Technical Catalogue

Installation Contactors

Type ESB







Low Voltage Products and Systems

Domestic and residential buildings

We ensure safety and comfort for everyday life by bringing electric power to domestic appliances, lighting and heating.

Through our comprehensive range of enclosures, line protection equipment, wiring accessories and various other components to complete any electrical installation we cover the full spectrum of equipment required for control and protection of all domestic and residential instalations.

With this EIB system all electrical functions in a home can now be programmed and remotely controlled.



Commercial and industrial buildings



All over the world office buildings, hospitals, hotels, public buildings, shopping centers, sport complexes and city lighting projects are equipped with ABB Low Voltage Products and Systems.

From switchboard to light switch we cover the complete range of equipment required for control and protection of electrical installations.

Architects, consultants, builders and contractors appreciate the performance/cost ratio provided by our products.
They have made ABB a well known reference for high quality and extremely reliable electrical equipment.

Installation contactors
Type ESB..

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Application

Automation processes in building wiring and installation can be implemented with installation contactors. They are used chiefly for switching and controlling lighting systems, heating systems, ventilation systems, pumps, heating pumps and other building automation actuators.
Geräte für Schalttafeleinbau auf Tragschienen (35 mm) nach DIN EN 50 022

Installation depth:	System 68 mm
Installation width:	1, 2 and 3 modules (1 module = 17.5 ... 18 mm)
Colour:	grey, RAL 7035

suitable for the ABB system pro *M*

Advantages

- hum-free solenoid drive
- low-noise switching
- switching position indicator
- integrated coil protective circuit
- attachable auxiliary switch
- overvoltage protection for the solenoid coil up to 5 kV
- high making/breaking capacity and long service life
- quick fastening with latching slide
- large connections with open box terminals
- shock-hazard protection to VDE 0106, Part 100

Construction

Type ESB 20 operates with an AC solenoid system. Types ESB 24, 40 and 63 feature a DC solenoid actuator and are thus hum-free. The noise during switching on is hardly audible compared with an AC solenoid. An integrated diode jumper allows connection to AC voltage.

The incorporated varistor protects the coil against remote lightening strikes and overvoltages of up to 5 kV. In addition, it limits the interference voltage peaks of the solenoid system. The contactors can therefore be combined with programmable logic controllers. There is no need for a coil protective circuit. The solenoid system is provided with radio interference suppression.

Overvoltage peaks may cause a current of max. 200 A resp. an energy of max. 4 J or 10^6 x a current of 5 A resp. an energy of max. 0.05 J with normal wave (8/20 µs).

All switching elements of the contactors can be used as main contact elements or as auxiliary contact elements (see also technical data). The contacts are not positively driven, and NO and NC contacts can therefore overlap.

On Types ESB 24, 40 and 63, a two-pole auxiliary switch, Type EH 04 (1/2 module width) can be attached. This auxiliary switch must be used for switching control signals.

Contactors ESB 20, 24 and 40 are also available as "EN" devices with integrated manual switch, e.g. for "day/night" application. Data sheet on request.

Installation contactors ESB..

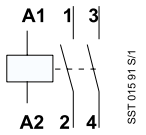
Ordering details

Accessories

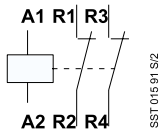
IEC 947-4-1
EN 60 947-4-1
IEC 1095
EN 61 095

Anschlußbezeichnungen

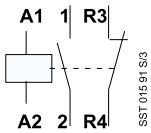
ESB 20
2 NO



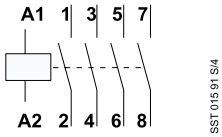
ESB 20
2 NC



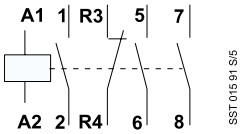
ESB 20
1 NO
1 NC



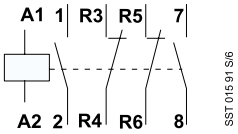
ESB 24
40
63
4 NO



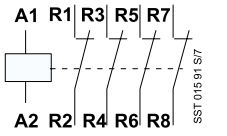
ESB 24
3 NO
1 NC



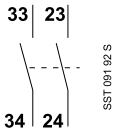
ESB 24
2 NC
2 NO



ESB 24
4 NC



EH 04- 20
2 NO



EH 04- 11
1 NO
1 NC

SST 092 92 S

Contactor type Contact ② complement	Rated operating voltage ① 50 Hz	 60 Hz	**Order code** **Product No.**	**bbn** **40 13614** **EAN**		Weight 1 piece kg	Pack. unit piece
ESB 20-20 2 NO	12 V 24 V 42 V 48 V 110 V **230 V** 231... 244 V 400 V	14 V 27 ... 28 V 48 V 55 V 125 ... 127 V **255 V** 268 ... 283 V –	GH E321 1102 R 1004 GH E321 1102 R 0001 GH E321 1102 R 0002 GH E321 1102 R 0003 GH E321 1102 R 0004 **GH E321 1102 R 0006** GH E321 1102 R 0005 GH E321 1102 R 0007	**08427 0** **08420 1** **08421 8** **08422 5** **08423 2** **08425 6** **08424 9** **08426 3**		0.2	10
ESB 20-02 2 NC	12 V 24 V 42 V 48 V 110 V **230 V** 231... 244 V 400 V	14 V 27 ... 28 V 48 V 55 V 125 ... 127 V **255 V** 268 ... 283 V –	GH E321 1202 R 1004 GH E321 1202 R 0001 GH E321 1202 R 0002 GH E321 1202 R 0003 GH E321 1202 R 0004 **GH E321 1202 R 0006** GH E321 1202 R0005 GH E321 1202 R0007	**08517 8** **08430 0** **08431 7** **08518 5** **08432 4** **08433 1** **08519 2** **08520 8**		0.2	10
ESB 20-11 1 NO 1 NC	12 V 24 V 42 V 48 V 110 V **230 V** 231... 244 V 400 V	14 V 27 ... 28 V 48 V 55 V 125 ... 127 V **255 V** 268 ... 283 V –	GH E321 1302 R 1004 GH E321 1302 R 0001 GH E321 1202 R 0002 GH E321 1302 R 0003 GH E321 1302 R 0004 **GH E321 1302 R 0006** GH E321 1302 R 0005 GH E321 1302 R 0007	**08515 4** **08435 5** **08436 2** **08514 7** **08437 9** **08439 3** **08438 6** **08516 1**		0.2	10
ESB 24-40 4 NO	12 V 24 V 42 V 48 V 110 ... 120 V **230 ... 240 V** 400 ... 415 V	 AC 40 ... 450 Hz or DC	GH E329 1102 R 1004 GH E329 1102 R 0001 GH E329 1102 R 0002 GH E329 1102 R 0003 GH E329 1102 R 0004 **GH E329 1102 R 0006** GH E329 1102 R 0007	**08447 8** **08441 6** **08442 3** **08546 8** **08443 0** **08445 4** **08446 1**		0.28	5
ESB 24-04 4 NC	12 V 24 V 42 V 48 V 110 ... 120 V **230 ... 240V** 400 ... 415 V	 AC 40 ... 450 Hz or DC	GH E329 1202 R 1004 GH E329 1202 R 0001 GH E329 1202 R 0002 GH E329 1202 R 0003 GH E329 1202 R 0004 **GH E329 1202 R 0006** GH E329 1202 R0007	**08456 0** **08451 5** **08452 2** **08548 2** **08453 9** **08454 6** **08455 3**		0.28	5
ESB 24-22 2 NO 2 NC	12 V 24 V 42 V 48 V 110 ... 120 V **230 ... 240 V** 400 ... 415 V	 AC 40 ... 450 Hz or DC	GH E329 1302 R 1004 GH E329 1302 R 0001 GH E329 1302 R 0002 GH E329 1302 R 0003 GH E329 1302 R 0004 **GH E329 1302 R 0006** GH E329 1302 R0007	**08463 8** **08458 4** **08459 1** **08552 9** **08460 7** **08461 4** **08525 3**		0.28	5
ESB 24-31 3 NO 1 NC	12 V 24 V 42 V 48 V 110 ... 120 V **230 ... 240 V** 400 ... 415 V	 AC 40 ... 450 Hz or DC	GH E329 1602 R 1004 GH E329 1602 R 0001 GH E329 1602 R 0002 GH E329 1602 R 0003 GH E329 1602 R 0004 **GH E329 1602 R 0006** GH E329 1602 R 0007	**08472 0** **08467 6** **08468 3** **08555 0** **08469 0** **08470 6** **08471 3**		0.28	5
ESB 24-13 1 NO 3 NC	12 V 24 V 42 V 48 V 110 ... 120 V **230 ... 240 V** 400 ... 415 V	 AC 40 ... 450 Hz or DC	GH E329 1702 R 1004 GH E329 1702 R 0001 GH E329 1702 R 0002 GH E329 1702 R 0003 GH E329 1702 R 0004 **GH E329 1702 R 0006** GH E329 1702 R0007	**21825 5** **21478 3** **21820 0** **21821 7** **21822 4** **21823 1** **21824 8**		0.28	5
ESB 40-40 4 NO ③	24 V 42 V 48 V 110 V **230 V** 240 V 400 V 415 V	 AC 40 ... 450 Hz. or DC	GH E349 1102 R 0001 GH E349 1102 R 0002 GH E349 1102 R 0003 GH E349 1102 R 0004 **GH E349 1102 R 0006** GH E349 1102 R 0005 GH E349 1102 R 0007 GH E349 1102 R 0008	**08482 9** **08483 0** **08559 8** **08484 3** **08486 7** **08529 1** **08530 7** **08560 4**		0.45	3
ESB 63-40 4 NO ③	24 V 42 V 48 V 110 V **230 V** 240 V 400 V 415 V	 AC 40 ... 450 Hz or DC	GH E369 1102 R 0001 GH E369 1102 R 0002 GH E369 1102 R 0003 GH E369 1102 R 0004 **GH E369 1102 R 0006** GH E369 1102 R 0005 GH E369 1102 R 0007 GH E369 1102 R 0008	**08493 5** **08494 2** **12725 0** **08495 9** **08497 3** **08535 2** **08498 0** **12726 7**		0.45	3

① Other voltages on request.
② "Day/night" installation contactors, Type EN 20, EN24, EN 40 on request.
③ Only delivery from ABB-Control France. 1 or 2 NC up to max. 30 A (AC-1) possible.

Installation contactors ESB..

Technical data

IEC 947-4-1
EN 60 947-4-1
IEC 1095
EN 61 095



ESB 20



ESB 24



ESB 40/ESB 63



ESB 24 + EH 04



EN 24

Rated operating currents and power ratings

AC-1 / AC-7a	ESB 20	ESB 24	ESB 40	ESB 63
Rated operating current I_e (NO)	20 A	24 A	40 A	63 A
Rated operating current I_e (NC)	20 A	24 A	30 A	30 A
	2 current paths connected in parallel permit a 1.6-fold increase in rated operating current I_e .			
Rated operating power (NO)				
230 V single-phase	4.0 kW	5.3 kW	8.8 kW	13.8 kW
230 V 3-phase	–	9.0 kW	15.2 kW	24.0 kW
400 V 3-phase	–	16.0 kW	26.0 kW	41.0 kW
AC-3/AC-7b Switching motors				
Rated operating current I_e (NO)	9 A	9 A	22 A	30 A
Rated operating current I_e (NC)	9 A	6 A		
Rated operating power (NO)				
230 V single-phase	1.3 kW	1.3 kW	3.7 kW	5.0 kW
230 V 3-phase	–	2.2 kW	5.5 kW	8.0 kW
400 V 3-phase	–	4.0 kW	11.0 kW	15.0 kW

DC-1/DC-3 Switching DC with NO contacts (NO)

Type	Rated operating voltage U_e	DC-1 (L/R ≤1 ms) 1 current path	DC-1 (L/R ≤1 ms) 2 current paths in series	DC-1 (L/R ≤1 ms) 3 current paths in series	DC-3 (L/R ≤ 2 ms) 1 current path	DC-3 (L/R ≤ 2 ms) 2 current paths in series	DC-3 (L/R ≤ 2 ms) 3 current paths in series
ESB 24	24 V DC	24.0 A	24.0 A	24.0 A	16.0 A	24.0 A	24.0 A
	48 V DC	21.0 A	24.0 A	24.0 A	8.0 A	18.0 A	24.0 A
	60 V DC	17.0 A	24.0 A	24.0 A	4.0 A	14.0 A	24.0 A
	110 V DC	7.0 A	16.0 A	24.0 A	1.6 A	6.5 A	16.0 A
	220 V DC	0.9 A	4.5 A	13.0 A	0.2 A	1.0 A	4.0 A
ESB 40	24 V DC	40.0 A	40.0 A	40.0 A	19.0 A	40.0 A	40.0 A
	48 V DC	23.0 A	40.0 A	40.0 A	10.0 A	20.0 A	40.0 A
	60 V DC	18.0 A	32.0 A	40.0 A	5.0 A	16.0 A	34.0 A
	110 V DC	8.0 A	17.0 A	30.0 A	1.8 A	7.0 A	18.0 A
	220 V DC	1.0 A	5.0 A	15.0 A	0.3 A	1.1 A	4.5 A
ESB 63	24 V DC	50.0 A	63.0 A	63.0 A	21.0 A	44.0 A	63.0 A
	48 V DC	25.0 A	43.0 A	63.0 A	11.0 A	22.0 A	47.0 A
	60 V DC	20.0 A	35.0 A	60.0 A	5.5 A	18.0 A	38.0 A
	110 V DC	9.0 A	19.0 A	33.0 A	2.0 A	8.0 A	21.0 A
	220 V DC	1.1 A	5.5 A	17.0 A	0.3 A	1.2 A	5.0 A

DC-1/DC-3 Switching DC with NC contacts (NC)

Type	Rated operating voltage U_e	DC-1 (L/R ≤1 ms) 1 current path	DC-1 (L/R ≤1 ms) 2 current paths in series	DC-1 (L/R ≤1 ms) 3 current paths in series	DC-3 (L/R ≤ 2 ms) 1 current path	DC-3 (L/R ≤ 2 ms) 2 current paths in series	DC-3 (L/R ≤ 2 ms) 3 current paths in series
ESB 24	24 V DC	14.5 A	24.0 A	24.0 A	6.3 A	11.0 A	19.0 A
	48 V DC	7.5 A	12.5 A	22.0 A	3.1 A	5.4 A	9.4 A
	60 V DC	4.5 A	10.0 A	17.5 A	2.0 A	4.3 A	7.5 A
	110 V DC	1.6 A	4.4 A	9.5 A	0.7 A	1.9 A	4.1 A
	220 V DC	0.2 A	1.4 A	3.8 A	0.1 A	0.6 A	1.6 A

Contactor type	Order code	Rated operating current	Rated operating voltage
EN 24-40 24 V	**GHE 3261 101 R0001**	24 A	24 V
EN 24-40 230-240 V	**GHE 3261 101 R0006**	24 A	230-240 V
EN 24-30 230-240 V	**GHE 3261 501 R0006**	24 A	230-240 V
EN 24-31 24 V	**GHE 3261 601 R0001**	24 A	24 V
EN 24-31 230-240 V	**GHE 3261 601 R0006**	24 A	230-240 V
EN 40-40 230 V	**GHE 3421 101 R0006**	24 A	230 V

Switching lamp loads, see Page 8.

Installation contactors ESB..

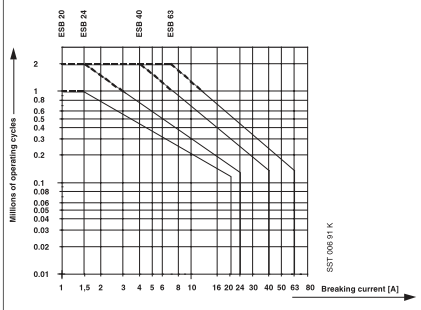
Technical data

of ESB.. and auxiliary switches

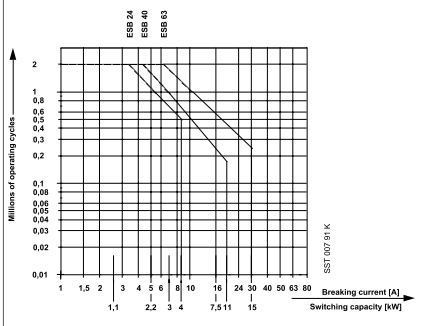
IEC 947-4-1
EN 60 947-4-1
IEC 1095
EN 61 095

Contact member service life

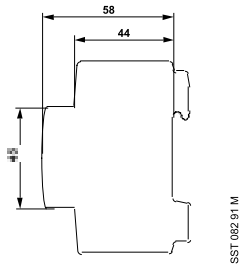
AC-1/400 V/3-phase for ESB 24, 40, 63
AC-1/230 V/single-phase for ESB 20



AC-3/400 V/3-phase for ESB 24, 40, 63



Dimensions in mm



Type	Overall width A
ESB 20	1 module (18.0 mm)
ESB 24	2 modules (36.0 mm)
ESB 40	3 modules (54.0 mm)
ESB 63	3 modules (54.0 mm)
EH 04	0.5 module (9.0 mm)

	ESB 20	ESB 24	ESB 40	ESB 63
Rated insulation voltage U_i	400 V	500 V	500 V	500 V
Rated operation voltage U_e	250 V	440 V	440 V	440 V
Short-circuit protection				
Back-up fuse, Type "gL/gG"	20 A	35 A	63 A	80 A
Limiting short-time current 10 s at ambient temperature ≤ 40 °C, in free air, from cold state				
	72 A	72 A	176 A	240 A
Ohmic loss per current path at I_e (AC-1, AC-7a)	1.0 W	1.5W	3.0 W	6.0 W

Contact member service life and max. switching frequency

Service life	mechanical	1 million	1 million	1 million	1 million
	electrical at AC-1 / AC-7a	150 000	150 000	150 000	150 000
	at AC-3 / AC-7b	150 000	500 000	170 000	240 000
Max. switching frequency					
	AC-1 / AC-7a	300 operations/hour			
	AC-3 / AC-7b	600 operations/hour			
Permissible mains frequency		50 ... 60 Hz			
Min. making/breaking capacity		≥ 17 V / ≥ 200 mA			

Characteristics of the solenoid system

Operating range of solenoid coil	85 ... 110 % U_c	
Reliable switch-off between	20 ... 75% U_c	10 ... 75% U_c
Frequency range	50/60 Hz	40 ... 450 Hz AC or DC
Relative duty ED	100%	

Power consumption of the solenoid coil

pick-up	≤	8.0VA, 5.0W	4.0VA, 4.0W	5.0VA, 5.0W	65 VA, 65 W
holding	≤	3.2VA, 1.2W	4.0VA, 4.0W	5.0VA, 5.0W	4.2 VA, 4.2 W
On delay		≤ 12 ms	≤ 40 ms		
Off delay		≤ 12 ms	≤ 40 ms		
Permissible Ambient temperature		– 25 °C to + 55 °C If several contactors are mounted adjacently and the On time is longer than one hour, every second contactor needs a distance piece, Type ESB-DIS (1/2 module). This is not necessary at an ambient temperature ≤ 40°C or on Type ESB 20.			

Connection cross-sections

Main conductor	max. mm²	1 x 10 or 2 x 4	1 x 25 or 2 x 10
	min. mm²	1 x 0.5	1 x 1.5
Coil mm²		1 x 4 or 2 x 2.5	

Auxiliary switch EH 04

Thermal continuous current I_{th} = 6 A

Rated operating current I_e at AC-15 for U_e ≤ 240 V AC 4 A
≤ 415 V AC 3 A
≤ 500 V AC 2 A

Minimum making/breaking capacity ≥ 17 V / ≥ 5 mA

Installation contactors ESB..

Technical data

Switching lamp loads

IEC 947-4-1
EN 60 947-4-1
IEC 1095
EN 61 095

Switching lamp loads

Please note the following:

The following table shows the number of lamps which can be connected per circuit at 230 V/50 Hz.

If the specified capacitor load is exceeded, this may result in admissibly high peak inrush currents. Other factors which influence the magnitude of peak inrush currents are as follows:

– Length and cross-section of installed supply cables
– Type of electronic ballast units
– Lamp make

The following lamp load table thus contains non-binding guideline values.

Lamp type	Lamp data		Permissible number of lamps per circuit (230 V, 50 Hz) in the case of contactor type				Capacitor load in µF
	Watt	I_n A	**ESB 20**	**ESB 24**	**ESB 40**	**ESB 63**	
Incandescent lamps	60	0.26	21	25	54	83	
	100	0.43	13	15	32	50	
	200	0.87	7	7	16	25	
	300	1.30	4	5	11	16	
	500	2.17	3	3	6	10	
	1000	4.35	1	1	3	5	
Fluorescent lamps, p.f. uncorrected and series p.f. correction	15	0.33	25	30	100	155	
	20	0.37	22	26	85	135	
	40	0.43	17	20	65	105	
	58	0.67	10	12	40	65	
	65	0.67	10	12	40	65	
	115	1.5	4	5	18	28	
	140	1.5	4	5	18	28	
Lead-lag circuit	2 x 20	2 x 0.13	2 x 22	2 x 26	2 x 85	2 x 140	
	2 x 40	2 x 0.22	2 x 17	2 x 20	2 x 65	2 x 105	
	2 x 58	2 x 0.32	2 x 10	2 x 12	2 x 40	2 x 65	
	2 x 65	2 x 0.34	2 x 10	2 x 12	2 x 40	2 x 65	
	2 x 115	2 x 0.65	2 x 4	2 x 5	2 x 18	2 x 28	
	2 x 140	2 x 0.75	2 x 4	2 x 5	2 x 18	2 x 28	
Parallel p.f. correction	15	0.11	6	8	16	67	4.5
	20	0.13	6	8	16	67	4.5
	40	0.22	6	8	16	67	4.5
	58	0.32	4	5	10	43	7
	65	0.34	4	5	10	43	7
	115	0.65	1	2	4	17	18
	140	0.75	1	2	4	17	18
High-pressure mercury-vapour lamps p.f. uncorrected	50	0.61	12	14	36	50	
	80	0.8	7	10	27	38	
	125	1.15	5	7	19	26	
	250	2.15	3	4	10	14	
	400	3.25	1	2	7	10	
	700	5.40	–	1	4	6	
	1000	7.5	–	1	3	4	
	2000/ 400 V	8	–	1	3	4	
Parallel p.f. correction	50	0.28	4	5	10	43	7
	80	0.41	3	4	8	37	8
	125	0.65	2	3	6	26	10
	250	1.22	1	2	3	15	18
	400	1.95	–	1	3	10	25
	700	3.45	–	–	1	5	45
	1000	4.8	–	–	1	4	60
	2000/ 400 V	5.45	–	1	2	3	35
Lamps with elektronic ballast units (EVG)	EVG for Watt		Permissible number of electronic ballast units per circuit (230 V, 50 Hz)				
	1 x 18	–	15	24	55	76	
	2 x 18	–	8	18	34	48	
	1 x 36	–	12	16	34	47	
	2 x 36	–	7	11	20	29	
	1 x 58	–	11	14	32	46	
	2 x 58	–	6	8	17	24	

Lamp type	Lamp data		Permissible number of lamps per circuit (230 V, 50 Hz) in the case of contactor type				Capacitor load in µF
	Watt	I_n A	**ESB 20**	**ESB 24**	**ESB 40**	**ESB 63**	
Halogen metal-vapour lamps, p.f. uncorrected	35	0.53	–	10	28	38	
	70	1	–	5	14	20	
	150	1.8	–	3	8	11	
	250	3	–	2	5	7	
	400	3.5	–	1	4	6	
	1000	9.5	–	–	1	2	
	2000	16.5	–	–	1	1	
	2000/ 3500/ 400 V	10.5 18 –	– – –	– – –	2 1 –	2 1 –	
Parallel p.f. correction	35	0.25	–	5	11	30	6
	70	0.45	–	3	5	18	12
	150	0.75	–	1	3	9	20
	250	1.5	–	1	2	7	33
	400	2.5	–	1	2	6	35
	1000	5.8	–	–	–	2	95
	2000	11.5	–	–	–	1	148
	2000/ 3500/ 400 V	6.6 11.6	– – –	– – –	1 – –	2 1 –	58 100
Low-pressure mercury-vapour lamps p.f. uncorrected	35	1.5	5	8	22	30	
	55	1.5	5	8	22	30	
	90	2.4	3	5	13	19	
	135	3.5	2	3	10	13	
	150	3.3	2	3	10	14	
	180	3.3	2	3	10	14	
	200	2.3	3	5	14	20	
Parallel p.f. correction	35	0.31	–	1	4	15	20
	55	0.42	–	1	4	15	20
	90	0.63	–	1	3	10	30
	135	0.94	–	–	2	7	45
	150	1.0	–	–	2	8	40
	180	1.16	–	–	2	8	40
	200	1.32	–	1	3	12	25
High-pressure sodium-vapour lamps p.f. uncorrected	150	1.8	–	4	15	20	
	250	3.0	–	3	9	15	
	330	3.7	–	2	8	10	
	400	4.7	–	1	6	8	
	1000	10.3	–	–	3	4	
Parallel p.f. correction	150	0.83	–	1	3	15	20
	250	1.5	–	1	2	9	33
	330	2.0	–	–	2	7	40
	400	2.4	–	–	1	6	48
	1000	6.3	–	–	–	2	106

Transformers for halogen low-volt lamps	Transformers for Watt	Permissible number of transformers per circuit (230 V, 50 Hz)			
	20	40	52	110	174
	50	20	24	50	80
	75	13	16	35	54
	100	10	12	27	43
	150	7	9	19	29
	200	5	6	14	23
	300	3	4	9	14

Installation contactors ESB..

Accessories, location of the connection terminals Approvals and certificates



Accessories ①

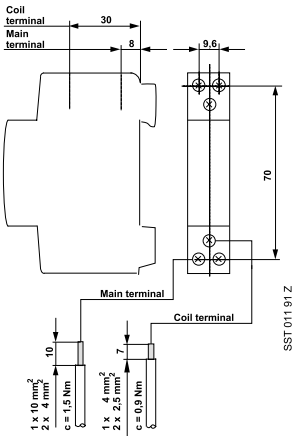
Designation	Type Abbreviation	Order code	bbn 4012233 EAN		Weight per piece kg	Pack. unit piece
Aux. switches						
2 NO	**EH 04-20**	**GH E340 1321 R 0001**	**08476 8**		0.023	10
1 NO + 1 NC	**EH 04-11**	**GH E340 1321 R 0002**	**08477 5**		0.023	10
Distance piece	**ESB-DIS**	**GH E320 1902 R 0001**	**08521 5**		0.002	10
Sealing covers	**ESB-PLK 24**	**GH E320 1903 R 0001**	**08417 1**		0.002	10
	ESB-PLK 40/63	**GH E340 1903 R 0001**	**08527 7**		0.003	10
Time relays On-delayed	**ETD24**	**On request**				

① Mounting onto ESB 20 not possible

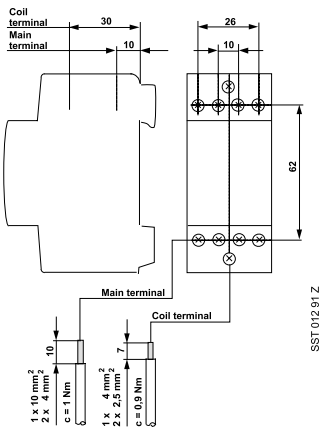
Location of the connection terminals

Dimensions in mm

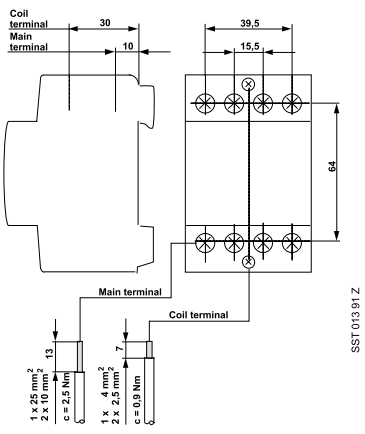
ESB 20



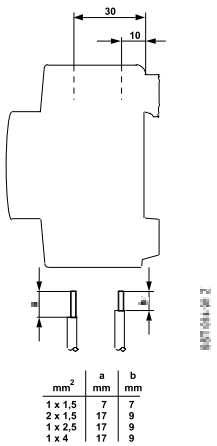
ESB 24



ESB 40/63

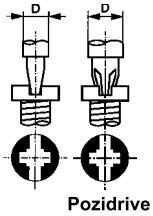


EH 04



mm²	a mm	b mm
1 x 1,5	7	7
2 x 1,5	17	9
1 x 2,5	17	9
1 x 4	17	9

Connection screws



	ESB 20 $D_{max.}$	ESB 20 Pozidrive Size	ESB 24 $D_{max.}$	ESB 24 Pozidrive Size	ESB 40 / 63 $D_{max.}$	ESB 40 / 63 Pozidrive Size		EH 04 $D_{max.}$	EH 04 Pozidrive Size
Main connection	5	1		1	7.5	2	Connections	5	1
Coil	5	1		1	5	1			

Approvals and certificates

Device type	Approvals										Ships' classification societies			
Test mark														
Abbreviation Validity	SEV Switzerland	DEMKO Denmark	NEMKO Norway	SEMKO Sweden	EL.Inspect. Finland	CEBEC Belgium	CSA Canada	UL USA	Czech. Rep.	France	BV France	GL Germany	LRS Great Britain	DNV Norway
ESB 20				■		■			■	●				
ESB 24		■	■	■	■	■		■	■	●	■	■	□	■
ESB 40			■			■		■	■	●	■	■	□	■
ESB 63			■			■		■	■	●	■	■	□	■

■ Devices are approved.
□ Devices have been submitted for approval or it is planned to submit them for approval.
● For NO contacts and control voltages 24 V and 230 V.

Notes

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ABB STOTZ-KONTAKT GmbH
P.O. Box 10 16 80
69006 Heidelberg
Germany
Phone: +49 (0) 6221 701-0
Fax: +49 (0) 6221 701-729
Email: desst.info@de.abb.com
http://www.abb.de/stotz-kontakt