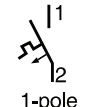
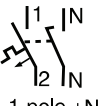


Product Selection

1-Pole Supplementary Protectors

Photo/Wiring Diagram	Continuous Current Rating (I_n)	Trip Curve B Resistive or Slightly Inductive 3...5 I_n	Trip Curve C Inductive 5...10 I_n	Trip Curve D Highly Inductive 10...20 I_n
	[A]	Cat. No.	Cat. No.	Cat. No.
  1-pole	0.5	1492-SPM1B005	1492-SPM1C005	1492-SPM1D005
	1	1492-SPM1B010	1492-SPM1C010	1492-SPM1D010
	2	1492-SPM1B020	1492-SPM1C020	1492-SPM1D020
	3	1492-SPM1B030	1492-SPM1C030	1492-SPM1D030
	4	1492-SPM1B040	1492-SPM1C040	1492-SPM1D040
	5	1492-SPM1B050	1492-SPM1C050	1492-SPM1D050
	6	1492-SPM1B060	1492-SPM1C060	1492-SPM1D060
	7	1492-SPM1B070	1492-SPM1C070	1492-SPM1D070
	8	1492-SPM1B080	1492-SPM1C080	1492-SPM1D080
	10	1492-SPM1B100	1492-SPM1C100	1492-SPM1D100
	13	1492-SPM1B130	1492-SPM1C130	1492-SPM1D130
	15	1492-SPM1B150	1492-SPM1C150	1492-SPM1D150
	16	1492-SPM1B160	1492-SPM1C160	1492-SPM1D160
	20	1492-SPM1B200	1492-SPM1C200	1492-SPM1D200
	25	1492-SPM1B250	1492-SPM1C250	1492-SPM1D250
	30	1492-SPM1B300	1492-SPM1C300	1492-SPM1D300
	32	1492-SPM1B320	1492-SPM1C320	1492-SPM1D320
	40	1492-SPM1B400	1492-SPM1C400	1492-SPM1D400
	50	1492-SPM1B500	1492-SPM1C500	1492-SPM1D500
	63	1492-SPM1B630	1492-SPM1C630	1492-SPM1D630

1-Pole + Neutral Supplementary Protectors⁽¹⁾

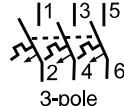
Photo/Wiring Diagram	Continuous Current Rating (I_n)	Trip Curve B Resistive or Slightly Inductive 3...5 I_n	Trip Curve C Inductive 5...10 I_n	Trip Curve D Highly Inductive 10...20 I_n
	[A]	Cat. No.	Cat. No.	Cat. No.
  1-pole +N	0.5	1492-SPM1B005-N	1492-SPM1C005-N	1492-SPM1D005-N
	1	1492-SPM1B010-N	1492-SPM1C010-N	1492-SPM1D010-N
	2	1492-SPM1B020-N	1492-SPM1C020-N	1492-SPM1D020-N
	3	1492-SPM1B030-N	1492-SPM1C030-N	1492-SPM1D030-N
	4	1492-SPM1B040-N	1492-SPM1C040-N	1492-SPM1D040-N
	5	1492-SPM1B050-N	1492-SPM1C050-N	1492-SPM1D050-N
	6	1492-SPM1B060-N	1492-SPM1C060-N	1492-SPM1D060-N
	7	1492-SPM1B070-N	1492-SPM1C070-N	1492-SPM1D070-N
	8	1492-SPM1B080-N	1492-SPM1C080-N	1492-SPM1D080-N
	10	1492-SPM1B100-N	1492-SPM1C100-N	1492-SPM1D100-N
	13	1492-SPM1B130-N	1492-SPM1C130-N	1492-SPM1D130-N
	15	1492-SPM1B150-N	1492-SPM1C150-N	1492-SPM1D150-N
	16	1492-SPM1B160-N	1492-SPM1C160-N	1492-SPM1D160-N
	20	1492-SPM1B200-N	1492-SPM1C200-N	1492-SPM1D200-N
	25	1492-SPM1B250-N	1492-SPM1C250-N	1492-SPM1D250-N
	30	1492-SPM1B300-N	1492-SPM1C300-N	1492-SPM1D300-N
	32	1492-SPM1B320-N	1492-SPM1C320-N	1492-SPM1D320-N
	40	1492-SPM1B400-N	1492-SPM1C400-N	1492-SPM1D400-N
	50	1492-SPM1B500-N	1492-SPM1C500-N	1492-SPM1D500-N
	63	1492-SPM1B630-N	1492-SPM1C630-N	1492-SPM1D630-N

(1) 1+N configurations are not UL or CSA certified.

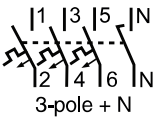
2-Pole Supplementary Protectors

Photo/Wiring Diagram	Continuous Current Rating (I_n)	Trip Curve B Resistive or Slightly Inductive 3...5 I_n	Trip Curve C Inductive 5...10 I_n	Trip Curve D Highly Inductive 10...20 I_n
	[A]	Cat. No.	Cat. No.	Cat. No.
  2-pole	0.5	1492-SPM2B005	1492-SPM2C005	1492-SPM2D005
	1	1492-SPM2B010	1492-SPM2C010	1492-SPM2D010
	2	1492-SPM2B020	1492-SPM2C020	1492-SPM2D020
	3	1492-SPM2B030	1492-SPM2C030	1492-SPM2D030
	4	1492-SPM2B040	1492-SPM2C040	1492-SPM2D040
	5	1492-SPM2B050	1492-SPM2C050	1492-SPM2D050
	6	1492-SPM2B060	1492-SPM2C060	1492-SPM2D060
	7	1492-SPM2B070	1492-SPM2C070	1492-SPM2D070
	8	1492-SPM2B080	1492-SPM2C080	1492-SPM2D080
	10	1492-SPM2B100	1492-SPM2C100	1492-SPM2D100
	13	1492-SPM2B130	1492-SPM2C130	1492-SPM2D130
	15	1492-SPM2B150	1492-SPM2C150	1492-SPM2D150
	16	1492-SPM2B160	1492-SPM2C160	1492-SPM2D160
	20	1492-SPM2B200	1492-SPM2C200	1492-SPM2D200
	25	1492-SPM2B250	1492-SPM2C250	1492-SPM2D250
	30	1492-SPM2B300	1492-SPM2C300	1492-SPM2D300
	32	1492-SPM2B320	1492-SPM2C320	1492-SPM2D320
	40	1492-SPM2B400	1492-SPM2C400	1492-SPM2D400
	50	1492-SPM2B500	1492-SPM2C500	1492-SPM2D500
	63	1492-SPM2B630	1492-SPM2C630	1492-SPM2D630

3-Pole Supplementary Protectors

Photo/Wiring Diagram	Continuous Current Rating (I_n)	Trip Curve B Resistive or Slightly Inductive 3...5 I_n	Trip Curve C Inductive 5...10 I_n	Trip Curve D Highly Inductive 10...20 I_n
	[A]	Cat. No.	Cat. No.	Cat. No.
  3-pole	0.5	1492-SPM3B005	1492-SPM3C005	1492-SPM3D005
	1	1492-SPM3B010	1492-SPM3C010	1492-SPM3D010
	2	1492-SPM3B020	1492-SPM3C020	1492-SPM3D020
	3	1492-SPM3B030	1492-SPM3C030	1492-SPM3D030
	4	1492-SPM3B040	1492-SPM3C040	1492-SPM3D040
	5	1492-SPM3B050	1492-SPM3C050	1492-SPM3D050
	6	1492-SPM3B060	1492-SPM3C060	1492-SPM3D060
	7	1492-SPM3B070	1492-SPM3C070	1492-SPM3D070
	8	1492-SPM3B080	1492-SPM3C080	1492-SPM3D080
	10	1492-SPM3B100	1492-SPM3C100	1492-SPM3D100
	13	1492-SPM3B130	1492-SPM3C130	1492-SPM3D130
	15	1492-SPM3B150	1492-SPM3C150	1492-SPM3D150
	16	1492-SPM3B160	1492-SPM3C160	1492-SPM3D160
	20	1492-SPM3B200	1492-SPM3C200	1492-SPM3D200
	25	1492-SPM3B250	1492-SPM3C250	1492-SPM3D250
	30	1492-SPM3B300	1492-SPM3C300	1492-SPM3D300
	32	1492-SPM3B320	1492-SPM3C320	1492-SPM3D320
	40	1492-SPM3B400	1492-SPM3C400	1492-SPM3D400
	50	1492-SPM3B500	1492-SPM3C500	1492-SPM3D500
	63	1492-SPM3B630	1492-SPM3C630	1492-SPM3D630

3-Pole + Neutral Supplementary Protectors⁽¹⁾

Photo/Wiring Diagram	Continuous Current Rating (I_n)	Trip Curve B Resistive or Slightly Inductive $3...5 I_n$	Trip Curve C Inductive $5...10 I_n$	Trip Curve D Highly Inductive $10...20 I_n$
	[A]	Cat. No.	Cat. No.	Cat. No.
  3-pole + N	0.5	1492-SPM3B005-N	1492-SPM3C005-N	1492-SPM3D005-N
	1	1492-SPM3B010-N	1492-SPM3C010-N	1492-SPM3D010-N
	2	1492-SPM3B020-N	1492-SPM3C020-N	1492-SPM3D020-N
	3	1492-SPM3B030-N	1492-SPM3C030-N	1492-SPM3D030-N
	4	1492-SPM3B040-N	1492-SPM3C040-N	1492-SPM3D040-N
	5	1492-SPM3B050-N	1492-SPM3C050-N	1492-SPM3D050-N
	6	1492-SPM3B060-N	1492-SPM3C060-N	1492-SPM3D060-N
	7	1492-SPM3B070-N	1492-SPM3C070-N	1492-SPM3D070-N
	8	1492-SPM3B080-N	1492-SPM3C080-N	1492-SPM3D080-N
	10	1492-SPM3B100-N	1492-SPM3C100-N	1492-SPM3D100-N
	13	1492-SPM3B130-N	1492-SPM3C130-N	1492-SPM3D130-N
	15	1492-SPM3B150-N	1492-SPM3C150-N	1492-SPM3D150-N
	16	1492-SPM3B160-N	1492-SPM3C160-N	1492-SPM3D160-N
	20	1492-SPM3B200-N	1492-SPM3C200-N	1492-SPM3D200-N
	25	1492-SPM3B250-N	1492-SPM3C250-N	1492-SPM3D250-N
	30	1492-SPM3B300-N	1492-SPM3C300-N	1492-SPM3D300-N
	32	1492-SPM3B320-N	1492-SPM3C320-N	1492-SPM3D320-N
	40	1492-SPM3B400-N	1492-SPM3C400-N	1492-SPM3D400-N
	50	1492-SPM3B500-N	1492-SPM3C500-N	1492-SPM3D500-N
	63	1492-SPM3B630-N	1492-SPM3C630-N	1492-SPM3D630-N

(1) 3+N configurations are not UL or CSA certified.

Specifications

Electrical Ratings			
Poles			1, 2, 3, 1+N, 3+N
Tripping characteristics			B, C, D
Rated current (I_n)			0.5...63 A
Rated frequency (f)			50/60 Hz
Rated insulation voltage U_i per IEC/EN 60664-1			250 V AC (phase to ground), 440V AC (phase to phase)
Overvoltage category			III
Pollution degree			3
Data per UL/CSA			
Rated voltage	1-pole	AC	277V AC
		DC	48V DC
	2-pole	AC	480Y/277V AC
		DC	96V DC
	3-pole	AC	480Y/277V AC
Rated interrupting capacity per UL 1077			≤ 32 A: 10 kA (AC); > 32 A: 5 kA (AC); 0.5...63 A: 10 kA (DC)
Application Supplementary ⁽¹⁾ protector for general use; application codes: TC1: [1P] OLO 277V AC, [2P, 3P] OLO 480Y/277V AC; SC: 10 kA (0.5...32 A), 5 kA (35...63 A), U2 480Y/277V AC; FW3			
Ref. temperature for tripping characteristics			40 °C
Electrical endurance			6,000 ops (AC), 6,000 ops. (DC) 1 cycle (1s - ON, 9s - OFF)
Data per IEC/EN 60947-2			
Rated operational voltage (U_e)		1-pole, 1+N	230V AC
		2-pole, 3-pole, 3+N	400V AC
Highest supply or utilization voltage (U_{max})	AC	1-pole, 1+N	253V AC
		2-pole, 3-pole, 3+N	440V AC
	DC ⁽²⁾	1-pole	48V DC
		2-pole	96V DC
Min. operating voltage			12V AC, 12V DC
Rated ultimate short-circuit breaking capacity (I_{cu})			15 kA
Rated service short-circuit breaking capacity (I_{cs})			≤ 40 A: 11.25 kA > 40 A: 7.5 kA
Rated impulse withstand voltage U_{imp} . (1.2/50µs)			4 kV (test voltage 6.2 kV at sea level, 5 kV at 2,000 m)
Dielectric test voltage			2 kV (50/60Hz, 1 min.)
Reference temperature for tripping characteristics			30 °C
Electrical endurance 1 cycle (2s - ON, 13s - OFF, $I_n \leq 32$ A), 1 cycle (2s - ON, 28s - OFF, $I_n > 32$ A)			$I_n < 30$ A: 20,000 ops (AC) $I_n \geq 30$ A: 10,000 ops. (AC) 1,000 ops. (DC)

(1) 2-pole/3-pole single pole load: TC2.

(2) IEC DC ratings self-declared.

Mechanical Data		
Housing		Insulation group II, RAL 7035
Indicator window		red ON / green OFF
Protection degree per EN 60529		IP20, IP40 in enclosure with cover
Mechanical endurance		20,000 operations
Shock resistance per IEC/EN 60068-2-27		25 g - 2 shocks - 13 ms
Vibration resistance per IEC/EN 60068-2-6		5g - 20 cycles at 5...150...5 Hz with load 0.8 I _n
Environmental		
Environmental conditions (damp heat) per IEC/EN 60068-2-30		28 cycles with 55°C (131 °F)/ 90-96% and 25°C (77 °F)/ 95-100%
Ambient temperature ⁽¹⁾		-25...+55 °C (-13...+131 °F)
Storage temperature		-40...+70 °C (-40...+158 °F)
Installation		
Terminal		Dual terminal
Cross-section of wire ⁽²⁾ - solid, stranded (front / back terminal slot)		35 / 35 mm ²
		18...4 / 18...10 AWG
Cross-section of wire - flexible (front / back terminal slot)		25 / 10 mm ²
Multi-wire rating per UL, CSA		1 wire, 18...4 AWG
		2-4 wires ⁽³⁾ , 18...10 AWG
Cross-section of bus bars (back terminal slot)		10 mm ²
Tightening torque	IEC	2.8 N•m
	UL/CSA	AWG 18...16: 13.3 in•lb. AWG 14...10: 17.7 in•lb. AWG 8...4: 39.8 in•lb.
Screwdriver		No. 2 Pozidriv
Mounting		DIN rail (EN 60715, 35mm) with fast clip
Mounting position		Any
Supply		Optional
Approximate Dimensions and Weight		
Pole dimension (H x D x W)		88 x 69 x 17.5 mm
Pole weight		115 g (4.1 oz.)
Combination with Auxiliary Elements		
Auxiliary contact		Yes
Signal contact		Yes
Shunt trip		Yes

(1) Refer to the ambient temperature derating tables.

(2) 35 mm² self-declared, not included in IEC/EN approval.

(3) Wires must be of like size and stranding. Up to two wires per terminal slot.

Power Loss Due to Current

Rated Current	Power Loss Per Pole	Rated Current	Power Loss Per Pole
[A]	[W]	[A]	[W]
0.5	1.4	13	2.3
1	1.4	15	2.4
2	1.8	16	2.5
3	1.6	20	2.5
4	1.8	25	3.2
5	1.9	30	3.5
6	2.0	32	3.7
7	1.1	40	4.5
8	1.5	50	4.5
10	2.1	63	5.4

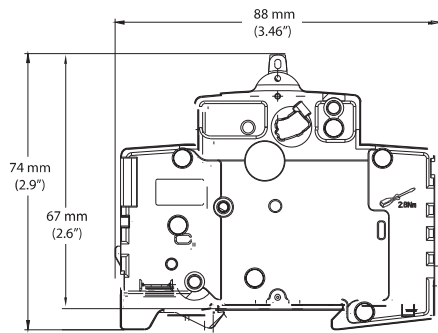
Zero-stack Derating

The installation of several miniature circuit breaker side by side with rated current on all poles requires a correction factor to the rated current (not required if spacers are used).

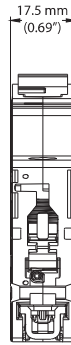
No. of Adjacent Devices	Factor
1	1
2,3	0.9
4,5	0.8
≥ 6	0.75

Approximate Dimensions

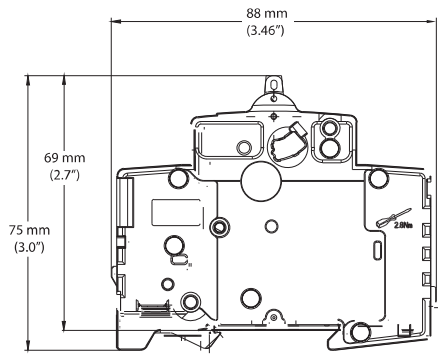
Dimensions are shown in millimeters (inches). Dimensions are not intended for manufacturing purposes.



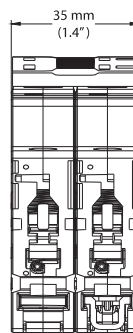
1 Pole



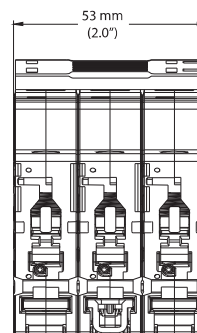
1 Pole



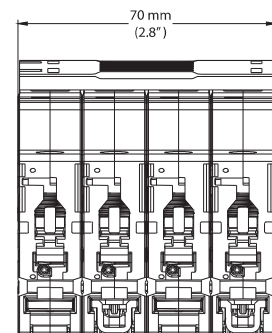
1 Pole + N, 2-, 3-, 3 Pole + N



1 Pole + N, 2-Pole



3-Pole



3-Pole + N

Ambient Temperature Derating

Application below 0 °C is for non-condensing atmosphere. Care should be taken for applications below 0 °C. These devices are not certified to operate correctly in the presence of ice.

Bulletin 1492-SP
 Temperature Derating, UL
 Reference temperature = 40 °C

Current Rating (A)	Ambient temperature (°C)									
	-25	-20	-10	0	10	20	30	40	50	55
0.5	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5
1	1.2	1.2	1.2	1.1	1.1	1.1	1.0	1	1.0	0.9
2	2.5	2.4	2.4	2.3	2.2	2.1	2.1	2	1.9	1.9
3	3.7	3.7	3.6	3.4	3.3	3.2	3.1	3	2.9	2.8
4	5.0	4.9	4.7	4.6	4.4	4.3	4.1	4	3.9	3.8
5	6.2	6.1	5.9	5.7	5.6	5.4	5.2	5	4.8	4.7
6	7.4	7.3	7.1	6.9	6.7	6.4	6.2	6	5.8	5.7
7	8.7	8.6	8.3	8.0	7.8	7.5	7.3	7	6.7	6.6
8	9.9	9.8	9.5	9.2	8.9	8.6	8.3	8	7.7	7.6
10	12.4	12.2	11.9	11.5	11.1	10.7	10.4	10	9.6	9.4
13	16.1	15.9	15.4	14.9	14.4	14.0	13.5	13	12.5	12.3
15	18.6	18.3	17.8	17.2	16.7	16.1	15.6	15	14.4	14.2
16	19.8	19.6	19.0	18.4	17.8	17.2	16.6	16	15.4	15.1
20	24.8	24.4	23.7	23.0	22.2	21.5	20.7	20	19.3	18.9
25	31.0	30.6	29.6	28.7	27.8	26.9	25.9	25	24.1	23.6
30	37.2	36.7	35.6	34.4	33.3	32.2	31.1	30	28.9	28.3
32	39.7	39.1	37.9	36.7	35.6	34.4	33.2	32	30.8	30.2
40	49.6	48.9	47.4	45.9	44.4	43.0	41.5	40	38.5	37.8
50	62.0	61.1	59.3	57.4	55.6	53.7	51.9	50	48.2	47.2
63	78.2	77.0	74.7	72.3	70.0	67.7	65.3	63	60.7	59.5

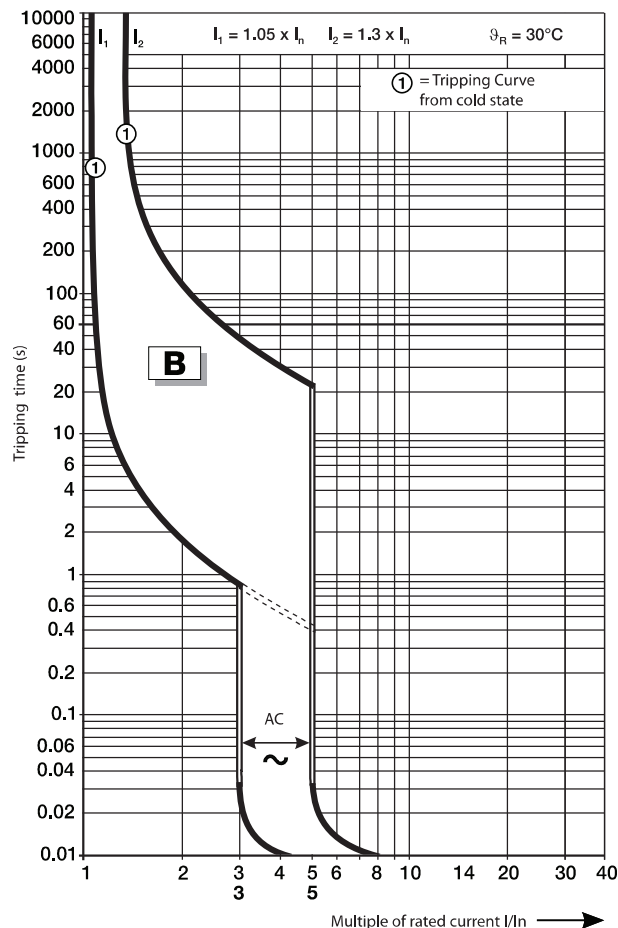
Bulletin 1492-SP
 Temperature Derating, IEC
 Reference temperature = 30 °C

Current Rating (A)	Ambient temperature (°C)										
	-25	-20	-10	0	10	20	30	40	50	55	
0.5	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	
1	1.2	1.2	1.1	1.1	1.1	1.0	1	1.0	0.9	0.9	
2	2.4	2.4	2.3	2.2	2.1	2.1	2	1.9	1.9	1.8	
3	3.6	3.6	3.4	3.3	3.2	3.1	3	2.9	2.8	2.7	
4	4.8	4.7	4.6	4.4	4.3	4.1	4	3.9	3.7	3.6	
5	6.0	5.9	5.7	5.6	5.4	5.2	5	4.8	4.6	4.5	
6	7.2	7.1	6.9	6.7	6.4	6.2	6	5.8	5.6	5.4	
7	8.4	8.3	8.0	7.8	7.5	7.3	7	6.7	6.5	6.4	
8	9.6	9.5	9.2	8.9	8.6	8.3	8	7.7	7.4	7.3	
10	12.0	11.9	11.5	11.1	10.7	10.4	10	9.6	9.3	9.1	
13	15.6	15.4	14.9	14.4	14.0	13.5	13	12.5	12.0	11.8	
15	18.1	17.8	17.2	16.7	16.1	15.6	15	14.4	13.9	13.6	
16	19.3	19.0	18.4	17.8	17.2	16.6	16	15.4	14.8	14.5	
20	24.1	23.7	23.0	22.2	21.5	20.7	20	19.3	18.5	18.2	
25	30.1	29.6	28.7	27.8	26.9	25.9	25	24.1	23.2	22.7	
30	36.1	35.6	34.4	33.3	32.2	31.1	30	28.9	27.8	27.2	
32	38.5	37.9	36.7	35.6	34.4	33.2	32	30.8	29.6	29.0	
40	48.1	47.4	45.9	44.4	43.0	41.5	40	38.5	37.0	36.3	
50	60.2	59.3	57.4	55.6	53.7	51.9	50	48.2	46.3	45.4	
63	75.8	74.7	72.3	70.0	67.7	65.3	63	60.7	58.3	57.2	

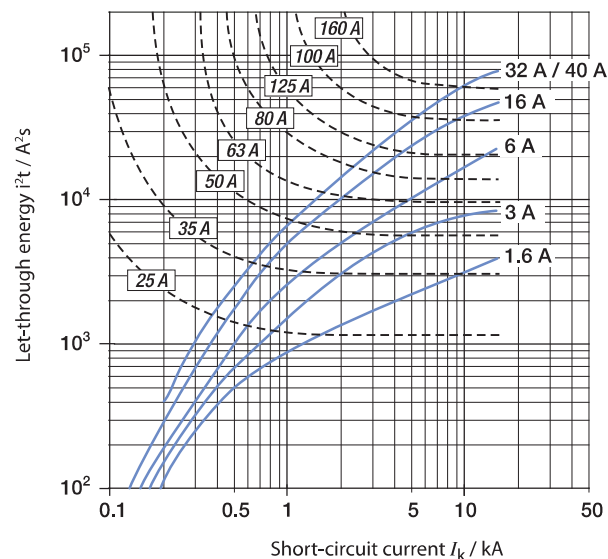
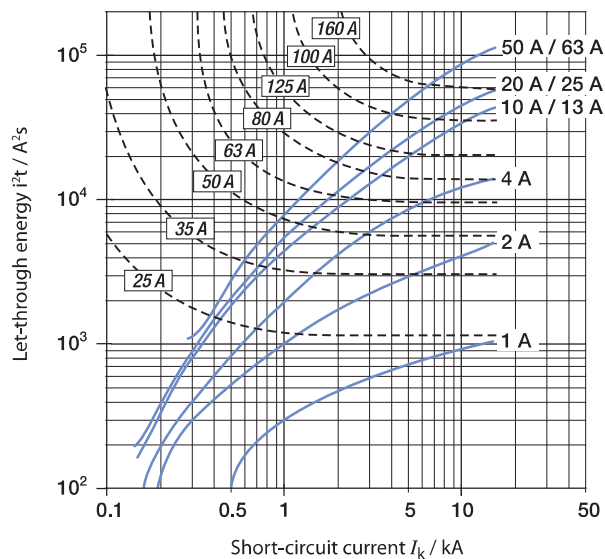
Tripping Characteristics

- DC trip curves - When using 1492-SPM_ on DC applications or DC loads, please refer to AC trip curves and times and use a factor of 1.5 for the magnetic instantaneous trip times the continuous current rating (I_n).
- For B trip curve = 4.5 to 7.5 multiple of the rated current (I / I_n).
- The thermal trip times remain the same for both AC and DC applications.

B Curve

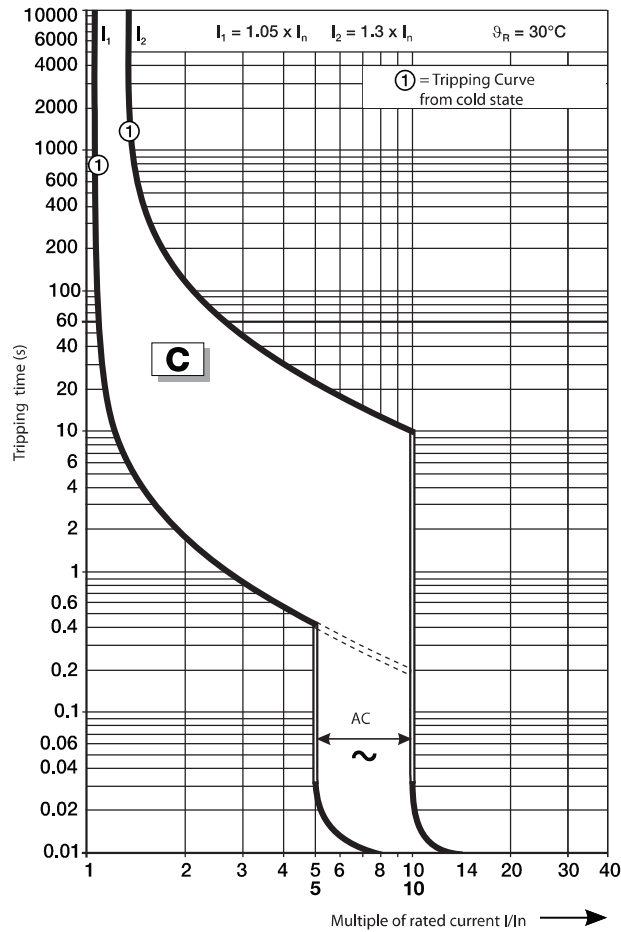


B and C Curve - 230/400V AC Let-through Energy

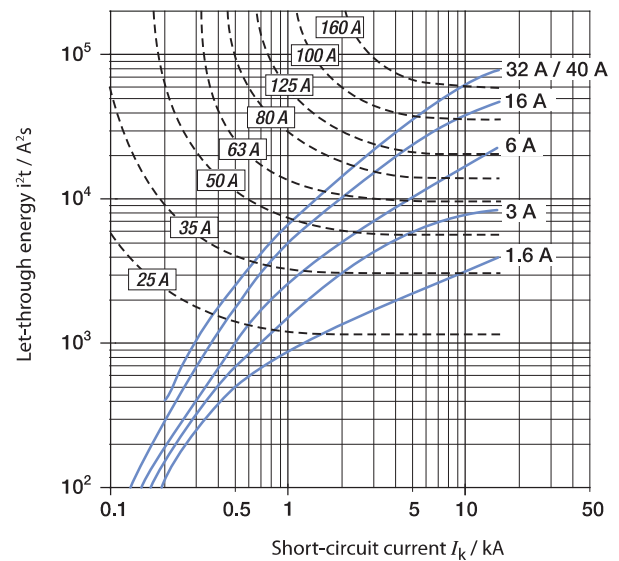
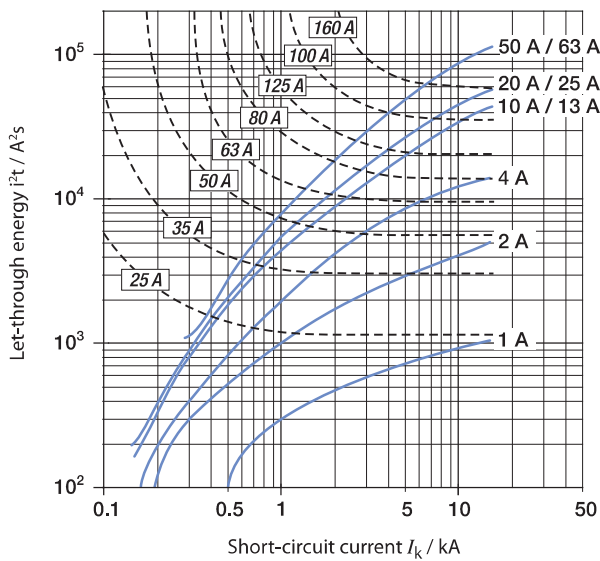


- DC trip curves - When using 1492-SPM_ on DC applications or DC loads, please refer to AC trip curves and times and use a factor of 1.5 for the magnetic instantaneous trip times the continuous current rating (I_n).
- For C trip curve = 7.5 to 15 multiple of the rated current (I / I_n).
- The thermal trip times remain the same for both AC and DC applications.

C Curve

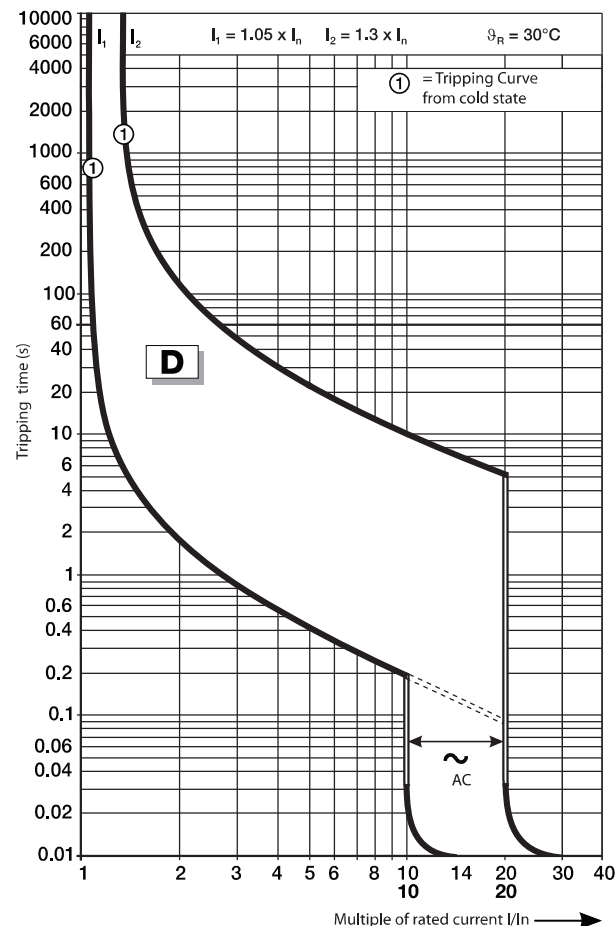


B and C Curve - 230/400V AC Let-through Energy



- DC trip curves – When using 1492-SPM.. on DC applications or DC loads, please refer to AC trip curves and times and use a factor of 1.5 for the magnetic instantaneous trip times the continuous current rating (I_n).
- For D trip curve = 15 to 30 multiple of the rated current (I / I_n).
- The thermal trip times remain the same for both AC and DC applications.

D Curve



D Curve - 230/400V AC Let-through Energy

