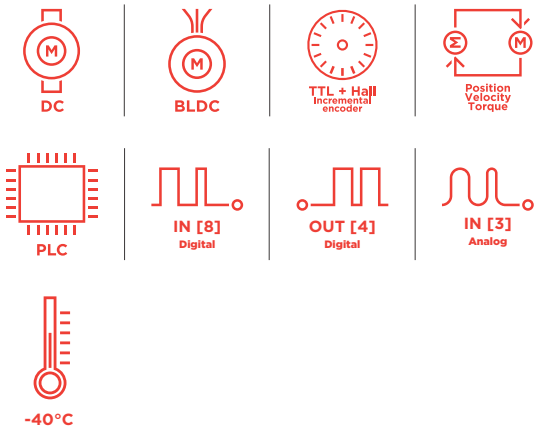
## Connection

| | | |
|---|---|---|
| X1 | Supply | |
| 1 | FE | Functional earth |
| 2 | +Up | Power supply voltage |
| 3 | GND | Ground for power supply voltage |
| 4 | +Ue24V | Electronic supply voltage |
| 5 | GND | Ground for electronic supply voltage |
| X2 | Analog Inputs | |
| 1 | +Ain0 | Analog input 0, positive |
| 2 | -Ain0 | Analog input 0, negative |
| 3 | +Ain1 | Analog input 1, positive |
| 4 | -Ain1 | Analog input 1, negative |
| 5 | Ain2 | Analog Input 2 (5V) |
| X3 | CAN bus | |
| 1 | CAN Hi | CAN High |
| 2 | CAN Lo | CAN Low |
| 3 | res. | Reserved |
| X4 | Digital inputs/outputs | |
| 1 | res. | Reserved |
| 2 | Din0 | Digital input 0 |
| 3 | Din1 | Digital input 1 |
| 4 | Din2 | Digital input 2 |
| 5 | Din3 | Digital input 3 |
| 6 | Din4 | Digital input 4 |
| 7 | Din5 | Digital input 5 |
| 8 | Din6 | Digital input 6 |
| 9 | Din7 | Digital input 7 |
| 10 | Dout0 | Digital output 0 |
| 11 | Dout1 | Digital output 1 |
| 12 | Dout2 | Digital output 2 |
| 13 | Dout3 | Digital output 3 |
| X5 | Hall and inc. encoder | |
| 1 | H1 | Hall sensor 1 |
| 2 | H2 | Hall sensor 2 |
| 3 | H3 | Hall sensor 3 |
| 4 | A | Inc. encoder, A channel |
| 5 | /A | Inc. encoder, A channel invert |
| 6 | B | Inc. encoder, B channel |
| 7 | /B | Inc. encoder, B channel inverted |
| 8 | Inx | Inc. encoder, index channel |
| 9 | +U5V | 5V output voltage for sensor supply |
| 10 | GND | Ground for sensor supply (don´t connect with system GND) |
| X6 | Motor | |
| 1 | Ma | Motor phase A |
| 2 | Mb | Motor phase B |
| 3 | Mc | Motor phase C |

# SVTE-A-E55-HC-EtherCAT
## Servo Drives

60VDC | 14.5A
DC motors, BLDC motors




CANopen | EtherCAT

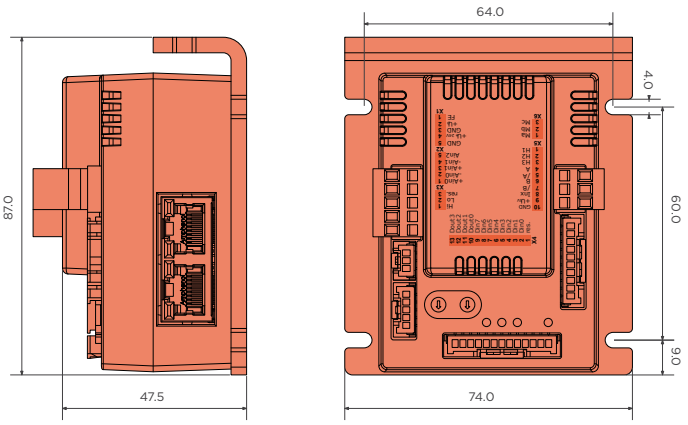
| | Values | Unit | |
|---|---|---|---|
| | **Power** | | |
| 1 | Electronic supply voltage Ue | VDC | 9..30 |
| 2 | Power supply voltage Up | VDC | 9..60 |
| 3 | Max. output current | A | 50 |
| 4 | Continuous output current | A | 14.5 |
| 5 | Output voltage | | Up to 100% |
| | **Motor types** | | |
| 6 | DC motors | | yes |
| 7 | BLDC motors | | yes |
| 8 | Stepper motors | | no |
| | **Mechanical** | | |
| 9 | Size LxWxH | mm | 87 x 74 x 47 |
| | **CAN bus** | | |
| 10 | Protocol | | DS301 |
| 11 | Device profile | | DS402 |
| 12 | Galvanically isolated | | no |
| | **EtherCAT** | | |
| 13 | Type | | EtherCAT Slave |
| 14 | Physical layer | | 100 Base-Tx EtherCAT |
| 15 | Max. baudrate | | 100 Mbit/s |
| 16 | Number of ports | | 2xRJ45 (In,Out) |
| 17 | Protocol | | CoE (CANopen over EtherCAT) |
| | **Incremental encoder** | | |
| 18 | Input voltage | VDC | 0..5 |
| 19 | Signal type | | differential, open collector, single ended |
| | **Hall sensors** | | |
| 20 | Input voltage | VDC | 0..5 |
| 21 | Signal type | | open collector, single ended |
| | **Digital input** | | |
| 22 | Number | | 8 (Din0..7) |
| | **Digital output** | | |
| 23 | Number | | 4 (Dout0..3) |
| 24 | Continuous output current | A | 0.3 (Load: resistive, inductive) |
| | **Analog inputs** | | |
| 25 | Number | | 3 (Ain0..2) |
| 26 | Signal type - Ain0..1 | | +/-10V, 12 Bit, differential |
| 27 | Signal type - Ain2 | | 0..5V, 12 Bit, single ended |
| | **Environment** | | |
| 28 | Operating temperature | °C | -40..+70°C |

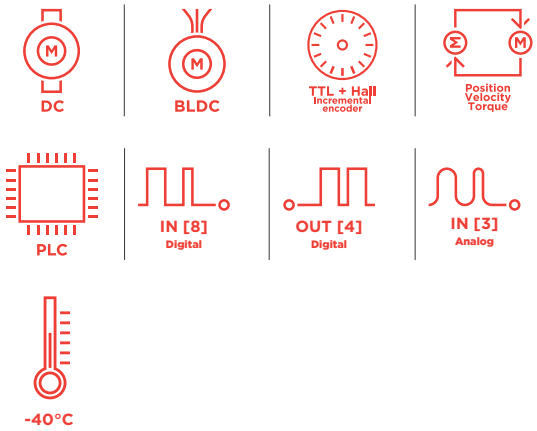
## Connection

| | | |
|---|---|---|
| X1 | Supply | |
| 1 | FE | Functional earth |
| 2 | +Up | Power supply voltage |
| 3 | GND | Ground for power supply voltage |
| 4 | +Ue24V | Electronic supply voltage |
| 5 | GND | Ground for electronic supply voltage |
| X2 | Analog Inputs | |
| 1 | +Ain0 | Analog input 0, positive |
| 2 | -Ain0 | Analog input 0, negative |
| 3 | +Ain1 | Analog input 1, positive |
| 4 | -Ain1 | Analog input 1, negative |
| 5 | Ain2 | Analog Input 2 (5V) |
| X3 | CAN bus | |
| 1 | CAN Hi | CAN High |
| 2 | CAN Lo | CAN Low |
| 3 | res. | Reserved |
| X4 | Digital inputs/outputs | |
| 1 | res. | Reserved |
| 2 | Din0 | Digital input 0 |
| 3 | Din1 | Digital input 1 |
| 4 | Din2 | Digital input 2 |
| 5 | Din3 | Digital input 3 |
| 6 | Din4 | Digital input 4 |
| 7 | Din5 | Digital input 5 |
| 8 | Din6 | Digital input 6 |
| 9 | Din7 | Digital input 7 |
| 10 | Dout0 | Digital output 0 |
| 11 | Dout1 | Digital output 1 |
| 12 | Dout2 | Digital output 2 |
| 13 | Dout3 | Digital output 3 |
| X5 | Hall and inc. encoder | |
| 1 | H1 | Hall sensor 1 |
| 2 | H2 | Hall sensor 2 |
| 3 | H3 | Hall sensor 3 |
| 4 | A | Inc. encoder, A channel |
| 5 | /A | Inc. encoder, A channel invert |
| 6 | B | Inc. encoder, B channel |
| 7 | /B | Inc. encoder, B channel inverted |
| 8 | Inx | Inc. encoder, index channel |
| 9 | +U5V | 5V output voltage for sensor supply |
| 10 | GND | Ground for sensor supply (don´t connect with system GND) |
| X6 | Motor | |
| 1 | Ma | Motor phase A |
| 2 | Mb | Motor phase B |
| 3 | Mc | Motor phase C |
| X7 | EtherCAT - In port | |
| X8 | EtherCAT - Out port | |

# SVTE-A-E55-HC-Profinet
## Servo Drives

60VDC | 14.5A
DC motors, BLDC motors




CANopen | PROFINET

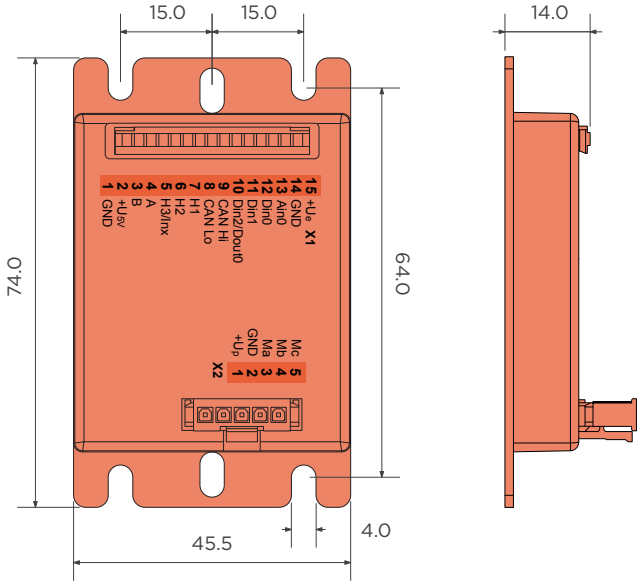
| | Values | Unit | |
|---|---|---|---|
| | **Power** | | |
| 1 | Electronic supply voltage Ue | VDC | 9..30 |
| 2 | Power supply voltage Up | VDC | 9..60 |
| 3 | Max. output current | A | 50 |
| 4 | Continuous output current | A | 14.5 |
| 5 | Output voltage | | Up to 100% |
| | **Motor types** | | |
| 6 | DC motors | | yes |
| 7 | BLDC motors | | yes |
| 8 | Stepper motors | | no |
| | **Mechanical** | | |
| 9 | Size LxWxH | mm | 78 x 74 x 47 |
| | **CAN bus** | | |
| 10 | Protocol | | DS301 |
| 11 | Device profile | | DS402 |
| 12 | Galvanically isolated | | no |
| | **Profinet** | | |
| 13 | Type | | Slave |
| 14 | Physical layer | | 100 Base-Tx |
| 15 | Max. baudrate | | 100 Mbit/s |
| 16 | Number of ports | | 2xRJ45 (PORT1,PORT2) |
| | **Incremental encoder** | | |
| 17 | Input voltage (24VDC tolerant) | VDC | 0..5 |
| 18 | Signal type | | differential, open collector, single ended |
| | **Hall sensors** | | |
| 19 | Input voltage | VDC | 0.5 |
| 20 | Signal type | | open collector, single ended |
| | **Digital input** | | |
| 21 | Number | | 8 (Din0..7) |
| | **Digital output** | | |
| 22 | Number | | 4 (Dout0..3) |
| 23 | Continuous output current | A | 0.3 |
| | **Analog inputs** | | |
| 24 | Number | | 3 (Ain0..2) |
| 25 | Signal type - Ain0...1 | | +/- 10 V, 12 Bit, differential |
| 26 | Signal type - Ain2 | | 0..5 V, 12 Bit, single ended |
| | **Environment** | | |
| 27 | Operating temperature | °C | -40..+70°C |

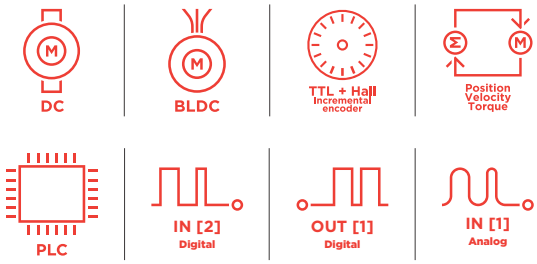
## Connection

| | | |
|---|---|---|
| X1 | Supply | |
| 1 | FE | Functional earth |
| 2 | +Up | Power supply voltage |
| 3 | GND | Ground for power supply voltage |
| 4 | +Ue24V | Electronic supply voltage |
| 5 | GND | Ground for electronic supply voltage |
| X2 | Analog Inputs | |
| 1 | +Ain0 | Analog input 0, positive |
| 2 | -Ain0 | Analog input 0, negative |
| 3 | +Ain1 | Analog input 1, positive |
| 4 | -Ain1 | Analog input 1, negative |
| 5 | Ain2 | Analog Input 2 (5V) |
| X3 | CAN bus | |
| 1 | CAN Hi | CAN High |
| 2 | CAN Lo | CAN Low |
| 3 | res. | Reserved |
| X4 | Digital inputs/outputs | |
| 1 | res. | Reserved |
| 2 | Din0 | Digital input 0 |
| 3 | Din1 | Digital input 1 |
| 4 | Din2 | Digital input 2 |
| 5 | Din3 | Digital input 3 |
| 6 | Din4 | Digital input 4 |
| 7 | Din5 | Digital input 5 |
| 8 | Din6 | Digital input 6 |
| 9 | Din7 | Digital input 7 |
| 10 | Dout0 | Digital output 0 |
| 11 | Dout1 | Digital output 1 |
| 12 | Dout2 | Digital output 2 |
| 13 | Dout3 | Digital output 3 |
| X5 | Hall and inc. encoder | |
| 1 | H1 | Hall sensor 1 |
| 2 | H2 | Hall sensor 2 |
| 3 | H3 | Hall sensor 3 |
| 4 | A | Inc. encoder, A channel |
| 5 | /A | Inc. encoder, A channel invert |
| 6 | B | Inc. encoder, B channel |
| 7 | /B | Inc. encoder, B channel inverted |
| 8 | Inx | Inc. encoder, index channel |
| 9 | +U5V | 5V output voltage for sensor supply |
| 10 | GND | Ground for sensor supply (don´t connect with system GND) |
| X6 | Motor | |
| 1 | Ma | Motor phase A |
| 2 | Mb | Motor phase B |
| 3 | Mc | Motor phase C |
| X7 | Profinet - In port | |
| X8 | Profinet - Out port | |

# SVTE-A-E60-CanOpen
## Servo Drives

60VDC | 5A
DC motors, BLDC motors




CANopen

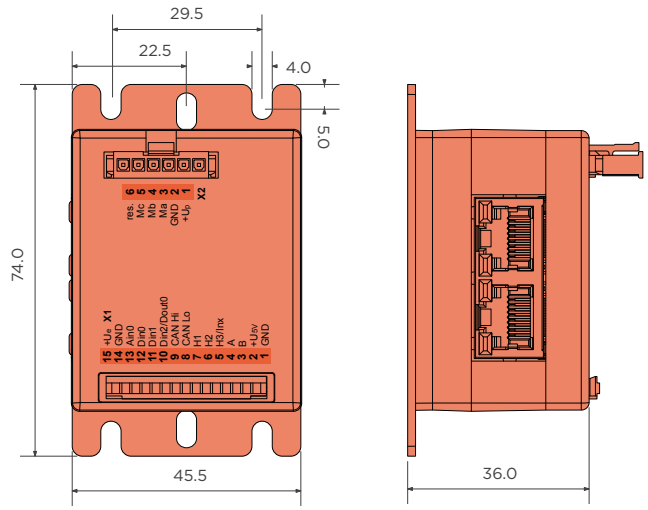
| | Values | Unit | |
|---|---|---|---|
| | **Power** | | |
| 1 | Electronic supply voltage Ue | VDC | 9..30 |
| 2 | Power supply voltage Up | VDC | 9..60 |
| 3 | Max. output current | A | 15 |
| 4 | Continuous output current @ Up=24VDC | A | 5 |
| 5 | Continuous output current @ Up=48VDC | A | 4.3 |
| 6 | Output voltage | | Up to 90% |
| | **Motor types** | | |
| 7 | DC motors | | yes |
| 8 | BLDC motors | | yes |
| 9 | Stepper motors | | no |
| | **Mechanical** | | |
| 10 | Size LxWxH | mm | 74 x 45.5 x 14 |
| | **CAN bus** | | |
| 11 | Protocol | | DS301 |
| 12 | Device profile | | DS402 |
| 13 | Galvanically isolated | | no |
| | **Incremental encoder** | | |
| 14 | Input voltage | VDC | 0..5 |
| 15 | Signal type | | open collector, single ended |
| | **Hall sensor** | | |
| 16 | Input voltage | VDC | 0..5 |
| 17 | Signal type | | open collector, single ended |
| | **Digital input** | | |
| 18 | Number (+/-30VDC tolerant) | | 2 (Din0..1) |
| 19 | Number (0..30VDC tolerant) | | 1 (Din2); Din2 parallel with Dout0 (must not exceed electronic supply voltage) |
| | **Digital output** | | |
| 20 | Number | | 1 (Dout0); Dout0 parallel with Din2 |
| 21 | Continuous output current | A | 1.5 (Load: resistive, inductive) |
| | **Analog inputs** | | |
| 22 | Number | | 1 (Ain0) |
| 23 | Signal type | | 0..10 VDC, 12 Bit, single ended |
| | **Environment** | | |
| 24 | Operating temperature | °C | -25...+70 |

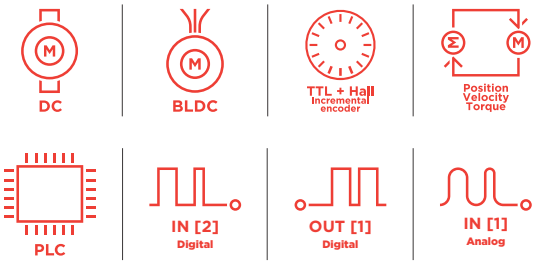
## Connection

| X1 | Hall, inc. encoder, I/O's and CAN | |
|---|---|---|
| 1 | GND | Ground of the auxiliary voltage (don´t connect with system GND) |
| 2 | +U5V | 5V output voltage for sensor supply Sensors: encoder, hall |
| 3 | B | Inc. encoder, B channel |
| 4 | A | Inc. encoder, A channel |
| 5 | H3/Inx | Hall sensor 3 / Inc. encoder, index channel |
| 6 | H2 | Hall sensor 2 |
| 7 | H1 | Hall sensor 1 |
| 8 | CAN Lo | CAN Low |
| 9 | CAN Hi | CAN High |
| 10 | Din2/Dout0 | Digital input 2 / Digital output 0 |
| 11 | Din1 | Digital input 1 |
| 12 | Din0 | Digital input 0 |
| 13 | Ain0 | Analog input 0 |
| 14 | GND | Ground for electronic supply voltage |
| 15 | +Ue | Electronic supply voltage |
| X2 | Motor | |
| 1 | +Up | Power supply voltage |
| 2 | GND | Ground for sensor supply |
| 3 | Ma | Motor phase A |
| 4 | Mb | Motor phase B |
| 5 | Mc | Motor phase C |

# SVTE-A-E60-EtherCAT
## Servo Drives

60VDC | 5A
DC motors, BLDC motors




CANopen | EtherCAT

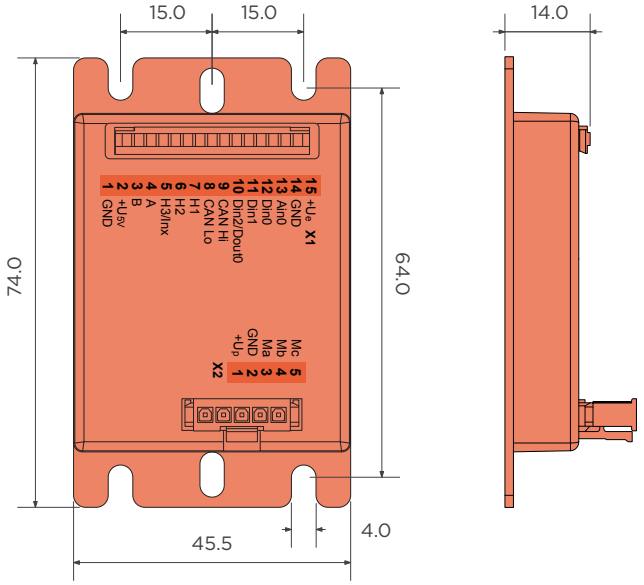
| | Values | Unit | |
|---|---|---|---|
| | **Power** | | |
| 1 | Electronic supply voltage Ue | VDC | 9..30 |
| 2 | Power supply voltage Up | VDC | 9..60 |
| 3 | Max. output current | A | 15 |
| 4 | Continuous output current @ Up=24VDC | A | 5 |
| 5 | Continuous output current @ Up=48VDC | A | 4.3 |
| 6 | Output voltage | | Up to 90% |
| | **Motor types** | | |
| 7 | DC motors | | yes |
| 8 | BLDC motors | | yes |
| 9 | Stepper motors | | no |
| | **Mechanical** | | |
| 10 | Size LxWxH | mm | 74 x 45.5 x 36 |
| | **CAN bus** | | |
| 11 | Protocol | | DS301 |
| 12 | Device profile | | DS402 |
| 13 | Galvanically isolated | | no |
| | **EtherCAT** | | |
| 14 | Type | | EtherCAT Slave |
| 15 | Physical layer | | 100 Base-Tx EtherCAT |
| 16 | Max. baudrate | | 100 Mbit/s |
| 17 | Number of ports | | 2xRJ45 (In,Out) |
| 18 | Protocol | | CoE (CANopen over EtherCAT) |
| | **Incremental encoder** | | |
| 19 | Input voltage | VDC | 0..5 |
| 20 | Signal type | | open collector, single ended |
| | **Hall sensors** | | |
| 21 | Input voltage | VDC | 0..5 |
| 22 | Signal type | | open collector, single ended |
| | **Digital input** | | |
| 23 | Number (+/-30VDC tolerant) | | 2 (Din0..1) |
| 24 | Number (0..30VDC tolerant) | | 1 (Din2); Din2 parallel with Dout0 (must not exceed electronic supply voltage) |
| | **Digital output** | | |
| 25 | Number | | 1 (Dout0); Dout0 parallel with Din2 |
| 26 | Continuous output current | A | 1.5 (Load: resistive, inductive) |
| | **Analog inputs** | | |
| 27 | Number | | 1 (Ain0) |
| 28 | Signal type | | 0..10 VDC, 12 Bit, single ended |
| | **Environment** | | |
| 29 | Operating temperature | °C | -25...+70 |

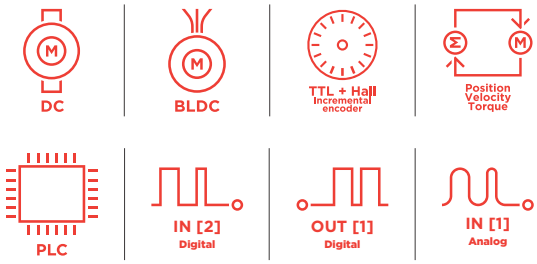
## Connection

| | | |
|---|---|---|
| X1 | Hall, inc. encoder, I/O's and CAN | |
| 1 | GND | Ground of the auxiliary voltage (don´t connect with system GND) |
| 2 | +U5V | 5V output voltage for sensor supply Sensors: encoder, hall |
| 3 | B | Inc. encoder, B channel |
| 4 | A | Inc. encoder, A channel |
| 5 | H3/Inx | Hall sensor 3 / Inc. encoder, index channel |
| 6 | H2 | Hall sensor 2 |
| 7 | H1 | Hall sensor 1 |
| 8 | CAN Lo | CAN Low |
| 9 | CAN Hi | CAN High |
| 10 | Din2/Dout0 | Digital input 2 / Digital output 0 |
| 11 | Din1 | Digital input 1 |
| 12 | Din0 | Digital input 0 |
| 13 | Ain0 | Analog input 0 |
| 14 | GND | Ground for electronic supply voltage |
| 15 | +Ue | Electronic supply voltage |
| X2 | Motor | |
| 1 | +Up | Power supply voltage |
| 2 | GND | Ground for sensor supply |
| 3 | Ma | Motor phase A |
| 4 | Mb | Motor phase B |
| 5 | Mc | Motor phase C |
| 6 | res. | Reserved |
| X3 | EtherCAT - In port | |
| X4 | EtherCAT - Out port | |

# SVTE-A-E65-CanOpen
## Servo Drives

60VDC | 5A
DC motors, BLDC motors




CANopen

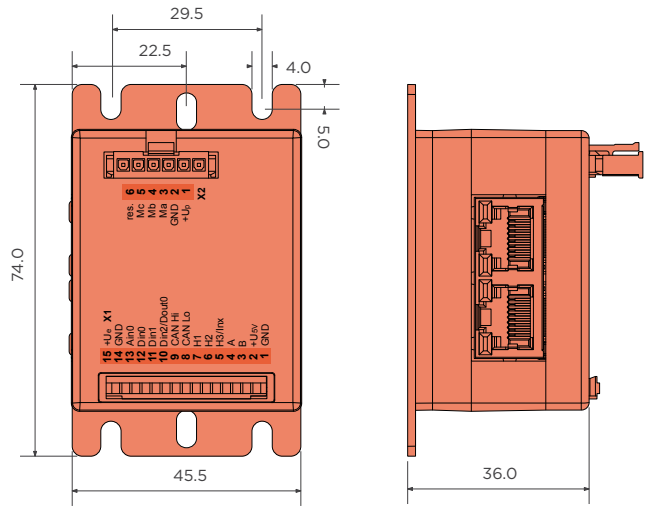
| | Values | Unit | |
|---|---|---|---|
| | **Power** | | |
| 1 | Electronic supply voltage Ue | VDC | 9..30 |
| 2 | Power supply voltage Up | VDC | 9..60 |
| 3 | Max. output current | A | 15 |
| 4 | Continuous output current @ Up=24VDC | A | 5 |
| 5 | Continuous output current @ Up=48VDC | A | 4.3 |
| 6 | Output voltage | | Up to 100% |
| | **Motor types** | | |
| 7 | DC motors | | yes |
| 8 | BLDC motors | | yes |
| 9 | Stepper motors | | no |
| | **Mechanical** | | |
| 10 | Size LxWxH | mm | 74 x 45.5 x 14 |
| | **CAN bus** | | |
| 11 | Protocol | | DS301 |
| 12 | Device profile | | DS402 |
| 13 | Galvanically isolated | | no |
| | **Incremental encoder** | | |
| 14 | Input voltage | VDC | 0..5 |
| 15 | Signal type | | open collector, single ended |
| | **Hall sensors** | | |
| 16 | Input voltage | VDC | 0..5 |
| 17 | Signal type | | open collector, single ended |
| | **Digital input** | | |
| 18 | Number | | 2 (Din0..1) |
| 19 | Number (0..30VDC tolerant) | | 1 (Din2); Din2 parallel with Dout0 (must not exceed electronic supply voltage) |
| | **Digital output** | | |
| 20 | Number | | 1 (Dout0); Dout0 parallel with Din2 |
| 21 | Continuous output current | A | 1.5 (Load: resistive, inductive) |
| | **Analog inputs** | | |
| 22 | Number | | 1 (Ain0) |
| 23 | Signal type | | +/- 10 VDC, 12 Bit, single ended |
| | **Environment** | | |
| 24 | Operating temperature | °C | -25...+70 |

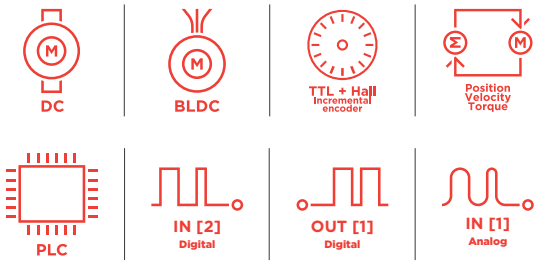
## Connection

| X1 | Hall, inc. encoder, I/O's and CAN | |
|---|---|---|
| 1 | GND | Ground of the auxiliary voltage (don´t connect with system GND) |
| 2 | +U5V | 5V output voltage for sensor supply Sensors: encoder, hall |
| 3 | B | Inc. encoder, B channel |
| 4 | A | Inc. encoder, A channel |
| 5 | H3/Inx | Hall sensor 3 / Inc. encoder, index channel |
| 6 | H2 | Hall sensor 2 |
| 7 | H1 | Hall sensor 1 |
| 8 | CAN Lo | CAN Low |
| 9 | CAN Hi | CAN High |
| 10 | Din2/Dout0 | Digital input 2 / Digital output 0 |
| 11 | Din1 | Digital input 1 |
| 12 | Din0 | Digital input 0 |
| 13 | Ain0 | Analog input 0 |
| 14 | GND | Ground for electronic supply voltage |
| 15 | +Ue | Electronic supply voltage |
| X2 | Motor | |
| 1 | +Up | Power supply voltage |
| 2 | GND | Ground for sensor supply |
| 3 | Ma | Motor phase A |
| 4 | Mb | Motor phase B |
| 5 | Mc | Motor phase C |

# SVTE-A-E65-EtherCAT
## Servo Drives

60VDC | 5A
DC motors, BLDC motors




CANopen | EtherCAT

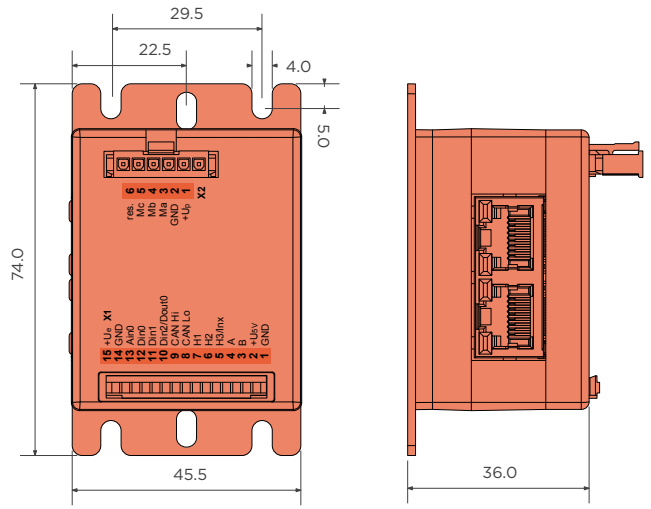
| | Values | Unit | |
|---|---|---|---|
| | **Power** | | |
| 1 | Electronic supply voltage Ue | VDC | 9..30 |
| 2 | Power supply voltage Up | VDC | 9..60 |
| 3 | Max. output current | A | 15 |
| 4 | Continuous output current @ Up=24VDC | A | 5 |
| 5 | Continuous output current @ Up=48VDC | A | 4.3 |
| 6 | Output voltage | | Up to 100% |
| | **Motor types** | | |
| 7 | DC motors | | yes |
| 8 | BLDC motors | | yes |
| 9 | Stepper motors | | no |
| | **Mechanical** | | |
| 10 | Size LxWxH | mm | 74 x 45.5 x 36 |
| | **CAN bus** | | |
| 11 | Protocol | | DS301 |
| 12 | Device profile | | DS402 |
| 13 | Galvanically isolated | | no |
| | **EtherCAT** | | |
| 14 | Type | | EtherCAT Slave |
| 15 | Physical layer | | 100 Base-Tx EtherCAT |
| 16 | Max. baudrate | | 100 Mbit/s |
| 17 | Number of ports | | 2xRJ45 (In,Out) |
| 18 | Protocol | | CoE (CANopen over EtherCAT) |
| | **Incremental encoder** | | |
| 19 | Input voltage | VDC | 0..5 |
| 20 | Signal type | | open collector, single ended |
| | **Hall sensors** | | |
| 21 | Input voltage | VDC | 0..5 |
| 22 | Signal type | | open collector, single ended |
| | **Digital input** | | |
| 23 | Number | | 2 (Din0..1) |
| 24 | Number (0..30VDC tolerant) | | 1 (Din2); Din2 parallel with Dout0 (must not exceed electronic supply voltage) |
| | **Digital output** | | |
| 25 | Number | | 1 (Dout0); Dout0 parallel with Din2 |
| 26 | Continuous output current | A | 1.5 (Load: resistive, inductive) |
| | **Analog inputs** | | |
| 27 | Number | | 1 (Ain0) |
| 28 | Signal type | | +/- 0..10 VDC, 12 Bit, single ended |
| | **Environment** | | |
| 29 | Operating temperature | °C | -25...+70 |

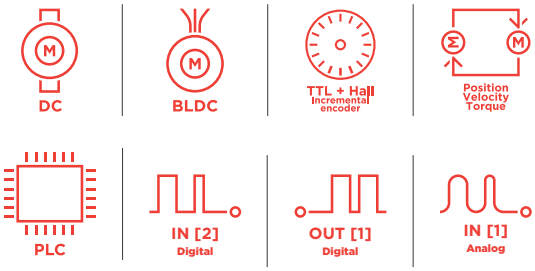
## Connection

| | | |
|---|---|---|
| X1 | Hall, inc. encoder, I/O's and CAN | |
| 1 | GND | Ground of the auxiliary voltage (don´t connect with system GND) |
| 2 | +U5V | 5V output voltage for sensor supply Sensors: encoder, hall |
| 3 | B | Inc. encoder, B channel |
| 4 | A | Inc. encoder, A channel |
| 5 | H3/Inx | Hall sensor 3 / Inc. encoder, index channel |
| 6 | H2 | Hall sensor 2 |
| 7 | H1 | Hall sensor 1 |
| 8 | CAN Lo | CAN Low |
| 9 | CAN Hi | CAN High |
| 10 | Din2/Dout0 | Digital input 2 / Digital output 0 |
| 11 | Din1 | Digital input 1 |
| 12 | Din0 | Digital input 0 |
| 13 | Ain0 | Analog input 0 |
| 14 | GND | Ground for electronic supply voltage |
| 15 | +Ue | Electronic supply voltage |
| X2 | Motor | |
| 1 | +Up | Power supply voltage |
| 2 | GND | Ground for sensor supply |
| 3 | Ma | Motor phase A |
| 4 | Mb | Motor phase B |
| 5 | Mc | Motor phase C |
| 6 | res. | Reserved |
| X3 | EtherCAT - In port | |
| X4 | EtherCAT - Out port | |

# SVTE-A-E65-Profinet
## Servo Drives

60VDC | 5A
DC motors, BLDC motors




CANopen | PROFINET

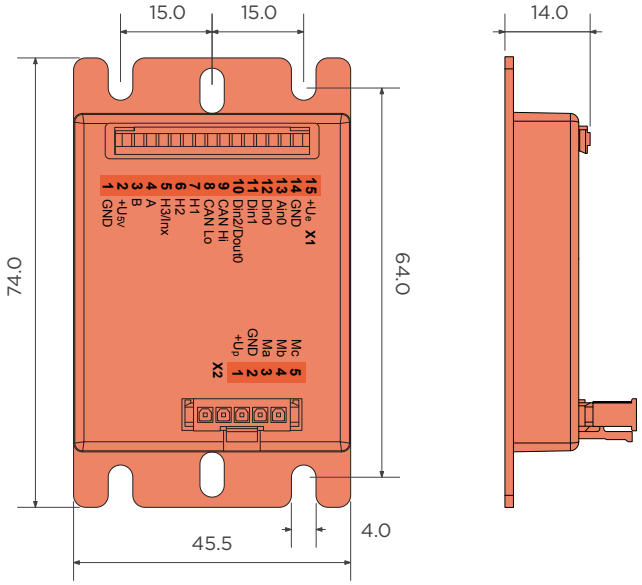
| | Values | Unit | |
|---|---|---|---|
| | **Power** | | |
| 1 | Electronic supply voltage Ue | VDC | 9..30 |
| 2 | Power supply voltage Up | VDC | 9..60 |
| 3 | Max. output current | A | 15 |
| 4 | Continuous output current @ Up=24VDC | A | 5 |
| 5 | Continuous output current @ Up=48VDC | A | 4.3 |
| 6 | Output voltage | | Up to 100% |
| | **Motor types** | | |
| 7 | DC motors | | yes |
| 8 | BLDC motors | | yes |
| 9 | Stepper motors | | no |
| | **Mechanical** | | |
| 10 | Size LxWxH | mm | 74 x 45.5 x 36 |
| | **CAN bus** | | |
| 11 | Protocol | | DS301 |
| 12 | Device profile | | DS402 |
| 13 | Galvanically isolated | | no |
| | **Profinet** | | |
| 14 | Type | | Slave |
| 15 | Physical layer | | 100 Base-Tx |
| 16 | Max. baudrate | | 100 Mbit/s |
| 17 | Number of ports | | 2xRJ45 (PORT1, PORT2) |
| | **Incremental encoder** | | |
| 18 | Input voltage | VDC | 0..5 |
| 19 | Signal type | | open collector, single ended |
| | **Hall sensors** | | |
| 20 | Input voltage | VDC | 0..5 |
| 21 | Signal type | | open collector, single ended |
| | **Digital input** | | |
| 22 | Number | | 2 (Din0..1) |
| 23 | Number (0..30VDC tolerant) | | 1 (Din2); Din2 parallel with Dout0 (must not exceed electronic supply voltage) |
| | **Digital output** | | |
| 24 | Number | | 1 (Dout0); Dout0 parallel with Din2 |
| 25 | Continuous output current | A | 1.5 (Load: resistive, inductive) |
| | **Analog inputs** | | |
| 26 | Number | | 1 (Ain0) |
| 27 | Signal type | | +/- 10 VDC, 12 Bit, single ended |
| | **Environment** | | |
| 28 | Operating temperature | °C | -25...+70 |

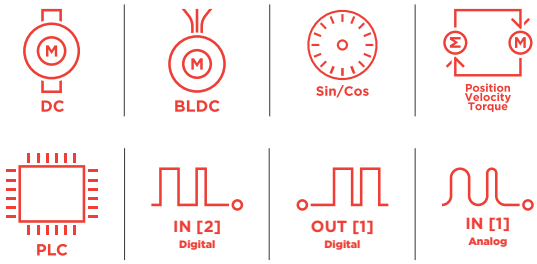
## Connection

| | | |
|---|---|---|
| X1 | Hall, inc. encoder, I/O's and CAN | |
| 1 | GND | Ground of the auxiliary voltage (don´t connect with system GND) |
| 2 | +U5V | 5V output voltage for sensor supply Sensors: encoder, hall |
| 3 | B | Inc. encoder, B channel |
| 4 | A | Inc. encoder, A channel |
| 5 | H3/Inx | Hall sensor 3 / Inc. encoder, index channel |
| 6 | H2 | Hall sensor 2 |
| 7 | H1 | Hall sensor 1 |
| 8 | CAN Lo | CAN Low |
| 9 | CAN Hi | CAN High |
| 10 | Din2/Dout0 | Digital input 2 / Digital output 0 |
| 11 | Din1 | Digital input 1 |
| 12 | Din0 | Digital input 0 |
| 13 | Ain0 | Analog input 0 |
| 14 | res. | Reserved |
| 15 | +Ue | Electronic supply voltage |
| X2 | Motor | |
| 1 | +Up | Power supply voltage |
| 2 | GND | Ground for sensor supply |
| 3 | Ma | Motor phase A |
| 4 | Mb | Motor phase B |
| 5 | Mc | Motor phase C |
| 6 | res. | Reserved |
| X3 | Profinet - PORT1 | |
| X4 | Profinet - PORT2 | |

# SVTE-A-E67-CanOpen
## Servo Drives

60VDC | 5A
DC motors, BLDC motors




CANopen

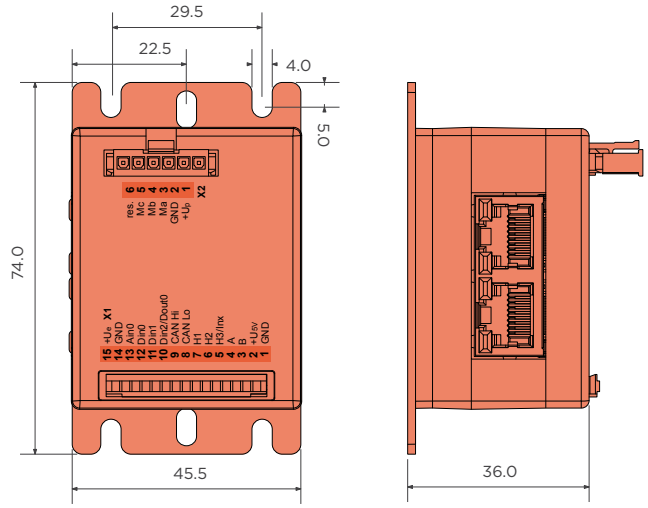
| | Values | Unit | |
|---|---|---|---|
| | **Power** | | |
| 1 | Electronic supply voltage Ue | VDC | 9..30 |
| 2 | Power supply voltage Up | VDC | 9..60 |
| 3 | Max. output current | A | 15 |
| 4 | Continuous output current @ Up=24VDC | A | 5 |
| 5 | Continuous output current @ Up=48VDC | A | 4.3 |
| 6 | Output voltage | | Up to 100% |
| | **Motor types** | | |
| 7 | DC motors | | yes |
| 8 | BLDC motors | | yes |
| 9 | Stepper motors | | no |
| | **Mechanical** | | |
| 10 | Size LxWxH | mm | 74 x 45.5 x 14 |
| | **CAN bus** | | |
| 11 | Protocol | | DS301 |
| 12 | Device profile | | DS402 |
| 13 | Galvanically isolated | | no |
| | **Encoder** | | |
| 14 | Input voltage (24VDC tolerant) | | 1 V peak-peak, differential |
| 15 | Signal type | | sin / cos, analog, differential |
| 16 | Resolution | | 13 bit per sine period |
| | **Digital input** | | |
| 17 | Number | | 2 (Din0..1) |
| 18 | Number (0..30VDC tolerant) | | 1 (Din2); Din2 parallel with Dout0 (must not exceed electronic supply voltage) |
| | **Digital output** | | |
| 19 | Number | | 1 (Dout0); Dout0 parallel with Din2 |
| 20 | Continuous output current | A | 1.5 (Load: resistive, inductive) |
| | **Analog inputs** | | |
| 21 | Number | | 1 (AIn0) |
| 22 | Signal type | | +/- 10 VDC, 12 Bit, single ended |
| | **Environment** | | |
| 23 | Operating temperature | °C | -25...+70 |

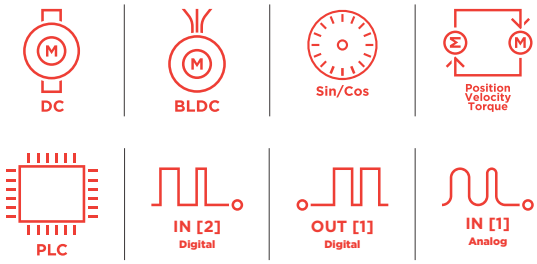
## Connection

| X1 | Encoder, I/O's and CAN | |
|---|---|---|
| 1 | GND | Ground of the auxiliary voltage (don´t connect with system GND) |
| 2 | +U5V | 5V output voltage for sensor supply Sensors |
| 3 | +Cos | Cosine + signal |
| 4 | +Sin | Sine + signal |
| 5 | res. | Reserved |
| 6 | -Cos | Cosine - signal |
| 7 | -Sin | Sine - signal |
| 8 | CAN Lo | CAN Low |
| 9 | CAN Hi | CAN High |
| 10 | Din2/Dout0 | Digital input 2 / Digital output 0 |
| 11 | Din1 | Digital input 1 |
| 12 | Din0 | Digital input 0 |
| 13 | Ain0 | Analog input 0 |
| 14 | GND | Ground for electronic supply voltage |
| 15 | +Ue | Electronic supply voltage |
| X2 | Motor | |
| 1 | +Up | Power supply voltage |
| 2 | GND | Ground for sensor supply |
| 3 | Ma | Motor phase A |
| 4 | Mb | Motor phase B |
| 5 | Mc | Motor phase C |

# SVTE-A-E67-EtherCAT
## Servo Drives

60VDC | 5A
DC motors, BLDC motors




CANopen | EtherCAT

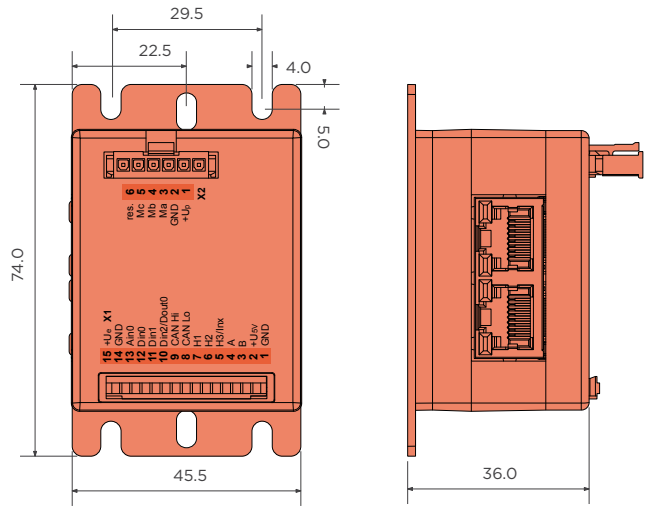
| | Values | Unit | |
|---|---|---|---|
| | **Power** | | |
| 1 | Electronic supply voltage Ue | VDC | 9..30 |
| 2 | Power supply voltage Up | VDC | 9..60 |
| 3 | Max. output current | A | 15 |
| 4 | Continuous output current @ Up=24VDC | A | 5 |
| 5 | Continuous output current @ Up=48VDC | A | 4.3 |
| 6 | Output voltage | | Up to 100% |
| | **Motor types** | | |
| 7 | DC motors | | yes |
| 8 | BLDC motors | | yes |
| 9 | Stepper motors | | no |
| | **Mechanical** | | |
| 10 | Size LxWxH | mm | 74 x 45.5 x 36 |
| | **CAN bus** | | |
| 11 | Protocol | | DS301 |
| 12 | Device profile | | DS402 |
| 13 | Galvanically isolated | | no |
| | **EtherCAT** | | |
| 14 | Type | | EtherCAT Slave |
| 15 | Physical layer | | 100 Base-Tx EtherCAT |
| 16 | Max. baudrate | | 100 Mbit/s |
| 17 | Number of ports | | 2xRJ45 (In,Out) |
| 18 | Protocol | | CoE (CANopen over EtherCAT) |
| | **Encoder** | | |
| 19 | Input voltage (24VDC tolerant) | | 1 V peak-peak, differential |
| 20 | Signal type | | sin/cos, analog, differential |
| 21 | Resolution | | 13 bit per sine period |
| | **Digital input** | | |
| 22 | Number | | 2 (Din0..1) |
| 23 | Number (0..30VDC tolerant) | | 1 (Din2); Din2 parallel with Dout0 (must not exceed electronic supply voltage) |
| | **Digital output** | | |
| 24 | Number | | 1 (Dout0); Dout0 parallel with Din2 |
| 25 | Continuous output current | A | 1.5 (Load: resistive, inductive) |
| | **Analog inputs** | | |
| 26 | Number | | 1 (Ain0) |
| 27 | Signal type | | +/- 10 VDC, 12 Bit, single ended |
| | **Environment** | | |
| 27 | Operating temperature | °C | -25...+70 |

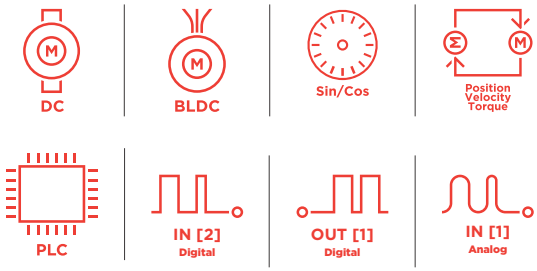
## Connection

| | | |
|---|---|---|
| X1 | Encoder, I/O's and CAN | |
| 1 | GND | Ground of the auxiliary voltage (don´t connect with system GND) |
| 2 | +U5V | 5V output voltage for sensor supply Sensors |
| 3 | +Cos | Cosine + signal |
| 4 | +Sin | Sine + signal |
| 5 | res. | Reserved |
| 6 | -Cos | Cosine + signal |
| 7 | -Sin | Sine - signal |
| 8 | CAN Lo | CAN Low |
| 9 | CAN Hi | CAN High |
| 10 | Din2/Dout0 | Digital input 2 / Digital output 0 |
| 11 | Din1 | Digital input 1 |
| 12 | Din0 | Digital input 0 |
| 13 | Ain0 | Analog input 0 |
| 14 | GND | Ground for electronic supply voltage |
| 15 | +Ue | Electronic supply voltage |
| X2 | Motor | |
| 1 | +Up | Power supply voltage |
| 2 | GND | Ground for sensor supply |
| 3 | Ma | Motor phase A |
| 4 | Mb | Motor phase B |
| 5 | Mc | Motor phase C |
| 6 | res. | Reserved |
| X3 | EtherCAT - In port | |
| X4 | EtherCAT - Out port | |

# SVTE-A-E67-Profinet
## Servo Drives

60VDC | 5A
DC motors, BLDC motors




CANopen | PROFINET

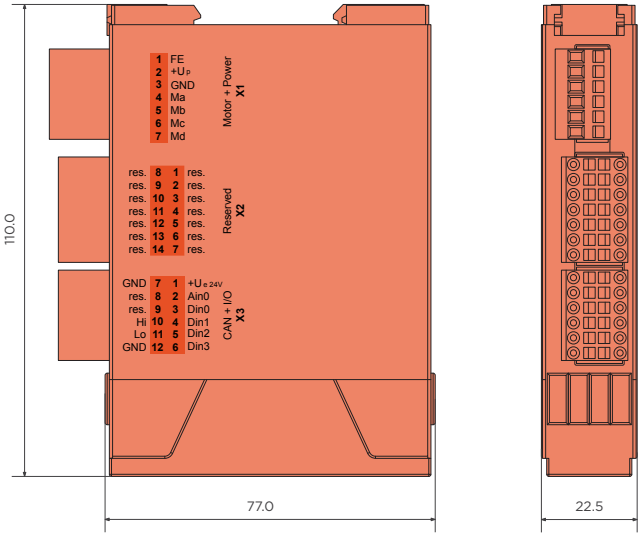
| | Values | Unit | |
|---|---|---|---|
| | **Power** | | |
| 1 | Electronic supply voltage Ue | VDC | 9..30 |
| 2 | Power supply voltage Up | VDC | 9..60 |
| 3 | Max. output current | A | 15 |
| 4 | Continuous output current @ Up=24VDC | A | 5 |
| 5 | Continuous output current @ Up=48VDC | A | 4.3 |
| 6 | Output voltage | | Up to 100% |
| | **Motor types** | | |
| 7 | DC motors | | yes |
| 8 | BLDC motors | | yes |
| 9 | Stepper motors | | no |
| | **Mechanical** | | |
| 10 | Size LxWxH | mm | 74 x 45.5 x 36 |
| | **CAN bus** | | |
| 11 | Protocol | | DS301 |
| 12 | Device profile | | DS402 |
| 13 | Galvanically isolated | | no |
| | **Profinet** | | |
| 14 | Type | | Slave |
| 15 | Physical layer | | 100 Base-Tx |
| 16 | Max. baudrate | | 100 Mbit/s |
| 17 | Number of ports | | 2xRJ45 (PORT1, PORT2) |
| | **Encoder** | | |
| 18 | Input voltage (24VDC tolerant) | | 1 V peak-peak, differential |
| 19 | Signal type | | sin/cos, analog, differential |
| 20 | Resolution | | 13 bit per sine period |
| | **Digital input** | | |
| 21 | Number | | 2 (Din0..1) |
| 22 | Number (0..30VDC tolerant) | | 1 (Din2); Din2 parallel with Dout0 (must not exceed electronic supply voltage) |
| | **Digital output** | | |
| 23 | Number | | 1 (Dout0); Dout0 parallel with Din2 |
| 24 | Continuous output current | A | 1.5 (Load: resistive, inductive) |
| | **Analog inputs** | | |
| 25 | Number | | 1 (Ain0) |
| 26 | Signal type | | +/- 10 VDC, 12 Bit, single ended |
| | **Environment** | | |
| 26 | Operating temperature | °C | -25...+70 |

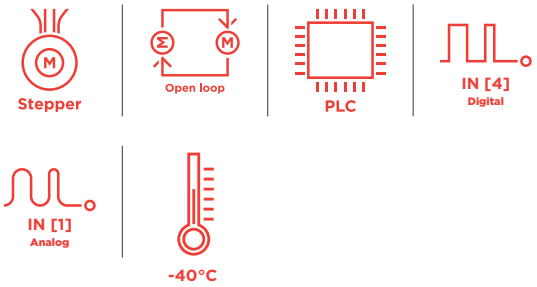
## Connection

| | | |
|---|---|---|
| X1 | Encoder, I/O's and CAN | |
| 1 | GND | Ground of the auxiliary voltage (don´t connect with system GND) |
| 2 | +U5V | 5V output voltage for sensor supply Sensors |
| 3 | +Cos | Cosine + signal |
| 4 | +Sin | Sine + signal |
| 5 | res. | Reserved |
| 6 | -Cos | Cosine - signal |
| 7 | -Sin | Sine - signal |
| 8 | CAN Lo | CAN Low |
| 9 | CAN Hi | CAN High |
| 10 | Din2/Dout0 | Digital input 2 / Digital output 0 |
| 11 | Din1 | Digital input 1 |
| 12 | Din0 | Digital input 0 |
| 13 | Ain0 | Analog input 0 |
| 14 | GND | Ground for electronic supply voltage |
| 15 | +Ue | Electronic supply voltage |
| X2 | Motor | |
| 1 | +Up | Power supply voltage |
| 2 | GND | Ground for sensor supply |
| 3 | Ma | Motor phase A |
| 4 | Mb | Motor phase B |
| 5 | Mc | Motor phase C |
| 6 | res. | Reserved |
| X3 | Profinet - In port | |
| X4 | Profinettt - Out port | |

# SVTE-A-S40-CanOpen
## Stepper Drives

60VDC | 7A
Stepper motors




CANopen

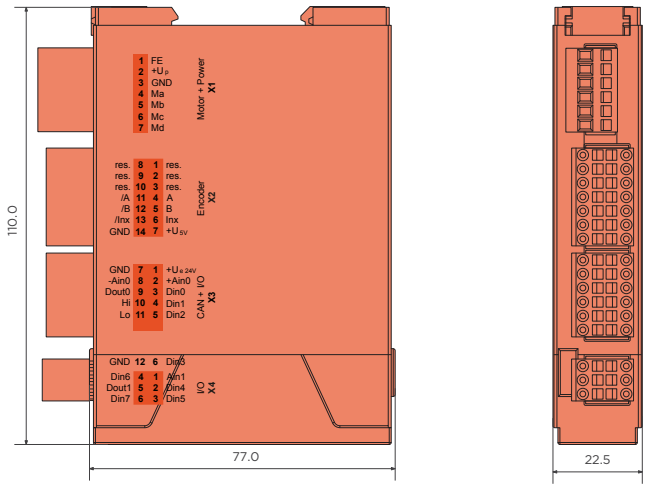
| | Values | Unit | |
|---|---|---|---|
| | **Power** | | |
| 1 | Electronic supply voltage Ue | VDC | 9..30 |
| 2 | Power supply voltage Up | VDC | 9..60 |
| 3 | Max. output current | A | 20 |
| 4 | Continuous output current @ Up=24VDC | A | 7 |
| 5 | Continuous output current @ Up=48VDC | A | 6 |
| 6 | Output voltage | | Up to 85% |
| | **Motor types** | | |
| 7 | DC motors | | no |
| 8 | BLDC motors | | no |
| 9 | Stepper motors | | yes |
| | **Mechanical** | | |
| 10 | Size LxWxH | mm | 110 x 22.5 x 77 |
| | **CAN bus** | | |
| 11 | Protocol | | DS301 |
| 12 | Device profile | | DS402 |
| 13 | Galvanically isolated | | no |
| | **Digital input** | | |
| 14 | Number | | 4 (Din0..3) |
| | **Analog inputs** | | |
| 15 | Number | | 1 (Ain0) |
| 16 | Signal type | | 0..10 VDC, 12 Bit, single ended |
| | **Environment** | | |
| 17 | Operating temperature | °C | -40...+70 |

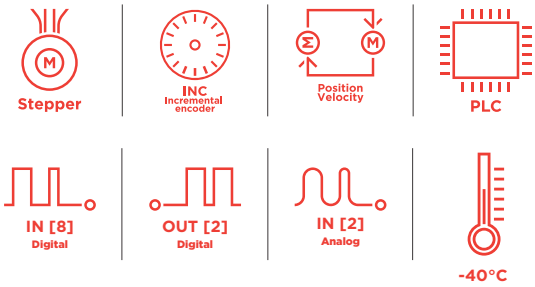
## Connection

| X1 | Motor | |
|---|---|---|
| 1 | FE | Functional earth |
| 2 | +Up | Power supply voltage |
| 3 | GND | Ground for sensor supply |
| 4 | Ma | Motor phase A |
| 5 | Mb | Motor phase B |
| 6 | Mc | Motor phase C |
| 7 | Md | Motor phase D |
| X2 | Reserved | |
| 1 | res. | Reserved |
| 2 | res. | Reserved |
| 3 | res. | Reserved |
| 4 | res. | Reserved |
| 5 | res. | Reserved |
| 6 | res. | Reserved |
| 7 | +U5V | 5V output voltage for sensor supply (auxiliary voltage) |
| 8 | res. | Reserved |
| 9 | res. | Reserved |
| 10 | res. | Reserved |
| 11 | res. | Reserved |
| 12 | res. | Reserved |
| 13 | res. | Reserved |
| 14 | GND | Ground for sensor supply (don´t connect with system GND) |
| X3 | I/O's and CAN | |
| 1 | +Ue24V | Electronic supply voltage |
| 2 | Ain0 | Analog input 0 |
| 3 | Din0 | Digital input 0 |
| 4 | Din1 | Digital input 1 |
| 5 | Din2 | Digital input 2 |
| 6 | Din3 | Digital input 3 |
| 7 | GND | Ground for electronic supply voltage |
| 8 | res. | Reserved |
| 9 | res. | Reserved |
| 10 | CAN Hi | CAN High |
| 11 | CAN Lo | CAN Low |
| 12 | CAN GND | CAN Ground |

# SVTE-A-S45-CanOpen
## Stepper Drives

60VDC | 7A
Stepper motors




CANopen

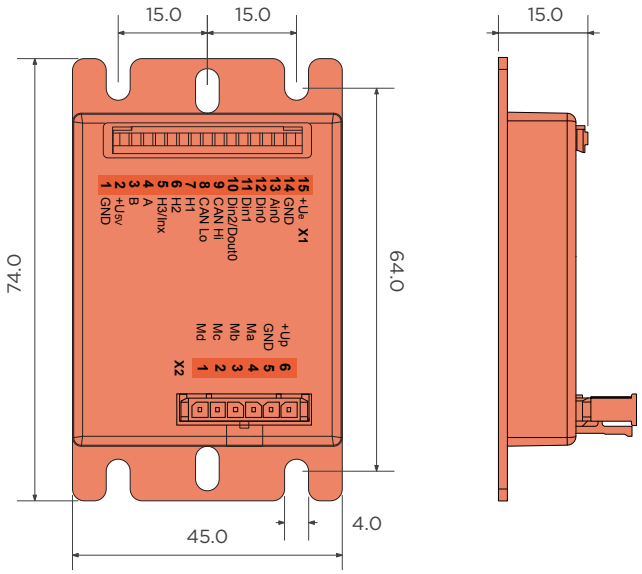
| | Values | Unit | |
|---|---|---|---|
| | **Power** | | |
| 1 | Electronic supply voltage Ue | VDC | 9..30 |
| 2 | Power supply voltage Up | VDC | 9..60 |
| 3 | Max. output current | A | 20 |
| 4 | Continuous output current @ Up=24VDC | A | 7 |
| 5 | Continuous output current @ Up=48VDC | A | 6 |
| 6 | Output voltage | | Up to 85% |
| | **Motor types** | | |
| 7 | DC motors | | no |
| 8 | BLDC motors | | no |
| 9 | Stepper motors | | yes |
| | **Mechanical** | | |
| 10 | Size LxWxH | mm | 110 x 22.5 x 77 |
| | **CAN bus** | | |
| 11 | Protocol | | DS301 |
| 12 | Device profile | | DS402 |
| 13 | Galvanically isolated | | no |
| | **Incremental encoder** | | |
| 14 | Input voltage (24VDC tolerant) | VDC | 0..5 |
| 15 | Signal type | | open collector, single ended, differential |
| | **Digital input** | | |
| 16 | Number | | 8 (Din0..7) |
| | **Digital output** | | |
| 17 | Number | | 2 (Dout0..Dout1) |
| 18 | Continuous output current | A | 1.5 (Load: resistive, inductive) |
| | **Analog inputs** | | |
| 19 | Number | | 2 (Ain0..1) |
| 20 | Signal type - Ain0 | | +/- 10 VDC, 12 Bit, differential |
| 21 | Signal type - Ain1 | | +/- 10 VDC, 12 Bit, single ended |
| | **Environment** | | |
| 22 | Operating temperature | °C | -40...+70 |

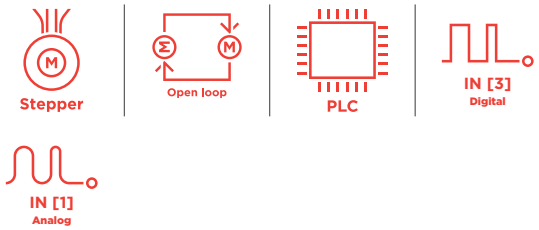
## Connection

| X1 | Motor | |
|---|---|---|
| 1 | FE | Functional earth |
| 2 | +Up | Power supply voltage |
| 3 | GND | Ground for sensor supply |
| 4 | Ma | Motor phase A |
| 5 | Mb | Motor phase B |
| 6 | Mc | Motor phase C |
| 7 | Md | Motor phase D |
| X2 | Inc. encoder | |
| 1 | res. | Reserved |
| 2 | res. | Reserved |
| 3 | res. | Reserved |
| 4 | A | Inc. encoder, A channel |
| 5 | B | Inc. encoder, B channel |
| 6 | Inx | Inc. encoder, index channel |
| 7 | +U5V | 5V output voltage for sensor supply: encoder |
| 8 | res. | Reserved |
| 9 | res. | Reserved |
| 10 | res. | Reserved |
| 11 | /A | Inc. encoder, A channel inverted |
| 12 | /B | Inc. encoder, B channel inverted |
| 13 | /Inx | Inc. encoder, index channel inverted |
| 14 | GND | Ground for sensor supply (don´t connect with system GND) |
| X3 | I/O's and CAN | |
| 1 | +Ue24V | Electronic supply voltage |
| 2 | +Ain0 | Analog input 0, positive |
| 3 | Din0 | Digital input 0 |
| 4 | Din1 | Digital input 1 |
| 5 | Din2 | Digital input 2 |
| 6 | Din3 | Digital input 3 |
| 7 | GND | Ground for electronic supply voltage |
| 8 | -Ain0 | Analog input 0, negative |
| 9 | Dout0 | Digital output 0 |
| 10 | CAN Hi | CAN High |
| 11 | CAN Lo | CAN Low |
| 12 | CAN GND | CAN Ground |
| X4 | I/O's | |
| 1 | Ain1 | Analog input 1 |
| 2 | Din4 | Digital input 4 |
| 3 | Din5 | Digital input 5 |
| 4 | Din6 | Digital output 6 |
| 5 | Dout1 | Digital output 1 |
| 6 | Din7 | Digital input 7 |

# SVTE-A-S60-CanOpen
## Stepper Drives

60VDC | 3.5A
Stepper motors




CANopen

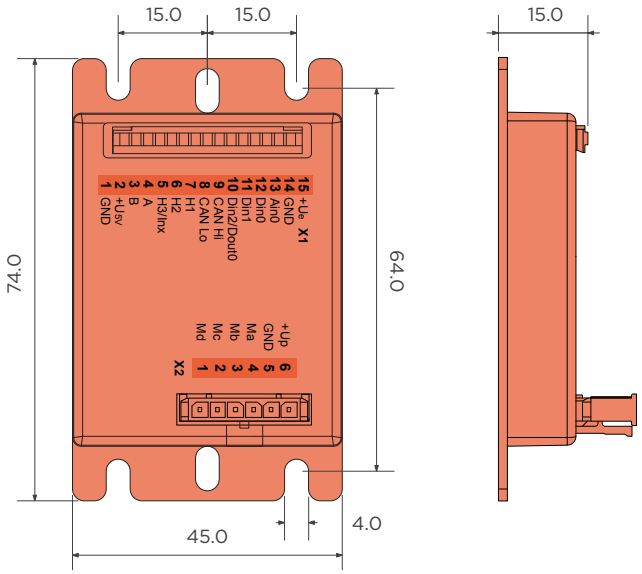
| | Values | Unit | |
|---|---|---|---|
| | **Power** | | |
| 1 | Electronic supply voltage Ue | VDC | 9..30 |
| 2 | Power supply voltage Up | VDC | 9..60 |
| 3 | Max. output current | A | 10 |
| 4 | Continuous output current @ Up=24VDC | A | 3.5 |
| 5 | Continuous output current @ Up=48VDC | A | 3 |
| 6 | Output voltage | | Up to 85% |
| | **Motor types** | | |
| 7 | DC motors | | no |
| 8 | BLDC motors | | no |
| 9 | Stepper motors | | yes |
| | **Mechanical** | | |
| 10 | Size LxWxH | mm | 74 x 45.5 x 14 |
| | **CAN bus** | | |
| 11 | Protocol | | DS301 |
| 12 | Device profile | | DS402 |
| 13 | Galvanically isolated | | no |
| | **Digital input** | | |
| 14 | Number | | 3 (Din0..2) |
| | **Analog inputs** | | |
| 15 | Number | | 1 (Ain0) |
| 16 | Signal type | | 0..10 VDC, 12 Bit, single ended |
| | **Environment** | | |
| 17 | Operating temperature | °C | -25...+70 |

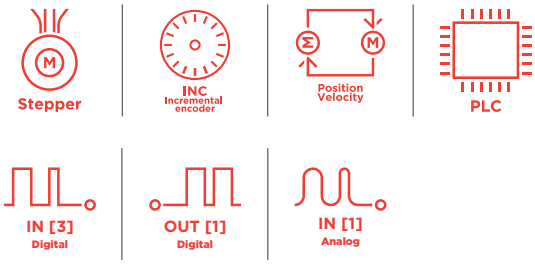
## Connection

| X3 | I/O's and CAN | |
|---|---|---|
| 1 | GND | Ground of the auxiliary voltage (don´t connect with system GND) |
| 2 | +U5V | 5V output voltage (auxiliary voltage) |
| 3 | res. | Reserved |
| 4 | res. | Reserved |
| 5 | res. | Reserved |
| 6 | res. | Reserved |
| 7 | res. | Reserved |
| 8 | CAN Lo | CAN Low |
| 9 | CAN Hi | CAN High |
| 10 | Din2 | Digital input 2 |
| 11 | Din1 | Digital input 1 |
| 12 | Din0 | Digital input 0 |
| 13 | Ain0 | Analog input 0 |
| 14 | GND | Ground for electronic supply voltage |
| 15 | +Ue | Electronic supply voltage |
| X2 | Motor | |
| 1 | +Up | Power supply voltage |
| 2 | GND | Ground for sensor supply |
| 3 | Ma | Motor phase A |
| 4 | Mb | Motor phase B |
| 5 | Mc | Motor phase C |
| 6 | Md | Motor phase D |

# SVTE-A-S65-CanOpen
## Stepper Drives

60VDC | 3.5A
Stepper motors




CANopen

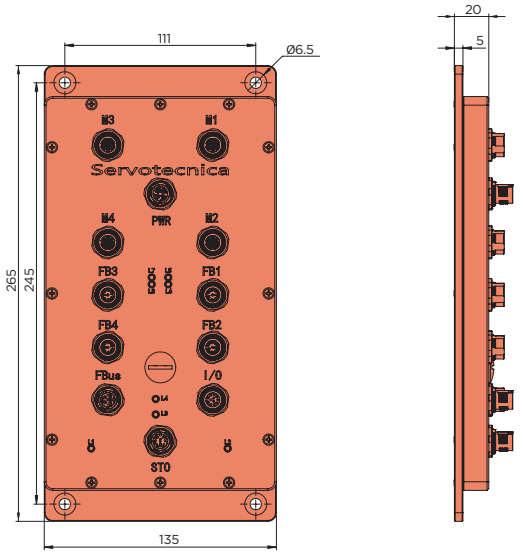
| | Values | Unit | |
|---|---|---|---|
| | **Power** | | |
| 1 | Electronic supply voltage Ue | VDC | 9..30 |
| 2 | Power supply voltage Up | VDC | 9..60 |
| 3 | Max. output current | A | 10 |
| 4 | Continuous output current @ Up=24VDC | A | 3.5 |
| 5 | Continuous output current @ Up=48VDC | A | 3 |
| 6 | Output voltage | | Up to 85% |
| | **Motor types** | | |
| 7 | DC motors | | no |
| 8 | BLDC motors | | no |
| 9 | Stepper motors | | yes |
| | **Mechanical** | | |
| 10 | Size LxWxH | mm | 74 x 45.5 x 14 |
| | **CAN bus** | | |
| 11 | Protocol | | DS301 |
| 12 | Device profile | | DS402 |
| 13 | Galvanically isolated | | no |
| | **Incremental encoder** | | |
| 14 | Input voltage | VDC | 0..5 |
| 15 | Signal type | | open collector, single ended |
| | **Digital input** | | |
| 16 | Number | | 3 (Din0..2); Din2 parallel with Dout0 (must not exceed electronic supply voltage) |
| | **Digital output** | | |
| 17 | Number | | 1 (Dout0); Dout0 parallel with Din2 |
| 18 | Continuous output current | | 1.5 (Load: resistive, inductive) |
| | **Analog inputs** | | |
| 19 | Number | | 1 (Ain0) |
| 20 | Signal type - Ain0 | | +/- 10 VDC, 12 Bit, single ended |
| | **Environment** | | |
| 22 | Operating temperature | °C | -25...+70 |

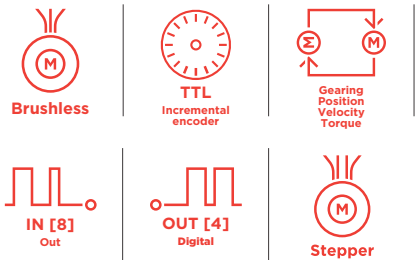
## Connection

| X3 | I/O's and CAN | |
|---|---|---|
| 1 | GND | Ground of the auxiliary voltage (don´t connect with system GND) |
| 2 | +U5V | 5V output voltage for supply encoder |
| 3 | B | Inc. encoder, B channel |
| 4 | A | Inc. encoder, A channel |
| 5 | Inx | Inc. encoder, index channel |
| 6 | res. | Reserved |
| 7 | res. | Reserved |
| 8 | CAN Lo | CAN Low |
| 9 | CAN Hi | CAN High |
| 10 | Din2/Dout0 | Digital input 2 / Digital output 0 |
| 11 | Din1 | Digital input 1 |
| 12 | Din0 | Digital input 0 |
| 13 | Ain0 | Analog input 0 |
| 14 | GND | Ground for electronic supply voltage |
| 15 | +Ue | Electronic supply voltage |
| X2 | Motor | |
| 1 | +Up | Power supply voltage |
| 2 | GND | Ground for sensor supply |
| 3 | Ma | Motor phase A |
| 4 | Mb | Motor phase B |
| 5 | Mc | Motor phase C |
| 6 | Md | Motor phase D |

# SVTE-4AX-CanOpen
## 4 Axes Servo Drives

48VDC | 5A/Axis
BLDC motors, Brushless motors,
Stepper Motors, Linear Motors




CANopen

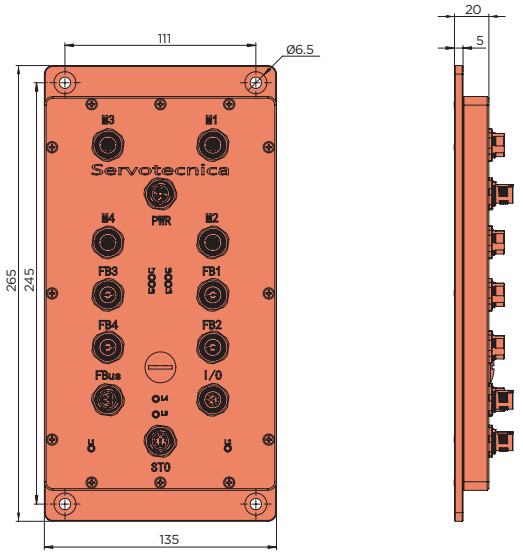
| | Values | Unit | |
|---|---|---|---|
| | **Power** | | |
| 1 | Electronic supply voltage Ue | VDC | 19..30 |
| 2 | Power supply voltage Up | VDC | 19..60 |
| 3 | Max. output current | A | 10A/axis |
| 4 | Continuous output current @ Up=48VVDC | A | 5A/axis |
| 5 | Output voltage | | up to 96% |
| | **Motor types** | | |
| 6 | Brushless | | yes |
| 7 | DC motors | | no |
| 8 | BLDC motors | | yes |
| 9 | Stepper motors | | yes |
| | **Mechanical** | | |
| 10 | Size LxWxH | mm | 265x135x20 |
| | **Communication CAN bus** | | |
| 11 | Protocol | | DS301 |
| 12 | Device profile | | DS402 |
| 13 | Galvanically isolated | | yes |
| | **Incremental encoder** | | |
| 14 | Input voltage | VDC | 0..5 |
| 15 | Signal type | | differential, single ended |
| | **Digital input** | | |
| 16 | Number | | 8 (Din0..7) |
| | **Digital output** | | |
| 17 | Number | | 4 (Dout0..3) |
| 18 | Continuous output current | A | 0.5 (Load: resistive, inductive) |
| | **Environment** | | |
| 19 | Operating temperature | °C | 0..50°C |

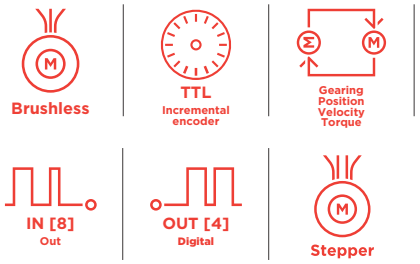
## Connection

| M1..M4 | BLDC/Brushless | | Stepper | |
|---|---|---|---|---|
| 1 | Temp.Sensor | PT1000 | Temp.Sensor | PT1000 |
| 2 | Temp.Sensor | PT1000 | Temp.Sensor | PT1000 |
| 3 | Bk+ | Brake + | Bk+ | Brake + |
| 4 | Bk- | Brake - | Bk- | Brake - |
| 5 | Mb | Motor phase B | Mc | Motor phase C |
| 6 | N.C. | Non Connected | Md | Motor phase D |
| 7 | Ma | Motor phase A | Ma | Motor phase A |
| 8 | Mc | Motor phase C | Mb | Motor phase B |
| FB1..FB4 | Feedback | | | |
| 1 | +U5V | | 5V output voltage for sensor supply | |
| 2 | A | | Inc. encoder, A channel | |
| 3 | /A | | Inc. encoder, A channel inverted | |
| 4 | B | | Inc. encoder, B channel | |
| 5 | /B | | Inc. encoder, B channel inverted | |
| 6 | Inx | | Inc. encoder, index channel | |
| 7 | /Inx | | Inc. encoder, index channel inverted | |
| 8 | GND | | Ground for sensor supplychannel inverted | |
| STO | Logic power supply / STO | | | |
| 1 | +Ue24V | | Electronic supply voltage | |
| 2 | GND | | Ground for electronic supply voltage | |
| 3 | N.C. | | Non Connected | |
| 4 | FE | | Functional earth | |
| 5 | STO1 | | Safety Torque Off 2 +24Vdc | |
| 6 | STO2 | | Safety Torque Off 1 +24Vdc | |
| 7 | STO Com | | Safety Torque Com | |
| 8 | STO Out | | Safety Torque Off Output | |
| Fbus | CanBus | | | |
| 1 | CAN Lo | | CAN Low | |
| 2 | N.C. | | Non Connected | |
| 3 | CAN GND | | CAN Ground | |
| 4 | CAN Hi | | CAN High | |
| 5 | CAN GND | | CAN Ground | |
| I/O | Digital I/O | | | |
| 1 | Din5 | | Digital Input 5 | |
| 2 | Din3 | | Digital Input 3 | |
| 3 | Din2 | | Digital Input 2 | |
| 4 | Din0 | | Digital Input 0 | |
| 5 | Dout0 | | Digital Output 0 | |
| 6 | Dout1 | | Digital Output 1 | |
| 7 | Dout2 | | Digital Output 2 | |
| 8 | Dout3 | | Digital Output 3 | |
| 9 | Din6 | | Digital Input 6 | |
| 10 | Din4 | | Digital Input 4 | |
| 11 | Din1 | | Digital Input 1 | |
| 12 | Din8 | | Digital Input 8 | |
| PWR | Power supply | | | |
| 1 | +Up | | Power supply voltage | |
| 2 | +Up | | Power supply voltage | |
| 3 | GND | | Ground for power supply voltage | |
| 4 | GND | | Ground for power supply voltage | |

# SVTE-4AX-CanOpen
## 4 Axes Servo Drives

48VDC | 5A/Axis
BLDC motors, Brushless motors,
Stepper Motors, Linear Motors




IO-Link

| | Values | Unit | |
|---|---|---|---|
| | **Power** | | |
| 1 | Electronic supply voltage Ue | VDC | 19..30 |
| 2 | Power supply voltage Up | VDC | 19..60 |
| 3 | Max. output current | A | 10A/axis |
| 4 | Continuous output current @ Up=48VVDC | A | 5A/axis |
| 5 | Output voltage | | up to 96% |
| | **Motor types** | | |
| 6 | Brushless | | yes |
| 7 | DC motors | | no |
| 8 | BLDC motors | | yes |
| 9 | Stepper motors | | yes |
| | **Mechanical** | | |
| 10 | Size LxWxH | mm | 265x135x20 |
| | **Communication IO-Link** | | |
| 11 | Protocol | | IO-Link |
| 12 | Galvanically isolated | | yes |
| | **Incremental encoder** | | |
| 13 | Input voltage | VDC | 0..5 |
| 14 | Signal type | | differential, single ended |
| | **Digital input** | | |
| 15 | Number | | 8 (Din0..7) |
| | **Digital output** | | |
| 16 | Number | | 4 (Dout0..3) |
| 17 | Continuous output current | A | 0.5 (Load: resistive, inductive) |
| | **Environment** | | |
| 18 | Operating temperature | °C | 0..50°C |

## Connection

| M1..M4 | BLDC/Brushless | | Stepper | |
|---|---|---|---|---|
| 1 | Temp.Sensor | PT1000 | Temp.Sensor | PT1000 |
| 2 | Temp.Sensor | PT1000 | Temp.Sensor | PT1000 |
| 3 | Bk+ | Brake + | Bk+ | Brake + |
| 4 | Bk- | Brake - | Bk- | Brake - |
| 5 | Mb | Motor phase B | Mc | Motor phase C |
| 6 | N.C. | Non Connected | Md | Motor phase D |
| 7 | Ma | Motor phase A | Ma | Motor phase A |
| 8 | Mc | Motor phase C | Mb | Motor phase B |
| FB1..FB4 | Feedback | | | |
| 1 | +U5V | | 5V output voltage for sensor supply | |
| 2 | A | | Inc. encoder, A channel | |
| 3 | /A | | Inc. encoder, A channel inverted | |
| 4 | B | | Inc. encoder, B channel | |
| 5 | /B | | Inc. encoder, B channel inverted | |
| 6 | Inx | | Inc. encoder, index channel | |
| 7 | /Inx | | Inc. encoder, index channel inverted | |
| 8 | GND | | Ground for sensor supplychannel inverted | |
| STO | Logic power supply / STO | | | |
| 1 | +Ue24V | | Electronic supply voltage | |
| 2 | GND | | Ground for electronic supply voltage | |
| 3 | N.C. | | Non Connected | |
| 4 | FE | | Functional earth | |
| 5 | STO1 | | Safety Torque Off 2 +24Vdc | |
| 6 | STO2 | | Safety Torque Off 1 +24Vdc | |
| 7 | STO Com | | Safety Torque Com | |
| 8 | STO Out | | Safety Torque Off Output | |
| Fbus | IO-Link | | | |
| 1 | Vplus | | Vplus | |
| 2 | N.C. | | Non Connected | |
| 3 | N.C. | | Non Connected | |
| 4 | CQ | | CQ | |
| 5 | N.C. | | Non Connected | |
| I/O | Digital I/O | | | |
| 1 | Din5 | | Digital Input 5 | |
| 2 | Din3 | | Digital Input 3 | |
| 3 | Din2 | | Digital Input 2 | |
| 4 | Din0 | | Digital Input 0 | |
| 5 | Dout0 | | Digital Output 0 | |
| 6 | Dout1 | | Digital Output 1 | |
| 7 | Dout2 | | Digital Output 2 | |
| 8 | Dout3 | | Digital Output 3 | |
| 9 | Din6 | | Digital Input 6 | |
| 10 | Din4 | | Digital Input 4 | |
| 11 | Din1 | | Digital Input 1 | |
| 12 | Din8 | | Digital Input 8 | |
| PWR | Power supply | | | |
| 1 | +Up | | Power supply voltage | |
| 2 | +Up | | Power supply voltage | |
| 3 | GND | | Ground for power supply voltage | |
| 4 | GND | | Ground for power supply voltage | |