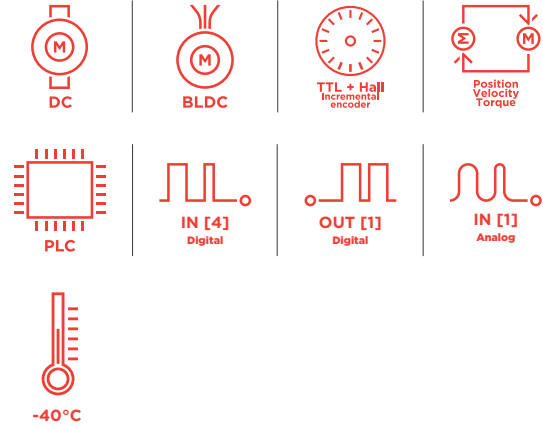
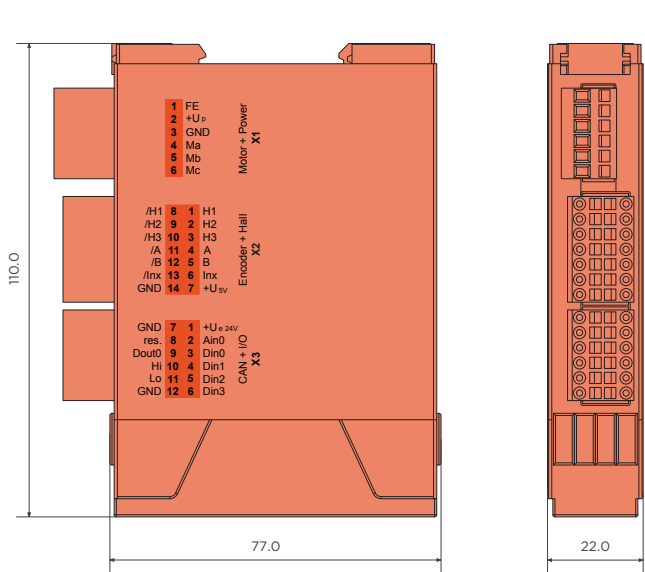


SVTE-A-E40-CanOpen Servo Drives

60VDC | 10A
DC motors, BLDC motors



CANopen

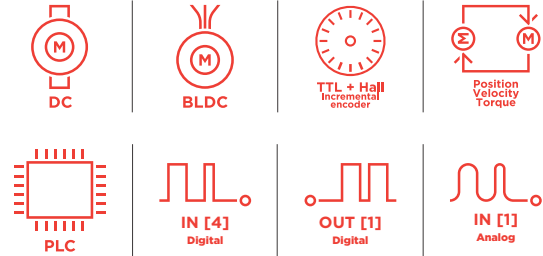
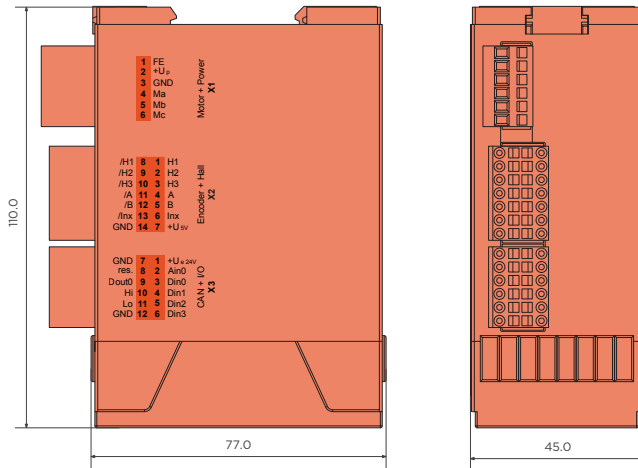
Values	Unit
Power	
1 Electronic supply voltage U _e	VDC 9..30
2 Power supply voltage U _p	VDC 9..60
3 Max. output current	A 30
4 Continuous output current @ U _p =24VDC	A 10
5 Continuous output current @ U _p =48VDC	A 8.5
6 Output voltage	Up to 90%
Motor types	
7 DC motors	yes
8 BLDC motors	yes
9 Stepper 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 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

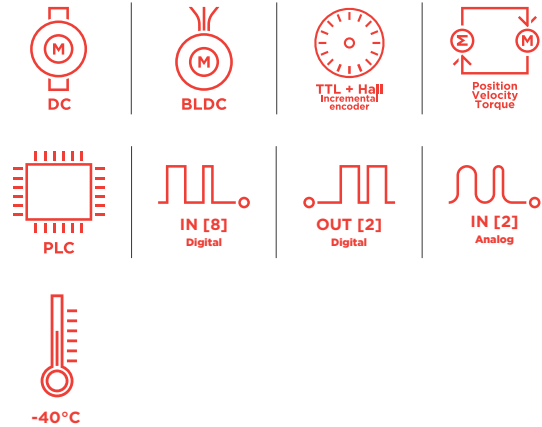
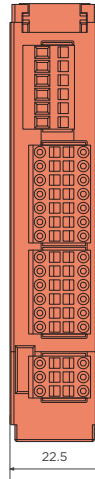
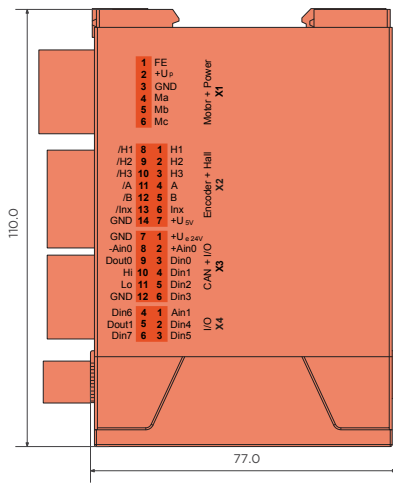
Values	Unit
Power	
1 Electronic supply voltage U _e	VDC 9..30
2 Power supply voltage U _p	VDC 9..60
3 Max. output current	A 30
4 Continuous output current @ U _p =24VDC	A 10
5 Continuous output current @ U _p =48VDC	A 8.5
6 Output voltage	Up to 90%
Motor types	
7 DC motors	yes
8 BLDC motors	yes
9 Stepper 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
		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

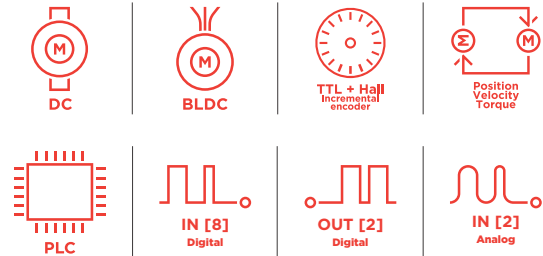
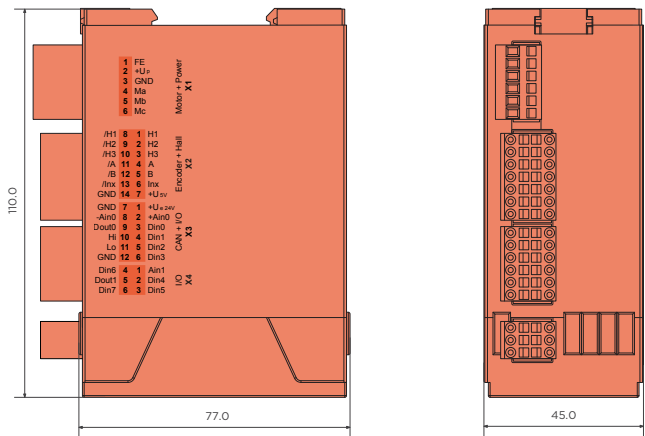
Values	Unit
Power	
1 Electronic supply voltage U _e	VDC 9..30
2 Power supply voltage U _p	VDC 9..60
3 Max. output current	A 50
4 Continuous output current @ U _p =24VDC	A 10
5 Continuous output current @ U _p =48VDC	A 8.5
6 Output voltage	Up to 100%
Motor types	
7 DC motors	yes
8 BLDC motors	yes
9 Stepper 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 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

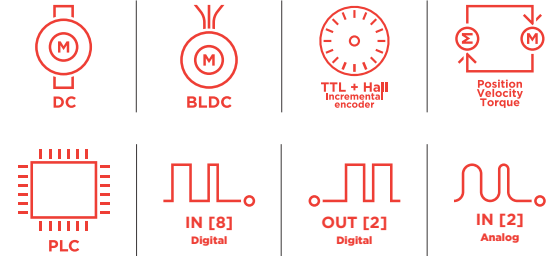
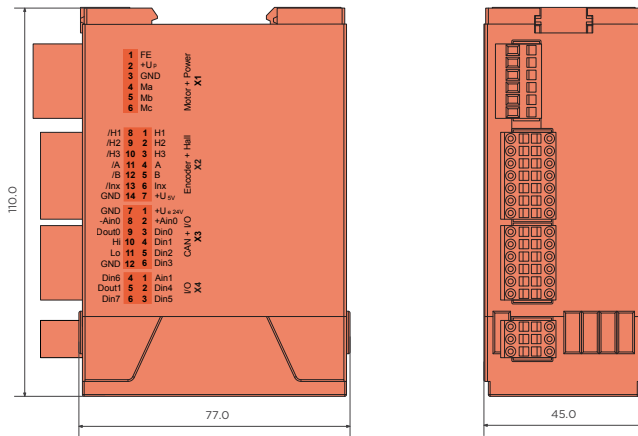
Values	Unit
Power	
1 Electronic supply voltage U _e	VDC 9..30
2 Power supply voltage U _p	VDC 9..60
3 Max. output current	A 50
4 Continuous output current @ U _p =24VDC	A 10
5 Continuous output current @ U _p =48VDC	A 8.5
6 Output voltage	Up to 100%
Motor types	
7 DC motors	yes
8 BLDC motors	yes
9 Stepper 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 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 | PROFIBUS NET

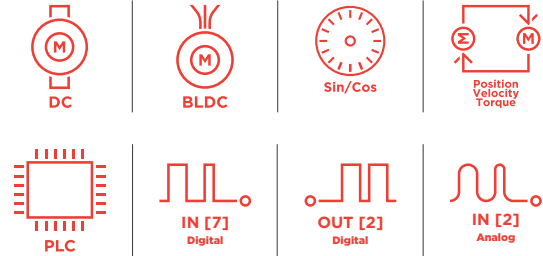
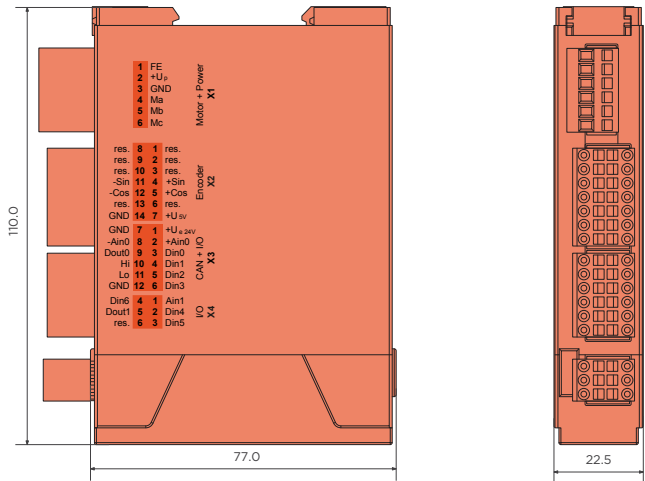
Values	Unit
Power	
1 Electronic supply voltage U _e	VDC 9..30
2 Power supply voltage U _p	VDC 9..60
3 Max. output current	A 50
4 Continuous output current @ U _p =24VDC	A 10
5 Continuous output current @ U _p =48VDC	A 8.5
6 Output voltage	Up to 100%
Motor types	
7 DC motors	yes
8 BLDC motors	yes
9 Stepper 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 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

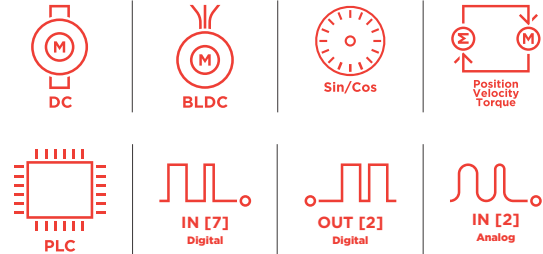
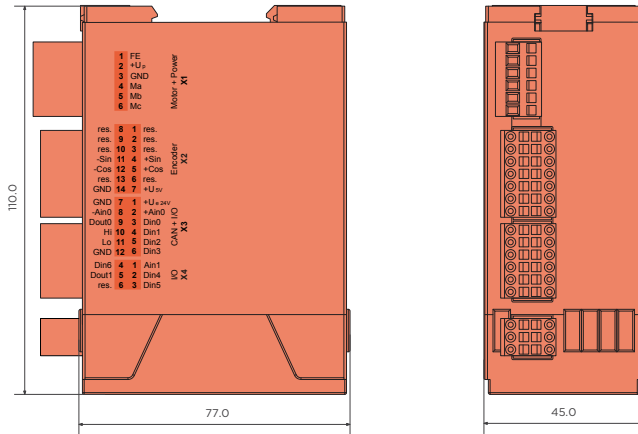
Values	Unit
Power	
1 Electronic supply voltage U_e	VDC 9..30
2 Power supply voltage U_p	VDC 9..60
3 Max. output current	A 50
4 Continuous output current @ $U_p=24VDC$	A 10
5 Continuous output current @ $U_p=48VDC$	A 8.5
6 Output voltage	Up to 100%
Motor types	
7 DC motors	yes
8 BLDC motors	yes
9 Stepper 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 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 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 U _e	VDC 9..30
2 Power supply voltage U _p	VDC 9..60
3 Max. output current	A 50
4 Continuous output current @ U _p =24VDC	A 10
5 Continuous output current @ U _p =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 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		