

4 - Miniature controls

Miniature controls 4.1 – 4.22

Selection

Contactors for connection to PLCs, B6S & B7S, 3 phase.....	4.6
Contactors, Interface, B6 & B7, 3 phase	4.5
Contactors, features	4.1
Contactors, mechanically interlocked, B6 & B7, 3 phase.....	4.4
Contactors, non-reversing, B6 & B7, 3 phase	4.3
Control relays, K622 - K640, AC/DC operated	4.10
Control relays, features	4.1
Cross-reference, old catalog numbers to new.....	4.2
Description	4.1
General features.....	4.1
Interface contactors, features	4.1
Interface relays, KC631 - KC640, DC operated.....	4.11
Mechanically interlocked contactors, features	4.1
Overload relays, features	4.1
Starters, non-reversing, B6 & B7, single phase.....	4.9
Starters, non-reversing, B6 @ B7, 3 phase.....	4.8
Thermal overload relays, T7DU.....	4.7

Accessories

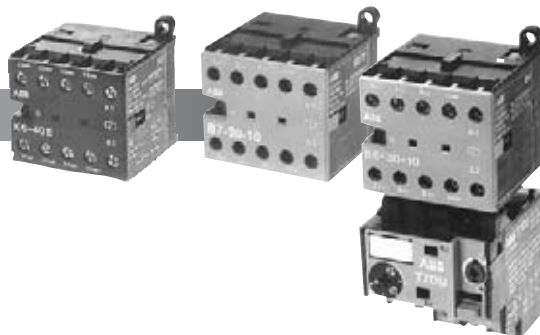
Auxiliary contact blocks.....	4.12
Identification labels	4.12
Plunger.....	4.12
Protective cover	4.13
Reversing connection link.....	4.13
Soldering connection.....	4.12
Surge suppressors	4.13

Technical data

Auxiliary contacts.....	4.15
Contactors, B7.....	4.16
Contactors, B6.....	4.15
Control relays, K6.....	4.15
D.C. Power circuit switching.....	4.14
Electrical durability curves	4.14
Endurance curves	4.17
Magnetic coils.....	4.15
Overload relays	4.19
Pole configurations	4.18
Switching of light fittings.....	4.17

Dimensions

Auxiliary contact blocks.....	4.21
Contactors, mechanically interlocked.....	4.21
Control relays	4.21
Mini contactors	4.20
Overload relays	4.20





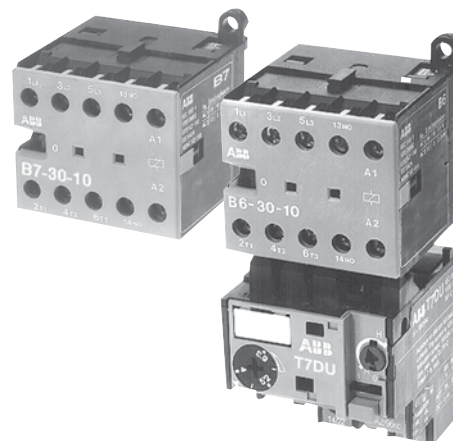
Notes



Miniature controls

- Contactors
- Overload relays
- Starters
- Control relays

4



Description

General features

- Wiring terminations available include plug-on connectors, wire pins for PC board mounting and solder connections
- Low power consumption coils
- Touch safe design: All screw connection terminals are protected against accidental touch
- Slotted Pozidriv terminal screws
- Screwdriver guide holes
- Self-lifting cable clamps
- Panel or DIN rail mounting
- Terminals supplied in the open position
- Electrically noiseless operation
- Snap-on accessories
- UL Listed, file # E39231
- CSA approved, file #LR15332
- IEC, VDE & most international standards

Contactors

- B6 and BC6 miniature contactors can be used for small motors up to 1 HP, 460V
- B7 and BC7 miniature contactors can be used for small motors up to 5 HP, 460V
- Applications include use in machines, electrical appliances, building automation systems, heating systems, overhead door applications, etc.
- B6 and B7 miniature contactors are designed to be directly connected to a PLC transistor output

Interface contactors

- "Interface" mini-contactors are normally used to establish an isolation between the electronic part and the process in large automation systems

Mechanically interlocked contactors

- Compact, mechanically interlocked contactors are available
- Can be used for reversing applications

Control relays

- AC & DC operated

Overload relays

- 14 setting ranges from 0.11 to 10.5 amps
- Manual or automatic reset
- Phase failure compensation
- Ambient temperature compensation
- Stop and test button functions
- UL Listed, file #E149922
- CSA approved, file # LR98336

Old catalog	New catalog	Old catalog	New catalog	Old catalog	New catalog
B6C-★ B6C-★01 B6C4P-★	B6-30-10-Δ B6-30-01-Δ B6-40-00-Δ	VBC6MFP-★ VBC6MFP-★01 VB7CMFP-★ VB7CMFP-★01	VBC6-30-10-FΔ VBC6-30-01-FΔ VB7C-30-10-FΔ VB7C-30-01-FΔ	K640-★ K631-★ K622-★ KC640-★ KC631-★ KC622-★	K640E-Δ K631Z-Δ K622Z-Δ K6-40E-FΔ K6-31Z-FΔ K6-22Z-FΔ
B7C-★ B7C-★01 B7C4P-★	B7-30-10-Δ B7-30-01-Δ B7-40-00-Δ	VB6MSP-★ VB6MSP-★01 VB7MSP-★ VB7MSP-★01	VB6-30-10-PΔ VB6-30-01-PΔ VB7-30-10-PΔ VB7-30-01-PΔ	K640FP-★ K631FP-★ K622FP-★ KC640FP-★ KC631FP-★ KC622FP-★	K6-40E-FΔ K6-31Z-FΔ K6-22Z-FΔ K6-40E-FΔ K6-31Z-FΔ K6-22Z-FΔ
BC6C-★ BC6C-★01 BC7C-★ BC7C-★01	BC6-30-10-Δ BC6-30-01-Δ BC7-30-10-Δ BC7-30-01-Δ	VBC6MSP-★ VBC6MSP-★01 VB7CMSP-★ VB7CMSP-★01	VBC6-30-10-PΔ VBC6-30-01-PΔ VB7C-30-10-PΔ VB7C-30-01-PΔ	K640SP-★ K631SP-★ K622SP-★ KC640SP-★ KC631SP-★ KC622SP-★	K6-40E-PΔ K6-31Z-PΔ K6-22Z-PΔ K6-40E-PΔ K6-31Z-PΔ K6-22Z-PΔ
B6CFP-★ B6CFP-★01 B6C4PFP-★	B6-30-10-FΔ B6-30-01-FΔ B6-40-00-FΔ	BC6-1.4 BC6-01-1.4 BC7-1.4 BC7-01-1.4	BC6-30-10-1.4 BC6-30-01-1.4 BC7-30-10-1.4 BC7-30-01-1.4		
B7CFP-★ B7CFP-★01 B7C4PFP-★	B7-30-10-FΔ B7-30-01-FΔ B7-40-00-FΔ	BC6-2.4 BC6-01-2.4 BC7-2.4 BC7-01-2.4	BC6-30-10-2.4 BC6-30-01-2.4 BC7-30-10-2.4 BC7-30-01-2.4		
BC6CFP-★ BC6CFP-★01 BC7CFP-★ BC7CFP-★01	BC6-30-10-FΔ BC6-30-01-FΔ BC7-30-10-FΔ BC7-30-01-FΔ	BC6FP-1.4 BC6FP-01-1.4 BC7FP-1.4 BC7FP-01-1.4	BC6-30-10-F1.4 BC6-30-01-F1.4 BC7-30-10-F1.4 BC7-30-01-F1.4		
B6CSP-★ B6CSP-★01 B6C4PSP-★ B7CSP-★ B7CSP-★01 B7C4PSP-★	B6-30-10-PΔ B6-30-01-PΔ B6-40-00-PΔ B7-30-10-PΔ B7-30-01-PΔ B7-40-00-PΔ	BC6FP-2.4 BC6FP-01-2.4 BC7FP-2.4 BC7FP-01-2.4	BC6-30-10-F2.4 BC6-30-01-F2.4 BC7-30-10-F2.4 BC7-30-01-F2.4		
BC6CSP-★ BC6CSP-★01 BC7CSP-★ BC7CSP-★01	BC6-30-10-PΔ BC6-30-01-PΔ BC7-30-10-PΔ BC7-30-01-PΔ	BC6SP-1.4 BC6SP-01-1.4 BC7SP-1.4 BC7SP-01-1.4	BC6-30-10-P1.4 BC6-30-01-P1.4 BC7-30-10-P1.4 BC7-30-01-P1.4		
VB6M-★ VB6M-★01 VB7M-★ VB7M-★01	VB6-30-10-Δ VB6-30-01-Δ VB7-30-10-Δ VB7-30-01-Δ	BC6SP-2.4 BC6SP-01-2.4 BC7SP-2.4 BC7SP-01-2.4	BC6-30-10-P2.4 BC6-30-01-P2.4 BC7-30-10-P2.4 BC7-30-01-P2.4		
VB6CM-★ VB6CM-★01 VB7CM-★ VB7CM-★01	VB6C-30-10-Δ VB6C-30-01-Δ VB7C-30-10-Δ VB7C-30-01-Δ	B6SC-1.7 B6SC-01-1.7 B7SC-1.7 B7SC-01-1.7	B6S-30-10-1.7 B6S-30-01-1.7 B7S-30-10-1.7 B7S-30-01-1.7		
VB6MFP-★ VB6MFP-★01 VB7MFP-★ VB7MFP-★01	VB6-30-10-FΔ VB6-30-01-FΔ VB7-30-10-FΔ VB7-30-01-FΔ	B6SC-2.8 B6SC-01-2.8 B7SC-2.8 B7SC-01-2.8	B6S-30-10-2.8 B6S-30-01-2.8 B7S-30-10-2.8 B7S-30-01-2.8		

Contactor B6 & B7, non-reversing 3 Phase

Miniature
controls



B6-30-10-Δ



B7-30-10-Δ



B6-30-10-FΔ



B7-30-10-PΔ

Non-reversing with screw connections

General purpose AC1	Maximum motor FLA AC3	3 Phase motor horsepower				Single phase		Number of power poles	Auxiliary contacts	Catalog number	List price
		208V	230V	460V	600V	120V	230V				
AC operated											
12	6.8	1	2	3	1	1/2	1	3 3 4	1 N.O. 1 N.C. —	B6-30-10-Δ B6-30-01-Δ B6-40-00-Δ	\$ 51
16	9.6	2	3	5	5	1	2	3 3 4	1 N.O. 1 N.C. —	B7-30-10-Δ B7-30-01-Δ B7-40-00-Δ	72
DC operated											
12	6.8	1	2	3	1	1/2	1	3 3	1 N.O. 1 N.C.	BC6-30-10-Δ BC6-30-01-Δ	57
16	9.6	2	3	5	5	1	2	3 3	1 N.O. 1 N.C.	BC7-30-10-Δ BC7-30-01-Δ	78

Non-reversing with flat pin connections

General purpose AC1	Maximum motor FLA AC3	3 Phase motor horsepower				Single phase		Number of power poles	Auxiliary contacts	Catalog number	List price
		208V	230V	460V	600V	120V	230V				
AC operated											
12	6.8	1	2	3	1	1/2	1	3 3 4	1 N.O. 1 N.C. —	B6-30-10-FΔ B6-30-01-FΔ B6-40-00-FΔ	\$ 51
16	9.6	2	3	5	5	1	2	3 3 4	1 N.O. 1 N.C. —	B7-30-10-FΔ B7-30-01-FΔ B7-40-00-FΔ	72
DC operated											
12	6.8	1	2	3	1	1/2	1	3 3	1 N.O. 1 N.C.	BC6-30-10-FΔ BC6-30-01-FΔ	57
16	9.6	2	3	5	5	1	2	3 3	1 N.O. 1 N.C.	BC7-30-10-FΔ BC7-30-01-FΔ	80

Non-reversing with soldering pin connections

General purpose AC1	Maximum motor FLA AC3	3 Phase motor horsepower				Single phase		Number of power poles	Auxiliary contacts	Catalog number	List price
		208V	230V	460V	600V	120V	230V				
AC operated											
12	6.8	1	2	3	1	1/2	1	3 3 4	1 N.O. 1 N.C. —	B6-30-10-PΔ B6-30-01-PΔ B6-40-00-PΔ	\$ 51
16	9.6	2	3	5	5	1	2	3 3 4	1 N.O. 1 N.C. —	B7-30-10-PΔ B7-30-01-PΔ B7-40-00-PΔ	72
DC operated											
12	6.8	1	2	3	1	1/2	1	3 3	1 N.O. 1 N.C.	BC6-30-10-PΔ BC6-30-01-PΔ	57
16	9.6	2	3	5	5	1	2	3 3	1 N.O. 1 N.C.	BC7-30-10-PΔ BC7-30-01-PΔ	78

Coil voltage selection

Δ Coil voltage suffix. Refer to Coil Voltage Selection Chart and substitute the desired coil voltage suffix for the Δ.

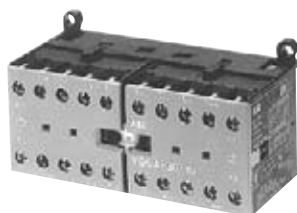
Coil voltage selection chart

	Volts								
	12	24	42	48	110/125	110/120	220	220/240	380/415
AC (40-450 Hz)		01	02	03		84		80	85
DC	07	01	02	16	04		05		

Contactor

B6 & B7, mechanically interlocked 3 Phase

4



VB6-30-10-Δ



VB7-30-10-Δ

Mechanically interlocked with screw connections

General purpose AC1	Maximum motor FLA AC3	3 Phase motor horsepower				Single phase		Number of power poles	Auxiliary contacts	Catalog number	List price
		208V	230V	460V	600V	120V	230V				
AC operated											
12	6.8	1	2	3	1	1/2	1	3	1 N.O. 1 N.C.	VB6-30-10-Δ VB6-30-01-Δ	\$ 104
16	9.6	2	3	5	5	1	2	3	1 N.O. 1 N.C.	VB7-30-10-Δ VB7-30-01-Δ	143
DC operated											
12	6.8	1	2	3	1	1/2	1	3	1 N.O. 1 N.C.	VBC6-30-10-Δ VBC6-30-01-Δ	105
16	9.6	2	3	5	5	1	2	3	1 N.O. 1 N.C.	VBC7-30-10-Δ VBC7-30-01-Δ	156

Mechanically interlocked with flat pin connections

General purpose AC1	Maximum motor FLA AC3	3 Phase motor horsepower				Single phase		Number of power poles	Auxiliary contacts	Catalog number	List price
		208V	230V	460V	600V	120V	230V				
AC operated											
12	6.8	1	2	3	1	1/2	1	3	1 N.O. 1 N.C.	VB6-30-10-FΔ VB6-30-01-FΔ	\$ 104
16	9.6	2	3	5	5	1	2	3	1 N.O. 1 N.C.	VB7-30-10-FΔ VB7-30-01-FΔ	143
DC operated											
12	6.8	1	2	3	1	1/2	1	3	1 N.O. 1 N.C.	VBC6-30-10-FΔ VBC6-30-01-FΔ	105
16	9.6	2	3	5	5	1	2	3	1 N.O. 1 N.C.	VBC7-30-10-FΔ VBC7-30-01-FΔ	156

Mechanically interlocked with soldering pin connections

General purpose AC1	Maximum motor FLA AC3	3 Phase motor horsepower				Single phase		Number of power poles	Auxiliary contacts	Catalog number	List price
		208V	230V	460V	600V	120V	230V				
AC operated											
12	6.8	1	2	3	1	1/2	1	3	1 N.O. 1 N.C.	VB6-30-10-PA VB6-30-01-PA	\$ 104
16	9.6	2	3	5	5	1	2	3	1 N.O. 1 N.C.	VB7-30-10-PA VB7-30-01-PA	143
DC operated											
12	6.8	1	2	3	1	1/2	1	3	1 N.O. 1 N.C.	VBC6-30-10-PA VBC6-30-01-PA	105
16	9.6	2	3	5	5	1	2	3	1 N.O. 1 N.C.	VBC7-30-10-PA VBC7-30-01-PA	156

Coil voltage selection

Δ Coil voltage suffix. Refer to Coil Voltage Selection Chart and substitute the desired coil voltage suffix for the Δ.

Coil voltage selection chart

	Volts								
	12	24	42	48	110/125	110/120	220	220/240	380/415
AC (40-450 Hz)		01	02	03		84		80	85
DC	07	01	02	16	04		05		

Contactors ① **B6 & B7, Interface** **3 Phase**

Miniature
controls



BC6-30-10-2.4



BC7-30-10-2.4

Non-reversing with screw connections

General purpose AC1	Maximum motor FLA AC3	3 Phase motor horsepower				Single phase		Number of power poles	Auxiliary contacts	Catalog number	List price
		208V	230V	460V	600V	120V	230V				
DC operated — 24VDC (1.4W low power consumption)											
12	6.8	1	2	3	1	1/2	1	3	1 N.O. 1 N.C.	BC6-30-10-1.4 BC6-30-01-1.4	\$ 57
16	9.6	2	3	5	5	1	2	3	1 N.O. 1 N.C.	BC7-30-10-1.4 BC7-30-01-1.4	80
DC operated — 17 – 32VDC (2.4W low power consumption)											
12	6.8	1	2	3	1	1/2	1	3	1 N.O. 1 N.C.	BC6-30-10-2.4 BC6-30-01-2.4	63
16	9.6	2	3	5	5	1	2	3	1 N.O. 1 N.C.	BC7-30-10-2.4 BC7-30-01-2.4	80

Non-reversing with flat pin connections

General purpose AC1	Maximum motor FLA AC3	3 Phase motor horsepower				Single phase		Number of power poles	Auxiliary contacts	Catalog number	List price
		208V	230V	460V	600V	120V	230V				
DC operated — 24VDC (1.4W low power consumption)											
12	6.8	1	2	3	1	1/2	1	3	1 N.O. 1 N.C.	BC6-30-10-F1.4 BC6-30-01-F1.4	\$ 57
16	9.6	2	3	5	5	1	2	3	1 N.O. 1 N.C.	BC7-30-10-F1.4 BC7-30-01-F1.4	80
DC operated — 17 – 32VDC (2.4W low power consumption)											
12	6.8	1	2	3	1	1/2	1	3	1 N.O. 1 N.C.	BC6-30-10-F2.4 BC6-30-01-F2.4	63
16	9.6	2	3	5	5	1	2	3	1 N.O. 1 N.C.	BC7-30-10-F2.4 BC7-30-01-F2.4	120

Non-reversing with soldering pin connections

General purpose AC1	Maximum motor FLA AC3	3 Phase motor horsepower				Single phase		Number of power poles	Auxiliary contacts	Catalog number	List price
		208V	230V	460V	600V	120V	230V				
DC operated — 24VDC (1.4W low power consumption)											
12	6.8	1	2	3	1	1/2	1	3	1 N.O. 1 N.C.	BC6-30-10-P1.4 BC6-30-01-P1.4	\$ 57
16	9.6	2	3	5	5	1	2	3	1 N.O. 1 N.C.	BC7-30-10-P1.4 BC7-30-01-P1.4	80
DC operated — 17 – 32VDC (2.4W low power consumption)											
12	6.8	1	2	3	1	1/2	1	3	1 N.O. 1 N.C.	BC6-30-10-P2.4 BC6-30-01-P2.4	63
16	9.6	2	3	5	5	1	2	3	1 N.O. 1 N.C.	BC7-30-10-P2.4 BC7-30-01-P2.4	80

① Interface contactors cannot utilize auxiliary contacts.

Contactors

B6S & B7S for connection to PLCs ① 3 Phase

4

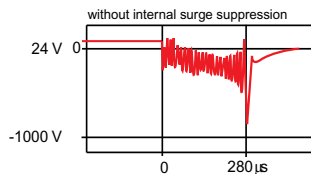


B6S-30-10-2.8

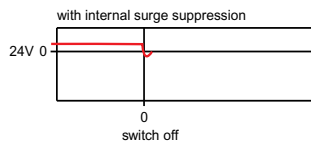


B7S-30-10-2.8

Oscillograms typical operation



Switching off of interface contactors
BC6, BC7, coil voltage 24 VDC.



Switching off of B6S, B7S coil voltage
24VDC which provides electrically
noiseless operation

Non-reversing with screw connections

General purpose AC1	Maximum motor FLA AC3	3 Phase motor horsepower				Single phase		Number of power poles	Auxiliary contacts	Catalog number	List price
		208V	230V	460V	600V	120V	230V				
DC operated — 24VDC (1.4W low power consumption)											
12	6.8	1	2	3	1	1/2	1	3	1 N.O. 1 N.C.	B6S-30-10-1.7 B6S-30-01-1.7	\$ 65
16	9.6	2	3	5	5	1	2	3	1 N.O. 1 N.C.	B7S-30-10-1.7 B7S-30-01-1.7	69
DC operated — 17 – 32VDC (2.4W low power consumption)											
12	6.8	1	2	3	1	1/2	1	3	1 N.O. 1 N.C.	B6S-30-10-2.8 B6S-30-01-2.8	65
16	9.6	2	3	5	5	1	2	3	1 N.O. 1 N.C.	B7S-30-10-2.8 B7S-30-01-2.8	69

① Contactors for connection to PLCs cannot utilize auxiliary contacts.

Thermal overload relays T7DU

Miniature
controls



T7DU

Thermal overload relay — for contactors B6,B7, BC6, BC7, B6S, B7S, VB6(7), VBC6(7), VB6A(7A), VBC6A(7A)

Setting range Amps	Catalog number	List price
0.1 – 0.16 0.16 – 0.24 0.24 – 0.4	T7DU0.16 T7DU0.24 T7DU0.4	\$ 48
0.4 – 0.6 0.6 – 1.0 1.0 – 1.6	T7DU0.6 T7DU1.0 T7DU1.6	
1.6 – 2.4 2.4 – 4.0 4.0 – 6.0	T7DU2.4 T7DU4.0 T7DU6.0	
6.0 – 9.0 9.0 – 12.0	T7DU9.0 T7DU12.0	

Loading capacity of auxiliary switches

Type	T7DU	
	N.C. 95 – 96	N.O. 97 – 98
Rated operating voltage U_e / V IEC / UL508	V	500 / 300
Thermal current	A	6
Rated operating current I_e		
at AC-15 220/240 V	A	1.5
at AC-15 380/415 V	A	0.7
at AC-15 500 V	A	0.5
at DC-15 220 V	A	0.2
Pilot duty rating	AC DC	A300 P300
General use	240V 600V	1.5A 0.6A

Thermal overload relay T7DU

Setting range A – A	Short circuit protection (fuses, circuit breakers)				Resistance per phase W	Joule losses per phase at upper current setting W
	Coordination Type 2 (IEC)	Coordination Type 1(IEC)	600V, 5kA			
	gL/gG A	gL/gG A	Fuse	MCCB		
0.1 – 0.16	0.5	20	1	15A	62.3	1.6
0.16 – 0.24	1	20	1	15A	27	1.6
0.24 – 0.4	2	20	1	15A	11.7	1.9
0.4 – 0.6	2	20	1	15A	4.61	1.7
0.6 – 1.0	4	20	3	15A	1.66	1.7
1.0 – 1.6	6	20	6	15A	0.63	1.6
1.6 – 2.4	6	20	6	15A	0.27	1.6
2.4 – 4.0	10	20	15	15A	0.107	1.7
4.0 – 6.0	10	20	20	15A	0.049	1.8
6.0 – 9.0	10	20	35	15A	0.021	1.7
9.0 – 12.0	20	20	45	15A	0.010	1.4

Electronic overload relays

See pages 2.19 to 2.30.

Starters ①

B6 & B7, non-reversing

3 Phase

4



B6S-ΔΔ

Non-Reversing, 3 phase – Screw connections only

General purpose AC1	Maximum motor FLA AC3	3 Phase motor horsepower				Single phase		Number of power poles	Auxiliary contacts	Catalog number	List price
		208V	230V	460V	600V	120V	230V				
AC operated											
12	6.8	1	2	3	1	1/2	1	3	1 N.O. 1 N.C.	B6S-Δ‡ B6S-Δ01‡	\$ 108
16	9.6	2	3	5	5	1	2	3	1 N.O. 1 N.C.	B7S-Δ‡ B7S-Δ01‡	132
DC operated											
12	6.8	1	2	3	1	1/2	1	3	1 N.O. 1 N.C.	BC6S-Δ‡ BC6S-Δ01‡	114
16	9.6	2	3	5	5	1	2	3	1 N.O. 1 N.C.	BC7S-Δ‡ BC7S-Δ01‡	138

Δ Coil voltage suffix. Refer to Coil Voltage Selection chart and substitute the desired coil voltage suffix for the Δ.

‡ Overload relay suffix. Refer to the Overload Relay Selection chart and substitute the desired starter suffix code for the ‡.

Reversing, 3 phase – Screw connections only

General purpose AC1	Maximum motor FLA AC3	3 Phase motor horsepower				Single phase		Number of power poles	Auxiliary contacts	Catalog number	List price
		208V	230V	460V	600V	120V	230V				
AC operated											
12	6.8	1	2	3	1	1/2	1	3	1 N.O. 1 N.C.	B6SR-Δ‡ B6SR-Δ01‡	\$ 179
16	9.6	2	3	5	5	1	2	3	1 N.O. 1 N.C.	B7SR-Δ‡ B7SR-Δ01‡	218
DC operated											
12	6.8	1	2	3	1	1/2	1	3	1 N.O. 1 N.C.	BC6SR-Δ‡ BC6SR-Δ01‡	270
16	9.6	2	3	5	5	1	2	3	1 N.O. 1 N.C.	BC7SR-Δ‡ BC7SR-Δ01‡	231

Δ Coil voltage suffix. Refer to Coil Voltage Selection chart and substitute the desired coil voltage suffix for the Δ.

‡ Overload relay suffix. Refer to the Overload Relay Selection chart and substitute the desired starter suffix code for the ‡.

Coil voltage selection

	Volts							
	12	24	42	48	110/125	110/120	220	220/240 380/415
AC (40-450 Hz)	01	02	03			84		80 85
DC	07	01	02	16	04		05	

Overload relay selection

T7DU – Thermal overload

Catalog number	Current setting range	Starter range code
T7DU0.16	0.1 – 0.16	A
T7DU0.24	0.16 – 0.24	B
T7DU0.4	0.24 – 0.4	C
T7DU0.6	0.4 – 0.6	D
T7DU1.0	0.6 – 1.0	E
T7DU1.6	1.0 – 1.6	F
T7DU2.4	1.6 – 2.4	G
T7DU4.0	2.4 – 4.0	H
T7DU6.0	4.0 – 6.0	J
T7DU9.0	6.0 – 9.0	K
T7DU12.0	9.0 – 12.0	L

E16DU – Electronic overload

Catalog number	Current setting range	Current tripping class	Starter range code	List price adder
E16DU0.32-10	0.1 – 0.32	10	A1	\$ 33
E16DU1.0-10	0.3 – 1.0	10	B1	
E16DU2.7-10	0.9 – 2.7	10	C1	
E16DU6.3-10	2.0 – 6.3	10	D1	
E16DU18.9-10	5.7 – 18.9	10	E1	
E16DU0.32-20	0.1 – 0.32	20	A2	
E16DU1.0-20	0.3 – 1.0	20	B2	
E16DU2.7-20	0.9 – 2.7	20	C2	
E16DU6.3-20	2.0 – 6.3	20	D2	
E16DU18.9-20	5.7 – 18.9	20	E2	
E16DU0.32-30	0.1 – 0.32	30	A3	
E16DU1.0-30	0.3 – 1.0	30	B3	
E16DU2.7-30	0.9 – 2.7	30	C3	
E16DU6.3-30	2.0 – 6.3	30	D3	
E16DU18.9-30	5.7 – 18.9	30	E3	

① For enclosed miniature starters, please consult factory for catalog number and pricing.

Starters ①

B6 & B7, Non-reversing

Single phase

Miniature
controls

Non-Reversing, Single phase – Screw connections only

General purpose AC1	Maximum motor FLA AC3	Single phase		Number of power poles	Auxiliary contacts	Catalog number	List price
		120V	230V				
AC operated							
12	6.8	1/2	1	3	1 N.O. 1 N.C.	B6SS-Δ‡ B6SS-Δ01‡	\$ 108
16	9.6	1	2	3	1 N.O. 1 N.C.	B7SS-Δ‡ B7SS-Δ01‡	132
DC operated							
12	6.8	1/2	1	3	1 N.O. 1 N.C.	BC6SS-Δ‡ BC6SS-Δ01‡	114
16	9.6	1	2	3	1 N.O. 1 N.C.	BC7SS-Δ‡ BC7SS-Δ01‡	138

Δ Coil voltage suffix. Refer to Coil Voltage Selection chart and substitute the desired coil voltage suffix for the Δ.

‡ Overload relay suffix. Refer to the Overload Relay Selection chart and substitute the desired starter suffix code for the ‡.

Coil voltage selection

	Volts								
	12	24	42	48	110/125	110/120	220	220/240	380/415
AC (40-450 Hz)		01	02	03		84		80	85
DC	07	01	02	16	04		05		

Overload relay selection

T7DU – Thermal overload

Catalog number	Current setting range	Starter range code
T7DU0.16	0.1 – 0.16	A
T7DU0.24	0.16 – 0.24	B
T7DU0.4	0.24 – 0.4	C
T7DU0.6	0.4 – 0.6	D
T7DU1.0	0.6 – 1.0	E
T7DU1.6	1.0 – 1.6	F
T7DU2.4	1.6 – 2.4	G
T7DU4.0	2.4 – 4.0	H
T7DU6.0	4.0 – 6.0	J
T7DU9.0	6.0 – 9.0	K
T7DU12.0	9.0 – 12.0	L

① For enclosed miniature starters, please consult factory for catalog number and pricing.

Control relays

K622 - K640

AC & DC operated

4



K6-40E-84



KC6-31Z-2.4

Control relays with screw connections

	Contact configuration		Thermal current A	Catalog number	List price
	N.O.	N.C.			
AC Operated	4 3 2	0 1 2	6	K6-40E-Δ K6-31Z-Δ K6-22Z-Δ	\$ 48
DC Operated	4 3 2	0 1 2	6	KC6-40E-Δ KC6-31Z-Δ KC6-22Z-Δ	59

Control relays with flat pin connections

	Contact configuration		Thermal current A	Catalog number	List price
	N.O.	N.C.			
AC Operated	4 3 2	0 1 2	6	K6-40E-FΔ K6-31Z-FΔ K6-22Z-FΔ	\$ 48
DC Operated	4 3 2	0 1 2	6	KC6-40E-FΔ KC6-31Z-FΔ KC6-22Z-FΔ	59

Control relays with soldering pin connections

	Contact configuration		Thermal current A	Catalog number	List price
	N.O.	N.C.			
AC Operated	4 3 2	0 1 2	6	K6-40E-PΔ K6-31Z-PΔ K6-22Z-PΔ	\$ 48
DC Operated	4 3 2	0 1 2	6	KC6-40E-PΔ KC6-31Z-PΔ KC6-22Z-PΔ	59

Coil voltage selection

Δ Coil voltage suffix. Refer to Coil Voltage Selection Chart and substitute the desired coil voltage suffix for the Δ.

Coil voltage selection chart

	Volts								
	12	24	42	48	110/125	110/120	220	220/240	380/415
AC (40-450 Hz)		01	02	03		84		80	85
DC	07	01	02	16	04		05		

Interface relays ①

KC6-31Z & KC6-40E

DC operated



KC6-40E-1.4



KC6-31Z-2.4

Interface relays with screw connections

Contact configuration		Thermal current A	Catalog number	List price
N.O.	N.C.			
DC Operated — 24VDC (1.4W low power consumption)		6	KC6-40E-1.4 KC6-31Z-1.4	\$ 59
4	0			
3	1			
DC Operated — 17 – 32VDC (2.4W low power consumption)		6	KC6-40E-2.4 KC6-31Z-2.4	59
4	0			
3	1			

Interface relays with flat pin connections

Contact configuration		Thermal current A	Catalog number	List price
N.O.	N.C.			
DC Operated — 24VDC (1.4W low power consumption)		6	KC6-40E-F1.4 KC6-31Z-F1.4	\$ 59
4	0			
3	1			
DC Operated — 17 – 32VDC (2.4W low power consumption)		6	KC6-40E-F2.4 KC6-31Z-F2.4	59
4	0			
3	1			

Interface relays with soldering pin connections

Contact configuration		Thermal current A	Catalog number	List price
N.O.	N.C.			
DC Operated — 24VDC (1.4W low power consumption)		6	KC6-40E-P1.4 KC6-31Z-P1.4	\$ 59
4	0			
3	1			
DC Operated — 17 – 32VDC (2.4W low power consumption)		6	KC6-40E-P2.4 KC6-31Z-P2.4	59
4	0			
3	1			

① Interface relays cannot utilize auxiliary contacts.

Accessories for B6 & B7 contactors

4



CA6-11K



CA6-11E-F



CA6-11K-P



CAF6-11M



BA 50

Auxiliary contact blocks

Item description	Contact configuration	Catalog number ①	List price
Side mounted auxiliary contact blocks, 1 N.O. & 1 N.C.			
Screw connection type			\$ 15
• KC6 & K6 relay	1 N.O. & 1 N.C.	CA6-11K	
• B6 or BC6; B7 or BC7 4 pole contactor	1 N.O. & 1 N.C.	CA6-11E	
• B6 or BC6; B7 or BC7 3 pole contactor, 1 N.O.	1 N.O. & 1 N.C.	CA6-11M	
• B6 or BC6; B7 or BC7 3 pole contactor, 1 N.C.	1 N.O. & 1 N.C.	CA6-11N	
Flat pin connection type			
• KC6 & K6 relay	1 N.O. & 1 N.C.	CA6-11K-F	
• B6 or BC6; B7 or BC7 4 pole contactor	1 N.O. & 1 N.C.	CA6-11E-F	
• B6 or BC6; B7 or BC7 3 pole contactor, 1 N.O.	1 N.O. & 1 N.C.	CA6-11M-F	
• B6 or BC6; B7 or BC7 3 pole contactor, 1 N.C.	1 N.O. & 1 N.C.	CA6-11N-F	
Soldering pin connection type			
• KC6 & K6 relay	1 N.O. & 1 N.C.	CA6-11K-P	
• B6 or BC6; B7 or BC7 4 pole contactor	1 N.O. & 1 N.C.	CA6-11E-P	
• B6 or BC6; B7 or BC7 3 pole contactor, 1 N.O.	1 N.O. & 1 N.C.	CA6-11M-P	
• B6 or BC6; B7 or BC7 3 pole contactor, 1 N.C.	1 N.O. & 1 N.C.	CA6-11N-P	
Front mounted auxiliary contact blocks, 1 N.O. & 1 N.C.			
Screw connection type			
• KC6 & K6 relay	1 N.O. & 1 N.C.	CAF6-11K	
• KC6 & K6 relay	2 N.O. & 0 N.C.	CAF6-20K	
• KC6 & K6 relay	0 N.O. & 2 N.C.	CAF6-02K	
• B6 or BC6; B7 or BC7 4 pole contactor, VB(C)...	1 N.O. & 1 N.C.	CAF6-11E	
• B6 or BC6; B7 or BC7 4 pole contactor, VB(C)...	2 N.O. & 0 N.C.	CAF6-20E	
• B6 or BC6; B7 or BC7 4 pole contactor, VB(C)...	0 N.O. & 2 N.C.	CAF6-02E	
• B6 or BC6; B7 or BC7 3 pole contactor, 1 N.O., VB(C)...	1 N.O. & 1 N.C.	CAF6-11M	
• B6 or BC6; B7 or BC7 3 pole contactor, 1 N.O., VB(C)...	2 N.O. & 0 N.C.	CAF6-20M	
• B6 or BC6; B7 or BC7 3 pole contactor, 1 N.O., VB(C)...	0 N.O. & 2 N.C.	CAF6-02M	
• B6 or BC6; B7 or BC7 3 pole contactor, 1 N.C., VB(C)...	1 N.O. & 1 N.C.	CAF6-11N	
• B6 or BC6; B7 or BC7 3 pole contactor, 1 N.C., VB(C)...	2 N.O. & 0 N.C.	CAF6-20N	
• B6 or BC6; B7 or BC7 3 pole contactor, 1 N.C., VB(C)...	0 N.O. & 2 N.C.	CAF6-02N	

Soldering connection

Item description	Catalog number	List price
For mini contactors, B, BC, K, & KC	LB6	\$ 15
For 2 pole auxiliary contacts	LB6-CA	8

Plunger

Item description	Catalog number	List price
For manual operation	BN6	\$ 15

Identification labels

Item description	Catalog number	List price
50 clip-on label holders, 60 non-adhesive labels 50 transparent covers, 75 self adhesive labels	BA5-50	\$ 15

① Miniature contactors and control relays can use either front or side mounted auxiliary blocks but not both.

Accessories for B6 & B7 contactors

Miniature
controls



RV-BC6/...



LT6-B



Load side (T)
BSM6-30

Surge suppressors

Item description	Voltage	Catalog number	List price
Varistor type surge suppressor for DC operated coils	24 – 60V 110 – 250V 200 – 420V	RV-BC6/60 RV-BC6/250 RV-BC6/380	\$ 26

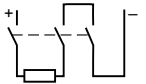
Protective cover

Item description	Catalog number	List price
For contactors B, BC, K, & KC6 with screw connection	LT6-B	\$ 15

Reversing connection link

Item description	Catalog number	List price
For compact interlocking contactors with screw connection	BSM6-30	\$ 12

D.C. Power circuit switching

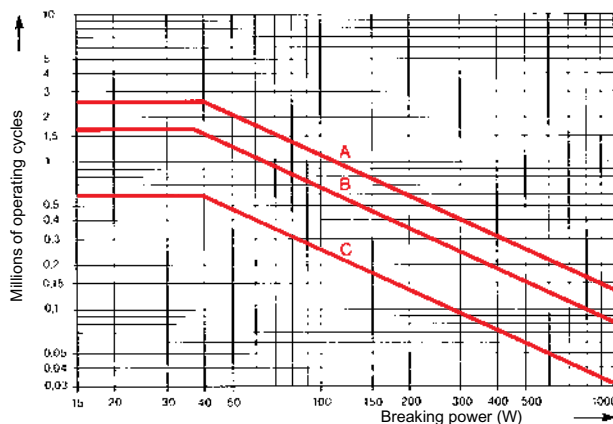
Utilization category			DC-1 $L/R \leq 1 \text{ ms}$	DC-3 $L/R \leq 2 \text{ ms}$	DC-5 $L/R \leq 7.5 \text{ ms}$
4 	24 V	A	16.0	16.0	16.0
	48 V	A	16.0	8.0	2.0
	60 V	A	16.0	4.0	1.25
	110 V	A	7.0	1.5	0.4
	220 V	A	0.8	0.25	0.2
	24 V	A	16.0	16.0	16.0
	48 V	A	16.0	16.0	16.0
	60 V	A	16.0	15.0	12.0
	110 V	A	16.0	7.0	2.0
	220 V	A	5.0	1.5	0.5
	24 V	A	16.0	16.0	16.0
	48 V	A	16.0	16.0	16.0
	60 V	A	16.0	16.0	16.0
	110 V	A	16.0	15.0	8.0
	220 V	A	14.0	4.0	2.0

Electrical durability curves for DC-1, DC-3 and DC-5

The curves below take into account the time constant L/R for each utilization category and show the electrical durability of the contactors during DC-1, DC-3 and DC-5 use for 3 poles connected in series.

If one single pole is used, the corresponding breaking capacity (W) is reduced to 1/3 and for 2 poles connected in series it is reduced to 2/3.

A = DC-1 3 poles in series
B = DC-3 3 poles in series
C = DC-5 3 poles in series



IEC Technical data

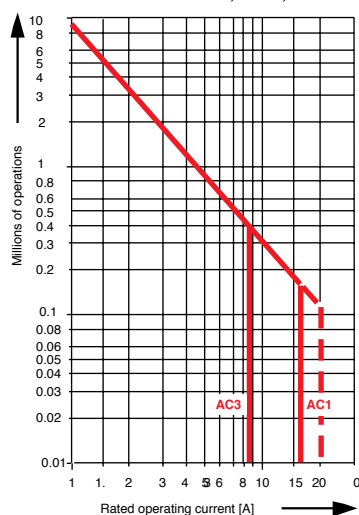
B6 Contactors & K6 control relays

Auxiliary contacts & magnetic coils

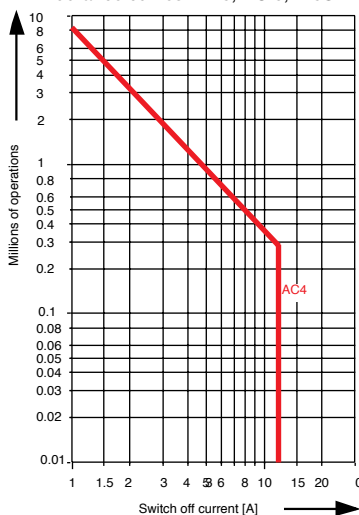
Miniature
controls

4

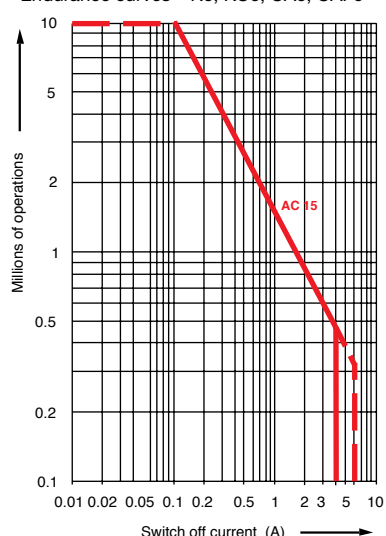
Endurance curves – B 6, BC 6, B 6S



Endurance curves – B 6, BC 6, B 6S



Endurance curves – K6, KC6, CA6, CAF6



B6 contactors

Rated insulating voltage	V_i	500			
Permissible ambient temperature					
Contactor without relay	°C	– 25 ... + 55			
Contactor with relay	°C	– 25 ... + 50			
Storage temperature	°C	– 40 ... + 80			
Climatic resistance	acc. to DIN 50 017 acc. to UTE C 63-100	alternating climate proof 30 cycles, version 1			
Mounting position		optional			
Mechanical endurance	10 million operations				
Max. switching frequency	AC 1 cyc./h AC 2/AC 3 cyc./h	300 600			
Rated operating voltage V_e	V AC	12 to 500			
Rated operating current I_e /AC 1, AC 3		AC 1/ I_e A		AC 2, AC 3	
Rated operating power		55 °C	40 °C	I_e A	P kW
	220/240 V	16	20	9	2.2
	380/440 V	16	20	9/8	4.0
	500 V	12	12	5.5	3.0
Switching times		B6	BC6	K6	KC6
Closing delay	NO ms	20 to 26		20 to 26	
Opening delay	NO ms	16 to 20	4 to 6	16 to 20	4 to 6
Closing delay	NC ms	16 to 20	4 to 6	16 to 20	4 to 6
Opening delay	NC ms	14 to 18		14 to 18	

K6 Control relays & auxiliary contacts

Rated operating voltage V_e	VDC VAC	12 to 240 12 to 500
Conventional rated thermal current I_{th}	A	6
Rated operating current I_e /AC 15 at V_e		
	220/240 V A	4
	380/440 V A	3
	500 V A	2
Rated operating current I_e /DC 13 at V_e		
	24 V A	2.5
	60 V A	1.2
	110 V A	0.7
	220/240 V A	0.4

Magnetic coils

Coil voltage range				0.8 ...1.1x U _c			
Basic contactors				closing /holding			
B6 / K6, VB6	AC		VA	3.5			
BC6 / KC 6, VBC6	DC		W	3.5			
Interface contactors							
BC6 / KC6-1.4	DC		• 24 • V W	1.4			
BC6 / KC6-2.4	DC		17 ... 32 V W	2.4			
Mini contactor for connection to PLC's				cold		warm	
				I mA	P W	I mA	P W
B6 S-1.7	DC		+ 24 + V W	77	1.75	60	1.35
B6 S-2.8	DC		+17 ... 32 +V W	125	2.80	94	2.10

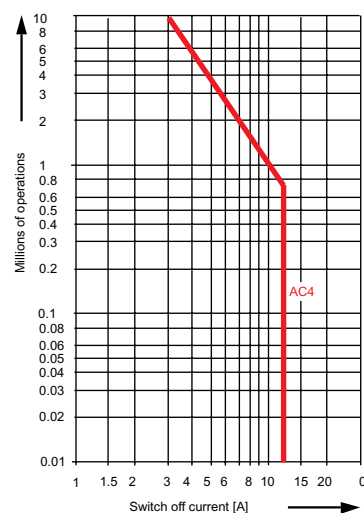
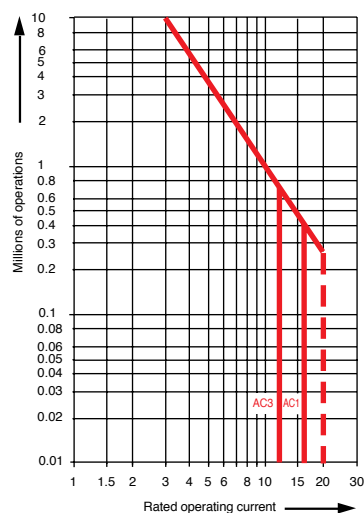
IEC Technical data

B7 contactors

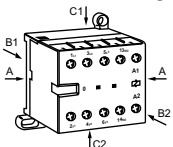
Magnetic coils

4

Endurance curves – B 7, BC 7, B 7S



B7 contactors

Rated insulating voltage		V_i	500					
Permissible ambient temperature								
Contactor without relay		°C	- 25 ... + 55					
Contactor with relay		°C	- 25 ... + 50					
Storage temperature		°C	- 40 ... + 80					
Climatic resistance		acc. to DIN 50 017 acc. to UTE C 63-100	alternating climate proof 30 cycles, version 1					
Mounting position			optional					
Mechanical endurance		10 million operations						
Max. switching frequency		AC 1 cyc./h AC 2/AC 3 cyc./h	300 600					
Rated operating voltage V_e		VAC	12 to 500					
Rated operating current I_e /AC 1, AC 3			AC 1/ I_e A		AC 2, AC 3			
Rated operating power			55 °C	40 °C	I_e A	P kW		
220/240 V			16	20	12/11	3		
380/440 V			16	20	12/11	5.5		
500 V			12	12	7	4		
Switching times			B7	BC7				
Closing delay		NO	20 to 26					
Opening delay			16 to 20	4 to 6				
Closing delay		NC	16 to 20	4 to 6				
Opening delay			14 to 18					
Shock resistance B6, B7 standard mounting position			1/2 sinusoidal shock, 10 ms: no change in contact position					
		shock directions contactor switched on contactor switched off		A	B1	B2	C1	C2
				20 g	20 g	20 g	20 g	20 g
				10 g	20 g	20 g	20 g	20 g

Magnetic Coils

Coil voltage range				0.8...1.1 x U _c				
Rated power of magnetic coils				closing /holding				
Basic contactors								
B7 / VB7	AC		VA					3.5
BC7 / VBC7	DC		W					3.5
Interface contactors								
BC7-1.4	DC	+ 24 V	W	1.4				
BC7-2.4	DC	+17 ... 32 V	W	2.4				
Mini contactor for connection to PLC's				cold		warm		
				I (mA)	P (W)	I (mA)	P (W)	
B7 S-1.7	DC	+ 24 V		77	1.75	60	1.35	
B7 S-2.8	DC	+17 ... 32 V		125	2.80	94	2.10	

Switching of light fittings

The following tables show the number of lamps which can be connected per phase at 230 V/ 60 Hz. Note the following:

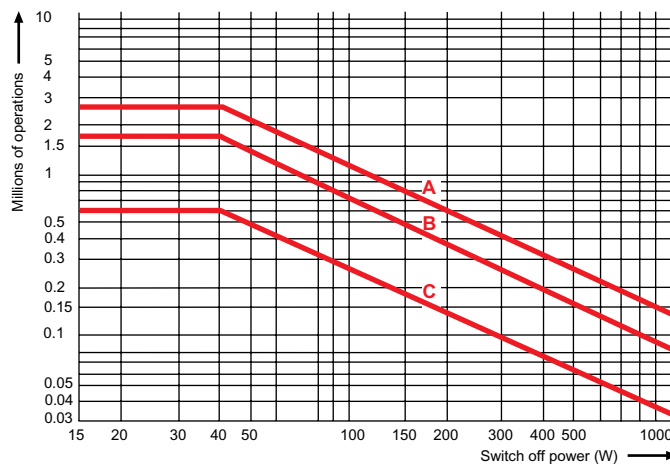
- Increased current consumption for 1.1 times the rated voltage is considered.
- Failure of about 5% of the lamps is considered since not ignited lamps additionally charge the contactor with their preheating current.
- This data only apply to connection of the lamps at main pole terminals 1 ...8

Lamp type number phase Hz) type BC6, BC7	Lamp data		Watt	cm	Permissible of lamps per (230 V, 60 for contactor A B6, B7,
Incandescent lamps	60		0.27	20	
	100		0.45	12	
	200		0.91	6	
	300		1.36	4	
	500		2.27	2	
	1000		4.5	1	
Fluorescent lamps uncompensated	15	44	0.35	25	
	20	59	0.37	23	
	40	120	0.43	20	
	42	105	0.54	16	
	65	150	0.67	12	
	115	120	1.5	5	
Fluorescent lamps in two-lamp circuit	140	150	1.5	5	
	2 x 20	59	2 x 0.13	2 x 26	lamp pairs
	2 x 40	120	2 x 0.22	2 x 20	
	2 x 42	105	2 x 0.24	2 x 16	
	2 x 65	150	2 x 0.34	2 x 12	
	2 x 115	120	2 x 0.65	2 x 5	
Metal halogen lamps uncompensated	2 x 140	150	2 x 0.75	2 x 5	
	35		0.53	10	
	70		1.0	5	
	150		1.8	3	
	250		3.0	2	
Low pressure sodium vapor lamps uncompensated	400		3.5	1	
	35		1.5	4	
	55		1.5	4	
	90		2.4	2	
	135		3.5	2	
	150		3.3	2	
High pressure mercury vapor lamps uncompensated	180		3.3	2	
	200		2.3	2	
	150		1.8	3	
	250		3.0	2	
High pressure mercury vapor lamps uncompensated	330		3.7	2	
	400		4.7	1	
	50		0.61	10	
	80		0.8	7	
	125		1.15	5	
	250		2.15	3	
	400		3.25	2	
	700		5.40	1	

Endurance curves for DC1, DC3, DC5

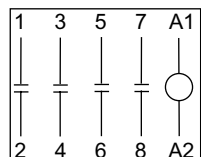
The following shows endurance curves for DC1, DC3 and DC5 for 3 poles in series. If only one current path is used, the corresponding breaking capacity is multiplied by 0.33, for two current paths by 0.66.

Varying time constants L/R (ms) have been considered.

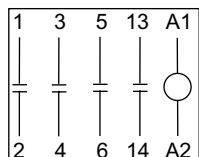


A = 3 poles in series DC 1
B = 3 poles in series DC 3
C = 3 poles in series DC 5

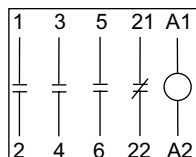
Miniature contactors



B6(7)-40-00 ...
BC6(7)-40-00 ...

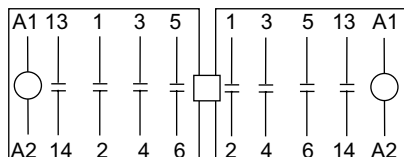


B6(7)-30-10 ...
BC6(7)-30-10 ...

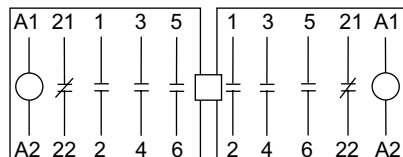


B6(7)-30-01 ...
BC6(7)-30-01 ...

Miniature mechanically interlocked contactors

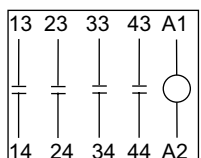


VB6(7)-30-10 ...
VBC6(7)-30-10 ...

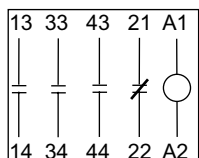


VB6(7)-30-01 ...
VBC6(7)-30-01 ...

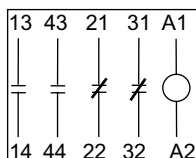
Miniature control relays



K6-40 E ...
KC6-40 E ...

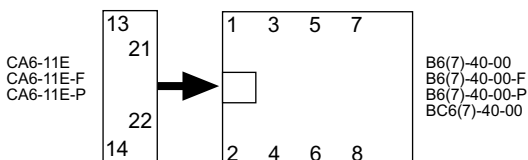


K6-31 Z ...
KC6-31 Z ...

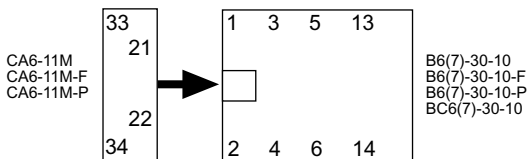


K6-22 Z ...
KC6-22 Z ...

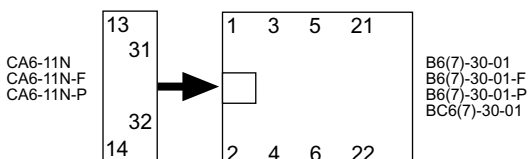
Side mounted auxiliary contact blocks



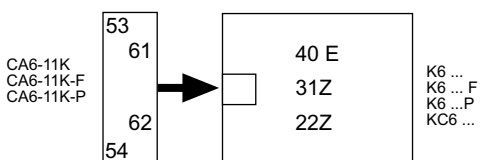
B6(7)-40-00
B6(7)-40-00-F
B6(7)-40-00-P
BC6(7)-40-00



B6(7)-30-10
B6(7)-30-10-F
B6(7)-30-10-P
BC6(7)-30-10

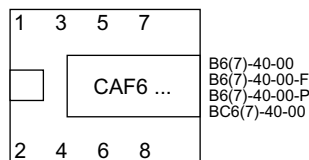


B6(7)-30-01
B6(7)-30-01-F
B6(7)-30-01-P
BC6(7)-30-01

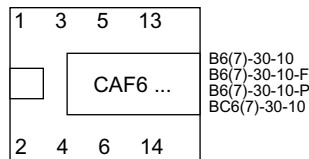


K6 ...
K6 ... F
K6 ... P
KC6 ...

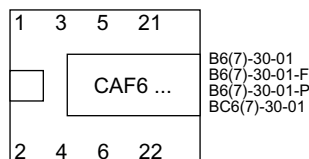
Front mounted auxiliary contact blocks



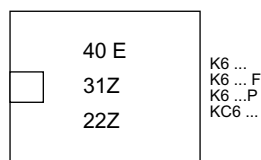
B6(7)-40-00
B6(7)-40-00-F
B6(7)-40-00-P
BC6(7)-40-00



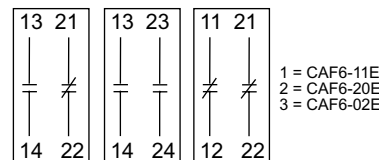
B6(7)-30-10
B6(7)-30-10-F
B6(7)-30-10-P
BC6(7)-30-10



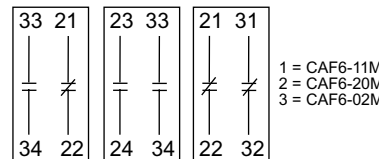
B6(7)-30-01
B6(7)-30-01-F
B6(7)-30-01-P
BC6(7)-30-01



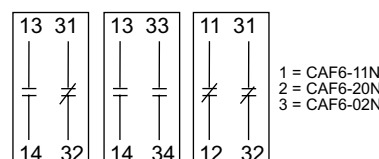
K6 ...
K6 ... F
K6 ... P
KC6 ...



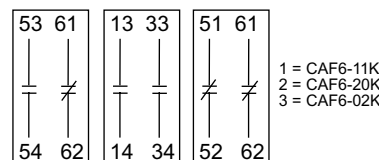
1 = CAF6-11E
2 = CAF6-20E
3 = CAF6-02E



1 = CAF6-11M
2 = CAF6-20M
3 = CAF6-02M



1 = CAF6-11N
2 = CAF6-20N
3 = CAF6-02N



1 = CAF6-11K
2 = CAF6-20K
3 = CAF6-02K

NOTE: Only side mounted type or front mounted type auxiliary contact blocks can be used at one time. Auxiliary contact blocks must not be mounted on Interface contactors, Interface control relays or contactors for connection to PLCs. Two CAF 6 front mounted auxiliary contact blocks can be installed on the mechanically interlocked contactors VB(C)6(7).

IEC technical data

Overload relays

Miniature
controls

Type	T7DU
Standards: (major international and European standards)	IEC 947-4-1, UL 508 EN 60 947-4-1
Approvals, certificates	UL, CSA
Rated insulation voltage U_i acc. to IEC 158-1, IEC 947-4-1 acc. to IEC / UL 508 $U_i/V660V / 600V$	V 690V
Impulse withstand voltage U_{impkV6} acc. to IEC 947-4-1	
Permissible ambient temperature	• for storage °C -40 to 70 • with compensated operation °C -25° to + 50°C – open °C -25° to + 40°C – enclosed °C
Climatic resistance according to	IEC 68-2-3, IEC 68-2-30
Mounting position	±30° from vertical position not horizontally, not upside down Side by side mounting distance, 5mm
Resistance to shock *Critical shock direction A1, A2	Shock duration ms multiple of g 10 10
Resistance to vibrations (±1 mm, 50 Hz)	multiple of g —
Mounting	• on contactor Hooking underneath the contactor, screwing on its main terminal
Terminal types and connecting capacity of main conductors (on motor side)	• Screw terminals (screw size) • with self-disengaging clamping piece • with terminal block • with busbar or cable lugs • connection cross sections • single-core or stranded Awg/mm2 • flexible with connector sleeve mm2
Terminals and auxiliary conductors	• Screw terminals (screw size) • with self-disengaging clamping piece • connection cross sections • single-core or stranded Awg/mm2 • flexible with connector sleeve mm2
Protection degree to IEC 947-1/EN 60 947-1	All terminals are safe from finger-touch and touch by the back of the hand in accordance with VDE 0106, Part 100
Power pole technical data	
Number of poles	3
Setting ranges	see order codes
Tripping class acc. to IEC 947-4-1/EN 60 947-4-1	10A
Frequency limit	Hz 0 – 400
Switching frequency up to 15 ops./h or 60 ops./h with 40% on load factor without early tripping if starting current not higher than 6 x I_n and starting time not longer than 1s.	

Approvals

UL USA	CSA Canada	EZU Czech. Republic	PTB Germany	GL Germany	LRS Great Britain
☒	☒	☒	☒	☒	☒

Legend:

- ☒ Standard design approved: identification plates bear the approval marks if it is mandatory
 ☒ Submitted for approval

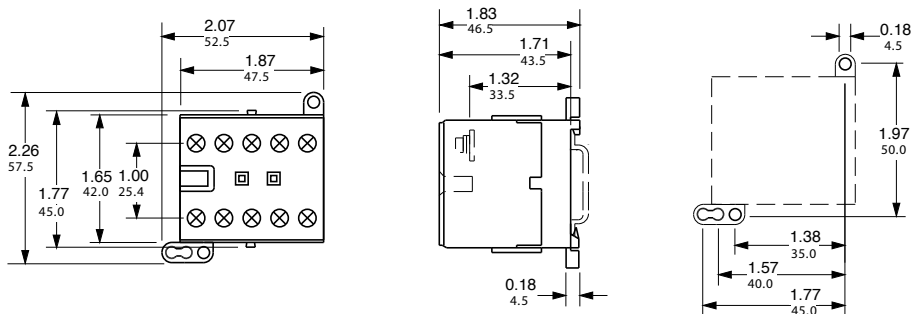
Approximate dimensions Mini contactors & overload relays

00.00 00.00 Inches
[Millimeters]

Mini contactors

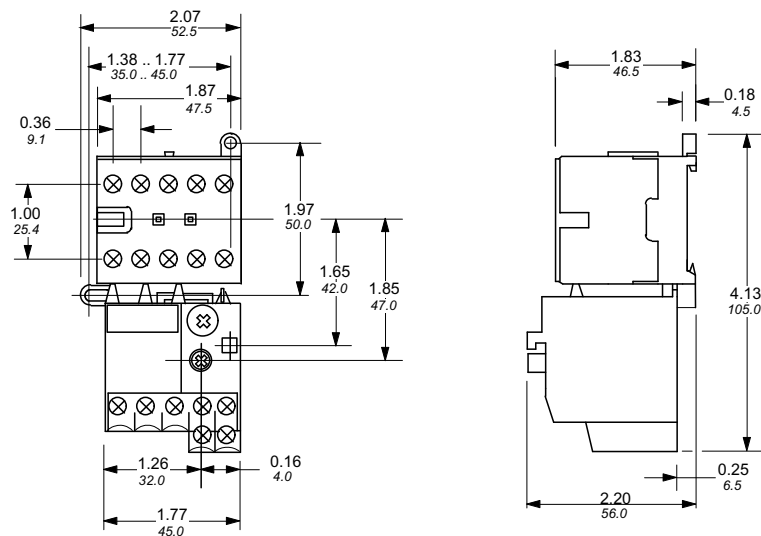
AC & DC Operated – B6, BC6, B7, BC7

4

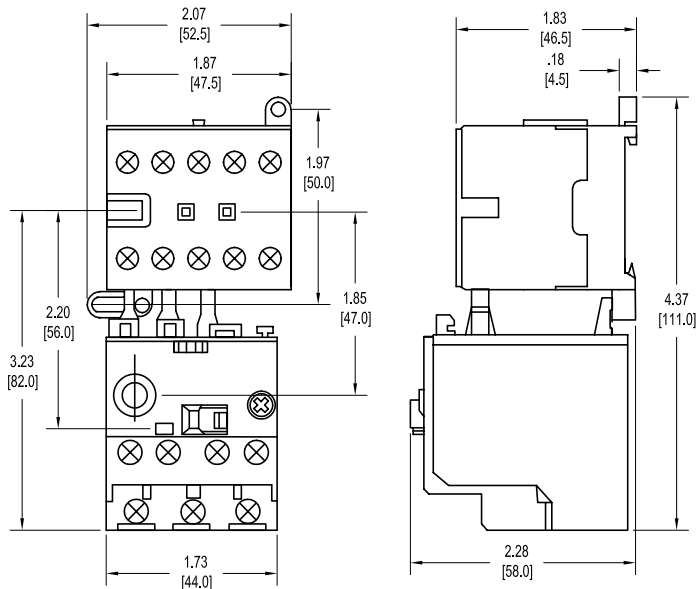


Mini contactor with overload relay

B6, B7 & T7DU



E16DU with B/BC6, B/BC7

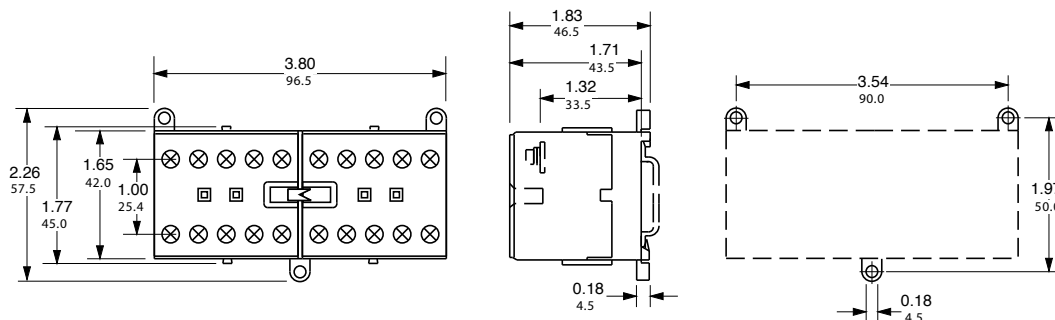


Approximate dimensions

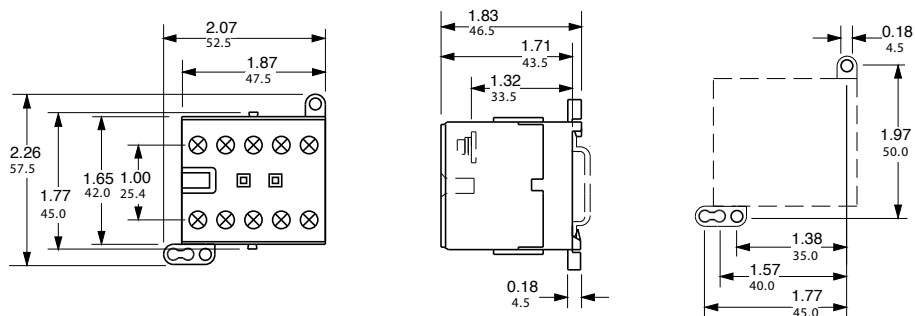
Mechanically interlocked contactors, control relays
Auxiliary contact blocks

00.00 ———> Inches
00.00 ———> [Millimeters]

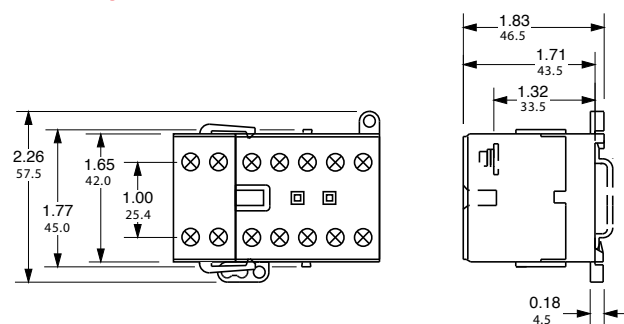
Mechanically interlocked – AC & DC Operated VB6M, VBC6M, VB7M, VBC7M



Mini control relays AC & DC Operated – K6, KC6



Mini contactor with side mounted auxiliary contact block B6, B7 & CA6



Mini contactor with front mounted auxiliary contact block B6, B7 & CA6

