

Circuit-Breakers for Motor Protection

Series 8523/8



- > Accessories
 - Auxiliary contacts
1 NC + 1 NO or 2 NC + 2 NO
 - Undervoltage trip
 - Shunt release
- > Switch operation with knob
- > Secure switching
- > Clear switch setting indicator
- > Different current setting ranges



03150E00

Series 8523/8 circuit-breakers are equipped with a permanently set short-circuit fast trip and a thermal overcurrent trip adjustable at the switch.

	ATEX / IECEx / GOST					
Zone	0	1	2	20	21	22
For use in		x	x			

E9

WebCode 8523A

Circuit-Breakers for Motor Protection

Series 8523/8

Circuit-breaker for Motor Protection Series 8523/8



08875E00

- suitable for protection of „increased“ safety motors up to 12.5 kW (400 V, AC-3)
- permanently set short-circuit fast-trip
- adjustable thermal overcurrent trip

Setting range	0.1 ... 22.5 A
Rated voltage	690 V AC
Optional equipment	1 NO + 1 NC or 2 NO + 2 NC
	Under voltage trip or shunt trip

Selection Table

Version	Current adjustment range	Auxiliary contacts	Additional device	Order number
Circuit-breaker, enclosure size 1	0.1 A ... 0.16 A	without	without	8523/81-01-000
	0.16 A ... 0.25 A	without	without	8523/81-02-000
	0.25 A ... 0.4 A	without	without	8523/81-03-000
	0.4 ... 0.63 A	without	without	8523/81-04-000
	0.63 ... 1.0 A	without	without	8523/81-05-000
	1.0 ... 1.6 A	without	without	8523/81-06-000
	1.6 ... 2.5 A	without	without	8523/81-07-000
	2.5 ... 4.0 A	without	without	8523/81-08-000
	4.0 ... 6.3 A	without	without	8523/81-09-000
	6.3 ... 9.0 A	without	without	8523/81-10-000
	9.0 ... 12.5 A	without	without	8523/81-11-000
	12.5 ... 16.0 A	without	without	8523/81-12-000
	16.0 ... 20.0 A	without	without	8523/81-13-000
	20.0 ... 22.5 A	without	without	8523/81-14-000

Order Number Supplement

Trip	Undervoltage trip	8523/8.-.-.-1..
	Shunt release	8523/8.-.-.-2..
Auxiliary facilities	1 auxiliary circuit switch 1NC+1NO	8523/8.-.-.-2.
	2 auxiliary circuit switch 2NC+2NO	8523/8.-.-.-4.
Voltage and frequency for trip	48 V AC, 50 Hz	8523/8.-.-.-1.3
	60 V AC, 50 Hz	8523/8.-.-.-1.4
	110 V AC, 50 Hz	8523/8.-.-.-1.5
	230 V AC, 50 Hz	8523/8.-.-.-1.6
	400 V AC, 50 Hz	8523/8.-.-.-1.7
	415 V AC, 50 Hz	8523/8.-.-.-1.8
	500 V AC, 50 Hz	8523/8.-.-.-1.9
	24 ... 60 V AC / DC	8523/8.-.-.-2.1
	110 ... 240 V AC / DC	8523/8.-.-.-2.2

Circuit-Breakers for Motor Protection

Series 8523/8

STAHL

Selection Table

Version	Release	Auxiliary contacts	Order number
Circuit-breaker, enclosure size 2	without	1 NC + 1 NO	8523/82-...-020
		2 NC + 2 NO	8523/82-...-040
	Undervoltage trip	1 NC + 1 NO	8523/82-...-12.
		2 NC + 2 NO	8523/82-...-14.
	Shunt release	1 NC + 1 NO	8523/82-...-22.
		2 NC + 2 NO	8523/82-...-24.

Order Number Supplement

Current adjustment range	0.1 ... 0.16 A	8523/8.-01-...
	0.16 ... 0.25 A	8523/8.-02-...
	0.25 ... 0.4 A	8523/8.-03-...
	0.4 ... 0.63 A	8523/8.-04-...
	0.63 ... 1.0 A	8523/8.-05-...
	1.0 ... 1.6 A	8523/8.-06-...
	1.6 ... 2.5 A	8523/8.-07-...
	2.5 ... 4.0 A	8523/8.-08-...
	4.0 ... 6.3 A	8523/8.-09-...
	6.3 ... 9.0 A	8523/8.-10-...
	9.0 ... 12.5 A	8523/8.-11-...
	12.5 ... 16.0 A	8523/8.-12-...
	16.0 ... 20.0 A	8523/8.-13-...
	20.0 ... 22.5 A	8523/8.-14-...
Voltage and frequency for trip	48 V AC, 50 Hz	8523/8.-...-1.3
	60 V AC, 50 Hz	8523/8.-...-1.4
	110 V AC, 50 Hz	8523/8.-...-1.5
	230 V AC, 50 Hz	8523/8.-...-1.6
	400 V AC, 50 Hz	8523/8.-...-1.7
	415 V AC, 50 Hz	8523/8.-...-1.8
	500 V AC, 50 Hz	8523/8.-...-1.9
	24 ... 60 V AC / DC	8523/8.-...-2.1
	110 ... 240 V AC / DC	8523/8.-...-2.2

Explosion Protection

Global (IECEx)	
Gas and dust	IECEx BVS 08.0039 U Ex de IIC Ex de I
Europe (ATEX)	
Gas and dust	DMT 01 ATEX E 153 U ⊕ II 2 G Ex de IIC ⊕ I M 2 Ex de I
Certificates and approvals	
Certificates	ATEX, IECEx, Canada (CSA), Belarus (GOST-B)

E9

Circuit-Breakers for Motor Protection

Series 8523/8

Technical Data

Electrical data

Rated operational voltage	max. 690 V AC, 50 / 60 Hz			
Rated working current	0.1 ... 22.5 A dependent on adjustment range			
Switching capacity	dependent on adjustment range (AC)			
	230 V	400 V	500 V	690 V
	7.0 kW	12.4 kW	16.0 kW	22.0 kW
Mechanical life	10 ⁵ operations			
Main contacts	3-pole			
Short circuit protection	fuse			
	U _e (~V)	AC-3 (kW)	gG (A)	I _k (A)
	220 / 230	7.0	20	≥ 300
	380 / 400	12.5	25	≥ 400
	500	16.0	35	≥ 650
	690	22.0		
Thermal overcurrent trip	Adjustable at switch; dependent on adjustment range			
Electromagnetic fast trip	Adjustment range		Threshold values set at factory	
	0.16 ... 0.63 A		7.5 ... 12.0 I _n	
	1.0 ... 2.5 A		9.0 ... 14.0 I _n	
	4.0 ... 6.0 A		10.0 ... 15.0 I _n	
	9.0 ... 22.5 A		12.0 ... 17.5 I _n	
Power dissipation	max. 6.75 W			
Auxiliary contacts				
Device version				
Auxiliary contacts	Options: none; 1 NC + 1 NO; 2 NC + 2 NO			
Rated voltage	max. 500 V AC			
Rated current	AC-15	230 V		400 V
		2 A		1 A
	DC-13	60 V	110 V	220 V
		2.5 A	0.6 A	0.25 A

Ambient conditions

Ambient temperature	-20 ... +40 °C
---------------------	----------------

Circuit-Breakers for Motor Protection

Series 8523/8

STAHL

Technical Data

Mechanical data

Enclosure material	Epoxy resin or polyester resin	
Operating handle	on request	
Weight	8523/81 1.4 kg 8523/82 1.8 kg	
Connection	Main contacts	1.5 ... 6 mm ² flexible 1.5 ... 10 mm ² solid
	Auxiliary contacts	0.75 ... 1.5 mm ² flexible 0.75 ... 2.5 mm ² solid

Undervoltage trip

Function	When power is lost, circuit-breaker trips; this prevents unwanted restarting, e.g. of a motor
Electrical data	
Voltages	possible rated actuating voltage U_c 50 Hz: 48; 60; 110; 230; 400; 415; 500 V Pick-up $0.85 \dots x U_c$ Drop-out $0.7 \dots 0.35 x U_c$

Shunt release

Function	for remote tripping of circuit-breakers by applying actuating voltage
Electrical data	
Voltages	possible rated actuating voltage U_c AC / DC: 24 ... 60 V, 110 ... 240 V

Note

Other features	Switches are suitable for protection of "increased" safety motors; Switch operated by rotary actuator; clearly visible position indication; Phase failure sensitivity. Due to shortened switch grip, release is ensured even if mechanism is locked. Breaking parameter: can be used as MAIN or EMERGENCY OFF switch. If necessary accessories are fitted.
----------------	---

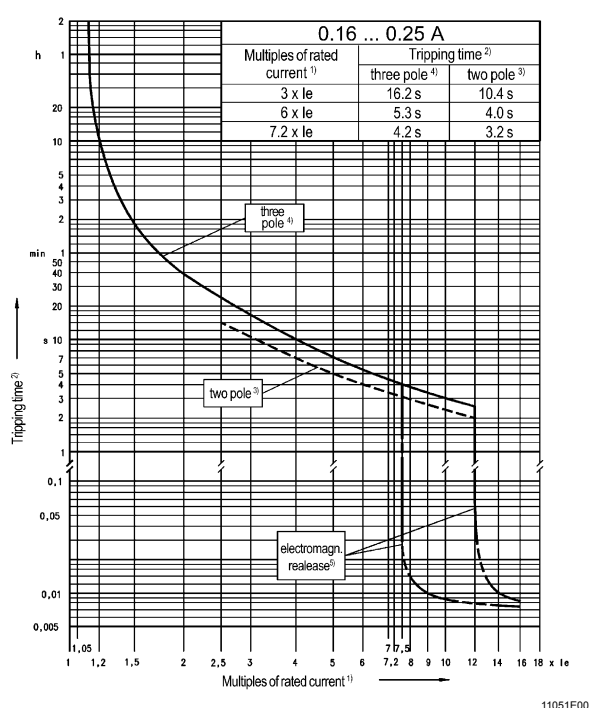
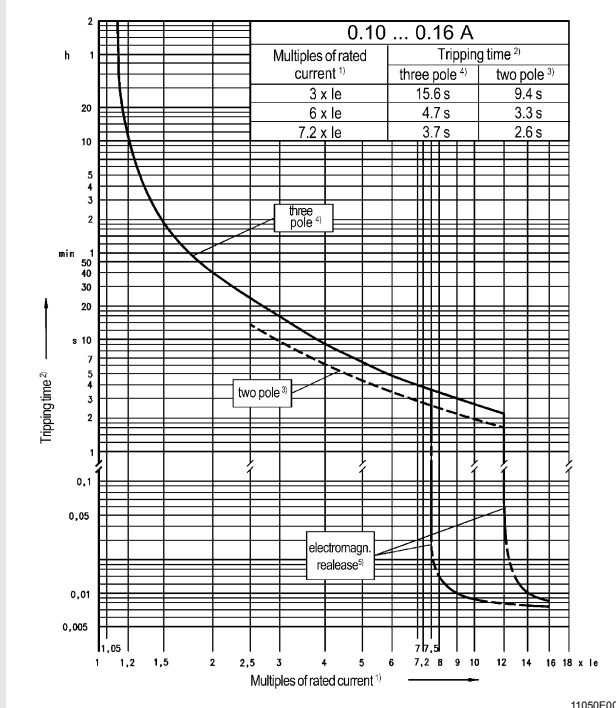
E9

Circuit-Breakers for Motor Protection

Series 8523/8

Trip Response

Adjustment range of motor protection switch	Trip time of motor protection switch at					
	3	4	5	6	7.2	8
	times the setting current, 3-pin, from cold state.					
A ... A	s	s	s	s	s	s
0.1 ... 0.16	15.0	9.0	6.5	4.8	3.7	3.2
0.16 ... 0.25	16.0	10.0	6.8	5.2	4.0	3.6
0.25 ... 0.4	16.0	9.7	6.5	5.0	3.8	3.3
0.4 ... 0.63	17.0	10.2	7.3	5.7	4.4	3.9
0.63 ... 1.0	17.5	10.2	7.2	5.5	4.2	3.8
1.0 ... 1.6	17.0	10.0	7.1	5.6	4.4	4.0
1.6 ... 2.5	18.0	10.3	7.5	5.9	4.7	4.2
2.5 ... 4.0	18.4	11.5	8.1	6.4	5.0	4.6
4.0 ... 6.3	19.0	12.0	8.5	6.7	5.3	4.9
6.3 ... 9.0	18.2	11.5	7.9	6.0	4.5	3.8
9.0 ... 12.5	19.0	11.5	8.0	6.0	4.6	4.0
12.5 ... 16.0	19.5	11.5	7.5	5.4	4.0	3.3
16.0 ... 20.0	20.0	11.5	7.8	5.7	4.2	3.5
20.0 ... 22.5	20.0	10.4	7.0	5.0	3.7	3.2



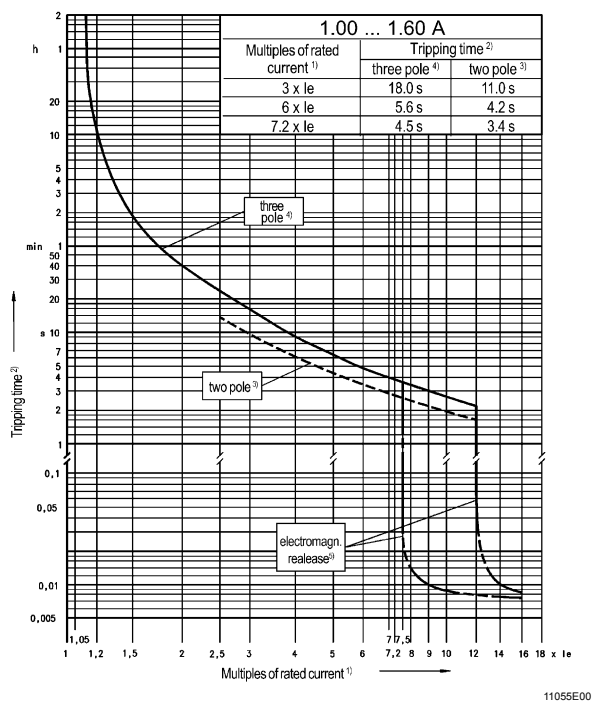
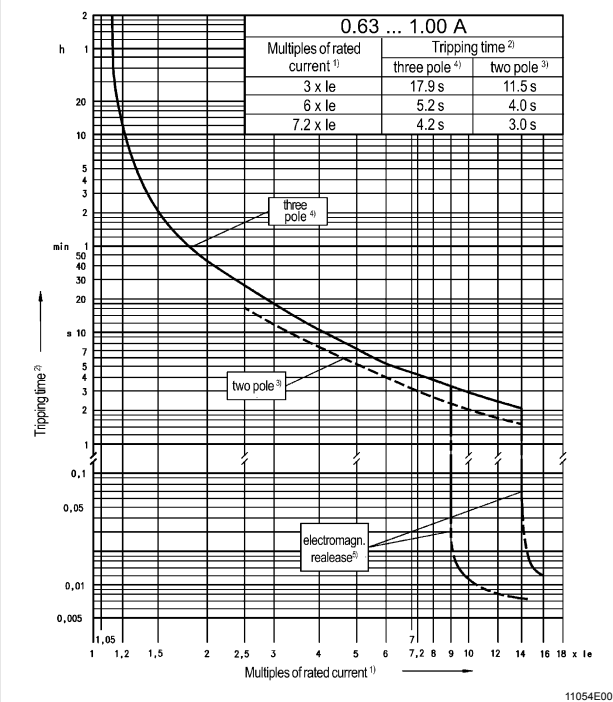
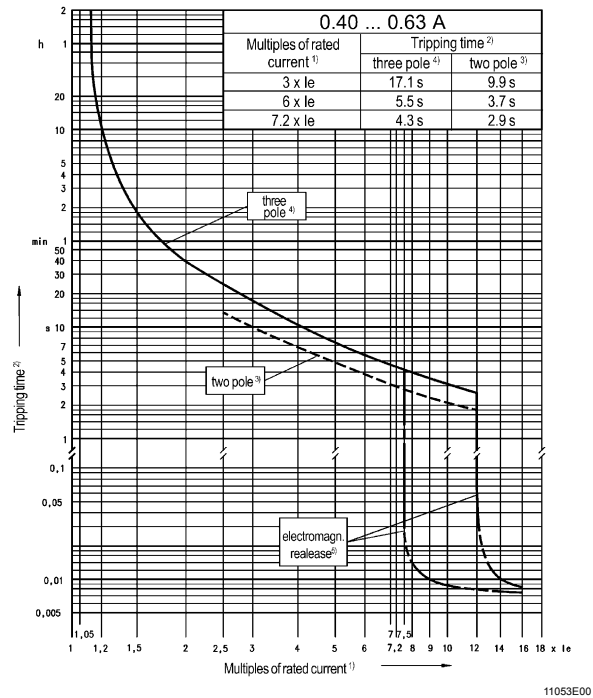
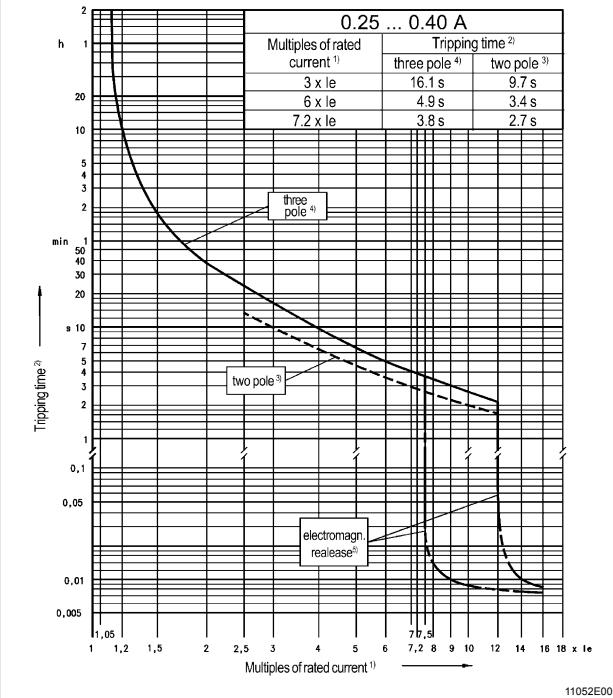
- 1) Multiples of the nominal current
- 2) Tripping time
- 3) 2-pole
- 4) 3-pole
- 5) Electromagnetic release

Circuit-Breakers for Motor Protection

Series 8523/8

STAHL

Trip Response



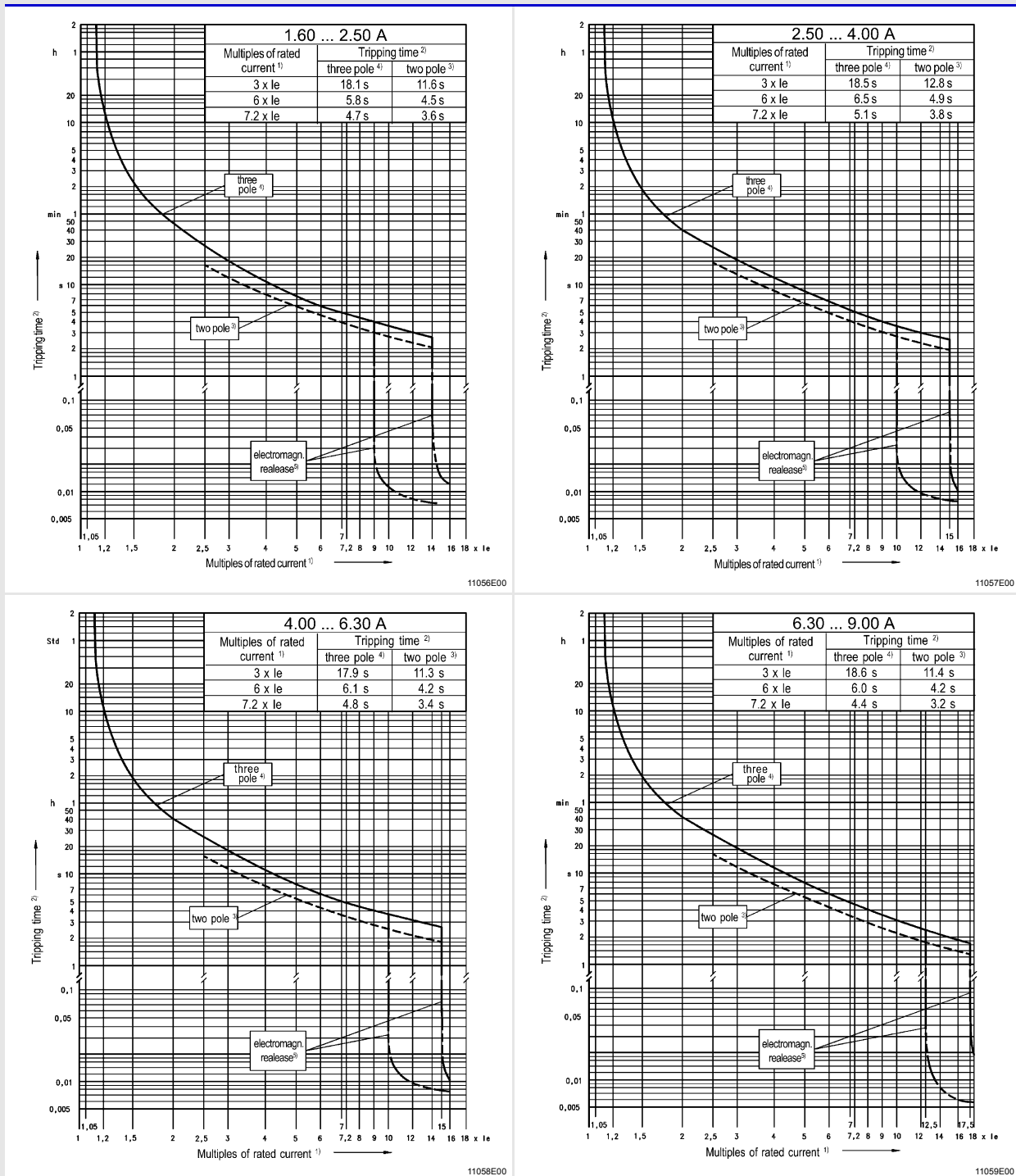
- ¹⁾ Multiples of the nominal current
- ²⁾ Tripping time
- ³⁾ 2-pole
- ⁴⁾ 3-pole
- ⁵⁾ Electromagnetic release

E9

Circuit-Breakers for Motor Protection

Series 8523/8

Trip Response



¹⁾ Multiples of the nominal current

²⁾ Tripping time

³⁾ 2-pole

⁴⁾ 3-pole

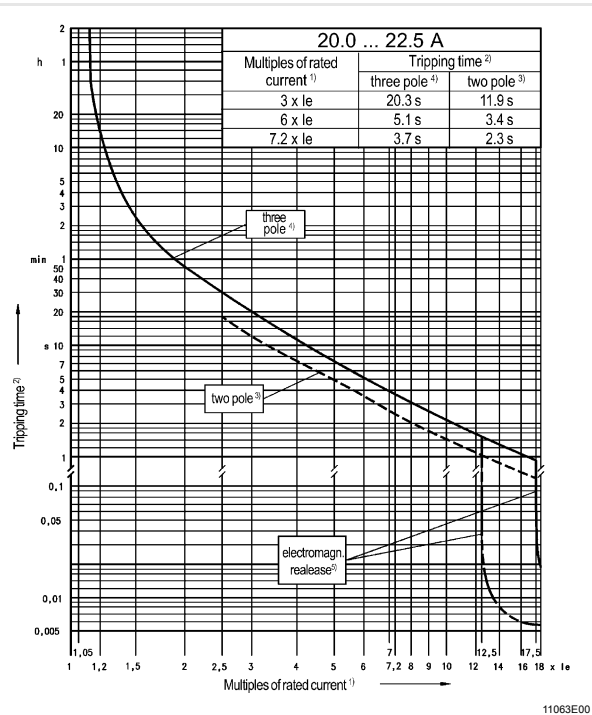
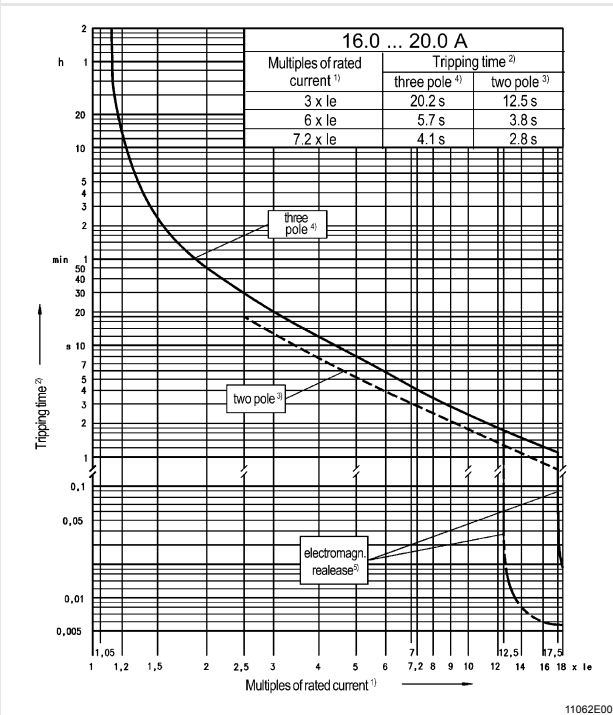
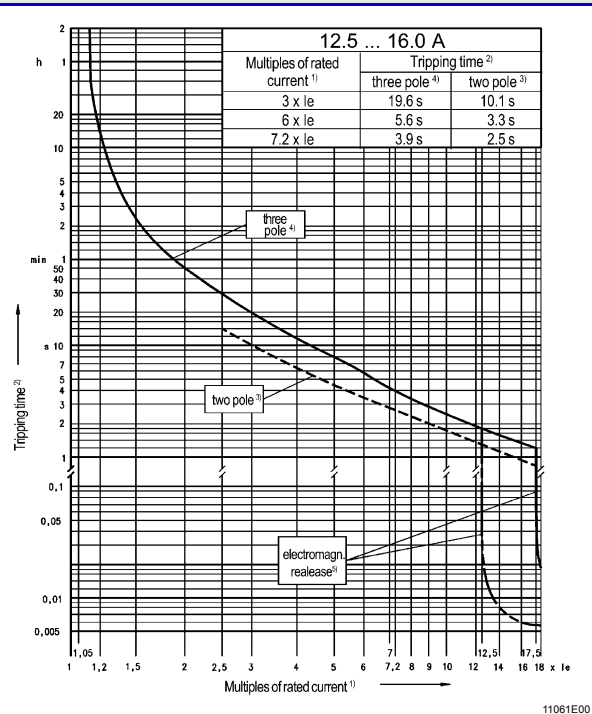
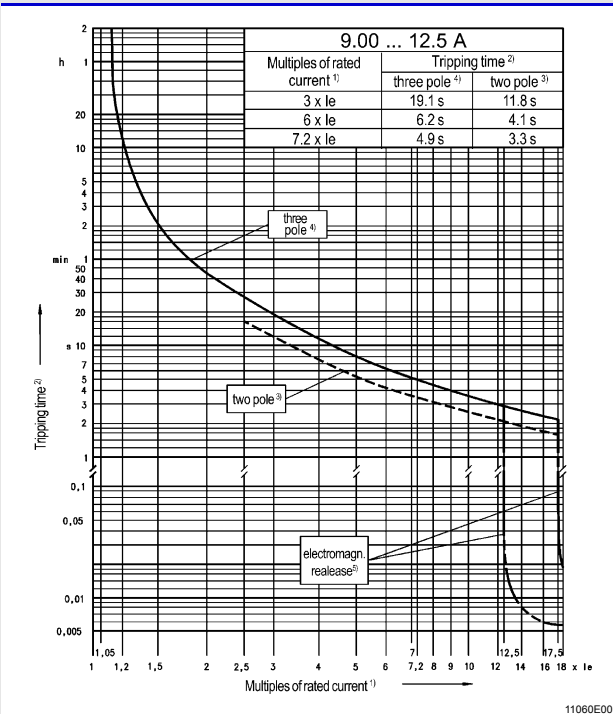
⁵⁾ Electromagnetic release

Circuit-Breakers for Motor Protection

Series 8523/8



Trip Response



- ¹⁾ Multiples of the nominal current
- ²⁾ Tripping time
- ³⁾ 2-pole
- ⁴⁾ 3-pole
- ⁵⁾ Electromagnetic release

E9

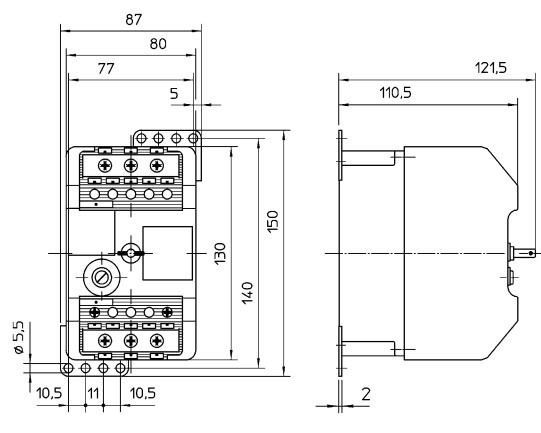
Circuit-Breakers for Motor Protection

Series 8523/8

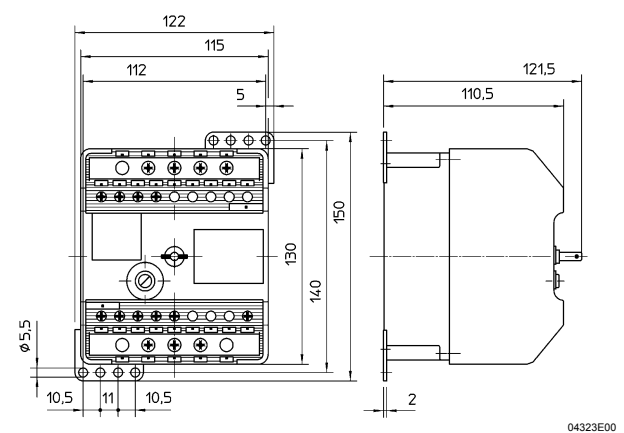
Accessories and Spare Parts

Designation	Illustration	Description	Art. no.	Weight kg
Jumper		for undervoltage release, length 400 mm (two bridges required)	147121	0.019

Dimensional Drawings (All Dimensions in mm) - Subject to Alterations



8523/81
Circuit-breaker for motor protection,
Module width 1, without auxiliary contacts



8523/82
Circuit-breaker for motor protection,
Module width 2, with auxiliary contacts

We reserve the right to make alterations to the technical data, dimensions, weights, designs and products available without notice. The illustrations cannot be considered binding.