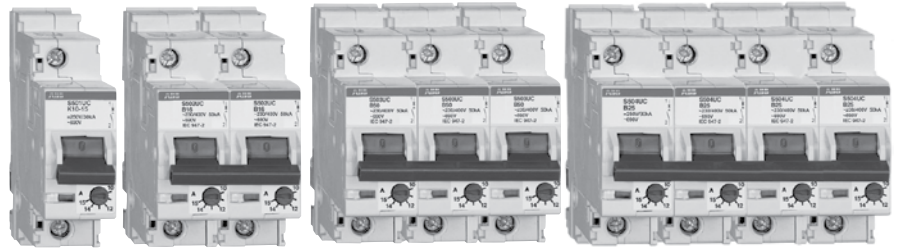# Miniature Circuit Breakers

S500

Description

The S500 high performance MCB offers a compact solution to circuit protection. The S500 devices are UL tested current limiting and DIN rail mounted. The S500 is available with application-specific trip characteristics to provide maximum circuit protection.

The breakers offer thermal-magnetic trip protection according to B and K characteristics.

For the worldwide market, the breakers carry CSA, IEC, CE and many other agency approvals.

Features

- High breaking capacity
- Fast breaking time (2.3 - 2.5 ms)
- Adjustable trip unit
- DIN rail mounting
- Finger safe terminals
- Multi-functional terminals
- Wide range of accessories
- UL 1077 recognized 600 VAC and 600 VDC versions
- UL1077 AC adjustable K
- UL1077 DC adjustable B, K
- UL File # E167556
- IEC #E60497-2

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	S500	S500UC
Amperage	0.1 – 45 A	0.1 – 63 A
Voltage	UL: 600Y/277 VAC IEC: 690 VDC	UL: 600 VDC IEC: 750 VDC
Poles	1, 2, 3	1, 2, 3, 4
Trip characteristics	K	B, K
Interrupting ratings	30 kA : UL 1077 30 kA: CSA C22.2	30 kA : UL 1077 30 kA: CSA C22.2
Auxiliary contacts	Yes	Yes
Bell alarm	Yes	Yes
Shunt trip	No	No
Undervoltage release	No	No
Bus bar	Yes	Yes

S500-K, UL 600Y/277 VAC / IEC 690 VDC
Supplemental protection
UL 1077, CSA 22.2, IEC

K

S501-K

S502-K
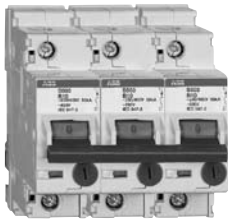
S503-K

No. of poles	Rated current	Catalog number	No. of poles	Rated current	Catalog number
1	0.1 – 0.15	S501-K0.15	3	0.1 – 0.15	S503-K0.15
	0.14 – 0.21	S501-K0.21		0.14 – 0.21	S503-K0.21
	0.2 – 0.3	S501-K0.3		0.2 – 0.3	S503-K0.3
	0.28 – 0.42	S501-K0.42		0.28 – 0.42	S503-K0.42
	0.38 – 0.58	S501-K0.58		0.38 – 0.58	S503-K0.58
	0.53 – 0.8	S501-K0.8		0.53 – 0.8	S503-K0.8
	0.73 – 1.1	S501-K1.1		0.73 – 1.1	S503-K1.1
	1 – 1.5	S501-K1.5		1 – 1.5	S503-K1.5
	1.4 – 2.1	S501-K2.1		1.4 – 2.1	S503-K2.1
	2 – 3	S501-K3		2 – 3	S503-K3
	2.8 – 4.2	S501-K4.2		2.8 – 4.2	S503-K4.2
	3.8 – 5.8	S501-K5.8		3.8 – 5.8	S503-K5.8
	5.3 – 8	S501-K8		5.3 – 8	S503-K8
	7.3 – 11	S501-K11		7.3 – 11	S503-K11
	10 – 15	S501-K15		10 – 15	S503-K15
	14 – 20	S501-K20		14 – 20	S503-K20
	18 – 26	S501-K26		18 – 26	S503-K26
	23 – 32	S501-K32		23 – 32	S503-K32
	29 – 37	S501-K37		29 – 37	S503-K37
	34 – 41	S501-K41		34 – 41	S503-K41
	38 – 45	S501-K45		38 – 45	S503-K45
2	0.1 – 0.15	S502-K0.15			
	0.14 – 0.21	S502-K0.21			
	0.2 – 0.3	S502-K0.3			
	0.28 – 0.42	S502-K0.42			
	0.38 – 0.58	S502-K0.58			
	0.53 – 0.8	S502-K0.8			
	0.73 – 1.1	S502-K1.1			
	1 – 1.5	S502-K1.5			
	1.4 – 2.1	S502-K2.1			
	2 – 3	S502-K3			
	2.8 – 4.2	S502-K4.2			
	3.8 – 5.8	S502-K5.8			
	5.3 – 8	S502-K8			
	7.3 – 11	S502-K11			
	10 – 15	S502-K15			
	14 – 20	S502-K20			
	18 – 26	S502-K26			
	23 – 32	S502-K32			
	29 – 37	S502-K37			
	34 – 41	S502-K41			
	38 – 45	S502-K45			

Tripping characteristic K

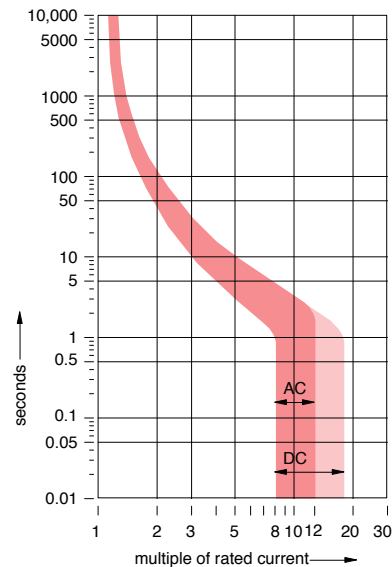| UL 1077	IEC
600 VAC	690 VAC
30 kA	30 kA

Inductive loads
- K Curve
- Designed for allowing higher in-rush currents during system start up
- Example: motors, transformers

Accessories & technical data
Accessories – See page 15.71
Technical data – See page 15.76 - 15.82

S500UC-B, UL 600 VDC / IEC 750 VDC
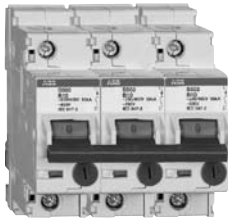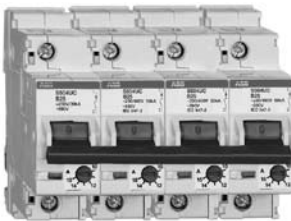## Supplemental protectors
UL1077, CSA 22.2, IEC

B

S501UC-B

S502UC-B

S503UC-B

S504UC-B

No. of poles	Rated current	Catalog number	No. of poles	Rated current	Catalog number
1	6	S501UC-B6	3	6	S503UC-B6
	10	S501UC-B10		10	S503UC-B10
	13	S501UC-B13		13	S503UC-B13
	16	S501UC-B16		16	S503UC-B16
	20	S501UC-B20		20	S503UC-B20
	25	S501UC-B25		25	S503UC-B25
	32	S501UC-B32		32	S503UC-B32
	40	S501UC-B40		40	S503UC-B40
	50	S501UC-B50		50	S503UC-B50
	63	S501UC-B63		63	S503UC-B63
2	6	S502UC-B6	4	6	S504UC-B6
	10	S502UC-B10		10	S504UC-B10
	13	S502UC-B13		13	S504UC-B13
	16	S502UC-B16		16	S504UC-B16
	20	S502UC-B20		20	S504UC-B20
	25	S502UC-B25		25	S504UC-B25
	32	S502UC-B32		32	S504UC-B32
	40	S502UC-B40		40	S504UC-B40
	50	S502UC-B50		50	S504UC-B50
	63	S502UC-B63		63	S504UC-B63

Tripping characteristic B

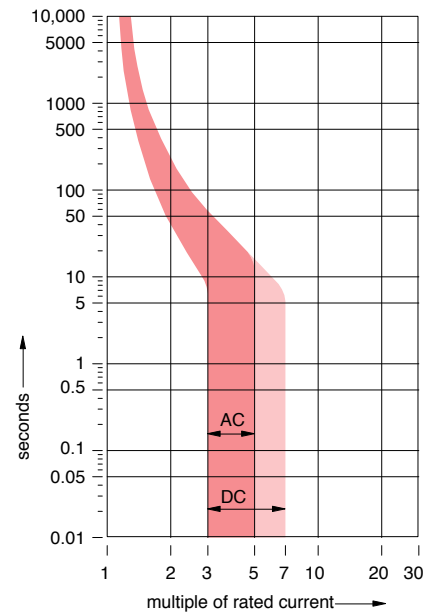| UL 1077	IEC
600 VAC	750 VAC
30 kA	30 kA

Inductive loads

- B Curve
- Designed for allowing higher in-rush currents during system start up
- Example: motors, transformers

Accessories & technical data
Accessories – See page 15.71
Technical data – See page 15.76 - 15.82

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S500UC-K, UL 600 VDC / IEC 750 VDC
Supplemental protectors
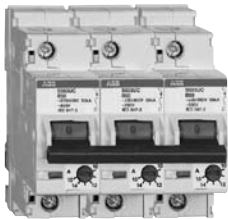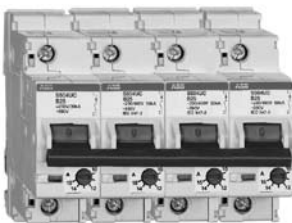## UL1077, CSA 22.2, IEC

K

S501UC-K

S502UC-K

S503UC-K

S504UC-K

No. of poles	Rated current	Catalog number	No. of poles	Rated current	Catalog number
1	0.1 – 0.15	**S501UC-K0.15**	3	0.1 – 0.15	**S503UC-K0.15**
	0.14 – 0.21	**S501UC-K0.21**		0.14 – 0.21	**S503UC-K0.21**
	0.2 – 0.3	**S501UC-K0.3**		0.2 – 0.3	**S503UC-K0.3**
	0.28 – 0.42	**S501UC-K0.42**		0.28 – 0.42	**S503UC-K0.42**
	0.38 – 0.58	**S501UC-K0.58**		0.38 – 0.58	**S503UC-K0.58**
	0.53 – 0.8	**S501UC-K0.8**		0.53 – 0.8	**S503UC-K0.8**
	0.73 – 1.1	**S501UC-K1.1**		0.73 – 1.1	**S503UC-K1.1**
	1 – 1.5	**S501UC-K1.5**		1 – 1.5	**S503UC-K1.5**
	1.4 – 2.1	**S501UC-K2.1**		1.4 – 2.1	**S503UC-K2.1**
	2 – 3	**S501UC-K3**		2 – 3	**S503UC-K3**
	2.8 – 4.2	**S501UC-K4.2**		2.8 – 4.2	**S503UC-K4.2**
	3.8 – 5.8	**S501UC-K5.8**		3.8 – 5.8	**S503UC-K5.8**
	5.3 – 8	**S501UC-K8**		5.3 – 8	**S503UC-K8**
	7.3 – 11	**S501UC-K11**		7.3 – 11	**S503UC-K11**
	10 – 15	**S501UC-K15**		10 – 15	**S503UC-K15**
	14 – 20	**S501UC-K20**		14 – 20	**S503UC-K20**
	18 – 26	**S501UC-K26**		18 – 26	**S503UC-K26**
	23 – 32	**S501UC-K32**		23 – 32	**S503UC-K32**
	29 – 37	**S501UC-K37**		29 – 37	**S503UC-K37**
	34 – 41	**S501UC-K41**		34 – 41	**S503UC-K41**
	38 – 45	**S501UC-K45**		38 – 45	**S503UC-K45**
2	0.1 – 0.15	**S502UC-K0.15**	4	0.1 – 0.15	**S504UC-K0.15**
	0.14 – 0.21	**S502UC-K0.21**		0.14 – 0.21	**S504UC-K0.21**
	0.2 – 0.3	**S502UC-K0.3**		0.2 – 0.3	**S504UC-K0.3**
	0.28 – 0.42	**S502UC-K0.42**		0.28 – 0.42	**S504UC-K0.42**
	0.38 – 0.58	**S502UC-K0.58**		0.38 – 0.58	**S504UC-K0.58**
	0.53 – 0.8	**S502UC-K0.8**		0.53 – 0.8	**S504UC-K0.8**
	0.73 – 1.1	**S502UC-K1.1**		0.73 – 1.1	**S504UC-K1.1**
	1 – 1.5	**S502UC-K1.5**		1 – 1.5	**S504UC-K1.5**
	1.4 – 2.1	**S502UC-K2.1**		1.4 – 2.1	**S504UC-K2.1**
	2 – 3	**S502UC-K3**		2 – 3	**S504UC-K3**
	2.8 – 4.2	**S502UC-K4.2**		2.8 – 4.2	**S504UC-K4.2**
	3.8 – 5.8	**S502UC-K5.8**		3.8 – 5.8	**S504UC-K5.8**
	5.3 – 8	**S502UC-K8**		5.3 – 8	**S504UC-K8**
	7.3 – 11	**S502UC-K11**		7.3 – 11	**S504UC-K11**
	10 – 15	**S502UC-K15**		10 – 15	**S504UC-K15**
	14 – 20	**S502UC-K20**		14 – 20	**S504UC-K20**
	18 – 26	**S502UC-K26**		18 – 26	**S504UC-K26**
	23 – 32	**S502UC-K32**		23 – 32	**S504UC-K32**
	29 – 37	**S502UC-K37**		29 – 37	**S504UC-K37**
	34 – 41	**S502UC-K41**		34 – 41	**S504UC-K41**
	38 – 45	**S502UC-K45**		38 – 45	**S504UC-K45**

Tripping characteristic K

UL 1077	IEC
600 VAC	750 VAC
30 kA	30 kA

Inductive loads
- K Curve
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