

MCB Miniature Circuit Breakers series BMS4, 4,5kA



BM417616



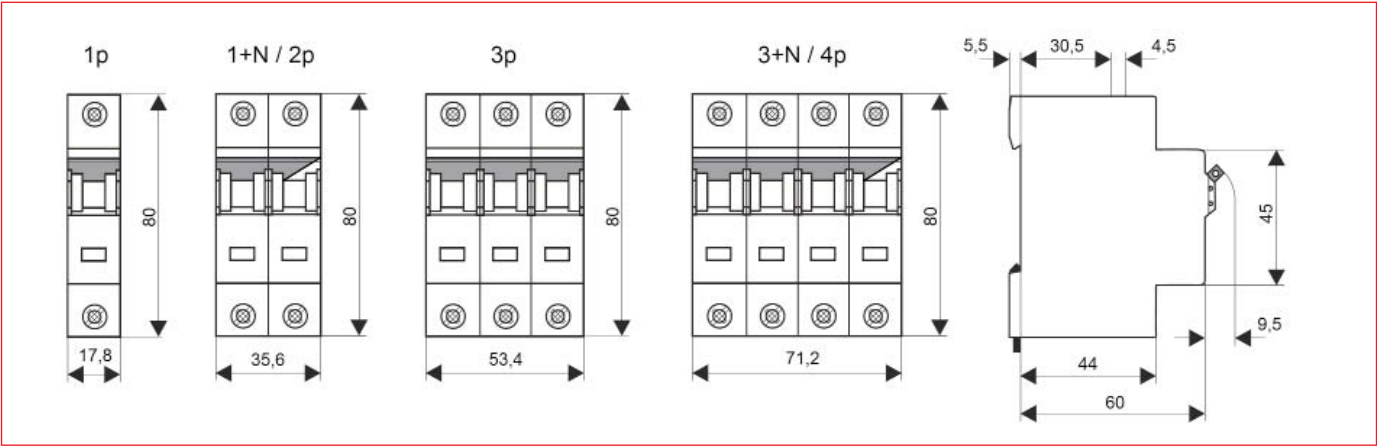
BM417816

Schrack-Info

- Rated breaking capacity 4.5kA according EN 60898
- Insulated terminal guide for secure connection
- Lift and clamp terminals on both sides
- Window with positively-driven contact position indicator for each pole
- Terminal cross-section 1 – 25 mm²
- Mains power connection selectable (top/bottom)
- Installation not dependent on position

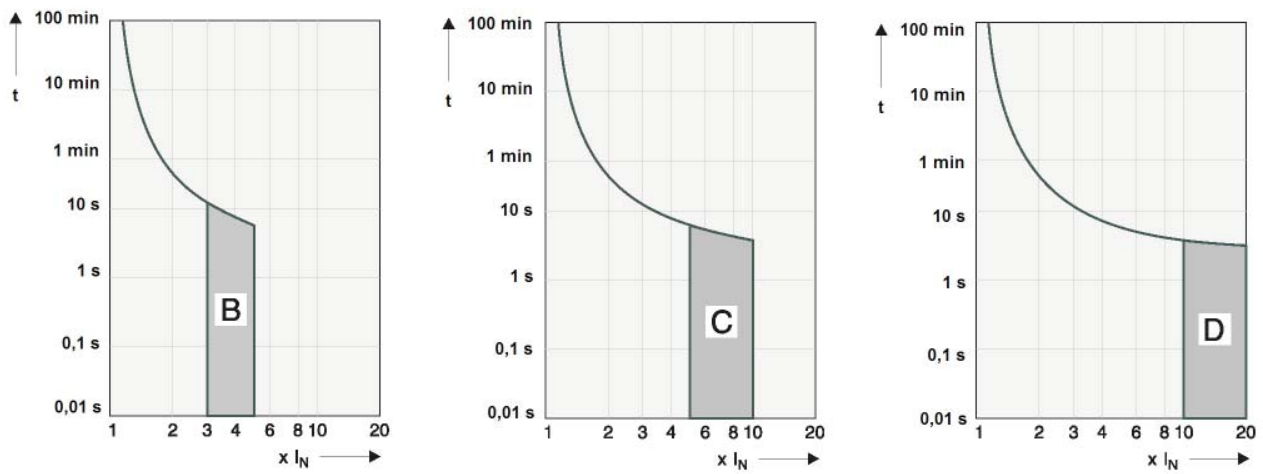
Standard:	IEC/EN 60898
Rated voltage:	230V / 400V-AC
Rated frequency:	50/60Hz
Rated voltage capacity DC:	max. 48V-DC
Rated current:	2 - 63A
Tripping characteristic:	B, C
Rated short-circuit capacity Icn:	4,5 kA according EN 60898
Energy limiting class:	3
Rated impulse withstand voltage Uimp:	4kV
Rated 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

Dimensions

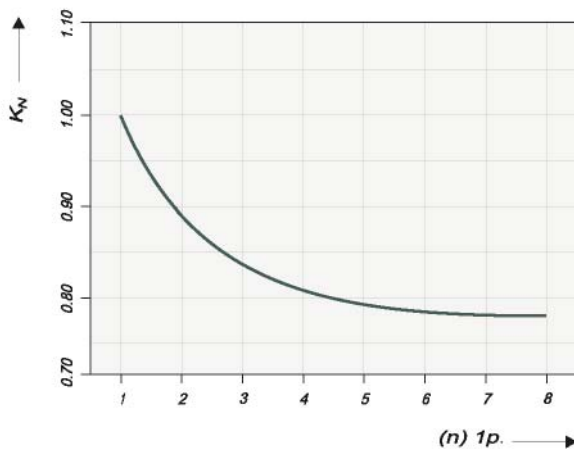


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Tripping characteristic curves according to IEC 60898 / EN 60898



Capacity with block mounting



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I_n [A]	Ambient temperature T(°C)												
	-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

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	+	-	-	-	-	-

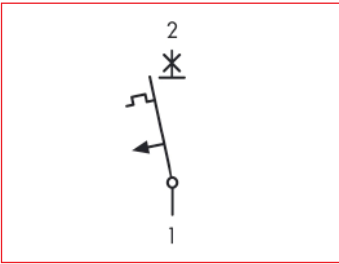
**) Only with wire end and sleeve

MCB Miniature Circuit Breakers series BMS4, 4,5kA - 1 pole



BM417116

Wiring diagram



DESCRIPTION	AVAILABLE	ORDER NO.
Characteristic B		
6A		BM418106
10A		BM418110
16A		BM418116
20A		BM418120
25A		BM418125
32A		BM418132
Characteristic C		
2A		BM417102
4A		BM417104
6A		BM417106
10A		BM417110
16A		BM417116
20A		BM417120
25A		BM417125
32A		BM417132
40A		BM417140
50A		BM417150
63A		BM417163



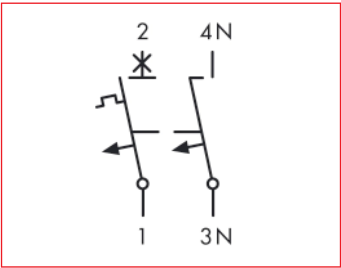
Order no. blue: on stock, usually ready for delivery on the day of order

MCB Miniature Circuit Breakers series BMS4, 4,5kA - 1+N



BM417616

Wiring diagram



DESCRIPTION	AVAILABLE	ORDER NO.
Characteristic C		
6A		BM417606
10A		BM417610
16A		BM417616
20A		BM417620
25A		BM417625
32A		BM417632
50A		BM417650

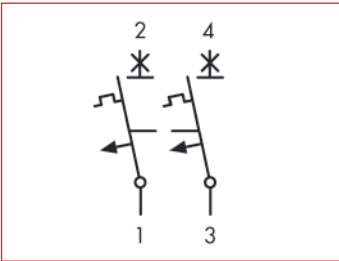


MCB Miniature Circuit Breakers series BMS4, 4,5kA - 2pole



BM418225

Wiring diagram



DESCRIPTION	AVAILABLE	ORDER NO.
Characteristic B		
6A		BM418206
16A		BM418216
10A		BM418210
20A		BM418220
40A		BM418240
Characteristic C		
6A		BM417206
10A		BM417210
16A		BM417216
20A		BM417220
25A		BM417225
32A		BM417232
40A		BM417240
50A		BM417250
63A		BM417263



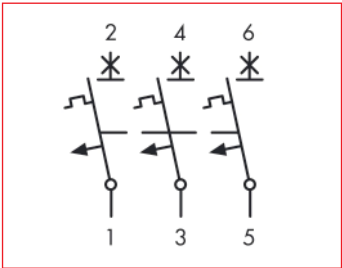
Order no. blue: on stock, usually ready for delivery on the day of order

MCB Miniature Circuit Breakers series BMS4, 4,5kA - 3pole



BM418316

Wiring diagram



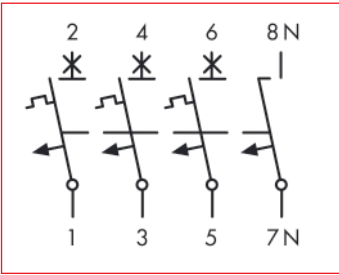
DESCRIPTION	AVAILABLE	ORDER NO.
Characteristic B		
6A		BM418306
16A		BM418316
20A		BM418320
25A		BM418325
32A		BM418332
40A		BM418340
Characteristic C		
6A		BM417306
10A		BM417310
16A		BM417316
20A		BM417320
25A		BM417325
32A		BM417332
40A		BM417340
50A		BM417350
63A		BM417363

MCB Miniature Circuit Breakers series BMS4, 4,5kA - 3+N



BM417816

Wiring diagram



DESCRIPTION	AVAILABLE	ORDER NO.
Characteristic C		
10A		BM417810
16A		BM417816
20A		BM417820
25A		BM417825
32A		BM417832
40A		BM417840
50A		BM417850
63A		BM417863

