

MCB Miniature Circuit Breakers series BMS6, 6kA



BM618110



BM617616



BM617316



BM617416

Schrack-Info

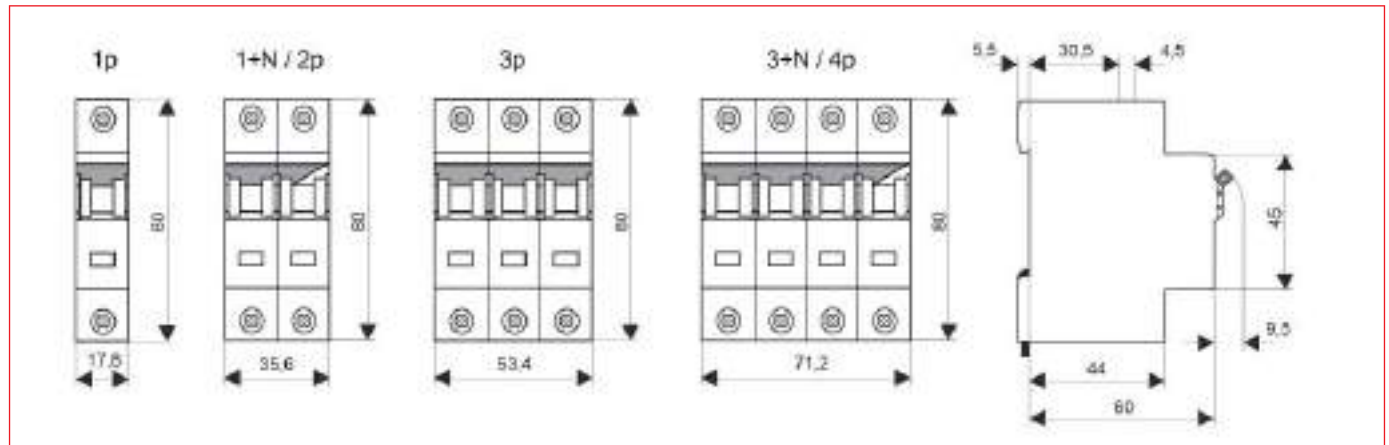
- Rated breaking capacity 6kA according IEC/EN 60898, 10kA according IEC/EN 60947-2
- Insulated terminal guide for secure connection
- Lift and clamp terminals on both sides
- High selectivity by low let-through energies
- Window with positively-driven contact position indicator for each pole
- Terminal cross-section 1 – 25 mm²
- Meets the requirements for insulation coordination, contact gap 4mm
- Mains power connection selectable (top/bottom)
- Installation not dependent on position
- Special latching snap-on mounting for DIN rail EN 50022

Improved busbar connection by clamp terminals on both sides (top and bottom). No mismatching of conductors when connecting thanks to effective terminal guide. No removal of busbar during replacement due to latching snap-on mounting.

Standards	IEC/EN 60898, IEC/EN 60947-2
Rated voltage:	230V / 400V-AC
Rated frequency:	50/60Hz
Rated voltage capacity DC:	max. 48V-DC
Rated current:	0,5 - 63A
Tripping characteristic:	B, C
Rated short-circuit capacity Icn:	6 kA according EN 60898
Rated short-circuit capacity Icu:	10 kA according EN 60947-2
Energy limiting class:	3
Max. back up fuse:	max. 100A gG/gL
Rated impulse withstand voltage Uimp:	4kV
Rated tripping temperature	-5 °C up to +40 °C
Operating temperature:	-40 °C up to +75 °C
Degree of protection:	IP 20 (covered IP40)
Operating position:	in any position
Calibrated for ambient temperature:	+30°C
Endurance:	< 8.000 operating cycles (mechanical < 20.000)
Finger and hand touch safe:	acc. to BGV A3
Terminals:	Double clamp / lift terminal
Terminal cross-section:	1 - 25mm ²
Terminal width 1 MW:	17,8mm
Terminal tightening torque:	2 - 2,4Nm
Mounting:	on DIN rail by latching snap-on mounting

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Dimensions

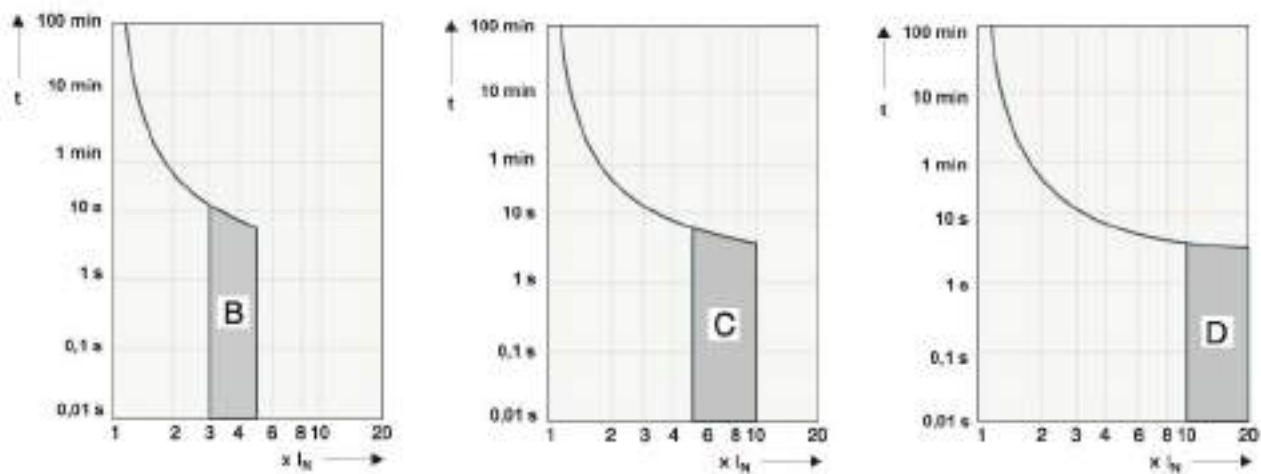


	Ambient temperature T(°C)												
I _n [A]	-25	-20	-10	0	10	20	30	35	40	45	50	55	60
0.5	0.61	0.60	0.58	0.56	0.54	0.52	0.50	0.49	0.48	0.47	0.46	0.45	0.44
1	1.2	1.2	1.2	1.1	1.1	1.0	1.0	0.99	0.97	0.95	0.93	0.90	0.89
1.5	1.8	1.8	1.7	1.7	1.6	1.6	1.5	1.5	1.5	1.4	1.4	1.4	1.3
2	2.4	2.4	2.3	2.2	2.2	2.1	2.0	2.0	1.9	1.9	1.9	1.8	1.8
3	3.7	3.6	3.5	3.4	3.3	3.1	3.0	3.0	2.9	2.8	2.8	2.7	2.7
4	4.9	4.8	4.7	4.5	4.3	4.2	4.0	3.9	3.9	3.8	3.7	3.6	3.5
5	6.1	6.0	5.8	5.6	5.4	5.2	5.0	4.9	4.8	4.7	4.6	4.5	4.4
6	7.3	7.2	7.0	6.7	6.5	6.3	6.0	5.9	5.8	5.7	5.6	5.4	5.3
10	12	12	12	11	11	10	10	9.9	9.7	9.5	9.3	9.0	8.9
13	16	16	15	15	14	14	13	13	13	12	12	12	12
16	20	19	19	18	17	17	16	16	15	15	15	14	14
20	24	24	23	22	22	21	20	20	19	19	19	18	18
25	31	30	29	28	27	26	25	25	24	24	23	23	22
32	39	38	37	36	35	33	32	32	31	30	30	29	28
40	49	48	47	45	43	42	40	39	39	38	37	36	35
50	61	60	58	56	54	52	50	49	48	47	47	45	44
63	77	76	73	71	68	66	63	62	61	60	58	57	56

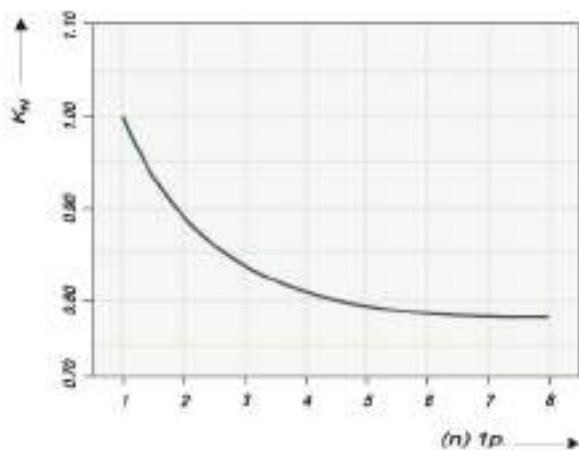
	Rated frequency f [Hz]						
	16,7	50	60	100	200	300	400
$I_{MA}(f)/I_{MA}(50\text{ Hz})$ [%]	91	100	101	106	115	134	141

MCB Miniature Circuit Breakers series BMS6, 6kA

Tripping characteristic curves according to IEC 60898 / EN 60898



Capacity with block mounting



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Characteristic B

	1p	1+N	2p	3p	3+N*
I ⁿ [A]	P [W]	P [W]	P [W]	P [W]	P [W]
1	1,6	1,7	3,1	4,7	4,8
1,5	2,3	2,5	4,6	6,9	7,2
1,6	2,5	2,7	4,9	7,4	7,6
2	1,4	1,5	2,8	4,1	4,3
2,5	1,5	1,7	3,1	4,6	4,7
3	2,5	2,7	5,0	7,6	7,8
3,5	2,5	2,8	5,1	7,8	8,0
4	1,4	1,8	2,9	4,4	4,5
5	1,9	2,1	3,8	5,8	6,0
6	1,8	2,0	3,6	5,5	5,6
8	2,1	2,3	4,1	6,3	6,5
10	1,9	2,1	3,9	5,9	6,1
12	2,8	3,2	5,9	8,7	9,0
13	2,5	2,9	5,3	7,8	8,1
15	2,1	2,4	4,4	6,5	6,7
16	2,2	2,6	4,7	6,9	7,2
20	3,2	3,6	6,6	9,8	10,1
25	3,0	3,5	6,4	9,4	9,7
32	3,7	4,4	8,1	12,1	12,5
40	3,4	4,1	7,5	11,2	11,5
50	4,5	5,4	9,9	14,9	15,3
63	5,2	6,3	11,5	17,7	17,7

*symmetric load

Characteristic C

	1p	1+N	2p	3p	3+N*
I ⁿ [A]	P [W]	P [W]	P [W]	P [W]	P [W]
0,16	2,2	2,4	4,4	6,7	6,9
0,25	2,0	2,2	4,0	6,1	6,3
0,5	1,2	1,3	2,4	3,5	3,7
0,75	1,3	1,4	2,6	3,9	4,1
1	1,6	1,7	3,1	4,7	4,8
1,5	1,5	1,6	2,9	4,4	4,6
1,6	1,6	1,7	3,1	4,7	4,9
2	1,4	1,5	2,8	4,1	4,3
2,5	1,5	1,7	3,1	4,6	4,7
3	1,2	1,3	2,4	3,6	3,7
3,5	1,3	1,4	2,6	3,9	4,0
4	1,4	1,6	2,9	4,4	4,5
5	1,9	2,1	3,8	5,8	6,0
6	1,5	1,6	2,9	4,4	4,6
8	2,1	2,3	4,1	6,3	6,5
10	1,5	1,7	3,0	4,6	4,7
12	2,1	2,4	4,4	6,5	6,8
13	2,5	2,9	5,3	7,8	8,1
15	2,1	2,4	4,4	6,5	6,7
16	2,2	2,6	4,7	6,9	7,2
20	3,2	3,6	6,6	9,8	10,1
25	3,0	3,5	6,4	9,4	9,7
32	3,7	4,4	8,1	12,1	12,5
40	3,4	4,1	7,5	11,2	11,5
50	4,5	5,4	9,9	14,9	15,3
63	5,2	6,3	11,5	17,2	17,7

*symmetric load

Characteristic D

	1p	1+N	2p	3p	3+N*
I ⁿ [A]	P [W]	P [W]	P [W]	P [W]	P [W]
0,5	1,2	1,3	2,4	3,5	3,7
1	0,8	0,9	1,6	2,4	2,5
1,5	1,2	1,3	2,3	3,5	3,6
1,6	1,3	1,4	2,5	3,8	3,9
2	1,0	1,1	2,0	3,0	3,1
2,5	1,0	1,1	1,9	2,9	3,0
3	1,2	1,3	2,4	3,6	3,7
3,5	1,3	1,4	2,6	3,9	4,0
4	1,4	1,6	2,9	4,4	4,5
5	1,7	1,8	3,3	5,1	5,3
6	1,5	1,6	2,9	4,4	4,6
8	1,3	1,5	2,6	4,0	4,2
10	1,5	1,7	3,0	4,6	4,7
12	1,7	2,0	3,6	5,3	5,4
13	1,9	2,2	4,0	5,9	6,1
15	2,1	2,4	4,4	6,5	6,7
16	2,2	2,6	4,7	6,9	7,2
20	2,0	2,2	4,1	6,1	6,2
25	2,5	2,9	5,2	7,7	7,9
32	3,4	4,0	7,4	11,1	11,4
40	3,2	3,8	7,0	10,4	10,7

*symmetric load

MCB Miniature Circuit Breakers series BMS6, 6kA

Conductor cross section [mm ²]	Number of single conductors, rigid, single-wire Cu conductors					
	1	2	3	4	5	6
1,5	+	+	+	+	+	-
2,5	+	+	+	-	-	-
4	+	+	+	-	-	-
6	+	+	+	-	-	-
10	+	+	-	-	-	-
16	+	-	-	-	-	-
25	+	-	-	-	-	-

Conductor cross section [mm ²]	Number of single conductors, rigid, multi-wire Cu conductors					
	1	2	3	4	5	6
10	+	+	-	-	-	-
16	+	-	-	-	-	-
25	+	-	-	-	-	-

Conductor cross section [mm ²]	Number of single conductors, flexible Cu conductors without sleeves					
	1*	2*	3*	4*	5*	6*
1,5	-	-	-	+	+	-
2,5	-	-	+	-	-	-
4	-	+	+	-	-	-
6	-	+	+	-	-	-
10	-	+	-	-	-	-
16	-	-	-	-	-	-
25	-	-	-	-	-	-

*) Only without wire end and sleeve

- + permissible
- Not permissible

Conductor cross section [mm ²]	Combinations of different profiles of flexible Cu conductors						
	1,5	2,5	4	6	10	16	25
1,5	/	+	-	-	-	-	-
2,5	+	/	-	-	+	-	-
4	-	+	/	-	-	+	-
6	-	-	+	/	+	-	+
10	-	-	-	+	/	+	-
16	-	-	-	-	-	/	+
25	-	-	-	-	-	-	/

+ permissible

- Not permissible

No combinations are permissible for rigid single- and multi-wire Cu conductors!

Conductor cross section [mm ²]	Number of single conductors, flexible Cu conductors with sleeve					
	1**	2	3	4	5	6
1,5	+	-	-	-	-	-
2,5	+	-	-	-	-	-
4	+	-	-	-	-	-
6	+	-	-	-	-	-
10	+	-	-	-	-	-
16	+	-	-	-	-	-
25	+	-	-	-	-	-

**) Only with wire end and sleeve

MCB Miniature Circuit Breakers series BMS6, 6kA - 1pole



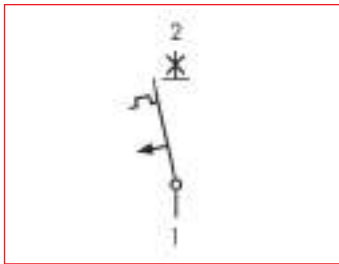
BM618110

Schrack-Info

Most common accessories:

- Auxiliary contact 1NO/1NC BM900001
- Busbar 10mm²/3-pole BS990113
- End cap 3-pole BS900116
- Busbar 10mm²/1-pole BS900140

Wiring diagram



DESCRIPTION	AVAILABLE	ORDER NO.
Characteristic B		
2A		BM618102
4A		BM618104
6A		BM618106
10A		BM618110
13A		BM618113
16A		BM618116
20A		BM618120
25A		BM618125
32A		BM618132
40A		BM618140
50A		BM618150
63A		BM618163
Characteristic C		
0,5A		BM6171005
1A		BM617101
2A		BM617102
3A		BM617103
4A		BM617104
6A		BM617106
10A		BM617110
13A		BM617113
16A		BM617116
20A		BM617120
25A		BM617125
32A		BM617132
40A		BM617140
50A		BM617150
63A		BM617163



Order no. blue: on stock, usually ready for delivery on the day of order

MCB Miniature Circuit Breakers series BMS6, 6kA - 1+N



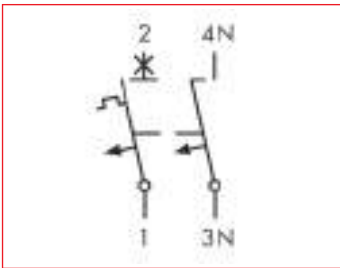
BM617616

Schrack-Info

Most common accessories:

- Auxiliary contact 1 NO / 1 NC BM900001
- Busbar 10mm²/3-pole BS990113
- Busbar 10mm²/N-conductor BS990115
- Busbar 16mm²/1N, 2N, 3N BS900123
- Busbar end cap 4-pole BS900117

Wiring diagram



DESCRIPTION	AVAILABLE	ORDER NO.
Characteristic B		
6A		BM618606
10A		BM618610
13A		BM618613
16A		BM618616
Characteristic C		
2A		BM617602
4A		BM617604
6A		BM617606
10A		BM617610
13A		BM617613
16A		BM617616
20A		BM617620
25A		BM617625
32A		BM617632
40A		BM617640
63A		BM617663



MCB Miniature Circuit Breakers series BMS6, 6kA - 2pole



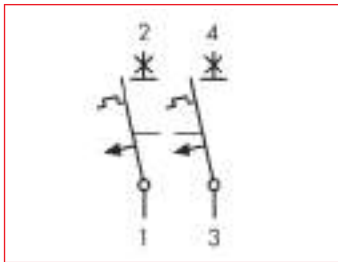
BM618210

Schrack-Info

Most common accessories:

- Auxiliary contact 1 NO / 1 NC BM900001
- Busbar 10mm²/2-pole BS900111
- Busbar end cap 2-pole BS900118

Wiring diagram



DESCRIPTION	AVAILABLE	ORDER NO.
Characteristic B		
2A		BM618202
4A		BM618204
6A		BM618206
10A		BM618210
13A		BM618213
16A		BM618216
20A		BM618220
25A		BM618225
32A		BM618232
40A		BM618240
Characteristic C		
1A		BM617201
2A		BM617202
3A		BM617203
4A		BM617204
6A		BM617206
10A		BM617210
13A		BM617213
16A		BM617216
20A		BM617220
25A		BM617225
32A		BM617232
40A		BM617240
50A		BM617250
63A		BM617263



Order no. blue: on stock, usually ready for delivery on the day of order

MCB Miniature Circuit Breakers series BMS6, 6kA - 3pole



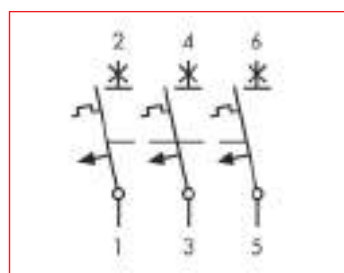
BM617316

Schrack-Info

Most common accessories:

- Auxiliary contact 1 NO / 1 NC BM900001
- Busbar 10mm²/3-pole BS990113
- Busbar 16mm²/3-pole BS990114
- Busbar end cap 3-pole BS900116

Wiring diagram



DESCRIPTION	AVAILABLE	ORDER NO.
Characteristic B		
6A		BM618306
10A		BM618310
13A		BM618313
16A		BM618316
20A		BM618320
25A		BM618325
32A		BM618332
40A		BM618340
50A		BM618350
63A		BM618363
Characteristic C		
0,5A		BM6173005
2A		BM617302
4A		BM617304
6A		BM617306
10A		BM617310
13A		BM617313
16A		BM617316
20A		BM617320
25A		BM617325
32A		BM617332
40A		BM617340
50A		BM617350
63A		BM617363

MCB Miniature Circuit Breakers series BMS6, 6kA - 3+N



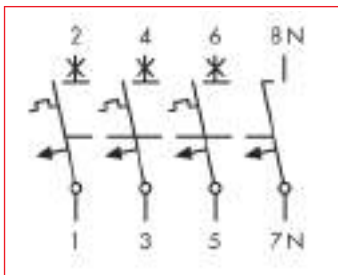
BM617816

Schrack-Info

Most common accessories:

- Auxiliary contact 1 NO / 1 NC BM900001
- Busbar 10mm²/3-pole BS990113
- Busbar 16mm²/3-pole BS990114
- Busbar 10mm²/N-conductor BS990115
- Busbar 16mm²/N-conductor BS900127
- Busbar end cap 4-pole BS900117

Wiring diagram



DESCRIPTION	AVAILABLE	ORDER NO.
Characteristic B		
10A		BM618810
13A		BM618813
16A		BM618816
20A		BM618820
25A		BM618825
32A		BM618832
40A		BM618840
63A		BM618863
Characteristic C		
2A		BM617802
4A		BM617804
6A		BM617806
10A		BM617810
16A		BM617816
20A		BM617820
25A		BM617825
32A		BM617832
40A		BM617840
50A		BM617850
63A		BM617863



MCB Miniature Circuit Breakers series BMS6, 6kA - 4pole



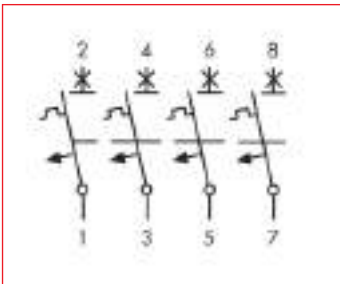
BM617416

Schrack-Info

Most common accessories:

- Auxiliary contact 1 NO / 1 NC BM900001
- Busbar 10mm²/4-pole BS990121
- Busbar 16mm²/4-pole BS990122
- Busbar end cap 4-pole BS900117

Wiring diagram



DESCRIPTION	AVAILABLE	ORDER NO.
Characteristic B		
6A		BM618406
10A		BM618410
20A		BM618420
25A		BM618425
40A		BM618440
50A		BM618450
63A		BM618463
Characteristic C		
2A		BM617402
4A		BM617404
6A		BM617406
10A		BM617410
16A		BM617416
20A		BM617420
25A		BM617425
32A		BM617432
40A		BM617440
50A		BM617450
63A		BM617463