SIEMENS

SINOVA
low-voltage electrical products

SINOVA The Power of **Simplicity**

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The Power of **Simplicity** with SINOVA

Backed by Siemens quality standards, SINOVA introduces exceptional ease of operation and cost-efficiency to electrical installations in buildings, utilities, industries, and infrastructure applications.

Our low-voltage electrical products offer protection, control, switching, and metering capabilities that help promote efficiency across the value chain, optimizing OPEX, CAPEX, and reducing environmental impact.

We are continuously driven to innovate and provide simple and reliable solutions. Inspired by efficiency and simplicity, we strive to empower industry professionals to streamline processes and complete projects quicker every time.

Index

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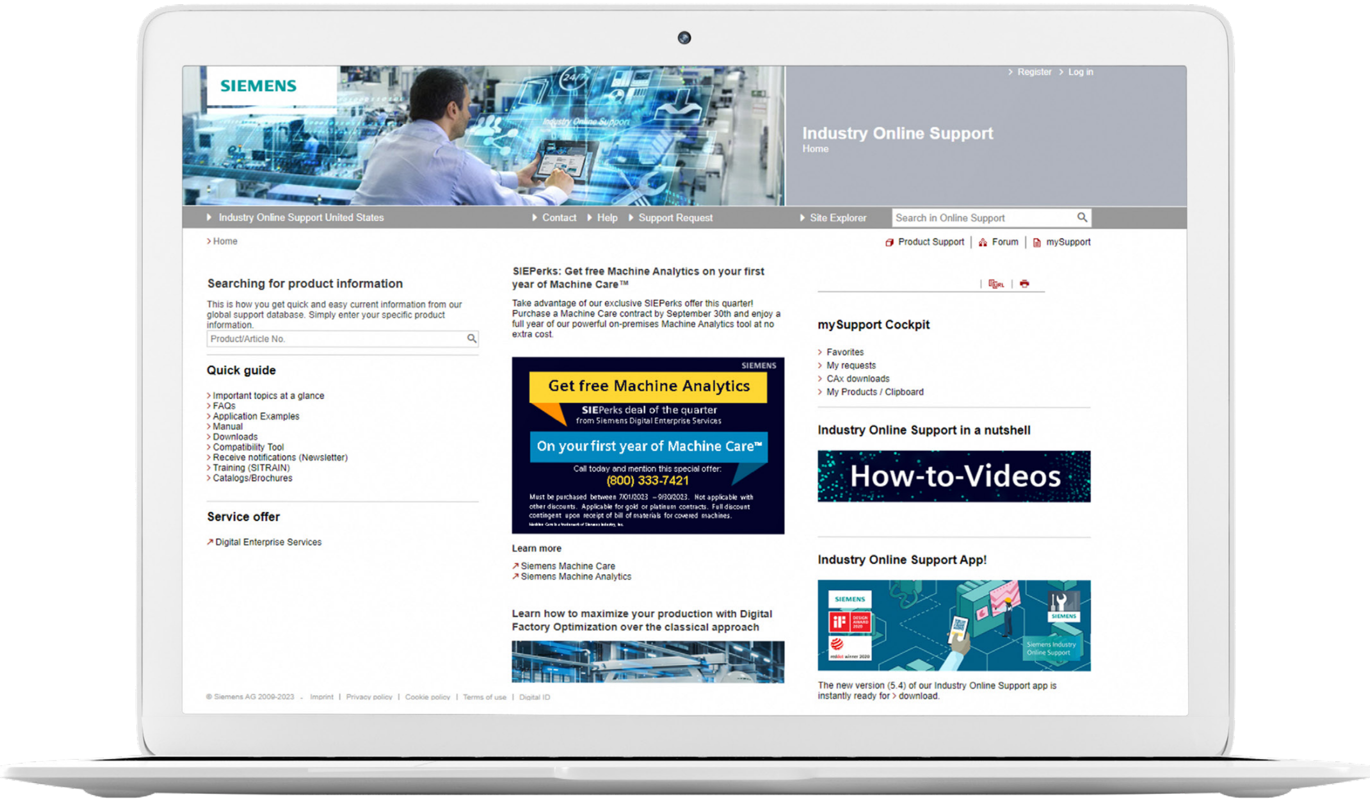

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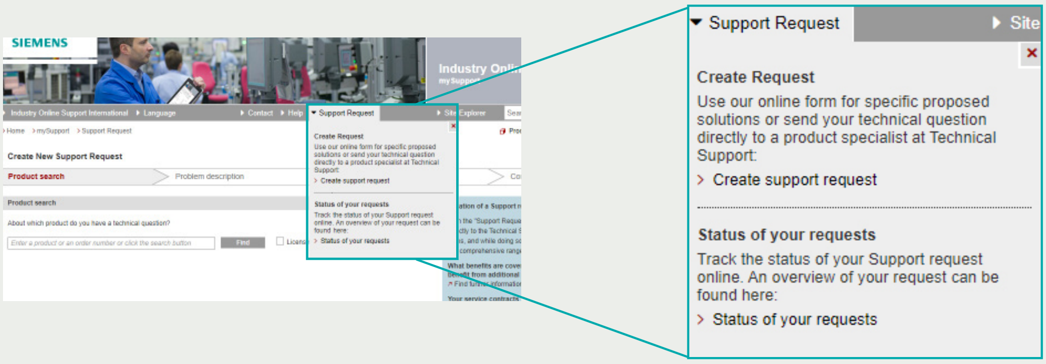

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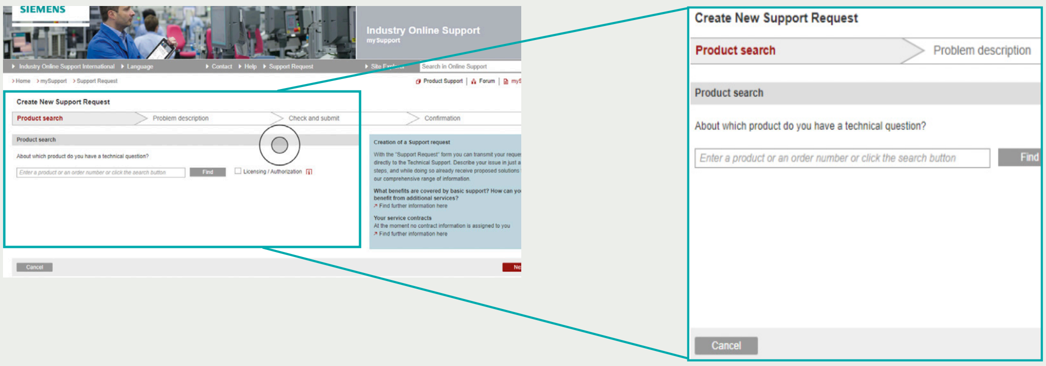

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SINOVA
power distribution

SINOVA
power distribution

Experience the power of simplicity with our SINOVA power distribution range of electrical protection products.

In the complex realm of power distribution, our wide range of components is designed to protect your investment in people, equipment, and infrastructure from potential electrical faults and hazards while ensuring optimal performance. Our focus on safety, reliability, and value-driven excellence means you can have confidence in our power distribution products, which include air circuit breakers and molded case circuit breakers. Experience the assurance of Siemens quality, made simple with exact product features that meet your specific needs.

SINOVA The Power of **Simplicity**

3WJ
air circuit breakers

SINOVA The Power of **Simplicity**

3WJ

air circuit breakers

SINOVA The Power of **Simplicity**

3WJ air circuit breakers

Product **highlights**

Adaptable

Our air circuit breakers feature common footprints, allowing for easy and seamless integration.

Comprehensive

With a range of up to 4000A, our air circuit breakers cater to all your standard application needs.

Customizable

We provide complete flexibility for users to choose their desired features, ensuring cost-efficient performance that meets their specific requirements.

SINOVA The Power of **Simplicity**

Overview

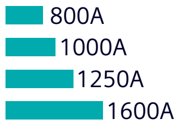
Product range

Fixed breakers — **Rated currents (A)**

Frame size I

3 pole

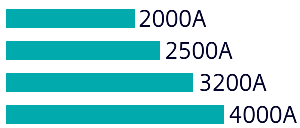
4 pole



Frame size II

3 pole

4 pole

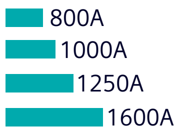


Withdrawable breakers — **Rated currents (A)**

Frame size 1

3 pole

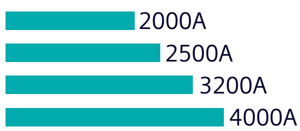
4 pole



Frame size II

3 pole

4 pole

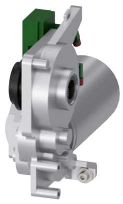


Overview

Accessories


Trip alarm switch

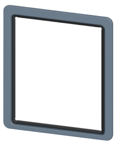

Auxiliary switch block

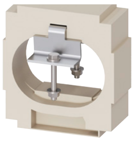

Charging motor (M)

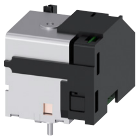

Closing Coil (CC) / Shunt Trip (ST) - For continuous duty

Transparent cover for Electronic Trip Unit (ETU)


Crank handle


Door sealing frame

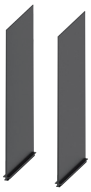

External current sensor for N-conductor

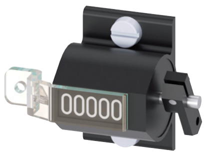

Undervoltage Release (UVR):
Instantaneous (≤8ms), Short delay (≤200ms)


Undervoltage Release (UVR-t):
Adjustable 0.2s and 0.3s


Key interlocking system


Locking provision against unauthorized closing secured open


Phase barrier

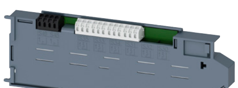


Operation counter


Ready-to-close


Sealing cap


Protective cover
IP55


Position signailing
switch

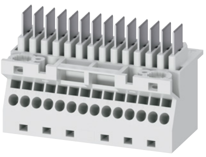

Mutual merchanical interlock

Note: You will find a detailed range of accessories in the Accessories and Spare parts section from page 20 to page 25.

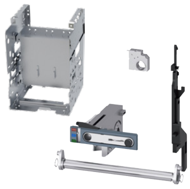
Overview

Spares

Arc chute

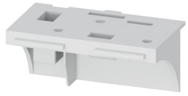


Base part

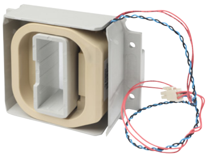


Conversion set

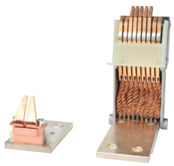
Electronic Trip Unit (ETU)



Dummy block



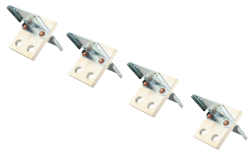
Internal current sensor



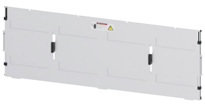
Main contact system (1 pc)

Rear vertical main connection, top or bottom

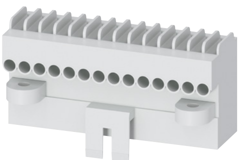
Vertical main connection, top or bottom



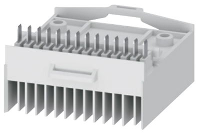
Rear horizontal main connection, top or bottom



Shutter



Secondary disconnect terminals



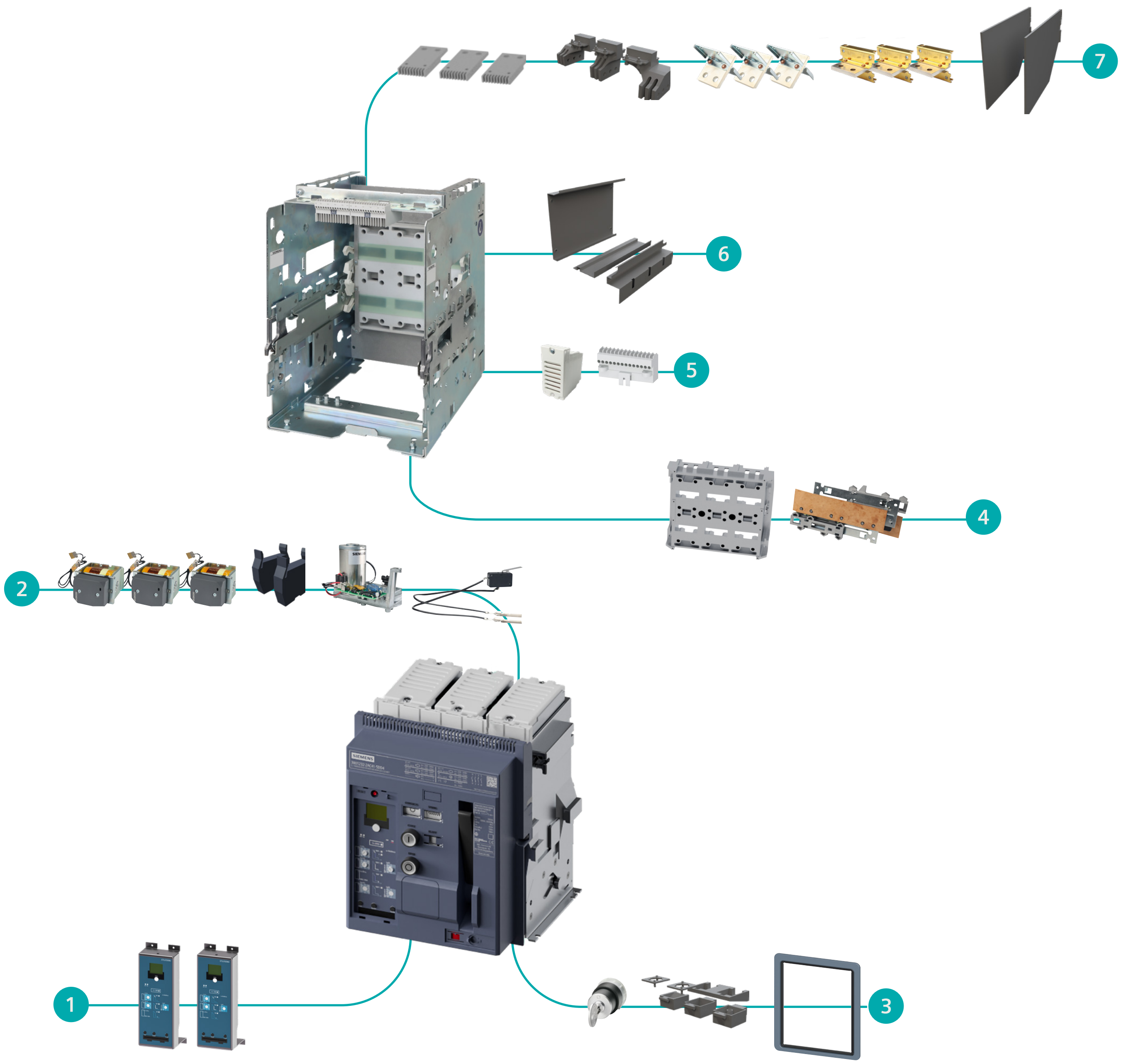
Sliding disconnect

Mechanical interlock to prevent opening of the circuit breaker compartment door

Note: You will find a detailed range of accessories in the Accessories and Spare parts section from page 20 to page 25.

Overview

System overview



1. Electronic Trip Unit (ETU)
2. Spring charging motor, auxiliary switches, closing coil, shunt trip, under voltage releases
3. Various interlocking devices
4. Guide frame, shutter, position indicator switch
5. Arc chute, secondary disconnect terminal
6. Arc chute cover
7. Main connection, phase barrier

Technical specifications

3WJ air circuit breakers

The automatic circuit breakers adhere to IEC 60947-2 standards, and non-automatic circuit breakers adhere to IEC 60947-2 CBI-Y standards.

Frame size			
Breaker type			
Rated current in at 40°C,	Main conductor		A
at 50/60Hz	Neutral conductor (only 4P)		A
Rated operating voltage Ue at 50/60Hz			AC V
Rated impulse	Main circuits		kV
	Auxiliary circuits		kV
Utilization category			
Rated short circuit	Breaking capacity	up to	
Making capacity Icm (peak value)	S	440V AC	kA
Rated service short circuit	Breaking capacity	up to	
Breaking capacity Ics (rms value)	S	440V AC	kA
Rated ultimate short circuit	Breaking capacity	up to	
Breaking capacity Icu (rms value)	S	440V AC	kA
Permissible ambient temperatures	Operation		°C
	Storage		°C
Rated short-time withstand current Icw at 50/60Hz		1 secs	kA
Power loss at In	Fixed-mounted		W
With 3-phase symmetric load	Withdrawable including guide-frame		W
Endurance	Mechanical		Operating cycle
	Electrical up to 440V AC		
Operating frequency	Mechanical		1/h
Main conductor for minimum cross-section	Copper bars, bare		Qty mm²
	Copper bars, bare		Qty mm²
Auxiliary conductors (Cu)	Solid and finely stranded with end sleeves		
Max no. of auxiliary conductors X cross-section			

I

II

3WJ1108	3WJ1110	3WJ1112	3WJ1116	3WJ1220	3WJ1225	3WJ1232	3WJ1240
800	1000	1250	1600	2000	2500	3200	4000
100%							
440							
8							
4							
B							
105	105	105	105	121	121	121	121
50	50	50	50	55	55	55	55
50	50	50	50	55	55	55	55
-20...+70							
-40...+80							
50	50	50	50	55	55	55	55
60 130	90 205	122 255	170 392	216 493	338 563	420 760	750 960
12000 8000	12000 8000	12000 8000	12000 8000	10000 4000	10000 4000	10000 4000	10000 4000
60							
1x 60 x 10	2x 40 x 10	2x 60 x 10	2x 60 x 10	2x 100 x 10	2x 100 x 10	3x 100 x 10	4x 120 x 10
1x 50 x 10	2x 60 x 10	2x 40 x 10	2x 50 x 10	2x 80 x 10	2x 100 x 10	3x 100 x 10	4x 100 x 10
1 x 0.5 ... 2.5mm²; 1 x AWG14 2 x 1.0 mm²							

Selection & ordering data

MLFB Structure: Basic configuration for AC circuit breakers and AC non-automatic circuit breakers.

3WJ1	5	6	7	8	9	10	11	12	13	14	15	16	Z

Switching device

Frame size		5
	1	1
	2	2

		SZ 1	SZ 2	6	7
Max. rated current $I_{n\ max}$	800A	■	-	0	8
	1000A	■	-	1	0
	1250A	■	-	1	2
	1600A	■	-	1	6
	2000A	-	■	2	0
	2500A	-	■	2	5
	3200A	-	■	3	2
	4000A	-	■	4	0

		SZ 1	SZ 2		8
Breaking capacity I_{cu}/I_{cs}(kA), I_{cw} for 1s (kA) at 440V AC	Breaking capacity S	■	-	50/50kA	2
		-	■	55/55kA	2

		9	10
AC non-automatic circuit breakers	ETU	A	A
Circuit breakers, display with current metering			
Electronic Trip Unit (ETU)	ETU350WJ:LSI	A	E
	ETU360WJ:LSING	A	F

				11
Number of poles	Fixed-mounted		3 pole	0
			4 pole	1
	Withdrawable	Without position signaling switch and without shutter	3 pole	3
			4 pole	4
		Without position signaling switch and with shutter	3 pole	5
			4 pole	6

Connection

		SZ 1	SZ 2		12
Number of mounting	Fixed-mounted (1)	■	■	Vertical	1
		■	■	Horizontal	2
		■	■	Vertical on top / horizontal at the bottom	5
		■	■	Horizontal on top / vertical at the bottom	6
	Withdrawable (1)	■	■	Without guide frame	0
		■	■	Vertical	1
		■	■	Horizontal	2
		■	■	Vertical on top / horizontal at the bottom	5
		■	■	Horizontal on top / vertical at the bottom	6

Spring charging motor (M), auxiliary switches (AUX)			13
Without spring charging motor and without auxiliary switches			0
Without spring charging motor but with auxiliary switches 2 NO, 2 NC		S1, S2	1
Auxiliary switches 2 NO, 2 NC and spring charging motor		S1, S2	
Spring charging motor	24V DC		2
Spring charging motor	110-127V AC / 110-125V DC		3
Spring charging motor	220-240V AC / 220-250V DC		4
Auxiliary switches 4 NO, 4 NC and spring charging motor		S5, S6	
Spring charging motor	24V DC		5
Spring charging motor	110-127V AC / 110-125V DC		6
Spring charging motor	220-240V AC / 220-250V DC		7

Note:
4000A is available for fixed-mounted vertical(1) and withdrawal vertical(1).
Crank Handle is not part of the standard scope of supply, to be ordered as an accessory.

Selection & ordering data

Basic configuration for AC circuit breakers and AC non-automatic circuit breakers.

3WJ1	5	6	7	-	8	9	10	11	12	-	13	14	15	16	-	Z

Closing coil

Without closing coil				A
Closing coil (CC)				
Closing coil	24V DC			B
Closing coil	110-127V AC / 110-125V DC			C
Closing coil	220-240V AC / 220-250V DC			D

1st auxiliary release

Without 1st auxiliary release				A
Shunt trip (ST)	1 0			
Shunt trip	24V DC	--	100% OP	B
Shunt trip	110 ... 125 DC	110 ... 127 AC	100% OP	C
Shunt trip	220 ... 250 DC	220 ... 240 AC	100% OP	D
Undervoltage release (UVR), instantaneous (≤ 80 ms), short-delay (≤ 200 ms)				
UVR	24V DC			E
UVR	110-127V AC / 110-125V DC			F
UVR	220-240V AC / 220-250V DC			G
UVR	380-415V AC			H
Undervoltage release (UVR-t), can be delayed between 0.2 s and 3.2 s				
UVR-t	110-127V AC / 110-125V DC			J
UVR-t	220-240V AC / 220-250V DC			K
UVR-t	380-415V AC			L

2nd auxiliary release

Without 2nd auxiliary release				0
Shunt trip (ST), suitable for continuous duty				
Shunt trip	24V DC	--	100% OP	1
Shunt trip	110 ... 125 DC	110 ... 127 AC	100% OP	3
Shunt trip	220 ... 250 DC	220 ... 240 AC	100% OP	4

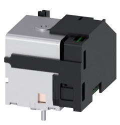
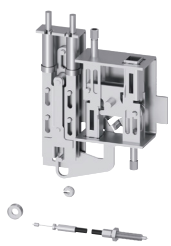
Z options

Door sealing frame (IP41)	T40
Trip unit cover	F40
Position signal switch (1x connected, 1x test, 1x disconnected)	R15
Position signal switch (3x connected, 2x test, 1x disconnected)	R16
Neutral CT for 4th Pole	F23
Mutual mechanical interlock - Bowden for fixed breakers with 2m bowden cable	S55
Mutual mechanical interlock - Bowden for drawout breakers with 2m bowden cable	R55
Locking systems - Castell	S05
Door interlock - To prevent the opening of the control cabinet door in the ON position	S30
Door interlock - To prevent the opening of the control cabinet door in the connected position	R30
5 digit operating counter	C01
Ready to close	C22
Trip signal switch	K07
Special packaging	P61

Note:
4000A is available for fixed-mounted vertical [(1)] and withdrawal vertical [(1)].
Crank Handle is not part of the standard scope of supply, to be ordered as an accessory.

Selection & ordering data

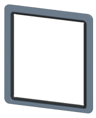
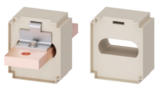
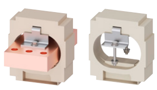
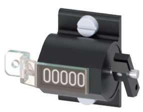
Accessories

Frame size / Accessory	Product image	Frame size / A	Type / Description	Article no.	List price per PU (Per Unit)
Trip alarm switch			1 NO Contact	3WJ9111-0AH02	
Auxiliary switch block			2NO+2NC, S1/S2	3WJ9111-0AG04	
			2NO+2NC, S6/S5	3WJ9111-0AG01	
			3NO+1NC, S60/S5	3WJ9111-0AG02	
			4NO+0NC, S60/S61	3WJ9111-0AG03	
Charging motor (M)			24V DC	3WJ9111-0AF01	
			110-127V AC / 110-125V DC	3WJ9111-0AF05	
			220-240V AC / 220-250V DC	3WJ9111-0AF06	
Closing Coil (CC)/ Shunt Trip (ST) - for continuous duty			24V DC	3WJ9111-0AD01	
			110-127V AC / 110-125V DC	3WJ9111-0AD05	
			220-240V AC / 220-250V DC	3WJ9111-0AD06	
Undervoltage Release (UVR): Instantaneous (≤8ms), Short delay (≤200ms)			24V DC	3WJ9111-0AE01	
			110...127V AC / 110...125V DC	3WJ9111-0AE05	
			220...240V AC / 220...250V DC	3WJ9111-0AE06	
			380...415V AC	3WJ9111-0AE07	
Undervoltage Release (UVR-t): with adjustable time delay of 0.2-3.2s			110...127V AC / 110...125V DC	3WJ9111-0AE15	
			220...240V AC / 220...250V DC	3WJ9111-0AE16	
			380...415V AC	3WJ9111-0AE17	
Locking provision against unauthorized closing secured open			Locking provision for Castell locks. The lock must be ordered at the manufacturer.	3WJ9111-0BA31	
			With CES lock	3WJ9111-0BA35	
Mutual mechanical interlock			Bowden cable - 2m	3WJ9111-0BB41	
			Bowden cable - 3m	3WJ9111-0BB42	
			Bowden cable - 4.5m	3WJ9111-0BB43	
			Bowden cable (2m) for fixed-mounted design is necessary for each circuit breaker. Spare-part for Z-option S55	3WJ9111-0BB21	
			Bowden cable (2m) for withdrawable design is necessary for each circuit breaker. Spare-part for Z-option R55.	3WJ9111-0BB22	

Note: The product images in this table list are for visual representation purposes only and may not reflect exact product sizes.

Selection & ordering data

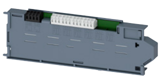
Accessories

Frame size Accessory	Product image	Frame size / A	Type / Description	Article no.	List price per PU (Per Unit)
Key interlocking system			Against paralleling unsynchronized sources for 3 circuit breakers with CES lock. Interlocking in OFF position mounted to front cover 2 identical keys for 3 circuit breakers max. 2 circuit breakers closed	3WJ9111-0BA43	
Transparent cover for ETU			ETU350WJ	3WJ9111-0EM21	
			ETU360WJ		
Crank handle			For withdrawable circuit breakers	3WJ9111-0BC01	
Door sealing frame			IP41	3WJ9111-0AP01	
External current sensor for N-conductor		1	Busbar connection (Include copper bar)	3WJ9111-0AA31	
			Window type (Without copper bar)	3WJ9111-0AA21	
		2	Busbar connection (Include copper bar)	3WJ9111-0AA32	
			Window type (Without copper bar)	3WJ9111-0AA22	
2 phase barriers (1 set)		1	For 3P fixed design	3WJ9111-0AP51	
			For 3P withdrawable design	3WJ9111-0AP61	
		2	For 3P fixed design	3WJ9111-0AP52	
			For 3P withdrawable design	3WJ9111-0AP62	
3 phase barriers (1 set)		1	For 4P fixed design	3WJ9111-0AP53	
			For 4P withdrawable design	3WJ9111-0AP63	
		2	For 4P fixed design	3WJ9111-0AP54	
			For 4P withdrawable design	3WJ9111-0AP64	
Operation counter			5-digit operating cycles counter	3WJ9111-0AH04	
Ready-to-close			1 NO contact	3WJ9111-0AH01	

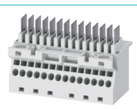
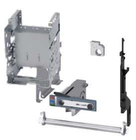
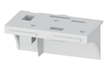
Note: The product images in this table list are for visual representation purposes only and may not reflect exact product sizes.

Selection & ordering data

Accessories

Frame size / Accessory	Product image	Frame size / A	Type / Description	Article no.	List price per PU (Per Unit)
Sealing cap			For OFF push button	3WJ9111-0AP05	
Protective cover IP55			Not possible in combination with door sealing frame	3WJ9111-0AP03	
Position signaling switch			1x connected, 1x test, 1x disconnected	3WJ9111-0AH12	
			3x connected, 2x test, 1x disconnected	3WJ9111-0AH11	

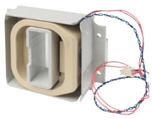
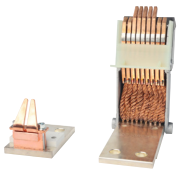
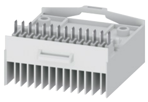
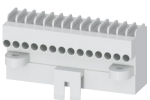
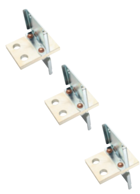
Spares

Frame size / Accessory	Product image	Frame size / A	Type / Description	Article no.	List price per PU (Per Unit)
Arc chute		1	1 unit	3WJ9111-0AP31	
		2		3WJ9111-0AP32	
Arc Chute Cover		1	3 pole, fixed breaker	3WJ9111-0AP45	
			4 pole, fixed breaker	3WJ9111-0AP47	
			3 pole, withdrawable breaker	3WJ9111-0AP41	
			4 pole, withdrawable breaker	3WJ9111-0AP43	
		2	3 pole, fixed breaker	3WJ9111-0AP46	
			4 pole, fixed breaker	3WJ9111-0AP48	
			3 pole, withdrawable breaker	3WJ9111-0AP42	
			4 pole, withdrawable breaker	3WJ9111-0AP44	
Base part			For secondary disconnect terminals	3WJ9111-0AB03	
Conversion set		FS 1/3P	Converting fixed-mounted circuit breakers into withdrawable design	3WJ9111-0BC11	
		FS 1/4P		3WJ9111-0BC14	
		FS 2/3P		3WJ9111-0BC12	
		FS 2/4P		3WJ9111-0BC15	
Dummy block			For secondary disconnect terminals	3WJ9111-0AB04	

Note: The product images in this table list are for visual representation purposes only and may not reflect exact product sizes.

Selection & ordering data

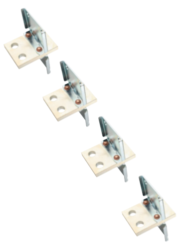
Spares

Frame size Accessory	Product image	Frame size / A	Type / Description	Article no.	List price per PU (Per Unit)
Electronic Trip Unit (ETU)		FS 1/2	ETU350WJ LSI	3WJ9111-0EE31	
		FS 1/2	ETU360WJ LSING	3WJ9111-0EE32	
Internal current sensor		1	Rogowski Coil	3WJ9111-0AA14	
		2		3WJ9111-0AA15	
Main contact system (1 pc)		1600A	-	3WJ9111-0AQ03	
		2000A		3WJ9111-0AQ11	
		2500A		3WJ9111-0AQ12	
		3200A		3WJ9111-0AQ13	
		4000A	For withdrawable design	3WJ9111-0AQ14	
			For fixed mounted design	3WJ9111-0AQ15	
		Up to 1000A	-	3WJ9111-0AQ01	
		Up to 1250A		3WJ9111-0AQ02	
Sliding disconnect			Secondary contact modules only for withdrawable design	3WJ9111-0AB02	
Secondary disconnect terminals			For fixed design	3WJ9111-0AB01	
Rear horizontal main connection, top or bottom		Size 1 up to 1000A	3 pieces for 3 pole in withdrawable design	3WJ9111-0AX11	
		Size 1 up to 1250A	3 pieces for 3 pole in withdrawable design	3WJ9111-0AX13	
		Size 1 up to 1600A	3 pieces for 3 pole in withdrawable design	3WJ9111-0AX15	
		Size 2 2000A	3 pieces for 3 pole in withdrawable design	3WJ9111-0AX21	
		Size 2 2500A	3 pieces for 3 pole in withdrawable design	3WJ9111-0AX23	
		Size 2 3200A	3 pieces for 3 pole in withdrawable design	3WJ9111-0AX25	

Note: The product images in this table list are for visual representation purposes only and may not reflect exact product sizes.

Selection & ordering data

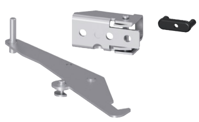
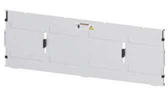
Spares

Frame size / Accessory	Product image	Frame size / A	Type / Description	Article no.	List price per PU (Per Unit)
Rear horizontal main connection, top or bottom		Size 1 up to 1000A	4 pieces for 4 pole in withdrawable design	3WJ9111-0AX12	
		Size 1 up to 1250A	4 pieces for 4 pole in withdrawable design	3WJ9111-0AX14	
		Size 1 up to 1600A	4 pieces for 4 pole in withdrawable design	3WJ9111-0AX16	
		Size 2 2000A	4 pieces for 4 pole in withdrawable design	3WJ9111-0AX22	
		Size 2 2500A	4 pieces for 4 pole in withdrawable design	3WJ9111-0AX24	
		Size 2 3200A	4 pieces for 4 pole in withdrawable design	3WJ9111-0AX26	
Rear vertical main connection, top or bottom		Size 1 up to 1000A	3 pieces for 3 pole in withdrawable design	3WJ9111-0AV11	
		Size 1 up to 1250A	3 pieces for 3 pole in withdrawable design	3WJ9111-0AV13	
		Size 1 up to 1600A	3 pieces for 3 pole in withdrawable design	3WJ9111-0AV15	
		Size 1 up to 1000A	4 pieces for 4 pole in withdrawable design	3WJ9111-0AV12	
		Size 1 up to 1250A	4 pieces for 4 pole in withdrawable design	3WJ9111-0AV14	
		Size 1 up to 1600A	4 pieces for 4 pole in withdrawable design	3WJ9111-0AV16	
		Size 2 2000A	3 pieces for 3 pole in withdrawable design	3WJ9111-0AV21	
		Size 2 2500A	3 pieces for 3 pole in withdrawable design	3WJ9111-0AV23	
		Size 2 3200A	3 pieces for 3 pole in withdrawable design	3WJ9111-0AV25	
		Size 2 4000A	3 pieces for 3 pole in withdrawable design	3WJ9111-0AV31	
		Size 2 2000A	4 pieces for 4 pole in withdrawable design (Top)	3WJ9111-0AV22	
			4 pieces for 4 pole in withdrawable design (Bottom)	3WJ9111-0AV27	
		Size 2 2500A	4 pieces for 4 pole in withdrawable design	3WJ9111-0AV24	
		Size 2 3200A	4 pieces for 4 pole in withdrawable design	3WJ9111-0AV26	
		Size 2 4000A	4 pieces for 4 pole in withdrawable design	3WJ9111-0AV32	

Note: The product images in this table list are for visual representation purposes only and may not reflect exact product sizes.

Selection & ordering data

Spares

Frame size / Accessory	Product image	Frame size / A	Type / Description	Article no.	List price per PU (Per Unit)
Vertical main connection, top or bottom		Size 1 up to1000A	3 pieces for 3 pole in fixed mounted design	3WJ9111-0AM11	
		Size 1 up to 1250A	3 pieces for 3 pole in fixed mounted design	3WJ9111-0AM13	
		Size 1 up to 1600A	3 pieces for 3 pole in fixed mounted design	3WJ9111-0AM15	
		Size 1 up to 1000A	4 pieces for 4 pole in fixed mounted design	3WJ9111-0AM12	
		Size 1 up to 1250A	4 pieces for 4 pole in fixed mounted design	3WJ9111-0AM14	
		Size 1 up to 1600A	4 pieces for 4 pole in fixed mounted design	3WJ9111-0AM16	
		Size 2 2000A	3 pieces for 3 pole in fixed mounted design	3WJ9111-0AM21	
		Size 2 2500A	3 pieces for 3 pole in fixed mounted design	3WJ9111-0AM23	
		Size 2 3200A	3 pieces for 3 pole in fixed mounted design	3WJ9111-0AM25	
		Size 2 4000A	3 pieces for 3 pole in fixed mounted design	3WJ9111-0AM31	
		Size 2 2000A	4 pieces for 4 pole in fixed mounted design	3WJ9111-0AM22	
		Size 2 2500A	4 pieces for 4 pole in fixed mounted design	3WJ9111-0AM24	
		Size 2 3200A	4 pieces for 4 pole in fixed mounted design	3WJ9111-0AM26	
		Size 2 4000A	4 pieces for 4 pole in fixed mounted design	3WJ9111-0AM32	
Mechanical interlock to prevent opening of the circuit breaker compartment door			If ACB is closed - for fixed mounted design and spare part for Z-option S30	3WJ9111-0BB12	
			If ACB is closed - for withdrawable design and spare part for Z-option R30	3WJ9111-0BB13	
Shutter		1	For 3 pole	3WJ9111-0AP04	
			For 4 pole	3WJ9111-0AP08	
		2	For 3 pole	3WJ9111-0AP06	
			For 4 pole	3WJ9111-0AP11	

Note: The product images in this table list are for visual representation purposes only and may not reflect exact product sizes.

Selection & ordering data

3WJ8 guide frame for withdrawable design

<table>
<tr><th>Current rating</th><th>Frame size</th><th>No. of poles</th><th>Safety shutter</th><th>Terminal orientation</th><th>AUX connectors</th><th>Article no.</th><th>List price per PU (Per Unit)</th></tr>
<tr><td>1250A</td><td>1</td><td>3P</td><td rowspan="32">With safety shutter</td><td rowspan="10">Top horizontal bottom horizontal</td><td rowspan="32">2</td><td>3WJ8112-2AA32-1BA1</td><td></td></tr>
<tr><td>1250A</td><td>1</td><td>4P</td><td>3WJ8112-2AA42-1BA1</td><td></td></tr>
<tr><td>1600A</td><td>1</td><td>3P</td><td>3WJ8116-2AA32-1BA1</td><td></td></tr>
<tr><td>1600A</td><td>1</td><td>4P</td><td>3WJ8116-2AA42-1BA1</td><td></td></tr>
<tr><td>2000A</td><td>2</td><td>3P</td><td>3WJ8220-2AA32-1BA1</td><td></td></tr>
<tr><td>2000A</td><td>2</td><td>4P</td><td>3WJ8220-2AA42-1BA1</td><td></td></tr>
<tr><td>2500A</td><td>2</td><td>3P</td><td>3WJ8225-2AA32-1BA1</td><td></td></tr>
<tr><td>2500A</td><td>2</td><td>4P</td><td>3WJ8225-2AA42-1BA1</td><td></td></tr>
<tr><td>3200A</td><td>2</td><td>3P</td><td>3WJ8232-2AA32-1BA1</td><td></td></tr>
<tr><td>3200A</td><td>2</td><td>4P</td><td>3WJ8232-2AA42-1BA1</td><td></td></tr>
<tr><td>1250A</td><td>1</td><td>3P</td><td rowspan="10">Top horizontal bottom vertical</td><td>3WJ8112-2AA36-1BA1</td><td></td></tr>
<tr><td>1250A</td><td>1</td><td>4P</td><td>3WJ8112-2AA46-1BA1</td><td></td></tr>
<tr><td>1600A</td><td>1</td><td>3P</td><td>3WJ8116-2AA36-1BA1</td><td></td></tr>
<tr><td>1600A</td><td>1</td><td>4P</td><td>3WJ8116-2AA46-1BA1</td><td></td></tr>
<tr><td>2000A</td><td>2</td><td>3P</td><td>3WJ8220-2AA36-1BA1</td><td></td></tr>
<tr><td>2000A</td><td>2</td><td>4P</td><td>3WJ8220-2AA46-1BA1</td><td></td></tr>
<tr><td>2500A</td><td>2</td><td>3P</td><td>3WJ8225-2AA36-1BA1</td><td></td></tr>
<tr><td>2500A</td><td>2</td><td>4P</td><td>3WJ8225-2AA46-1BA1</td><td></td></tr>
<tr><td>3200A</td><td>2</td><td>3P</td><td>3WJ8232-2AA36-1BA1</td><td></td></tr>
<tr><td>3200A</td><td>2</td><td>4P</td><td>3WJ8232-2AA46-1BA1</td><td></td></tr>
<tr><td>1250A</td><td>1</td><td>3P</td><td rowspan="12">Top vertical bottom vertical</td><td>3WJ8112-2AA31-1BA1</td><td></td></tr>
<tr><td>1250A</td><td>1</td><td>4P</td><td>3WJ8112-2AA41-1BA1</td><td></td></tr>
<tr><td>1600A</td><td>1</td><td>3P</td><td>3WJ8116-2AA31-1BA1</td><td></td></tr>
<tr><td>1600A</td><td>1</td><td>4P</td><td>3WJ8116-2AA41-1BA1</td><td></td></tr>
<tr><td>2000A</td><td>2</td><td>3P</td><td>3WJ8220-2AA31-1BA1</td><td></td></tr>
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<tr><td>3200A</td><td>2</td><td>3P</td><td>3WJ8232-2AA31-1BA1</td><td></td></tr>
<tr><td>3200A</td><td>2</td><td>4P</td><td>3WJ8232-2AA41-1BA1</td><td></td></tr>
<tr><td>4000A</td><td>2</td><td>3P</td><td>3WJ8240-2AA31-1BA1</td><td></td></tr>
<tr><td>4000A</td><td>2</td><td>4P</td><td>3WJ8240-2AA41-1BA1</td><td></td></tr>
</table>

Note: Crank handle is not part of the standard scope of supply, to be ordered as an accessory.

Selection & ordering data

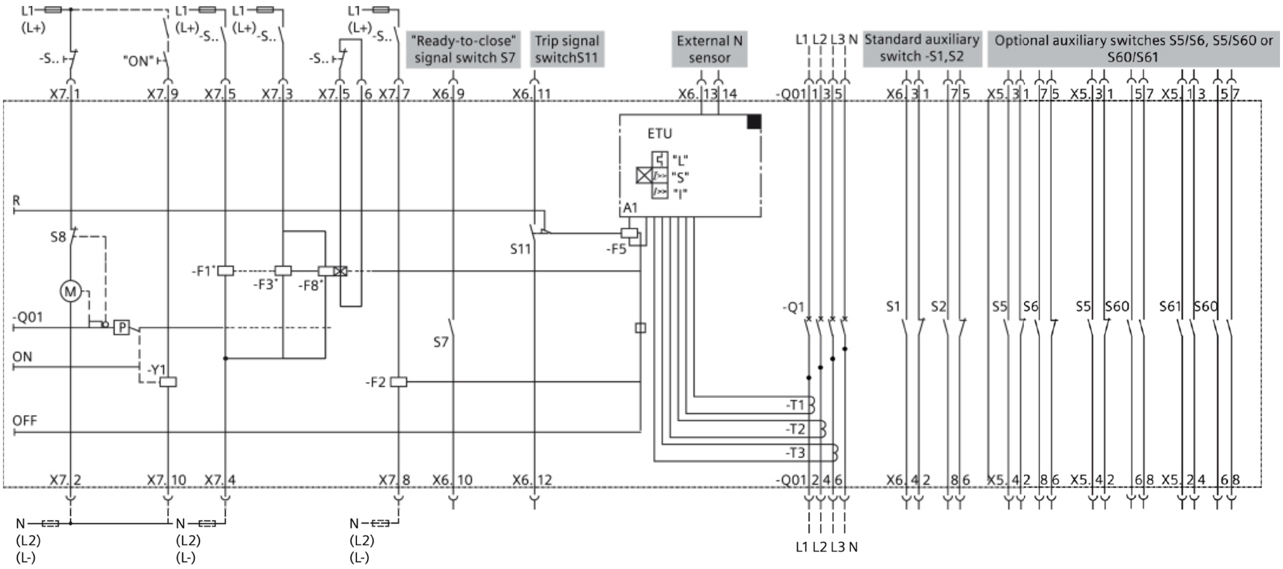
3WJ8 guide frame for withdrawable design

Current rating	Frame size	No. of poles	Safety shutter	Terminal orientation	AUX connectors	Article no.	List price per PU (Per Unit)
1250A	1	3P	Without safety shutter	Top horizontal bottom horizontal	2	3WJ8112-2AA32-0BA1	
1250A	1	4P				3WJ8112-2AA42-0BA1	
1600A	1	3P				3WJ8116-2AA32-0BA1	
1600A	1	4P				3WJ8116-2AA42-0BA1	
2000A	2	3P				3WJ8220-2AA32-0BA1	
2000A	2	4P				3WJ8220-2AA42-0BA1	
2500A	2	3P				3WJ8225-2AA32-0BA1	
2500A	2	4P				3WJ8225-2AA42-0BA1	
3200A	2	3P				3WJ8232-2AA32-0BA1	
3200A	2	4P				3WJ8232-2AA42-0BA1	
1250A	1	3P		Top horizontal bottom vertical		3WJ8112-2AA36-0BA1	
1250A	1	4P				3WJ8112-2AA46-0BA1	
1600A	1	3P				3WJ8116-2AA36-0BA1	
1600A	1	4P				3WJ8116-2AA46-0BA1	
2000A	2	3P				3WJ8220-2AA36-0BA1	
2000A	2	4P				3WJ8220-2AA46-0BA1	
2500A	2	3P				3WJ8225-2AA36-0BA1	
2500A	2	4P				3WJ8225-2AA46-0BA1	
3200A	2	3P				3WJ8232-2AA36-0BA1	
3200A	2	4P				3WJ8232-2AA46-0BA1	
1250A	1	3P		Top vertical bottom vertical		3WJ8112-2AA31-0BA1	
1250A	1	4P				3WJ8112-2AA41-0BA1	
1600A	1	3P				3WJ8116-2AA31-0BA1	
1600A	1	4P				3WJ8116-2AA41-0BA1	
2000A	2	3P				3WJ8220-2AA31-0BA1	
2000A	2	4P				3WJ8220-2AA41-0BA1	
2500A	2	3P				3WJ8225-2AA31-0BA1	
2500A	2	4P				3WJ8225-2AA41-0BA1	
3200A	2	3P				3WJ8232-2AA31-0BA1	
3200A	2	4P				3WJ8232-2AA41-0BA1	
4000A	2	3P				3WJ8240-2AA31-0BA1	
4000A	2	4P				3WJ8240-2AA41-0BA1	

Note: Crank handle is not part of the standard scope of supply, to be ordered as an accessory.

Wiring diagram

3WJ circuit diagram



*) Only one F1, F3 or F8 can be mounted per breaker

A1: Electronic Trip Unit (ETU)
F1/F2: Shunt trip
F3: Undervoltage release
F5 Tripping solenoid
F8: Undervoltage release with delay
M: Motor
P: Stored-energy spring
Q01: Manual storage handle
Q1: Main contact system
R: Mechanical indication of overcurrent trip, reset button

S1/S2/S5/S5/S60/S61: Auxiliary switches
S7: Ready-to-close signal switch
S8: Motor disconnect switch
S11: Trip signal switch
T1/T2/T3: Current transformers
X5/X6/X7: Secondary disconnect terminals
Y1: Closing coil

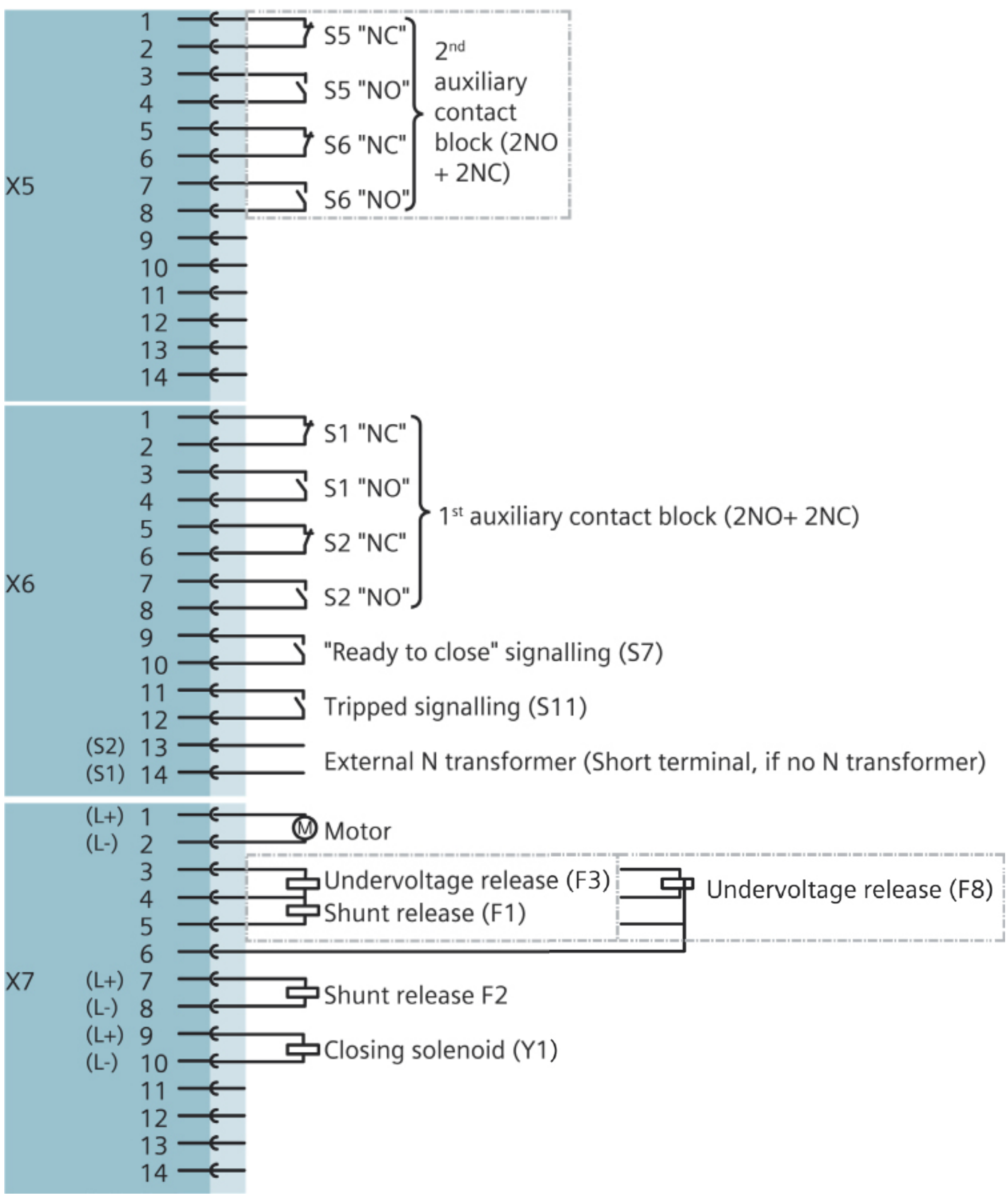
Wiring diagram

Terminal connection diagram of secondary disconnect terminals

Terminal connection diagram

The following overview shows which part of the internal equipment is connected to which part of the secondary disconnect terminals, i.e., this is a complete auxiliary and control wiring diagram of the circuit breakers.

For more information on the detailed wiring of the accessories, refer to the individual operating instructions of the respective accessory.

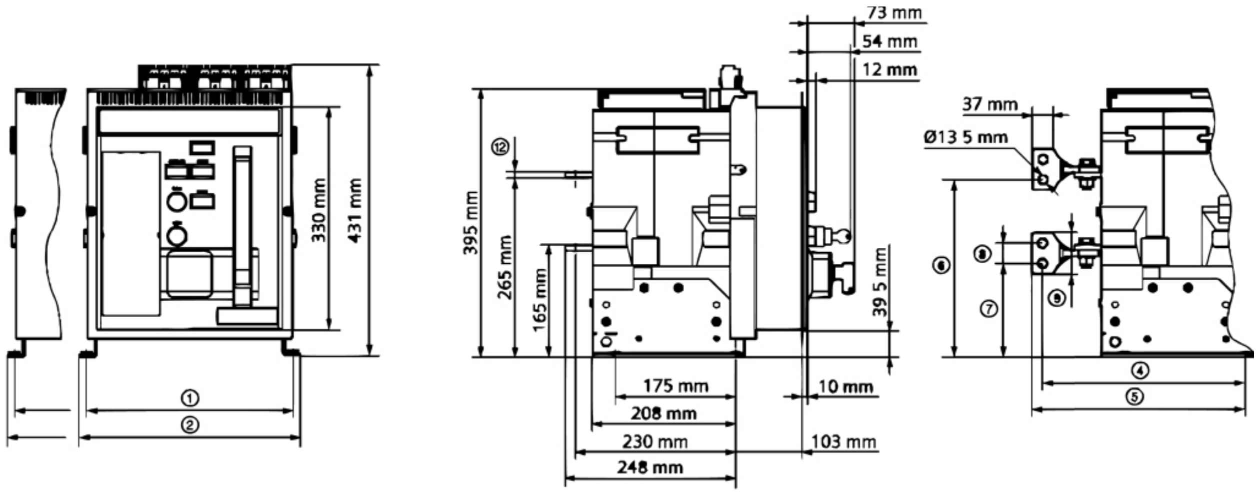


Dimension drawings

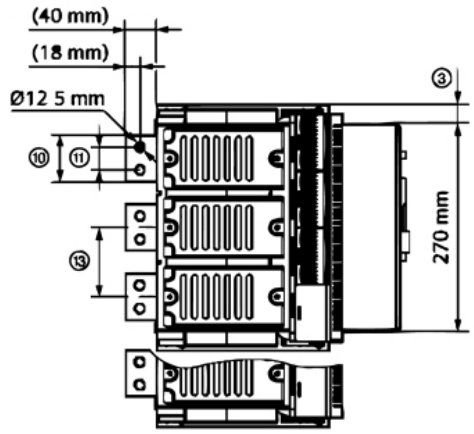
Fixed-mounted circuit breakers

The broken contour at the side depicts the 4 pole version

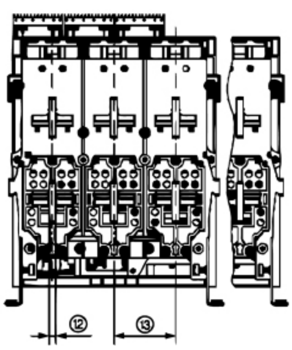
Horizontal connection and vertical connection up to 3200A



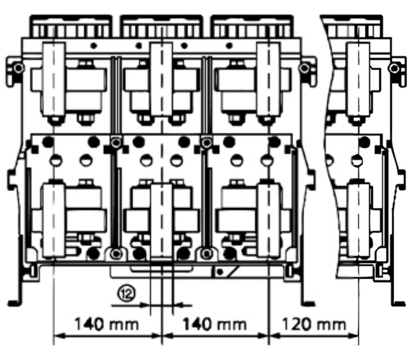
		3WJ11	3WJ1220	3WJ1225	3WJ1232	3WJ1240
1	3P	300mm	400mm			
	4P	390mm	520mm			
2	3P	320mm	420mm			
	4P	410mm	540mm			
3		25mm	75mm			
4		295mm	305mm			327mm
5		310mm	320mm			347mm
6		265.5mm	260mm	267.5mm	285mm	312.5mm
7		134.5mm	130mm	122.5mm	95mm	27.5mm
8		30mm	40mm		50mm	30mm
9		60mm	80mm		100mm	125mm
10		60mm	80mm			-
11		30mm	40mm			-
12		8mm	10mm	15mm	30mm	-
13		90mm	120mm			-



3WJ11



3WJ1220/25/32



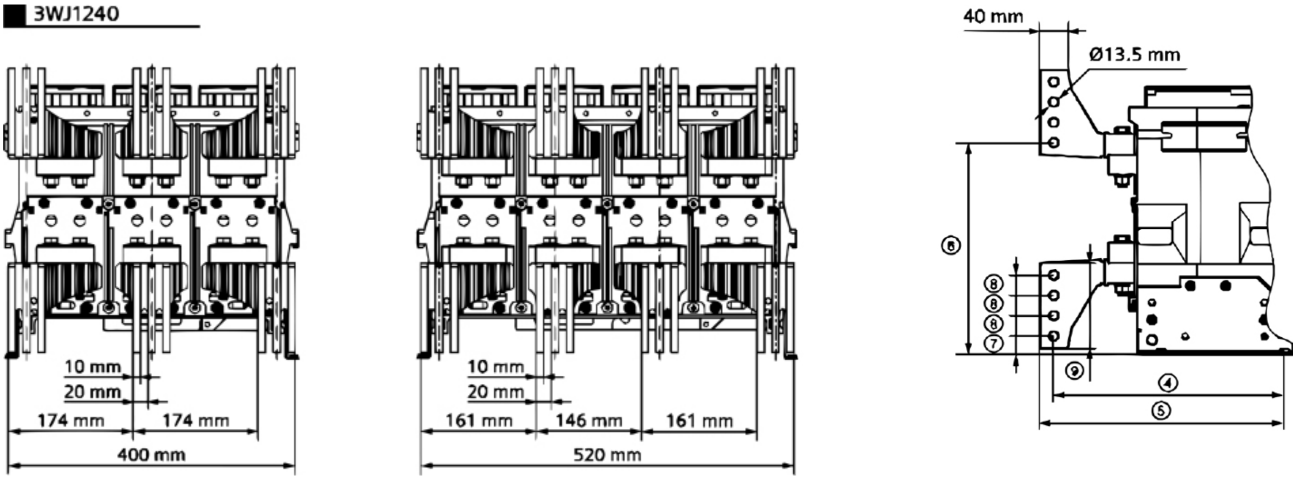
Note: All dimensions are in mm.

Dimension drawings

Fixed-mounted circuit breakers

The broken contour at the side depicts the 4 pole version

Vertical connection 4000A version



Safety distances

No additional safety distances from adjacent, grounded components is required above the circuit breaker (on fixed-mounted circuit breakers marked with "6"). Up to a rated operating voltage of 440V AC, the vertical bars (e.g., with front connection) must not be shielded if the busbar system is not located above the circuit breaker.

On the other hand, live, bare conductors and bars with voltages in excess of 440V AC (if they are located above the circuit breaker and if the current is supplied from above) should be protected against flashover by means of phase barriers, bar covers or, arc chute covers (only use accessories for horizontal or vertical connections).

Optional electrical equipment directly above the circuit breaker (if arc chutes are not used) or next to the circuit breaker should be protected with a cover. Once you have installed additional phase barriers or covers, you must ensure that heat dissipation from the circuit breaker is not impeded.

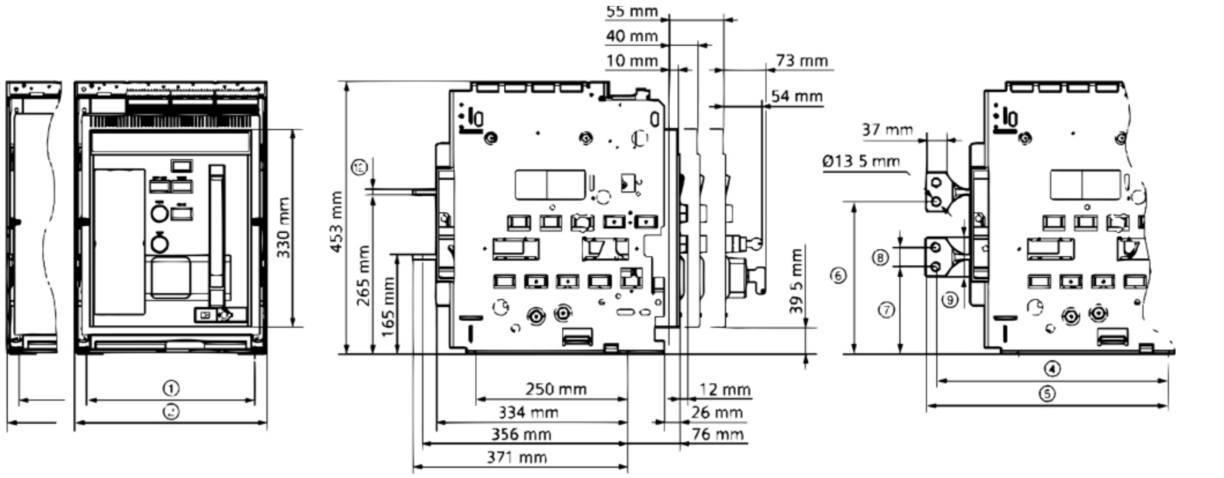
Note: All dimensions are in mm.

Dimension drawings

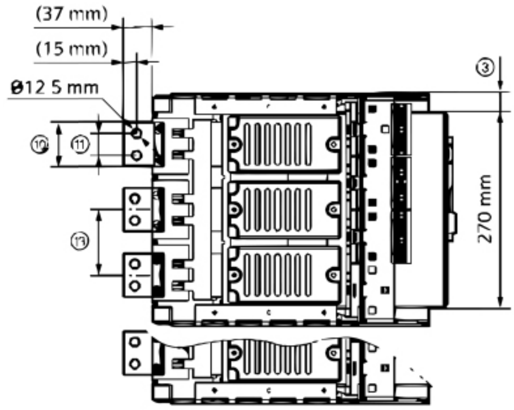
Withdrawable circuit breakers

The broken contour at the side depicts the 4 pole version

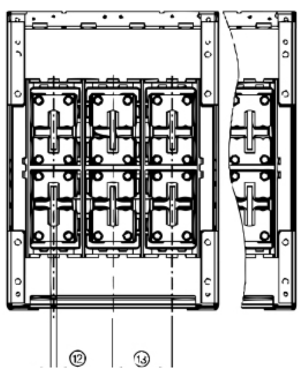
Horizontal connection and vertical connection for up to 3200A



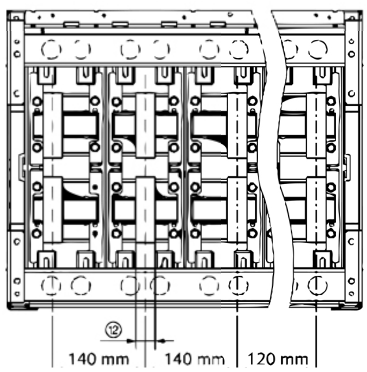
		3WJ11	3WJ1220	3WJ1225	3WJ1232	3WJ1240
1	3P	280mm	380mm			
	4P	370mm	500mm			
2	3P	320mm	420mm			
	4P	410mm	540mm			
3		25mm	75mm			
4		380mm	391mm			411mm
5		395mm	406mm			431mm
6		257.5mm	250mm	252.5mm	255mm	282.5mm
7		142.5mm	140mm	137.5mm	125mm	57.5mm
8		30mm	40mm		50mm	30mm
9		60mm	80mm		100mm	125mm
10		60mm	80mm		100mm	-
11		30mm	40mm		50mm	-
12		8mm	10mm	15mm	30mm	-
13		90mm	120mm			-



3WJ11



3WJ1220/25/32



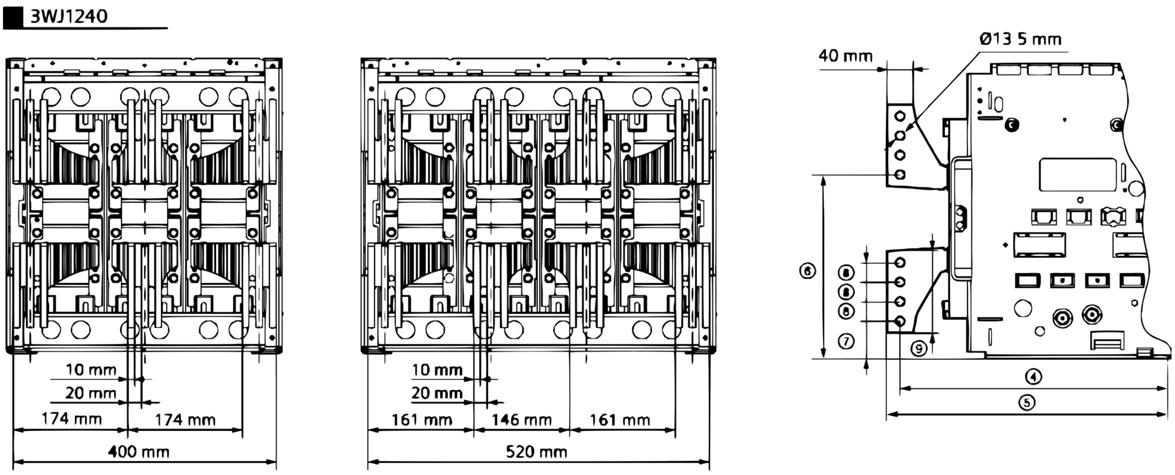
Note: All dimensions are in mm.

Dimension drawings

Withdrawable circuit breakers

The broken contour at the side depicts the 4 pole version

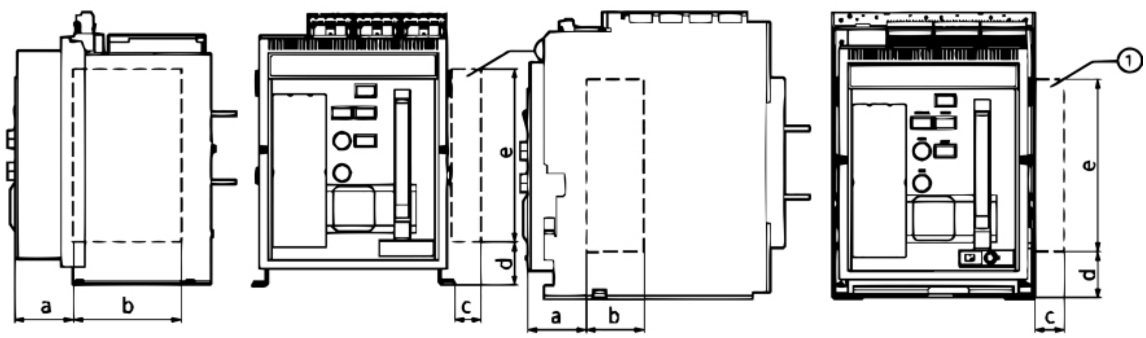
Vertical connection 4000A version



Accessories 3 pole / 4 pole

Mechanical interlock (1)
Interlocking device that prevents closing (2).
Comprising an interlock in the cabinet and an interlocking module with Bowden wire

For fixed-mounted circuit breakers **For withdrawable circuit breakers**



① Distance for interlocking module (without Bowden wire)

Distance for	a	b	c	d	e
(1)	90	90	50	65	270
(2)	58	215	10	250	115

Note: All dimensions are in mm.

Dimension drawings

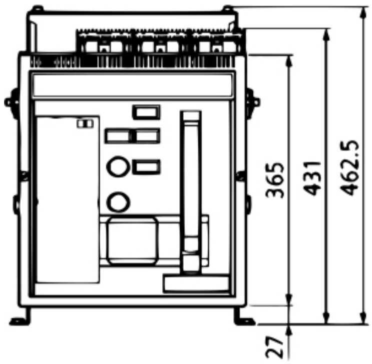
Withdrawable circuit breakers

The broken contour at the side depicts the 4 pole version

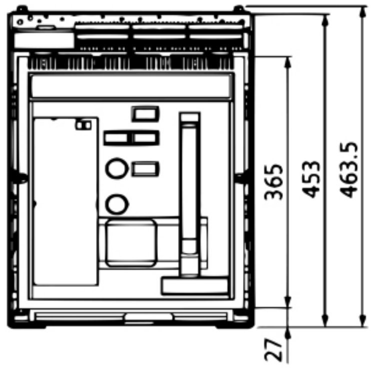
Accessories 3 pole / 4 pole

Arc chute cover

For fixed-mounted circuit breakers



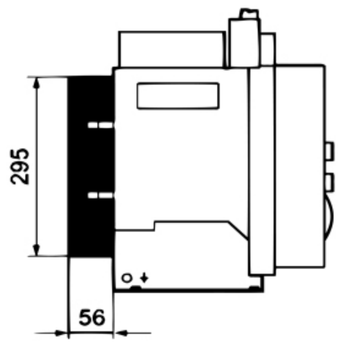
For withdrawable circuit breakers



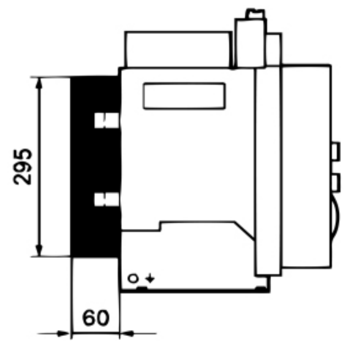
Phase barrier

For fixed-mounted circuit breakers

Frame size I

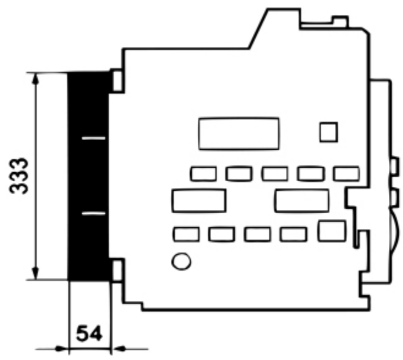


Frame size II

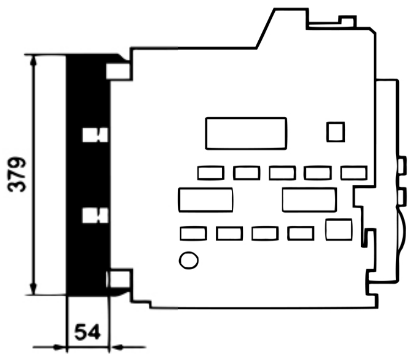


For withdrawable circuit breakers

Frame size I



Frame size II



Note: All dimensions are in mm.

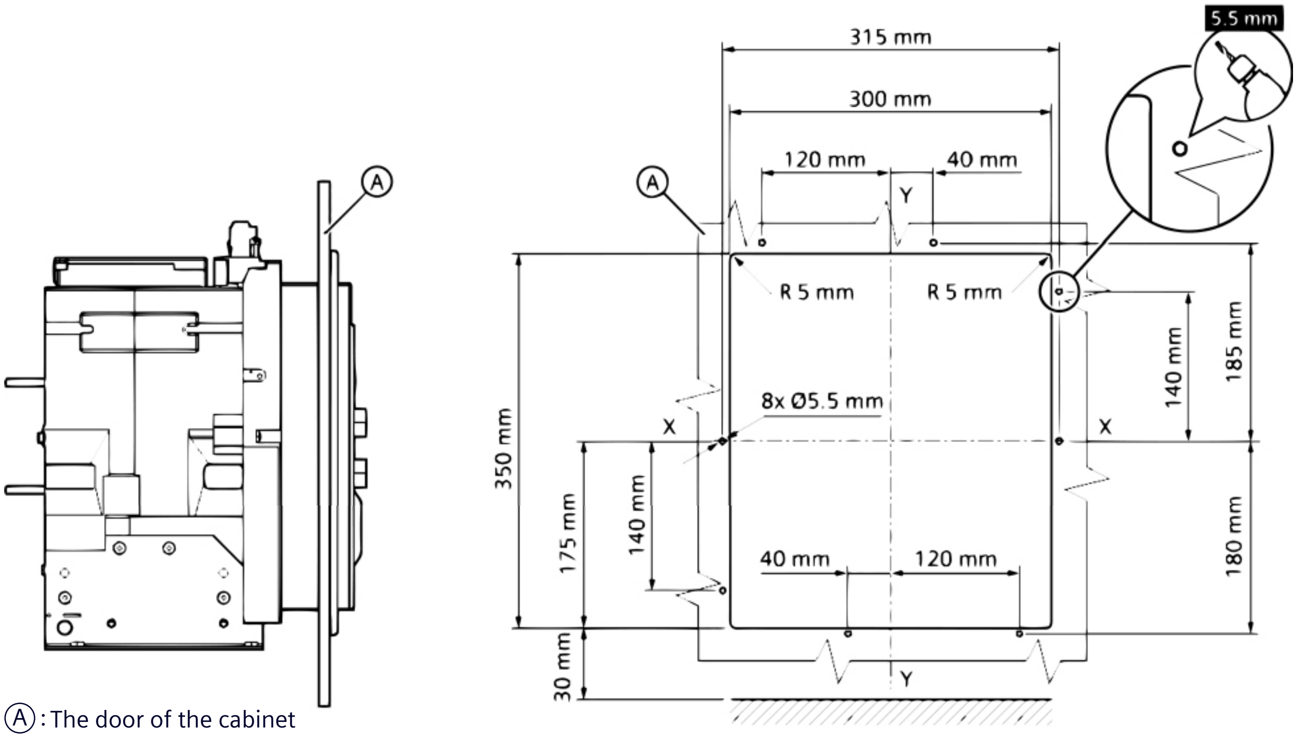
Dimension drawings

Withdrawable circuit breakers

The broken contour at the side depicts the 4 pole version

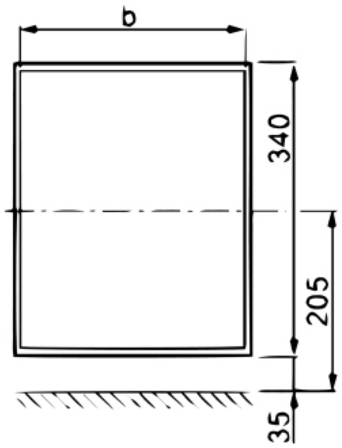
Door cutout

Door cutout for operator panel with door sealing frame



Door cutout with edge protection

Cutout after edge protection is attached



Note: All dimensions are in mm.

Dimension drawings

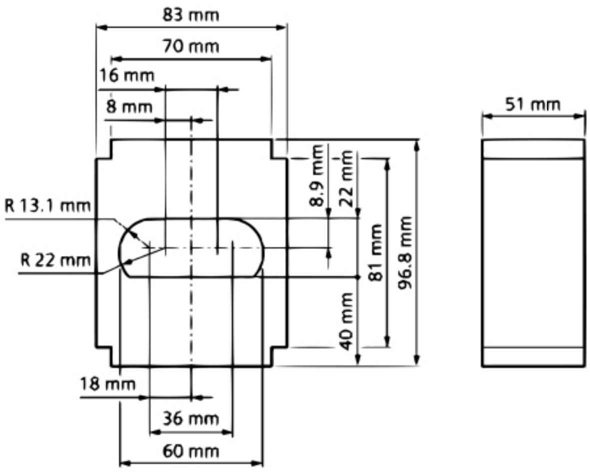
Withdrawable circuit breakers

The broken contour at the side depicts the 4 pole version

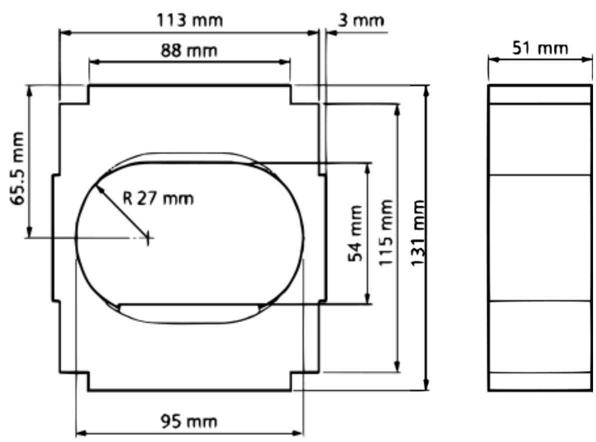
Current transformer for N-conductor

Dimension diagrams of current transformers without busbars

3WJ9111-0AA21

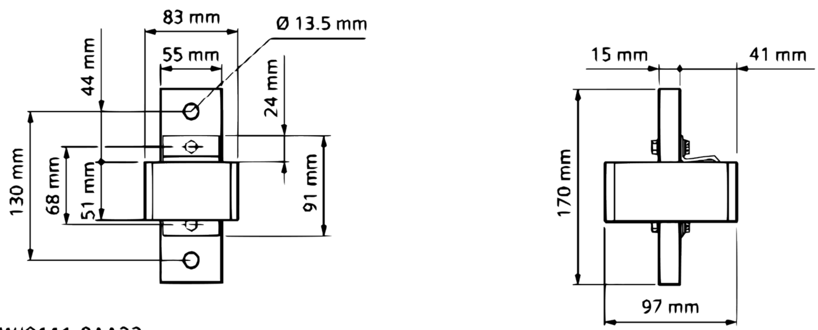


3WJ9111-0AA22

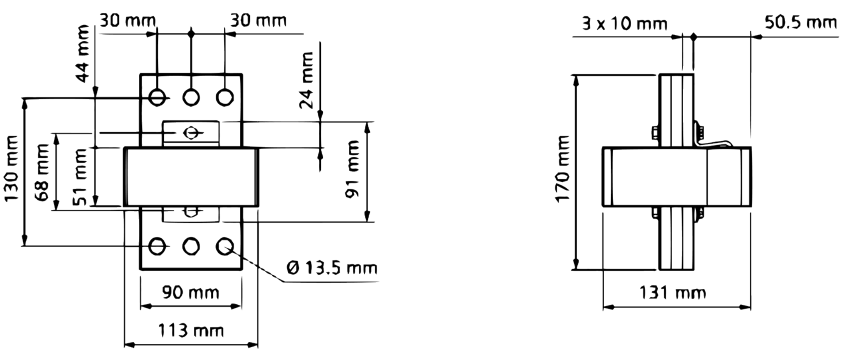


Dimension diagrams of current transformers with busbars

3WJ9111-0AA31



3WJ9111-0AA32



Note: All dimensions are in mm.

3VJ molded case circuit breakers

SINOVA The Power of **Simplicity**

3VJ molded case circuit breakers

SINOVA The Power of **Simplicity**

3VJ molded case circuit breakers

Product highlights

Compact

Our compact molded case circuit breakers fit easily into enclosures and switchboards, reducing overall module size.

Efficient

Our user-friendly molded case circuit breakers optimize operational efficiency and save energy, making them a cost-effective power distribution solution.

Reliable & safe

Designed to meet Siemens quality standards for reliable performance and 100% rated neutral operation for demanding applications.

Versatile

With a wide range of accessories, interchangeable neutral pole positioning, and various breaking capacities, our molded case circuit breakers provide flexibility for different installation requirements.

SINOVA The Power of **Simplicity**

Overview

Product range

Range of 3VJ molded case circuit breakers


3VJ10


3VJ10


3VJ11

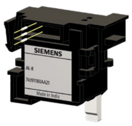

3VJ12


3VJ13


3VJ14

Internal accessories - Auxiliary switches

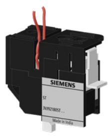

Auxiliary switches


Alarm switches

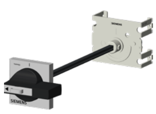

Auxiliary + Alarm switches

Internal accessories - Auxiliary releases

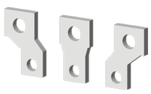

Undervoltage releases

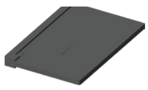

Shunt trip release

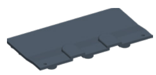
External accessories

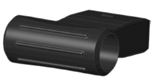

Door mounted rotary

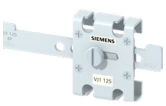

Extended terminals


Spreader links


Phase barriers


Front barriers


Toggle handle extension

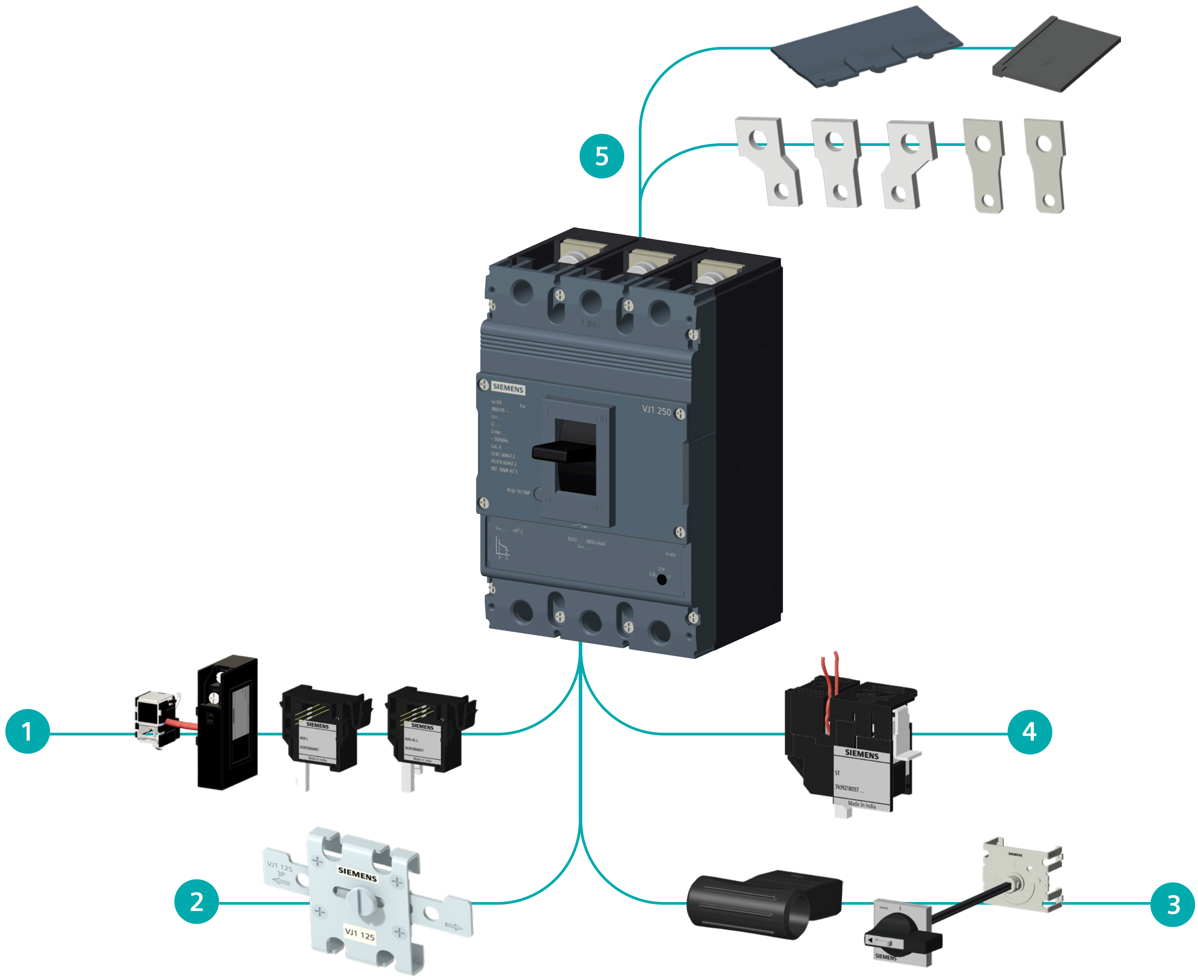

Mechanical interlocking


Enclosure

Note: You will find a detailed range of accessories in the Accessories and Spare parts section from page 57 to page 58.

Overview

System overview



1 Internal accessories (Left side)

2 Locking devices

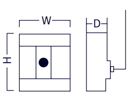
3 Door mounted rotary handle

4 Internal accessories (Right side)

5 Spreader phase barriers

Technical specifications

3VJ molded case circuit breakers

							
Type		**3VJ10**	**3VJ10**	**3VJ11**	**3VJ12**	**3VJ13**	**3VJ14**
Number of poles		1	2/3/4	2/3/4	2/3/4	3/4	3/4
Frame size		125X	125X	125	250	400	630
Rated operational current In at 50°C ambient temperature		16-125	16-125	16-125	160-250	320-400	500-630
Rated operational voltage Use 50/60Hz AC	V	240	415	415	415	415	415
Insulation voltage	V	800	800	1000	1000	1000	1000
Impulse voltage	kV	6	6	8	8	8	8
Suitable for isolation		Yes					
Utilization category, according to IEC60947-2		A					
Breaking capacity							
Short circuit breaking capacities Icu / Ics rms value, according to IEC60947-2							
Icu @ AC 415* V-50/60Hz	kA	10 / 18 / 25	10 / 18 / 25	25 / 36 / 55	18 / 25 / 36 / 55	25 / 36 / 55	36 / 55
Ics @ AC 415* V-50/60Hz	kA	100% / 75%	100% / 75%	75%	75%	75%	75%
Trip units							
Fixed Thermal Fixed Magnetic (1P/2P/3P/4P MCCBs)	FTFM	■					
Adjustable Thermal Fixed Magnetic (3P/4P MCCBs)	ATFM	■					
Neutral protection in 4P MCCB		100%					
Operating cycles							
Mechanical		15000	15000	15000	15000	15000	10000
Electrical @ 415* V AC		5000	5000	5000	5000	5000	4500
Connection technology							
Standard connection technology		Screw terminal					
Overall dimensions							
Width x Height x Depth		35 x 118 x 62	80 (2P/3P) / 103.5 (4P) x 126 x 62	92 (2P/3P) x 122 (4P) x 150 x 81	107.5 (2P/3P) x 142.5 (4P) x 166 x 81	150 (3P) / 198 (4P) x 260 x 104	150 (3P) / 198 (4P) x 260 x 104

*240V for 1P MCCBs

■ Available

Selection & ordering data

3VJ molded case circuit breakers, thermal magnetic trip unit, Fixed Thermal Fixed Magnetic (FTFM)

Frame size	Breaking capacity (Icu) @240V AC, 50/60Hz	Rated current In (A)	No. of poles	Type no.	List price per PU (Per Unit)
3VJ10 (VJ1 125X)	10kA	16	1 pole	3VJ1096-0DA12-0AA0	
		20		3VJ1002-0DA12-0AA0	
		25		3VJ1092-0DA12-0AA0	
		32		3VJ1003-0DA12-0AA0	
		40		3VJ1004-0DA12-0AA0	
		50		3VJ1005-0DA12-0AA0	
		63		3VJ1006-0DA12-0AA0	
		80		3VJ1008-0DA12-0AA0	
		100		3VJ1010-0DA12-0AA0	
		125		3VJ1012-0DA12-0AA0	
	18kA	16		3VJ1096-1DA12-0AA0	
		20		3VJ1002-1DA12-0AA0	
		25		3VJ1092-1DA12-0AA0	
		32		3VJ1003-1DA12-0AA0	
		40		3VJ1004-1DA12-0AA0	
		50		3VJ1005-1DA12-0AA0	
		63		3VJ1006-1DA12-0AA0	
		80		3VJ1008-1DA12-0AA0	
		100		3VJ1010-1DA12-0AA0	
		125		3VJ1012-1DA12-0AA0	
	25kA	16		3VJ1096-3DA12-0AA0	
		20		3VJ1002-3DA12-0AA0	
		25		3VJ1092-3DA12-0AA0	
		32		3VJ1003-3DA12-0AA0	
		40		3VJ1004-3DA12-0AA0	
		50		3VJ1005-3DA12-0AA0	
		63		3VJ1006-3DA12-0AA0	
		80		3VJ1008-3DA12-0AA0	
		100		3VJ1010-3DA12-0AA0	
		125		3VJ1012-3DA12-0AA0	

Note:
Front barriers are included in the standard MCCB packaging.
Not applicable for 3VJ10..-0....-....

Selection & ordering data

3VJ molded case circuit breakers, thermal magnetic trip unit, Fixed Thermal Fixed Magnetic (FTFM)

Frame size	Breaking capacity (Icu) @415V AC, 50/60Hz	Rated current In (A)	No. of poles	Type no.	List price per PU (Per Unit)
3VJ10 (VJ1 125X)	10kA	16	2 pole	3VJ1096-0DA22-0AA0	
		20		3VJ1002-0DA22-0AA0	
		25		3VJ1092-0DA22-0AA0	
		32		3VJ1003-0DA22-0AA0	
		40		3VJ1004-0DA22-0AA0	
		50		3VJ1005-0DA22-0AA0	
		63		3VJ1006-0DA22-0AA0	
		80		3VJ1008-0DA22-0AA0	
		100		3VJ1010-0DA22-0AA0	
		125		3VJ1012-0DA22-0AA0	
	18kA	16		3VJ1096-1DA22-0AA0	
		20		3VJ1002-1DA22-0AA0	
		25		3VJ1092-1DA22-0AA0	
		32		3VJ1003-1DA22-0AA0	
		40		3VJ1004-1DA22-0AA0	
		50		3VJ1005-1DA22-0AA0	
		63		3VJ1006-1DA22-0AA0	
		80		3VJ1008-1DA22-0AA0	
		100		3VJ1010-1DA22-0AA0	
		125		3VJ1012-1DA22-0AA0	
	25kA	16		3VJ1096-3DA22-0AA0	
		20		3VJ1002-3DA22-0AA0	
		25		3VJ1092-3DA22-0AA0	
		32		3VJ1003-3DA22-0AA0	
		40		3VJ1004-3DA22-0AA0	
		50		3VJ1005-3DA22-0AA0	
		63		3VJ1006-3DA22-0AA0	
		80		3VJ1008-3DA22-0AA0	
		100		3VJ1010-3DA22-0AA0	
		125		3VJ1012-3DA22-0AA0	

Note:
Phase barriers and front barriers are included in the standard MCCB packing.
For 3VJ10..-0....-.... only phase barriers are supplied as a standard offering along with MCCB.

Selection & ordering data

3VJ molded case circuit breakers, thermal magnetic trip unit, Fixed Thermal Fixed Magnetic (FTFM)

Frame size	Breaking capacity (Icu) @415V AC, 50/60Hz	Rated current In (A)	No. of poles	Type no.	List price per PU (Per Unit)
3VJ10 (VJ1 125X)	10kA	16	3 pole	3VJ1096-0DA32-0AA0	
		20		3VJ1002-0DA32-0AA0	
		25		3VJ1092-0DA32-0AA0	
		32		3VJ1003-0DA32-0AA0	
		40		3VJ1004-0DA32-0AA0	
		50		3VJ1005-0DA32-0AA0	
		63		3VJ1006-0DA32-0AA0	
		80		3VJ1008-0DA32-0AA0	
		100		3VJ1010-0DA32-0AA0	
		125		3VJ1012-0DA32-0AA0	
	18kA	16		3VJ1096-1DA32-0AA0	
		20		3VJ1002-1DA32-0AA0	
		25		3VJ1092-1DA32-0AA0	
		32		3VJ1003-1DA32-0AA0	
		40		3VJ1004-1DA32-0AA0	
		50		3VJ1005-1DA32-0AA0	
		63		3VJ1006-1DA32-0AA0	
		80		3VJ1008-1DA32-0AA0	
		100		3VJ1010-1DA32-0AA0	
		125		3VJ1012-1DA32-0AA0	
	25kA	16		3VJ1096-3DA32-0AA0	
		20		3VJ1002-3DA32-0AA0	
		25		3VJ1092-3DA32-0AA0	
		32		3VJ1003-3DA32-0AA0	
		40		3VJ1004-3DA32-0AA0	
		50		3VJ1005-3DA32-0AA0	
		63		3VJ1006-3DA32-0AA0	
		80		3VJ1008-3DA32-0AA0	
		100		3VJ1010-3DA32-0AA0	
		125		3VJ1012-3DA32-0AA0	

Note:
Phase barriers and front barriers are included in the standard MCCB packing.
For 3VJ10..-0....-.... only phase barriers are supplied as a standard offering along with MCCB.

Selection & ordering data

3VJ molded case circuit breakers, thermal magnetic trip unit, Fixed Thermal Fixed Magnetic (FTFM)

Frame size	Breaking capacity (Icu) @415V AC, 50/60Hz	Rated current In (A)	No. of poles	Type no.	List price per PU (Per Unit)
3VJ10 (VJ1 125X)	10kA	16	4 pole	3VJ1096-0EA42-0AA0	
		20		3VJ1002-0EA42-0AA0	
		25		3VJ1092-0EA42-0AA0	
		32		3VJ1003-0EA42-0AA0	
		40		3VJ1004-0EA42-0AA0	
		50		3VJ1005-0EA42-0AA0	
		63		3VJ1006-0EA42-0AA0	
		80		3VJ1008-0EA42-0AA0	
		100		3VJ1010-0EA42-0AA0	
		125		3VJ1012-0EA42-0AA0	
	18kA	16		3VJ1096-1EA42-0AA0	
		20		3VJ1002-1EA42-0AA0	
		25		3VJ1092-1EA42-0AA0	
		32		3VJ1003-1EA42-0AA0	
		40		3VJ1004-1EA42-0AA0	
		50		3VJ1005-1EA42-0AA0	
		63		3VJ1006-1EA42-0AA0	
		80		3VJ1008-1EA42-0AA0	
		100		3VJ1010-1EA42-0AA0	
		125		3VJ1012-1EA42-0AA0	
	25kA	16		3VJ1096-3EA42-0AA0	
		20		3VJ1002-3EA42-0AA0	
		25		3VJ1092-3EA42-0AA0	
		32		3VJ1003-3EA42-0AA0	
		40		3VJ1004-3EA42-0AA0	
		50		3VJ1005-3EA42-0AA0	
		63		3VJ1006-3EA42-0AA0	
		80		3VJ1008-3EA42-0AA0	
		100		3VJ1010-3EA42-0AA0	
		125		3VJ1012-3EA42-0AA0	

Note:
Phase barriers and front barriers are included in the standard MCCB packing.
For 3VJ10..-0....-.... only phase barriers are supplied as a standard offering along with MCCB.

Selection & ordering data

3VJ molded case circuit breakers, thermal magnetic trip unit, Adjustable Thermal Fixed Magnetic (ATFM)

Frame size	Breaking capacity (Icu) @415V AC, 50/60Hz	Rated current In (A)	No. of poles	Type no.	List price per PU (Per Unit)
3VJ10 (VJ1 125X)	10kA	16	3 pole	3VJ1096-0DB32-0AA0	
		20		3VJ1002-0DB32-0AA0	
		25		3VJ1092-0DB32-0AA0	
		32		3VJ1003-0DB32-0AA0	
		40		3VJ1004-0DB32-0AA0	
		50		3VJ1005-0DB32-0AA0	
		63		3VJ1006-0DB32-0AA0	
		80		3VJ1008-0DB32-0AA0	
		100		3VJ1010-0DB32-0AA0	
		125		3VJ1012-0DB32-0AA0	
	18kA	16		3VJ1096-1DB32-0AA0	
		20		3VJ1002-1DB32-0AA0	
		25		3VJ1092-1DB32-0AA0	
		32		3VJ1003-1DB32-0AA0	
		40		3VJ1004-1DB32-0AA0	
		50		3VJ1005-1DB32-0AA0	
		63		3VJ1006-1DB32-0AA0	
		80		3VJ1008-1DB32-0AA0	
		100		3VJ1010-1DB32-0AA0	
		125		3VJ1012-1DB32-0AA0	
	25kA	16		3VJ1096-3DB32-0AA0	
		20		3VJ1002-3DB32-0AA0	
		25		3VJ1092-3DB32-0AA0	
		32		3VJ1003-3DB32-0AA0	
		40		3VJ1004-3DB32-0AA0	
		50		3VJ1005-3DB32-0AA0	
		63		3VJ1006-3DB32-0AA0	
		80		3VJ1008-3DB32-0AA0	
		100		3VJ1010-3DB32-0AA0	
		125		3VJ1012-3DB32-0AA0	

Note:
Phase barriers and front barriers are included in the standard MCCB packing.
For 3VJ10..-0....-.... only phase barriers are supplied as a standard offering along with MCCB.

Selection & ordering data

3VJ molded case circuit breakers, thermal magnetic trip unit, Adjustable Thermal Fixed Magnetic (ATFM)

Frame size	Breaking capacity (Icu) @415V AC, 50/60Hz	Rated current In (A)	No. of poles	Type no.	List price per PU (Per Unit)
3VJ10 (VJ1 125X)	10kA	16	4 pole	3VJ1096-0EB42-0AA0	
		20		3VJ1002-0EB42-0AA0	
		25		3VJ1092-0EB42-0AA0	
		32		3VJ1003-0EB42-0AA0	
		40		3VJ1004-0EB42-0AA0	
		50		3VJ1005-0EB42-0AA0	
		63		3VJ1006-0EB42-0AA0	
		80		3VJ1008-0EB42-0AA0	
		100		3VJ1010-0EB42-0AA0	
		125		3VJ1012-0EB42-0AA0	
	18kA	16		3VJ1096-1EB42-0AA0	
		20		3VJ1002-1EB42-0AA0	
		25		3VJ1092-1EB42-0AA0	
		32		3VJ1003-1EB42-0AA0	
		40		3VJ1004-1EB42-0AA0	
		50		3VJ1005-1EB42-0AA0	
		63		3VJ1006-1EB42-0AA0	
		80		3VJ1008-1EB42-0AA0	
		100		3VJ1010-1EB42-0AA0	
		125		3VJ1012-1EB42-0AA0	
	25kA	16		3VJ1096-3EB42-0AA0	
		20		3VJ1002-3EB42-0AA0	
		25		3VJ1092-3EB42-0AA0	
		32		3VJ1003-3EB42-0AA0	
		40		3VJ1004-3EB42-0AA0	
		50		3VJ1005-3EB42-0AA0	
		63		3VJ1006-3EB42-0AA0	
		80		3VJ1008-3EB42-0AA0	
		100		3VJ1010-3EB42-0AA0	
		125		3VJ1012-3EB42-0AA0	

Note:
Phase barriers and front barriers are included in the standard MCCB packing.
For 3VJ10..-0....-.... only phase barriers are supplied as a standard offering along with MCCB.

Selection & ordering data

3VJ molded case circuit breakers, thermal magnetic trip unit, Fixed Thermal Fixed Magnetic (FTFM)

Frame size	Breaking capacity (Icu) @415V AC, 50/60Hz	Rated current In (A)	No. of poles	Type no.	List price per PU (Per Unit)
3VJ12 (VJ1 250)	18kA	160	2 pole	3VJ1216-1DA22-0AA0	
		200		3VJ1220-1DA22-0AA0	
		250		3VJ1225-1DA22-0AA0	
3VJ11 (VJ1 125)	25kA	16		3VJ1196-3DA22-0AA0	
		20		3VJ1102-3DA22-0AA0	
		25		3VJ1192-3DA22-0AA0	
		32		3VJ1103-3DA22-0AA0	
		40		3VJ1104-3DA22-0AA0	
		50		3VJ1105-3DA22-0AA0	
		63		3VJ1106-3DA22-0AA0	
		80		3VJ1108-3DA22-0AA0	
		100		3VJ1110-3DA22-0AA0	
		125		3VJ1112-3DA22-0AA0	
3VJ12 (VJ1 250)		160		3VJ1216-3DA22-0AA0	
		200		3VJ1220-3DA22-0AA0	
		250		3VJ1225-3DA22-0AA0	
3VJ11 (VJ1 125)	36kA	16		3VJ1196-5DA22-0AA0	
		20		3VJ1102-5DA22-0AA0	
		25		3VJ1192-5DA22-0AA0	
		32		3VJ1103-5DA22-0AA0	
		40		3VJ1104-5DA22-0AA0	
		50		3VJ1105-5DA22-0AA0	
		63		3VJ1106-5DA22-0AA0	
		80		3VJ1108-5DA22-0AA0	
		100		3VJ1110-5DA22-0AA0	
		125		3VJ1112-5DA22-0AA0	
3VJ12 (VJ1 250)		160		3VJ1216-5DA22-0AA0	
		200		3VJ1220-5DA22-0AA0	
		250		3VJ1225-5DA22-0AA0	

Note:
Phase barriers and front barriers are included in the standard MCCB packing.
For 3VJ10..-0....-.... only phase barriers are supplied as a standard offering along with MCCB.

Selection & ordering data

3VJ molded case circuit breakers, thermal magnetic trip unit, Fixed Thermal Fixed Magnetic (FTFM)

Frame size	Breaking capacity (Icu) @415V AC, 50/60Hz	Rated current In (A)	No. of poles	Type no.	List price per PU (Per Unit)
3VJ12 (VJ1 250)	18kA	160	3 pole	3VJ1216-1DA32-0AA0	
		200		3VJ1220-1DA32-0AA0	
		250		3VJ1225-1DA32-0AA0	
3VJ11 (VJ1 125)	25kA	16		3VJ1196-3DA32-0AA0	
		20		3VJ1102-3DA32-0AA0	
		25		3VJ1192-3DA32-0AA0	
		32		3VJ1103-3DA32-0AA0	
		40		3VJ1104-3DA32-0AA0	
		50		3VJ1105-3DA32-0AA0	
		63		3VJ1106-3DA32-0AA0	
		80		3VJ1108-3DA32-0AA0	
		100		3VJ1110-3DA32-0AA0	
		125		3VJ1112-3DA32-0AA0	
3VJ12 (VJ1 250)		160		3VJ1216-3DA32-0AA0	
		200		3VJ1220-3DA32-0AA0	
		250		3VJ1225-3DA32-0AA0	
3VJ13 (VJ1 400)		320		3VJ1332-3DA32-0AA0	
		400		3VJ1340-3DA32-0AA0	
3VJ11 (VJ1 125)	36kA	16		3VJ1196-5DA32-0AA0	
		20		3VJ1102-5DA32-0AA0	
		25		3VJ1192-5DA32-0AA0	
		32		3VJ1103-5DA32-0AA0	
		40		3VJ1104-5DA32-0AA0	
		50		3VJ1105-5DA32-0AA0	
		63		3VJ1106-5DA32-0AA0	
		80		3VJ1108-5DA32-0AA0	
		100		3VJ1110-5DA32-0AA0	
		125		3VJ1112-5DA32-0AA0	
3VJ12 (VJ1 250)		160		3VJ1216-5DA32-0AA0	
		200		3VJ1220-5DA32-0AA0	
		250		3VJ1225-5DA32-0AA0	
3VJ13 (VJ1 400)		320		3VJ1332-5DA32-0AA0	
		400		3VJ1340-5DA32-0AA0	
3VJ14 (VJ1 630)		500		3VJ1450-5DA32-0AA0	
		630		3VJ1463-5DA32-0AA0	

Note:
Phase barriers and front barriers are included in the standard MCCB packing.
For 3VJ10..-0....-.... only phase barriers are supplied as a standard offering along with MCCB.

Selection & ordering data

3VJ molded case circuit breakers, thermal magnetic trip unit, Fixed Thermal Fixed Magnetic (FTFM)

Frame size	Breaking capacity (Icu) @415V AC, 50/60Hz	Rated current In (A)	No. of poles	Type no.	List price per PU (Per Unit)
3VJ12 (VJ1 250)	18kA	160	4 pole	3VJ1216-1EA42-0AA0	
		200		3VJ1220-1EA42-0AA0	
		250		3VJ1225-1EA42-0AA0	
3VJ11 (VJ1 125)	25kA	16		3VJ1196-3EA42-0AA0	
		20		3VJ1102-3EA42-0AA0	
		25		3VJ1192-3EA42-0AA0	
		32		3VJ1103-3EA42-0AA0	
		40		3VJ1104-3EA42-0AA0	
		50		3VJ1105-3EA42-0AA0	
		63		3VJ1106-3EA42-0AA0	
		80		3VJ1108-3EA42-0AA0	
		100		3VJ1110-3EA42-0AA0	
		125		3VJ1112-3EA42-0AA0	
3VJ12 (VJ1 250)		160		3VJ1216-3EA42-0AA0	
		200		3VJ1220-3EA42-0AA0	
		250		3VJ1225-3EA42-0AA0	
3VJ13 (VJ1 400)		320		3VJ1332-3EA42-0AA0	
		400		3VJ1340-3EA42-0AA0	
3VJ11 (VJ1 125)	36kA	16		3VJ1196-5DA32-0AA0	
		20		3VJ1102-5EA42-0AA0	
		25		3VJ1192-5EA42-0AA0	
		32		3VJ1103-5EA42-0AA0	
		40		3VJ1104-5EA42-0AA0	
		50		3VJ1105-5EA42-0AA0	
		63		3VJ1106-5EA42-0AA0	
		80		3VJ1108-5EA42-0AA0	
		100		3VJ1110-5EA42-0AA0	
		125		3VJ1112-5EA42-0AA0	
3VJ12 (VJ1 250)		160		3VJ1216-5EA42-0AA0	
		200		3VJ1220-5EA42-0AA0	
		250		3VJ1225-5EA42-0AA0	
3VJ13 (VJ1 400)		320		3VJ1332-5EA42-0AA0	
		400		3VJ1340-5EA42-0AA0	
3VJ14 (VJ1 630)		500		3VJ1450-5EA42-0AA0	
		630		3VJ1463-5EA42-0AA0	

Note:
Phase barriers and front barriers are included in the standard MCCB packing.
For 3VJ10..-0....-.... only phase barriers are supplied as a standard offering along with MCCB.

Selection & ordering data

3VJ molded case circuit breakers, thermal magnetic trip unit, Fixed Thermal Fixed Magnetic (FTFM)

Frame size	Breaking capacity (Icu) @415V AC, 50/60Hz	Rated current In (A)	No. of poles	Type no.	List price per PU (Per Unit)
3VJ11 (VJ1 125)	55kA	16	2 pole	3VJ1196-7DA22-0AA0	
		20		3VJ1102-7DA22-0AA0	
		25		3VJ1192-7DA22-0AA0	
		32		3VJ1103-7DA22-0AA0	
		40		3VJ1104-7DA22-0AA0	
		50		3VJ1105-7DA22-0AA0	
		63		3VJ1106-7DA22-0AA0	
		80		3VJ1108-7DA22-0AA0	
		100		3VJ1110-7DA22-0AA0	
		125		3VJ1112-7DA22-0AA0	
3VJ12 (VJ1 250)		160		3VJ1216-7DA22-0AA0	
		200		3VJ1220-7DA22-0AA0	
		250		3VJ1225-7DA22-0AA0	
3VJ11 (VJ1 125)		16	3 pole	3VJ1196-7DA32-0AA0	
		20		3VJ1102-7DA32-0AA0	
		25		3VJ1192-7DA32-0AA0	
		32		3VJ1103-7DA32-0AA0	
		40		3VJ1104-7DA32-0AA0	
		50		3VJ1105-7DA32-0AA0	
		63		3VJ1106-7DA32-0AA0	
		80		3VJ1108-7DA32-0AA0	
		100		3VJ1110-7DA32-0AA0	
		125		3VJ1112-7DA32-0AA0	
3VJ12 (VJ1 250)		160		3VJ1216-7DA32-0AA0	
		200		3VJ1220-7DA32-0AA0	
		250		3VJ1225-7DA32-0AA0	
3VJ13 (VJ1 400)		320		3VJ1332-7DA32-0AA0	
		400		3VJ1340-7DA32-0AA0	
3VJ14 (VJ1 630)		500		3VJ1450-7DA32-0AA0	
		630		3VJ1463-7DA32-0AA0	

Note:
Phase barriers and front barriers are included in the standard MCCB packing.
For 3VJ10..-0....-.... only phase barriers are supplied as a standard offering along with MCCB.

Selection & ordering data

3VJ molded case circuit breakers, thermal magnetic trip unit, Fixed Thermal Fixed Magnetic (FTFM)

Frame size	Breaking capacity (Icu) @415V AC, 50/60Hz	Rated current In (A)	No. of poles	Type no.	List price per PU (Per Unit)
3VJ11 (VJ1 125)	**55kA**	16	4 pole	3VJ1196-7EA42-0AA0	
		20		3VJ1102-7EA42-0AA0	
		25		3VJ1192-7EA42-0AA0	
		32		3VJ1103-7EA42-0AA0	
		40		3VJ1104-7EA42-0AA0	
		50		3VJ1105-7EA42-0AA0	
		63		3VJ1106-7EA42-0AA0	
		80		3VJ1108-7EA42-0AA0	
		100		3VJ1110-7EA42-0AA0	
		125		3VJ1112-7EA42-0AA0	
3VJ12 (VJ1 250)		160		3VJ1216-7EA42-0AA0	
		200		3VJ1220-7EA42-0AA0	
		250		3VJ1225-7EA42-0AA0	
3VJ13 (VJ1 400)		320		3VJ1332-7EA42-0AA0	
		400		3VJ1340-7EA42-0AA0	
3VJ14 (VJ1 630)		500		3VJ1450-7EA42-0AA0	
		630		3VJ1463-7EA42-0AA0	

Note:
Phase barriers and front barriers are included in the standard MCCB packing.
For 3VJ10..-0....-.... only phase barriers are supplied as a standard offering along with MCCB.

Selection & ordering data

3VJ molded case circuit breakers, thermal magnetic trip unit, Adjustable Thermal Fixed Magnetic (ATFM)

Frame size	Breaking capacity (Icu) @415V AC, 50/60Hz	Rated current In (A)	No. of poles	Type no.	List price per PU (Per Unit)
3VJ12 (VJ1 250)	18kA	160	3 pole	3VJ1216-1DB32-0AA0	
		200		3VJ1220-1DB32-0AA0	
		250		3VJ1225-1DB32-0AA0	
3VJ11 (VJ1 125)	25kA	16		3VJ1196-3DB32-0AA0	
		20		3VJ1102-3DB32-0AA0	
		25		3VJ1192-3DB32-0AA0	
		32		3VJ1103-3DB32-0AA0	
		40		3VJ1104-3DB32-0AA0	
		50		3VJ1105-3DB32-0AA0	
		63		3VJ1106-3DB32-0AA0	
		80		3VJ1108-3DB32-0AA0	
		100		3VJ1110-3DB32-0AA0	
		125		3VJ1112-3DB32-0AA0	
3VJ12 (VJ1 250)		160		3VJ1216-3DB32-0AA0	
		200		3VJ1220-3DB32-0AA0	
		250		3VJ1225-3DB32-0AA0	
3VJ13 (VJ1 400)		320		3VJ1332-3DB32-0AA0	
		400		3VJ1340-3DB32-0AA0	
3VJ11 (VJ1 125)	36kA	16		3VJ1196-5DB32-0AA0	
		20		3VJ1102-5DB32-0AA0	
		25		3VJ1192-5DB32-0AA0	
		32		3VJ1103-5DB32-0AA0	
		40		3VJ1104-5DB32-0AA0	
		50		3VJ1105-5DB32-0AA0	
		63		3VJ1106-5DB32-0AA0	
		80		3VJ1108-5DB32-0AA0	
		100		3VJ1110-5DB32-0AA0	
		125		3VJ1112-5DB32-0AA0	
3VJ12 (VJ1 250)		160		3VJ1216-5DB32-0AA0	
		200		3VJ1220-5DB32-0AA0	
		250		3VJ1225-5DB32-0AA0	
3VJ13 (VJ1 400)		320		3VJ1332-5DB32-0AA0	
		400		3VJ1340-5DB32-0AA0	
3VJ14 (VJ1 630)		500		3VJ1450-5DB32-0AA0	
		630		3VJ1463-5DB32-0AA0	

Note:
Phase barriers and front barriers are included in the standard MCCB packing.
For 3VJ10..-0....-.... only phase barriers are supplied as a standard offering along with MCCB.

Selection & ordering data

3VJ molded case circuit breakers, thermal magnetic trip unit, Adjustable Thermal Fixed Magnetic (ATFM)

Frame size	Breaking capacity (Icu) @415V AC, 50/60Hz	Rated current In (A)	No. of poles	Type no.	List price per PU (Per Unit)
3VJ12 (VJ1 250)	18kA	160	4 pole	3VJ1216-1EB42-0AA0	
		200		3VJ1220-1EB42-0AA0	
		250		3VJ1225-1EB42-0AA0	
3VJ11 (VJ1 125)	25kA	16		3VJ1196-3EB42-0AA0	
		20		3VJ1102-3EB42-0AA0	
		25		3VJ1192-3EB42-0AA0	
		32		3VJ1103-3EB42-0AA0	
		40		3VJ1104-3EB42-0AA0	
		50		3VJ1105-3EB42-0AA0	
		63		3VJ1106-3EB42-0AA0	
		80		3VJ1108-3EB42-0AA0	
		100		3VJ1110-3EB42-0AA0	
		125		3VJ1112-3EB42-0AA0	
3VJ12 (VJ1 250)		160		3VJ1216-3EB42-0AA0	
		200		3VJ1220-3EB42-0AA0	
		250		3VJ1225-3EB42-0AA0	
3VJ13 (VJ1 400)		320		3VJ1332-3EB42-0AA0	
		400		3VJ1340-3EB42-0AA0	
3VJ11 (VJ1 125)	36kA	16		3VJ1196-5EB42-0AA0	
		20		3VJ1102-5EB42-0AA0	
		25		3VJ1192-5EB42-0AA0	
		32		3VJ1103-5EB42-0AA0	
		40		3VJ1104-5EB42-0AA0	
		50		3VJ1105-5EB42-0AA0	
		63		3VJ1106-5EB42-0AA0	
		80		3VJ1108-5EB42-0AA0	
		100		3VJ1110-5EB42-0AA0	
		125		3VJ1112-5EB42-0AA0	
3VJ12 (VJ1 250)		160		3VJ1216-5EB42-0AA0	
		200		3VJ1220-5EB42-0AA0	
		250		3VJ1225-5EB42-0AA0	
3VJ13 (VJ1 400)		320		3VJ1332-5EB42-0AA0	
		400		3VJ1340-5EB42-0AA0	
3VJ14 (VJ1 630)		500		3VJ1450-5EB42-0AA0	
		630		3VJ1463-5EB42-0AA0	

Note:
Phase barriers and front barriers are included in the standard MCCB packing.
For 3VJ10..-0....-.... only phase barriers are supplied as a standard offering along with MCCB.

Selection & ordering data

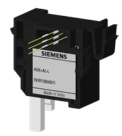
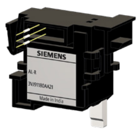
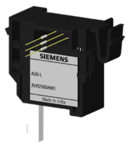
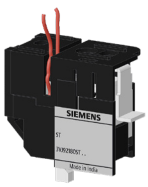
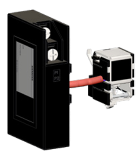
3VJ molded case circuit breakers, thermal magnetic trip unit, Adjustable Thermal Fixed Magnetic (ATFM)

Frame size	Breaking capacity (Icu) @415V AC, 50/60Hz	Rated current In (A)	No. of poles	Type no.	List price per PU (Per Unit)
3VJ11 (VJ1 125)	55kA	16	3 pole	3VJ1196-7DB32-0AA0	
		20		3VJ1102-7DB32-0AA0	
		25		3VJ1192-7DB32-0AA0	
		32		3VJ1103-7DB32-0AA0	
		40		3VJ1104-7DB32-0AA0	
		50		3VJ1105-7DB32-0AA0	
		63		3VJ1106-7DB32-0AA0	
		80		3VJ1108-7DB32-0AA0	
		100		3VJ1110-7DB32-0AA0	
		125		3VJ1112-7DB32-0AA0	
3VJ12 (VJ1 250)		160		3VJ1216-7DB32-0AA0	
		200		3VJ1220-7DB32-0AA0	
		250		3VJ1225-7DB32-0AA0	
3VJ13 (VJ1 400)		320		3VJ1332-7DB32-0AA0	
		400		3VJ1340-7DB32-0AA0	
3VJ14 (VJ1 630)		500		3VJ1450-7DB32-0AA0	
		630		3VJ1463-7DB32-0AA0	
3VJ11 (VJ1 125)		16	4 pole	3VJ1196-7EB42-0AA0	
		20		3VJ1102-7EB42-0AA0	
		25		3VJ1192-7EB42-0AA0	
		32		3VJ1103-7EB42-0AA0	
		40		3VJ1104-7EB42-0AA0	
		50		3VJ1105-7EB42-0AA0	
		63		3VJ1106-7EB42-0AA0	
		80		3VJ1108-7EB42-0AA0	
		100		3VJ1110-7EB42-0AA0	
		125		3VJ1112-7EB42-0AA0	
3VJ12 (VJ1 250)		160		3VJ1216-7EB42-0AA0	
		200		3VJ1220-7EB42-0AA0	
		250		3VJ1225-7EB42-0AA0	
3VJ13 (VJ1 400)		320		3VJ1332-7EB42-0AA0	
		400		3VJ1340-7EB42-0AA0	
3VJ14 (VJ1 630)		500		3VJ1450-7EB42-0AA0	
		630		3VJ1463-7EB42-0AA0	

Note:
Phase barriers and front barriers are included in the standard MCCB packing.
For 3VJ10..-0....-.... only phase barriers are supplied as a standard offering along with MCCB.

Selection & ordering data

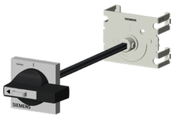
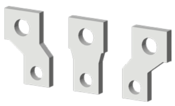
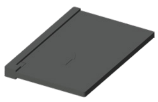
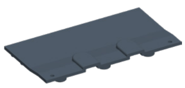
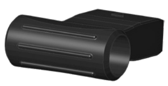
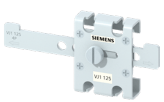
Accessories

<table>
<tr><th rowspan="2">Accessory</th><th rowspan="2">Product image</th><th rowspan="2">Accessory compartment/ coil voltage</th><th colspan="5">Frame size</th></tr>
<tr><th>3VJ10 (VJ1 125X)</th><th>3VJ11 (VJ1 125)</th><th>3VJ12 (VJ1 250)</th><th>3VJ13 (VJ1 400)</th><th>3VJ14 (VJ1 630)</th></tr>
<tr><td rowspan="2">Auxiliary switches</td><td rowspan="2"></td><td>Left</td><td>3VJ9018-0AN11</td><td colspan="2">3VJ9218-0AN11</td><td colspan="2">3VJ9417-0AN11</td></tr>
<tr><td>Right</td><td>-</td><td colspan="2">3VJ9218-0AN21</td><td colspan="2">3VJ9417-0AN21</td></tr>
<tr><td rowspan="2">Alarm switches</td><td rowspan="2"></td><td>Left</td><td>3VJ9018-0AA11</td><td>3VJ9118-0AA11</td><td>3VJ9218-0AA11</td><td colspan="2">3VJ9417-0AA11</td></tr>
<tr><td>Right</td><td>-</td><td>3VJ9118-0AA21</td><td>3VJ9218-0AA21</td><td colspan="2">3VJ9417-0AA21</td></tr>
<tr><td rowspan="2">Auxiliary + Alarm switches</td><td rowspan="2"></td><td>Left</td><td>3VJ9018-0AD11</td><td>3VJ9118-0AD11</td><td>3VJ9218-0AD11</td><td colspan="2">3VJ9417-0AD11</td></tr>
<tr><td>Right</td><td>-</td><td>3VJ9118-0AD21</td><td>3VJ9218-0AD21</td><td colspan="2">3VJ9417-0AD21</td></tr>
<tr><td rowspan="9">Shunt trip (right)</td><td rowspan="9"></td><td>24V DC</td><td>*</td><td colspan="2">3VJ9218-0ST11</td><td colspan="2">-</td></tr>
<tr><td>24V AC/DC</td><td>-</td><td colspan="2">-</td><td colspan="2">3VJ9417-0ST21</td></tr>
<tr><td>48V DC</td><td>*</td><td colspan="2">3VJ9218-0ST12</td><td colspan="2">-</td></tr>
<tr><td>48V AC/DC</td><td>-</td><td colspan="2">-</td><td colspan="2">3VJ9417-0ST22</td></tr>
<tr><td>110V DC</td><td>3VJ9018-0ST15</td><td colspan="2">3VJ9218-0ST15</td><td colspan="2">-</td></tr>
<tr><td>110V AC/DC</td><td>-</td><td colspan="2">-</td><td colspan="2">3VJ9417-0ST25</td></tr>
<tr><td>110V AC</td><td>3VJ9018-0ST35</td><td colspan="2">3VJ9218-0ST35</td><td colspan="2">-</td></tr>
<tr><td>220V AC</td><td>3VJ9018-0ST36</td><td colspan="2">3VJ9218-0ST36</td><td colspan="2">3VJ9417-0ST36</td></tr>
<tr><td>415V AC</td><td>3VJ9018-0ST37</td><td colspan="2">3VJ9218-0ST37</td><td colspan="2">3VJ9417-0ST37</td></tr>
<tr><td rowspan="4">Under-voltage release (left)</td><td rowspan="4"></td><td>24V DC</td><td rowspan="4">-</td><td colspan="2">3VJ9218-0UV11</td><td colspan="2">-</td></tr>
<tr><td>48V DC</td><td colspan="2">3VJ9218-0UV12</td><td colspan="2">-</td></tr>
<tr><td>220V AC</td><td colspan="2">3VJ9218-0UV36</td><td colspan="2">3VJ9417-0UV36</td></tr>
<tr><td>415V AC</td><td colspan="2">3VJ9218-0UV37</td><td colspan="2">3VJ9417-0UV37</td></tr>
</table>

Note:
Internal accessories are available only for 2 pole, 3 pole and 4 pole MCCBs.
3VJ9218-0ST.. shunt releases can be used with 3VJ11 (frame VJ1 125) and 3VJ12 (frame VJ1 250) only.
- : NA
* : Coming soon

Selection & ordering data

Accessories

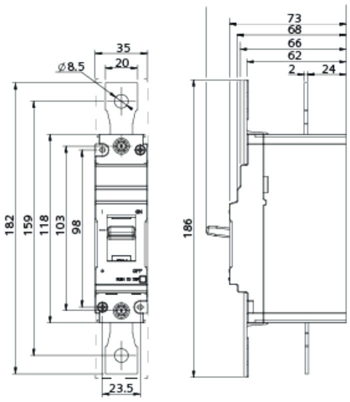
Accessory	Product image	Frame size				
		3VJ10 (VJ1 125X)	3VJ11 (VJ1 125)	3VJ12 (VJ1 250)	3VJ13 (VJ1 400)	3VJ14 (VJ1 630)
Extended door mounted rotary operator (including 8UC handle)*		3VJ9018-0HD11	3VJ9118-0HD11	3VJ9218-0HD11	3VJ9417-0HD11	
Extended terminals#		3VJ9011-0EC00 (1P)	-	-	-	
Spreader links^		3VJ9012-0ED00 (2P)	3VJ9112-0ED00 (2P)	3VJ9212-0ED00 (2P)	-	
		3VJ9013-0ED00 (3P)	3VJ9113-0ED00 (3P)	3VJ9213-0ED00 (3P)	3VJ9313-0ED00	3VJ9413-0ED00
		3VJ9014-0ED00 (4P)	3VJ9114-0ED00 (4P)	3VJ9214-0ED00 (4P)	3VJ9314-0ED00	3VJ9414-0ED00
Phase barriers*		3VJ9018-0CA00	3VJ9218-0CA00		3VJ9417-0CA00	
Front barriers$		3VJ9011-0CJ10 (1P)	-	-	-	
		3VJ9016-0CJ30 (2P/3P)	3VJ9116-0CJ30 (2P/3P)	3VJ9216-0CJ30 (2P/3P)	3VJ9413-0CJ30 (3P)	
		-	3VJ9114-0CJ40 (4P)	3VJ9214-0CJ40 (4P)	3VJ9414-0CJ40 (4P)	
Toggle handle extension		-	-	-	3VJ9417-0DH10	
MIL		-	3VJ9116-0VM10 (2P, 3P)	3VJ9216-0VM10 (2P, 3P)	3VJ9313-0VM10 (3P)	
		-	3VJ9114-0VM10 (4P)	3VJ9214-0VM10 (4P)	3VJ9314-0VM10 (4P)	
Enclosure		3VJ9016-0DE11 (2P, 3P)	3VJ9116-0DE11 (2P, 3P)	3VJ9216-0DE12 (2P, 3P)	-	-
		3VJ9014-0DE11 (4P)	3VJ9114-0DE11 (4P)	3VJ9214-0DE12 (4P)	-	-

Note:
@ 1 set contains rotary mechanism, coupler, shaft and 8UC handle. Rotary operators are not available for 1 pole 3VJ MCCBs.
^ Spreader link 1 set = 2 nos. links in case of 2 pole; and 3 nos. links in case of 3 pole; and 4 nos. links in case of 4 pole.
# Extended terminals 1 set = 2 nos. links.
* Available as a spare; 1 set contains 2 phase barriers.
$ Available as a spare; 1 set contains 2 front barriers (top and bottom).
Toggle handle extension is included in the standard packing of 3VJ13 and 3VJ14 (VJ1 400 and 630) MCCB.

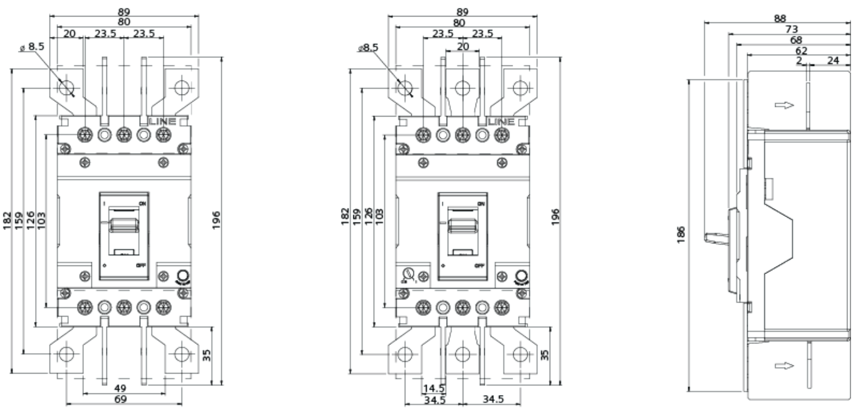
Dimension drawings

3VJ molded case circuit breakers

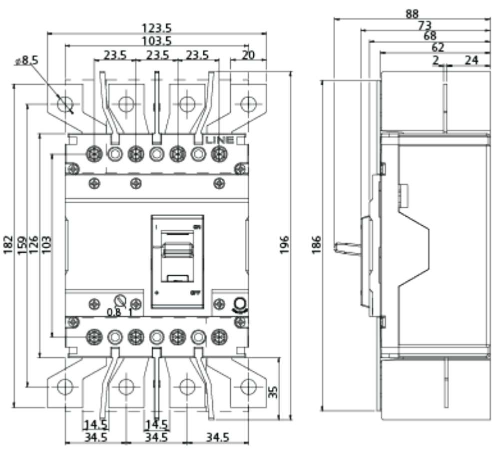
Frame 1x | 3VJ10 | 1 pole



Frame 1x | 3VJ10 | 2 pole / 3 pole



Frame 1x | 3VJ10 | 4 pole

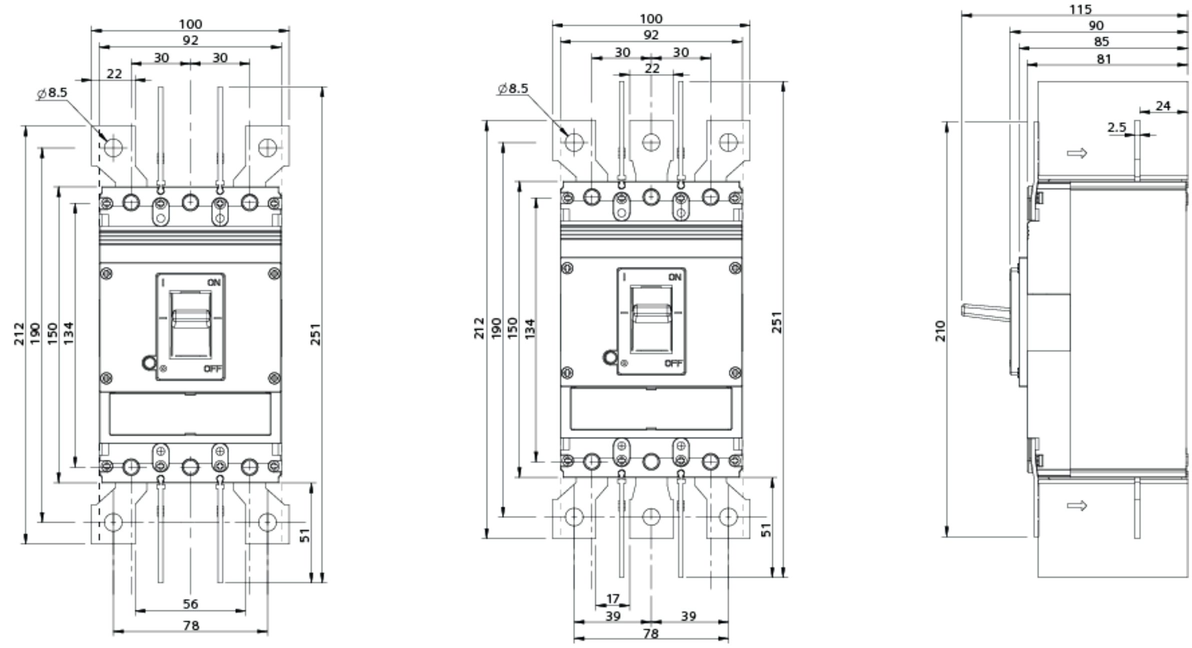


Note: All dimensions are in mm.

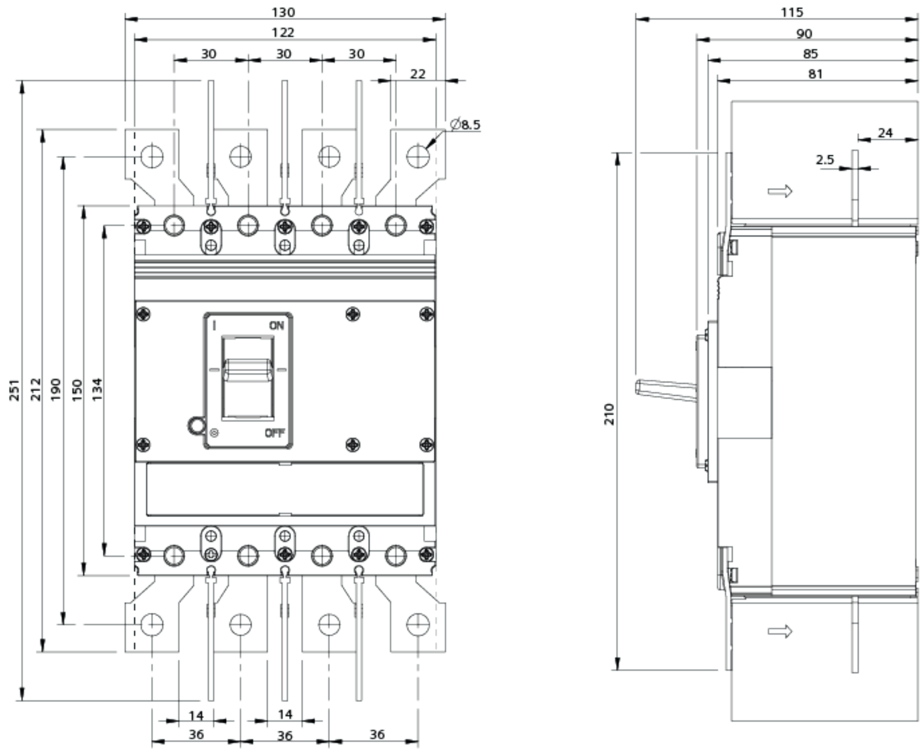
Dimension drawings

3VJ molded case circuit breakers

Frame 1 | 3VJ11 | 2 pole / 3 pole



Frame 1 | 3VJ11 | 4 pole

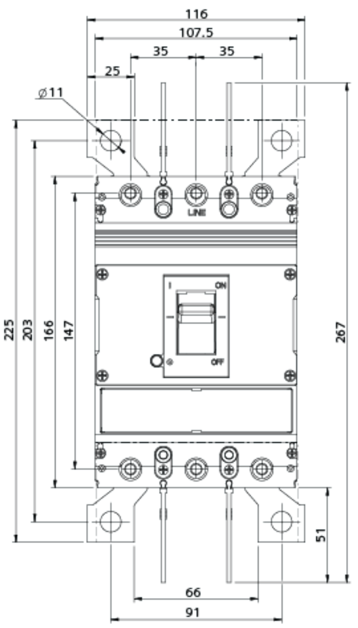


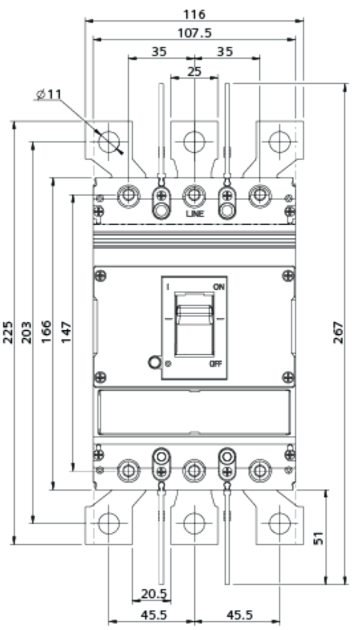
Note: All dimensions are in mm.

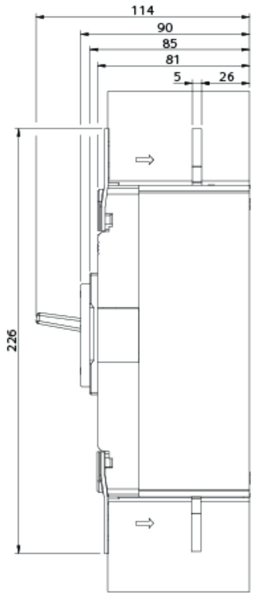
Dimension drawings

3VJ molded case circuit breakers

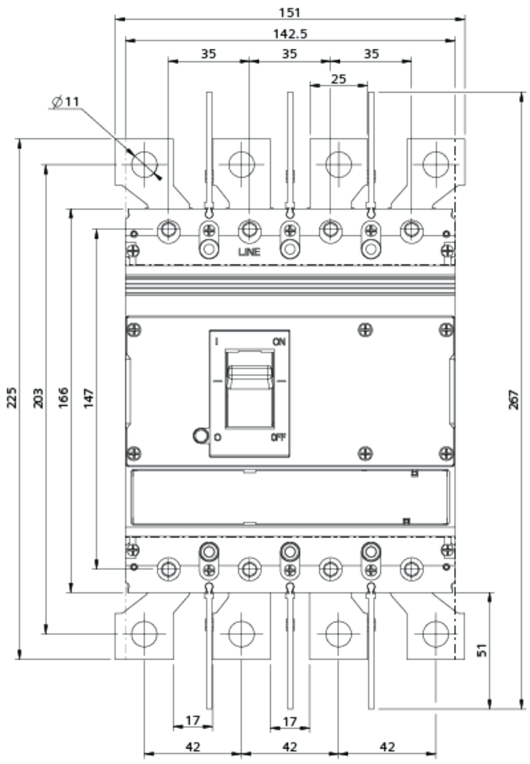
Frame 2 | 3VJ12 | 2 pole / 3 pole

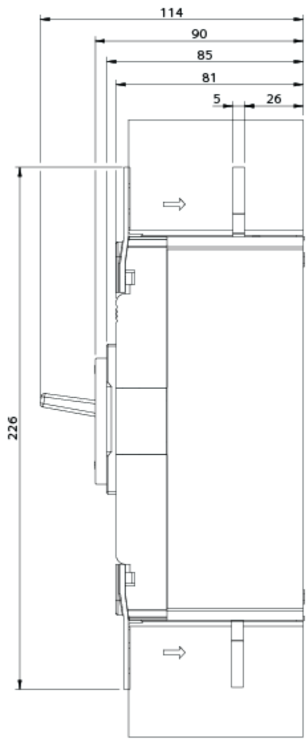






Frame 2 | 3VJ12 | 4 pole



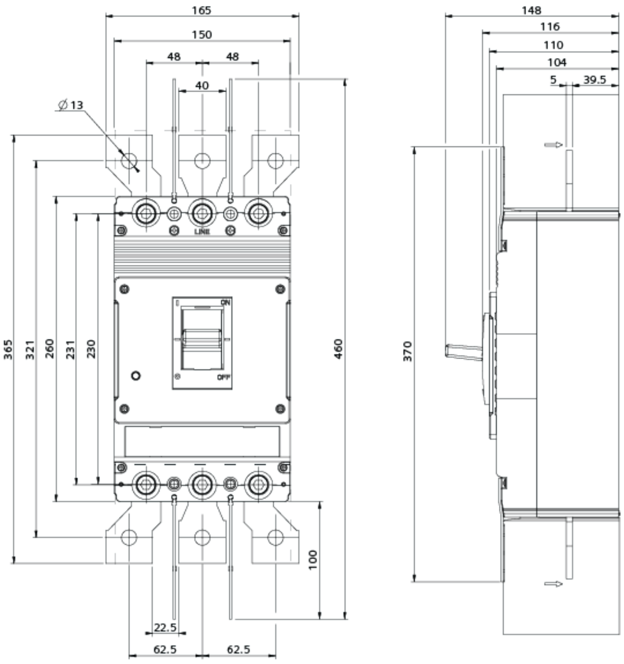


Note: All dimensions are in mm.

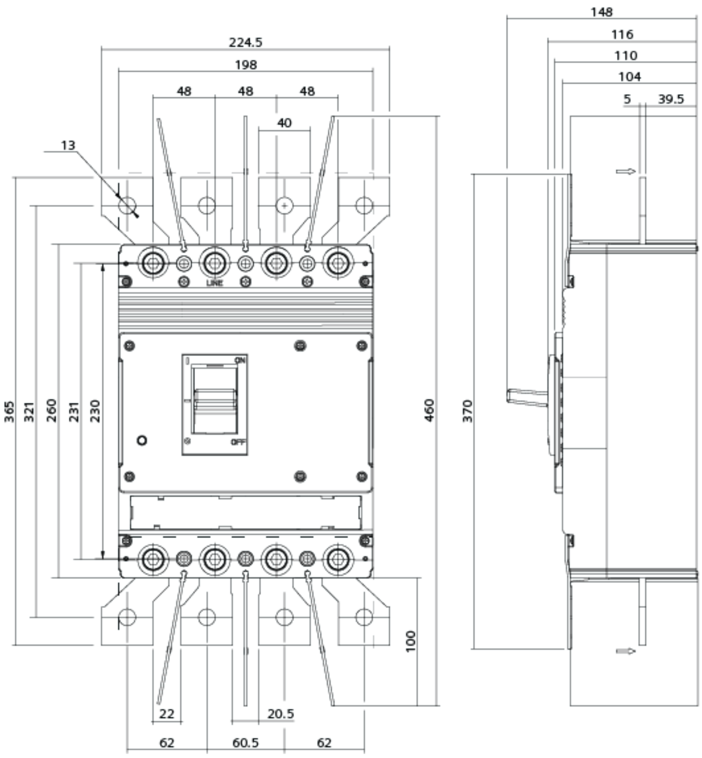
Dimension drawings

3VJ molded case circuit breakers

Frame 3 | 3VJ13 | 3 pole



Frame 3 | 3VJ13 | 4 pole

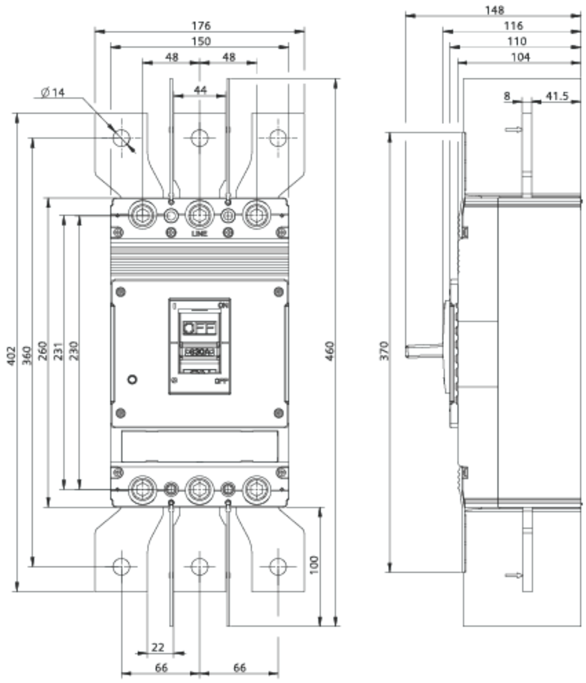


Note: All dimensions are in mm.

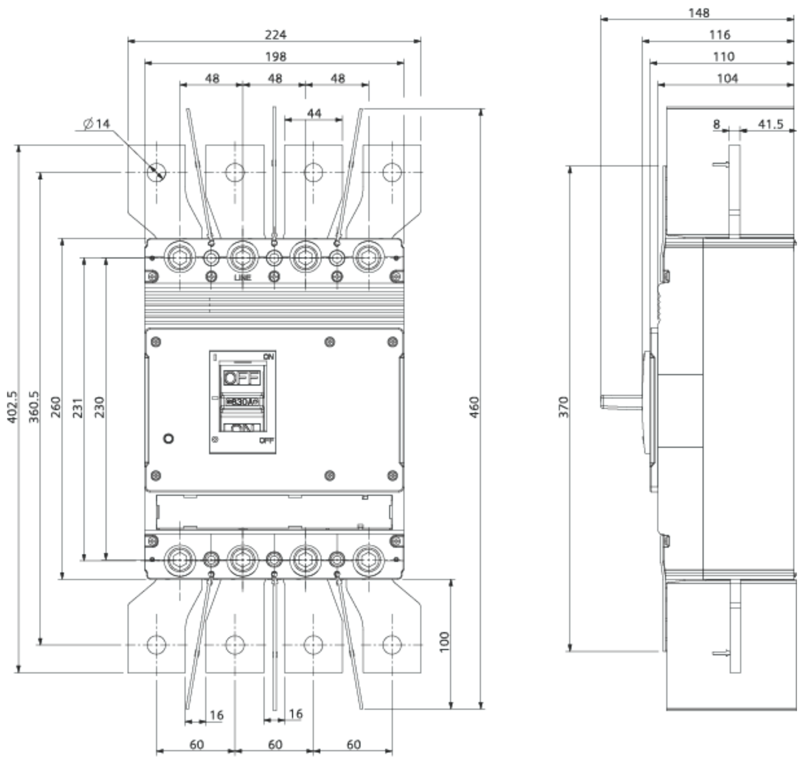
Dimension drawings

3VJ molded case circuit breakers

Frame 4 | 3VJ14 | 3 pole



Frame 4 | 3VJ14 | 3 pole



Note: All dimensions are in mm.

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Experience the power of simplicity with our SINOVA final distribution range of electrical protection products.

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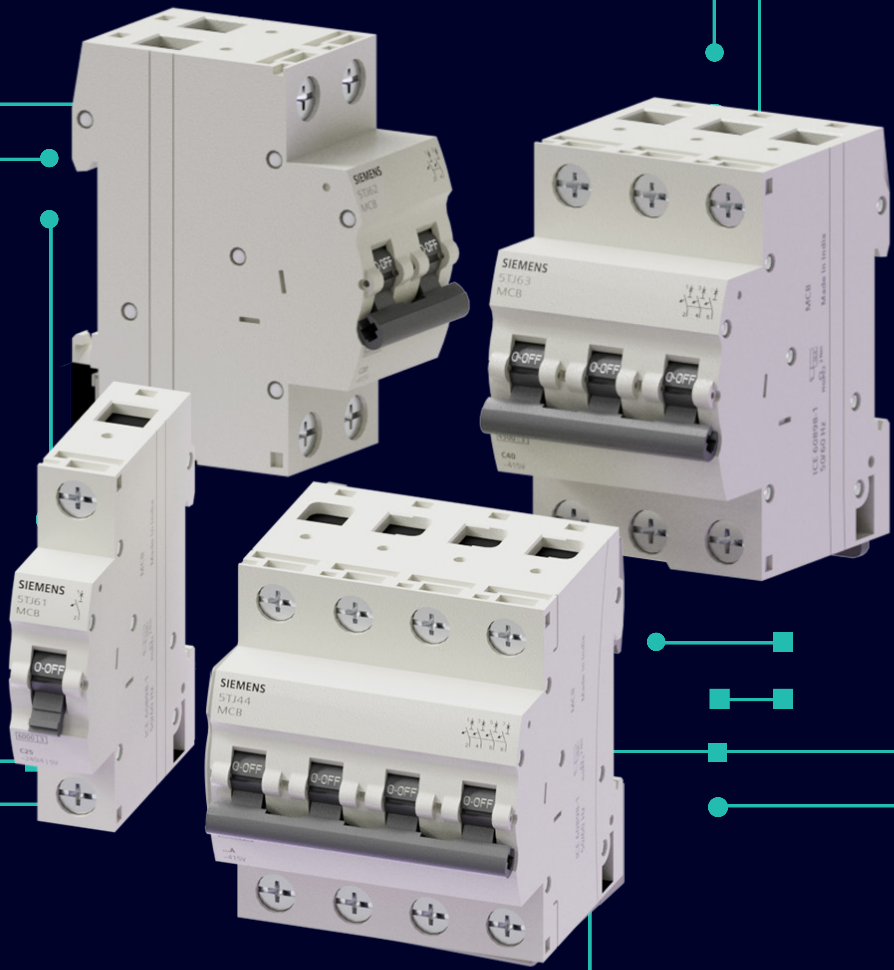


5TJ miniature circuit breakers

SINOVA The Power of **Simplicity**

5TJ miniature circuit breakers

SINOVA The Power of **Simplicity**

5TJ miniature circuit breakers

Product **highlights**

Reliable protection

Our miniature circuit breakers provide reliable protection for your installation with 4.5kA, 6kA, and 10kA breaking capacities.

Easy to use

Our miniature circuit breakers offer flexibility in termination which includes cable, pin-type, and fork-type busbars, making them easy to use.

Cost-effective

With low energy consumption, our miniature circuit breakers help you save on costs over their lifetime.

Overview

Product range

Breaking capacity: 4.5kA | Characteristic: C curve


1 pole,
240/415V AC


2 pole,
415V AC


3 pole,
415V AC


4 pole,
415V AC

Breaking capacity: 6kA | Characteristic: B & C curve


1 pole,
240/415V AC


2 pole,
415V AC


3 pole,
415V AC


4 pole,
415V AC

Breaking capacity: 10kA | Characteristic: B & C curve


1 pole,
240/415V AC


2 pole,
415V AC


3 pole,
415V AC


4 pole,
415V AC

Technical specifications

5TJ miniature circuit breakers

Parameters	Unit	Technical details
Standard		IEC 60898-1: 2015
Number of poles		1P, 2P, 3P, 4P
Rated voltage	V AC	240/415
Operational voltage	V AC/pole	Min. 24 Max. 440
Rated breaking capacity acc. to IEC 60898-1	kA AC	4.5kA, 6kA, & 10kA
Tripping characteristics		B, C (6kA & 10kA) & C (4.5kA)
Current rating	Ampere	B curve: 6-63 (6kA & 10kA) C curve: 6-63 (4.5kA, 6kA, & 10kA)
Insulation voltage	V AC	265/456
Rated frequency	Hz	50/60
Impulse withstand voltage	kV	4
Degree of pollution		2
Overvoltage category		III
Line load reversibility		Yes
Degree of protection acc. to EN 60529		IP20
RoHS compliant		Yes
CFC and silicone-free		Yes
REACH		Yes
Terminal tightening torque, recommended	N.m	2
Conductor cross-sections	mm^2	1...25 for 4.5kA & 6kA 1...35 for 10kA
Bi-connect (dual) terminals		Yes, on line side for 4.5kA and 6kA variant Yes, on both sides for 10kA variant
Busbar suitability		Both fork and pin type
Mounting position		Any
Average electrical/mechanical life		5,000/20,000 actuation
Ambient temperature	°C	- 25 ... +55 °C, max. 95% humidity Storage temperature: -40 +75 °C
Dimensional details Height x Width x Dimension	mm	84 x 18 × 76 mm (1 pole) Width change as number of module sizes increases from 1 pole...4 pole

Selection & ordering data

5TJ miniature circuit breakers (4.5kA)

Characteristic: C curve

Product	In (A)	No. of poles	Characteristics C Article no.	Standard packaging No. of pieces	List price per PU (Per Unit)
240/415V AC					
	6	1 pole	5TJ3106-7	12	
	10		5TJ3110-7	12	
	16		5TJ3116-7	12	
	20		5TJ3120-7	12	
	25		5TJ3125-7	12	
	32		5TJ3132-7	12	
	40		5TJ3140-7	12	
	50		5TJ3150-7	12	
	63		5TJ3163-7	12	
415V AC					
	6	2 pole	5TJ3206-7	6	
	10		5TJ3210-7	6	
	16		5TJ3216-7	6	
	20		5TJ3220-7	6	
	25		5TJ3225-7	6	
	32		5TJ3232-7	6	
	40		5TJ3240-7	6	
	50		5TJ3250-7	6	
	63		5TJ3263-7	6	
415V AC					
	6	3 pole	5TJ3306-7	4	
	10		5TJ3310-7	4	
	16		5TJ3316-7	4	
	20		5TJ3320-7	4	
	25		5TJ3325-7	4	
	32		5TJ3332-7	4	
	40		5TJ3340-7	4	
	50		5TJ3350-7	4	
	63		5TJ3363-7	4	
415V AC					
	6	4 pole	5TJ3406-7	3	
	10		5TJ3410-7	3	
	16		5TJ3416-7	3	
	20		5TJ3420-7	3	
	25		5TJ3425-7	3	
	32		5TJ3432-7	3	
	40		5TJ3440-7	3	
	50		5TJ3450-7	3	
	63		5TJ3463-7	3	

Selection & ordering data

5TJ miniature circuit breakers (6kA)

Characteristic: B curve

Product	In (A)	No. of poles	Characteristics B Article no.	Standard packaging No. of pieces	List price per PU (Per Unit)
240/415V AC					
	6	1 pole	5TJ6106-6	12	
	10		5TJ6110-6	12	
	16		5TJ6116-6	12	
	20		5TJ6120-6	12	
	25		5TJ6125-6	12	
	32		5TJ6132-6	12	
	40		5TJ6140-6	12	
	50		5TJ6150-6	12	
	63		5TJ6163-6	12	
415V AC					
	6	2 pole	5TJ6206-6	6	
	10		5TJ6210-6	6	
	16		5TJ6216-6	6	
	20		5TJ6220-6	6	
	25		5TJ6225-6	6	
	32		5TJ6232-6	6	
	40		5TJ6240-6	6	
	50		5TJ6250-6	6	
	63		5TJ6263-6	6	
415V AC					
	6	3 pole	5TJ6306-6	4	
	10		5TJ6310-6	4	
	16		5TJ6316-6	4	
	20		5TJ6320-6	4	
	25		5TJ6325-6	4	
	32		5TJ6332-6	4	
	40		5TJ6340-6	4	
	50		5TJ6350-6	4	
	63		5TJ6363-6	4	
415V AC					
	6	4 pole	5TJ6406-6	3	
	10		5TJ6410-6	3	
	16		5TJ6416-6	3	
	20		5TJ6420-6	3	
	25		5TJ6425-6	3	
	32		5TJ6432-6	3	
	40		5TJ6440-6	3	
	50		5TJ6450-6	3	
	63		5TJ6463-6	3	

Selection & ordering data

5TJ miniature circuit breakers (6kA)

Characteristic: C curve

Product	In (A)	No. of poles	Characteristics C Article no.	Standard packaging No. of pieces	List price per PU (Per Unit)
240/415V AC					
	6	1 pole	5TJ6106-7	12	
	10		5TJ6110-7	12	
	16		5TJ6116-7	12	
	20		5TJ6120-7	12	
	25		5TJ6125-7	12	
	32		5TJ6132-7	12	
	40		5TJ6140-7	12	
	50		5TJ6150-7	12	
	63		5TJ6163-7	12	
415V AC					
	6	2 pole	5TJ6206-7	6	
	10		5TJ6210-7	6	
	16		5TJ6216-7	6	
	20		5TJ6220-7	6	
	25		5TJ6225-7	6	
	32		5TJ6232-7	6	
	40		5TJ6240-7	6	
	50		5TJ6250-7	6	
	63		5TJ6263-7	6	
415V AC					
	6	3 pole	5TJ6306-7	4	
	10		5TJ6310-7	4	
	16		5TJ6316-7	4	
	20		5TJ6320-7	4	
	25		5TJ6325-7	4	
	32		5TJ6332-7	4	
	40		5TJ6340-7	4	
	50		5TJ6350-7	4	
	63		5TJ6363-7	4	
415V AC					
	6	4 pole	5TJ6406-7	3	
	10		5TJ6410-7	3	
	16		5TJ6416-7	3	
	20		5TJ6420-7	3	
	25		5TJ6425-7	3	
	32		5TJ6432-7	3	
	40		5TJ6440-7	3	
	50		5TJ6450-7	3	
	63		5TJ6463-7	3	

Selection & ordering data

5TJ miniature circuit breakers (10kA)

Characteristic: B curve

Product	In (A)	No. of poles	Characteristics B Article no.	Standard packaging No. of pieces	List price per PU (Per Unit)
240/415V AC					
	6	1 pole	5TJ4106-6	12	
	10		5TJ4110-6	12	
	16		5TJ4116-6	12	
	20		5TJ4120-6	12	
	25		5TJ4125-6	12	
	32		5TJ4132-6	12	
	40		5TJ4140-6	12	
	50		5TJ4150-6	12	
	63		5TJ4163-6	12	
415V AC					
	6	2 pole	5TJ4206-6	6	
	10		5TJ4210-6	6	
	16		5TJ4216-6	6	
	20		5TJ4220-6	6	
	25		5TJ4225-6	6	
	32		5TJ4232-6	6	
	40		5TJ4240-6	6	
	50		5TJ4250-6	6	
	63		5TJ4263-6	6	
415V AC					
	6	3 pole	5TJ4306-6	4	
	10		5TJ4310-6	4	
	16		5TJ4316-6	4	
	20		5TJ4320-6	4	
	25		5TJ4325-6	4	
	32		5TJ4332-6	4	
	40		5TJ4340-6	4	
	50		5TJ4350-6	4	
	63		5TJ4363-6	4	
415V AC					
	6	4 pole	5TJ4406-6	3	
	10		5TJ4410-6	3	
	16		5TJ4416-6	3	
	20		5TJ4420-6	3	
	25		5TJ4425-6	3	
	32		5TJ4432-6	3	
	40		5TJ4440-6	3	
	50		5TJ4450-6	3	
	63		5TJ4463-6	3	

Selection & ordering data

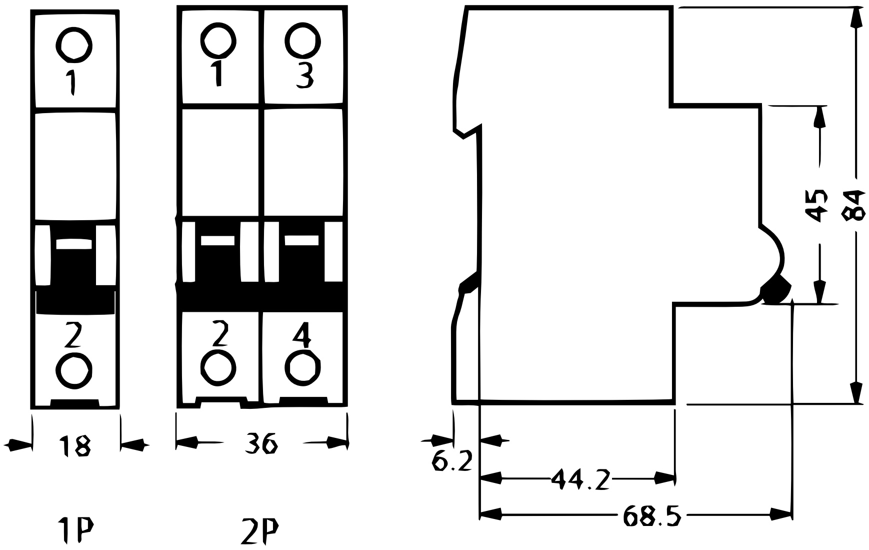
5TJ miniature circuit breakers (10kA)

Characteristic: C curve

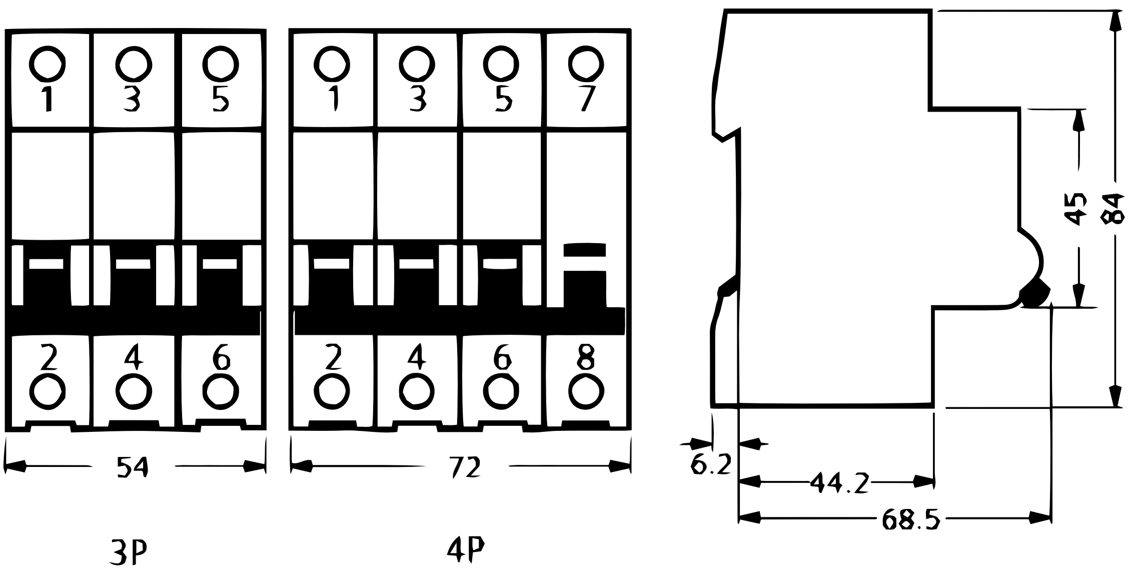
Product	In (A)	No. of poles	Characteristics C Article no.	Standard packaging No. of pieces	List price per PU (Per Unit)
240/415V AC					
	6		5TJ4106-7	12	
	10		5TJ4110-7	12	
	16		5TJ4116-7	12	
	20		5TJ4120-7	12	
	25	1 pole	5TJ4125-7	12	
	32		5TJ4132-7	12	
	40		5TJ4140-7	12	
	50		5TJ4150-7	12	
	63		5TJ4163-7	12	
415V AC					
	6		5TJ4206-7	6	
	10		5TJ4210-7	6	
	16		5TJ4216-7	6	
	20		5TJ4220-7	6	
	25	2 pole	5TJ4225-7	6	
	32		5TJ4232-7	6	
	40		5TJ4240-7	6	
	50		5TJ4250-7	6	
	63		5TJ4263-7	6	
415V AC					
	6		5TJ4306-7	4	
	10		5TJ4310-7	4	
	16		5TJ4316-7	4	
	20		5TJ4320-7	4	
	25	3 pole	5TJ4325-7	4	
	32		5TJ4332-7	4	
	40		5TJ4340-7	4	
	50		5TJ4350-7	4	
	63		5TJ4363-7	4	
415V AC					
	6		5TJ4406-7	3	
	10		5TJ4410-7	3	
	16		5TJ4416-7	3	
	20		5TJ4420-7	3	
	25	4 pole	5TJ4425-7	3	
	32		5TJ4432-7	3	
	40		5TJ4440-7	3	
	50		5TJ4450-7	3	
	63		5TJ4463-7	3	

Dimension drawings

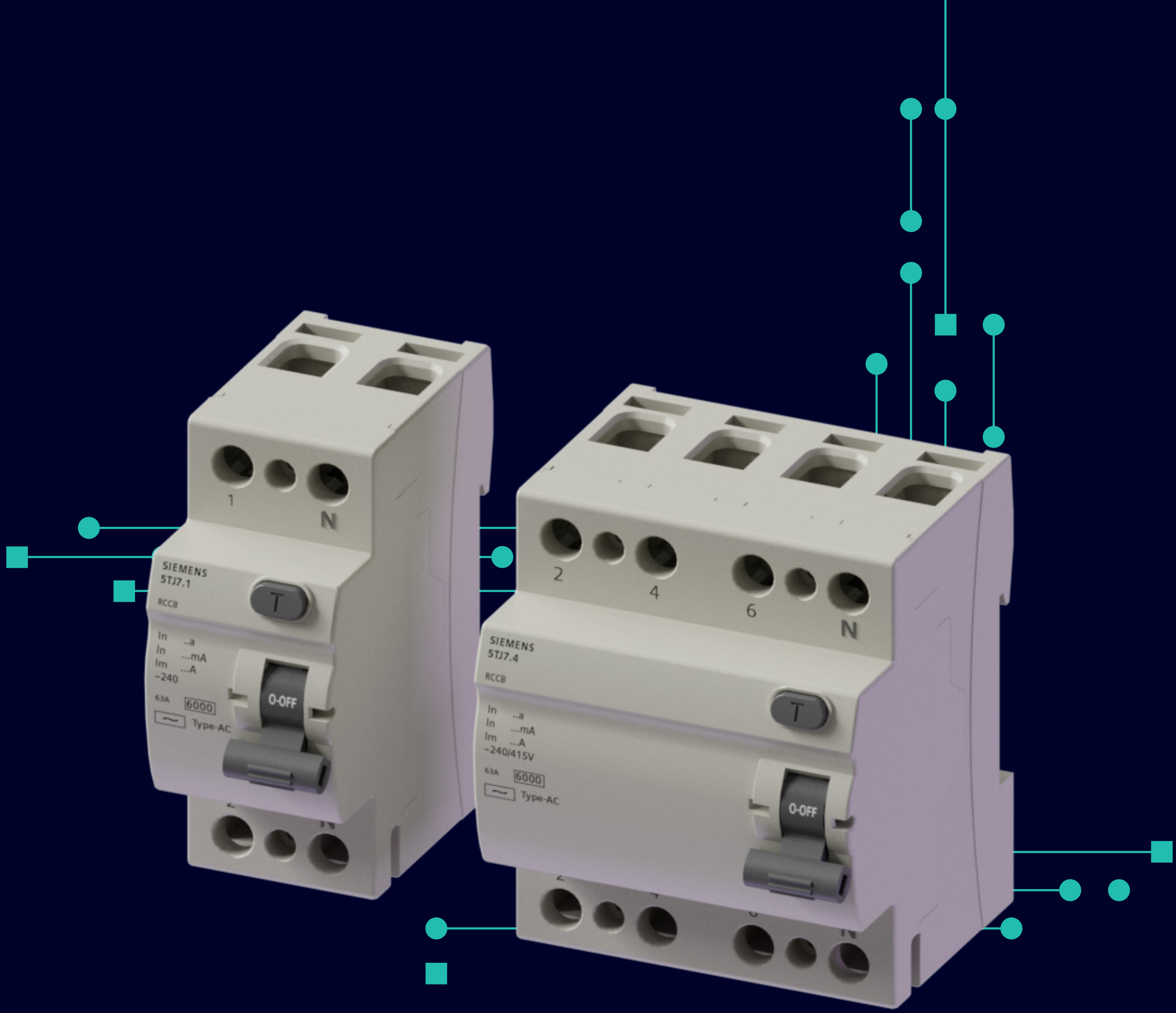
1 and 2 pole



3 and 4 pole



Note: All dimensions are in mm.



5TJ
residual current circuit breakers

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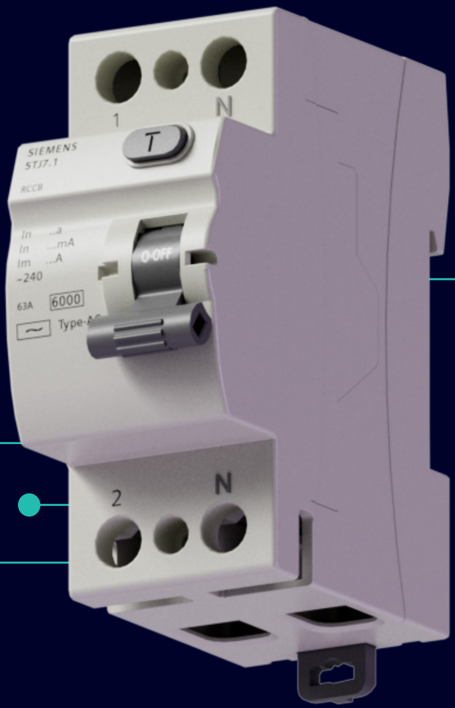


5TJ residual current circuit breakers

Overview

SINOVA The Power of **Simplicity**

5TJ residual current circuit breakers

Product **highlights**

Extensive product range

Our residual current circuit breakers come in current ratings of 16A, 25A, 32A, 40A, and 63A. They're available with sensitivities of 30mA, 100mA, and 300mA.

Easy to use

Our residual current circuit breakers offer flexibility in termination which includes cable, pin-type, and fork-type busbars, making them easy to use.

High compatibility

Compatible with 50Hz and 60Hz frequencies, catering to a wide range of needs.

SINOVA The Power of **Simplicity**

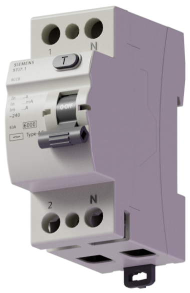
Technical specifications

5TJ residual current circuit breakers

Parameters	Unit	Technical details
Standard		IEC 61008-1, IEC 61008-2-1
Number of poles		2P and 4P
Rated voltage	V AC	240/415
Rated current In	Ampere (A)	16, 25, 32, 40 and 63
Rated frequency	Hz	50/60
Type		AC
Rated residual current / Δn	mA	30, 100 and 300
Rated conditional short-circuit current as per IEC 61008-1	kA	6
Minimum operating voltage for test function		
30mA	V AC	90
100mA		140
300mA		200
Pollution degree		2
Overvoltage category		III
Impulse withstand voltage	kV	4
Handle end position, sealable (sealing wire)		Yes
Degree of protection acc. to EN 60529		IP20 front
RoHS compliant		Yes
CFC and silicone-free		Yes
REACH		Yes
Terminal tightening torque, recommended	N.m	2.5...3
Conductor cross-sections	mm²	2.5...35
Bi-connect (dual) terminals		Yes (bottom only)
Busbar suitability		Both fork and pin type
Mounting position		Any
Average electrical / mechanical life		10,000/15,000 actuation
Ambient temperature	°C	- 25 ... +55 °C, max. 95% humidity Storage temperature: -25 ... +60 °C
Dimensional details Height x Width x Depth	mm	84.5 x 36 × 76 mm (2P) 84.5 x 72 × 76 mm (4P)

Selection & ordering data

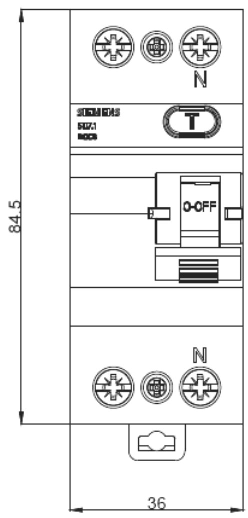
5TJ residual current circuit breakers

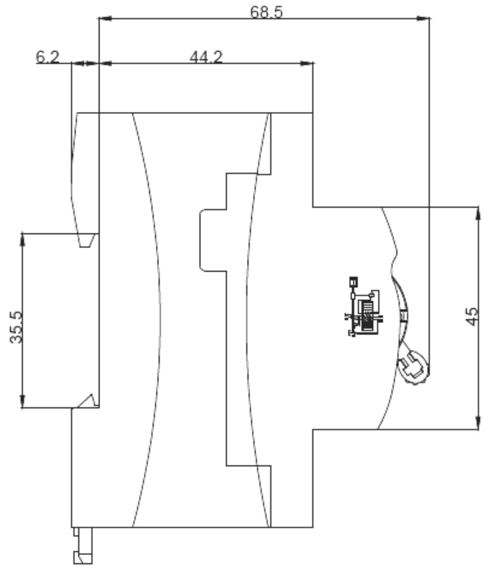
Product	In (A)	Sensitivity			Standard packaging No. of pieces	List price per PU (Per Unit)
		30mA	100mA	300mA		
2 pole						
	16	5TJ7311-0	5TJ7411-0	5TJ7611-0	5	
	25	5TJ7312-0	5TJ7412-0	5TJ7612-0	5	
	32	5TJ7313-0	5TJ7413-0	5TJ7613-0	5	
	40	5TJ7314-0	5TJ7414-0	5TJ7614-0	5	
	63	5TJ7316-0	5TJ7416-0	5TJ7616-0	5	
4 pole						
	16	5TJ7341-0	5TJ7441-0	5TJ7641-0	3	
	25	5TJ7342-0	5TJ7442-0	5TJ7642-0	3	
	32	5TJ7343-0	5TJ7443-0	5TJ7643-0	3	
	40	5TJ7344-0	5TJ7444-0	5TJ7644-0	3	
	63	5TJ7346-0	5TJ7446-0	5TJ7646-0	3	

Dimension drawings

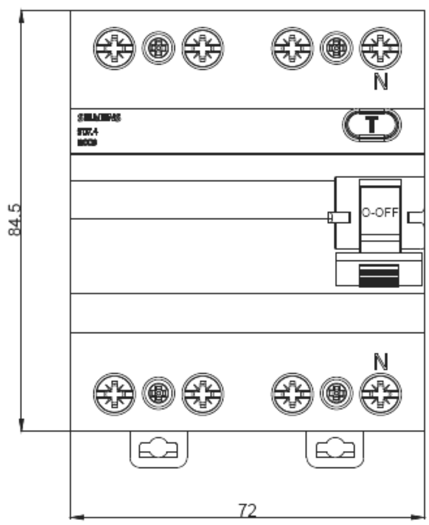
5TJ residual current circuit breakers

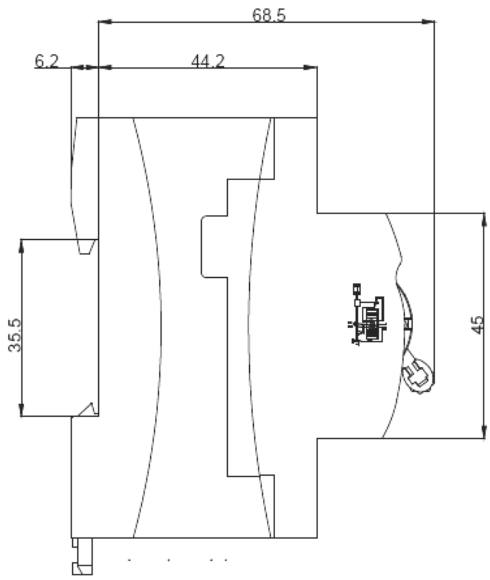
2 pole



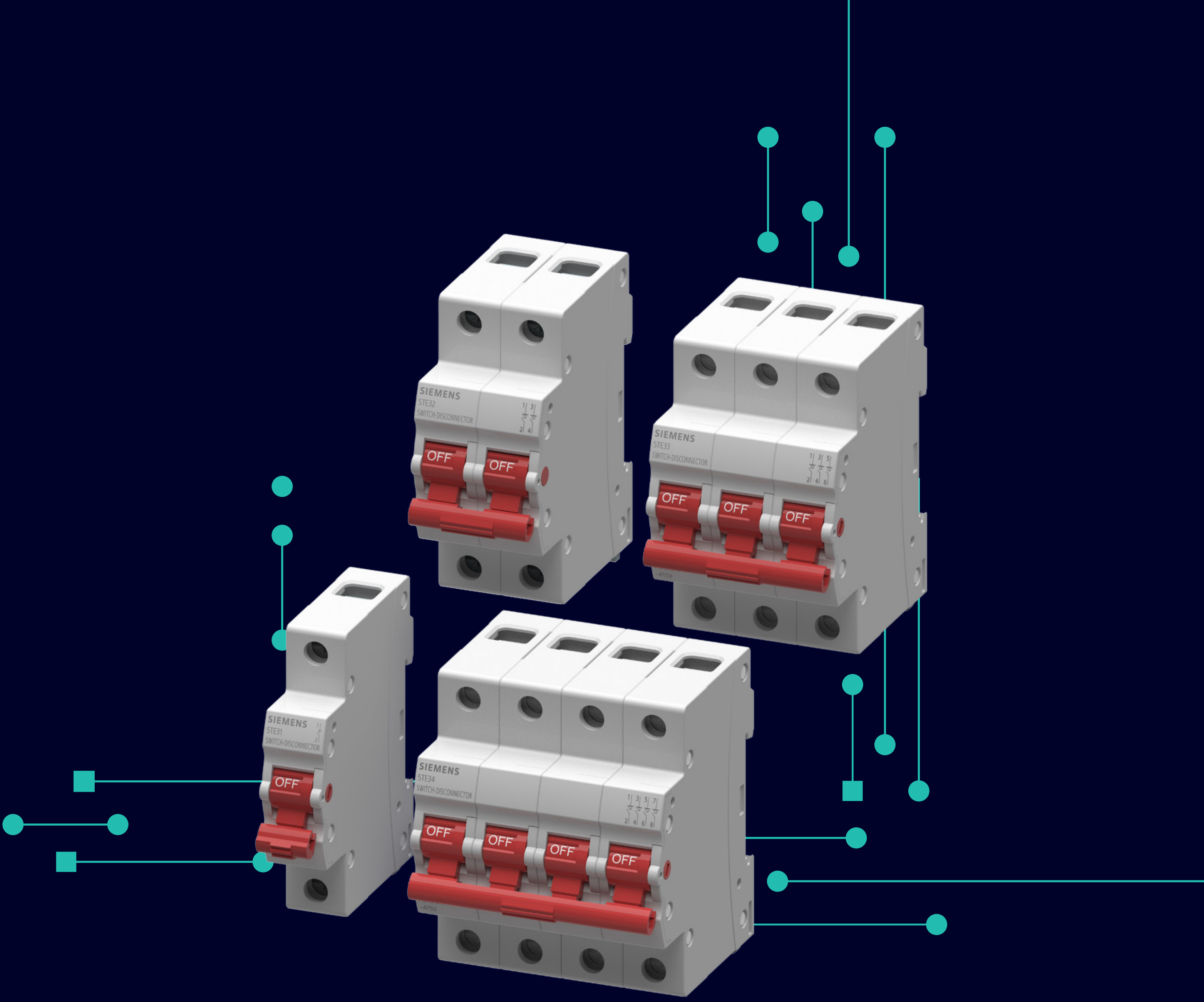


4 pole





Note: All dimensions are in mm.



5TE
isolators

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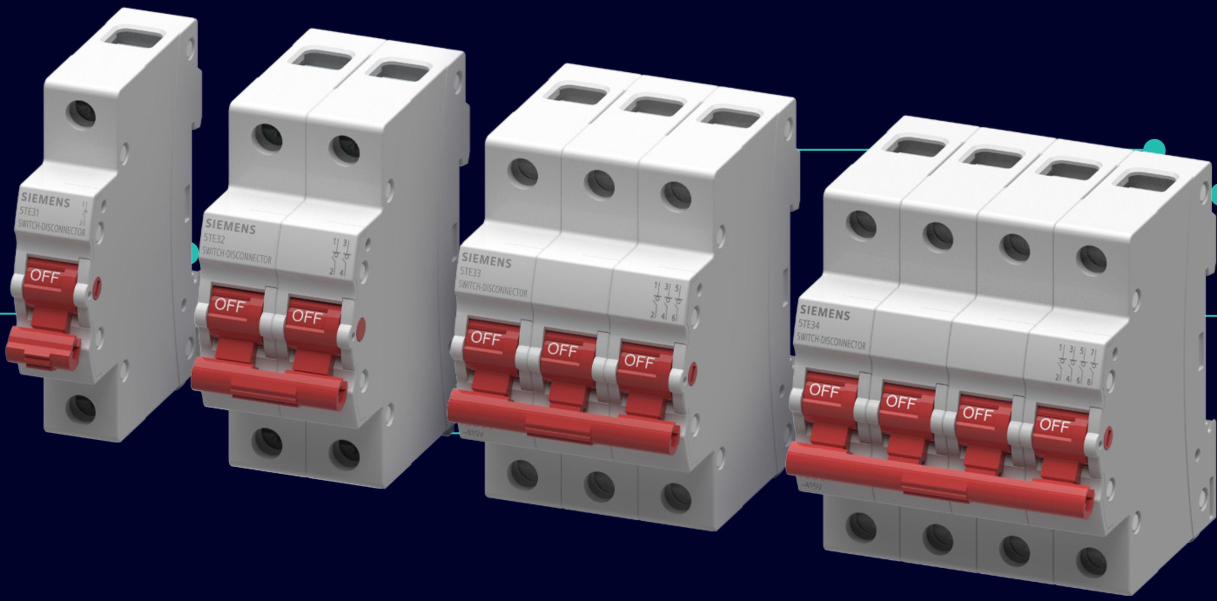
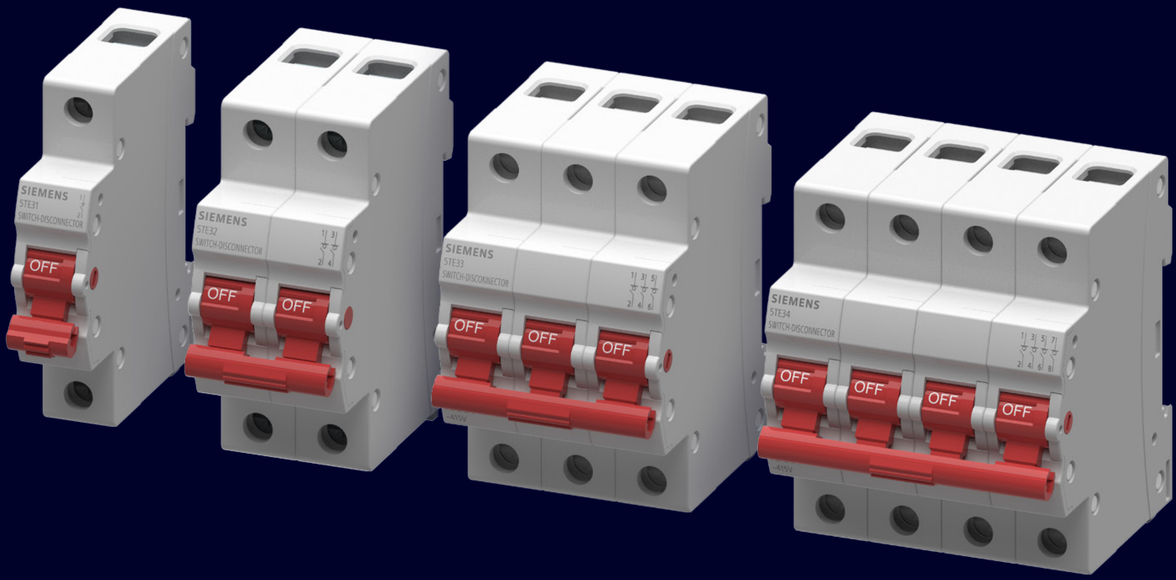


5TE
isolators

Overview

SINOVA The Power of **Simplicity**



5TE isolators

Product **highlights**

Adaptable

Ideal for switching a variety of applications with mixed resistive and inductive loads in both residential and industrial applications.

IEC Safe

Complete isolation and safe system disconnection during maintenance work, ensuring the safety of personnel. Conform to IEC 60947-3.

Easy to use

Our isolators offer flexibility in termination, which includes cable, pin-type, and fork-type busbars, making them easy to use.

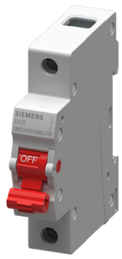
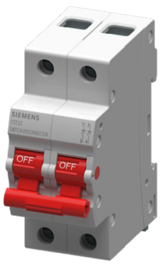
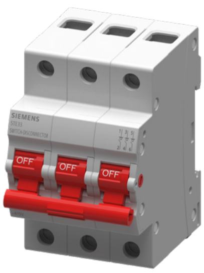
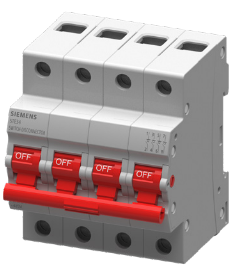
Technical specifications

5TE isolators

Parameters	Unit	Technical Details					
		IEC 60947-3					
Rated voltage Un V AC	V AC	1P-240V/415V AC ; 2P,3P,4P- 415V AC					
Current rating	A	**25A**	**40A**	**63A**	**80A**	**100A**	**125A**
Rated power dissipation Pv – per pole max		2.3	2.3	2.5	5.5	5.5	5.5
Breaking capacity • Short circuit withstand capacity Icw (1 sec) • Short circuit making capacity Icm	 A A	 300 500	 480 800	 756 1200	 960 1500	 1200 1800	 1500 2200
Rated insulation voltage	V AC	660					
Rated frequency	Hz	50/60					
Utilization category		AC-22A					
Overvoltage category		III					
Pollution degree		3					
Impulse withstand voltage	kV	4kV					
Degree of protection (front side)		IP20					
Endurance in cycles • Mechanical • Electrical		 10000 2000					
Handle end position (sealable wire)		Yes					
RoHS compliant		Yes					
Terminal details • Bi-connect terminal • Terminal tightening torque N-m	 N-m	 Yes, at bottom 2.5 - 3					
Conductor cross-section • Solid and stranded mm^2	 mm^2	 4 sq.mm - 35 sq.mm | 4 sq.mm --- 50 sq.mm					
Ambient temperature	°C	-5 °C to 55 °C					
Storage temperature	°C	-25 °C to 70 °C					
Mounting		DIN rail (35mm)					
Orientation		Any (horizontal and vertical)					

Selection & ordering data

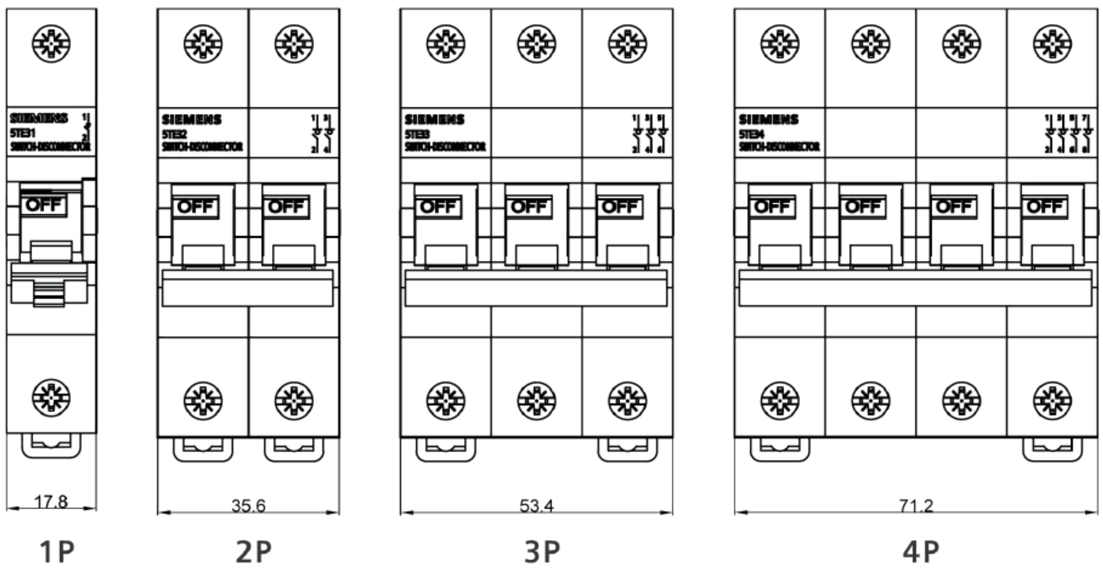
5TE isolators

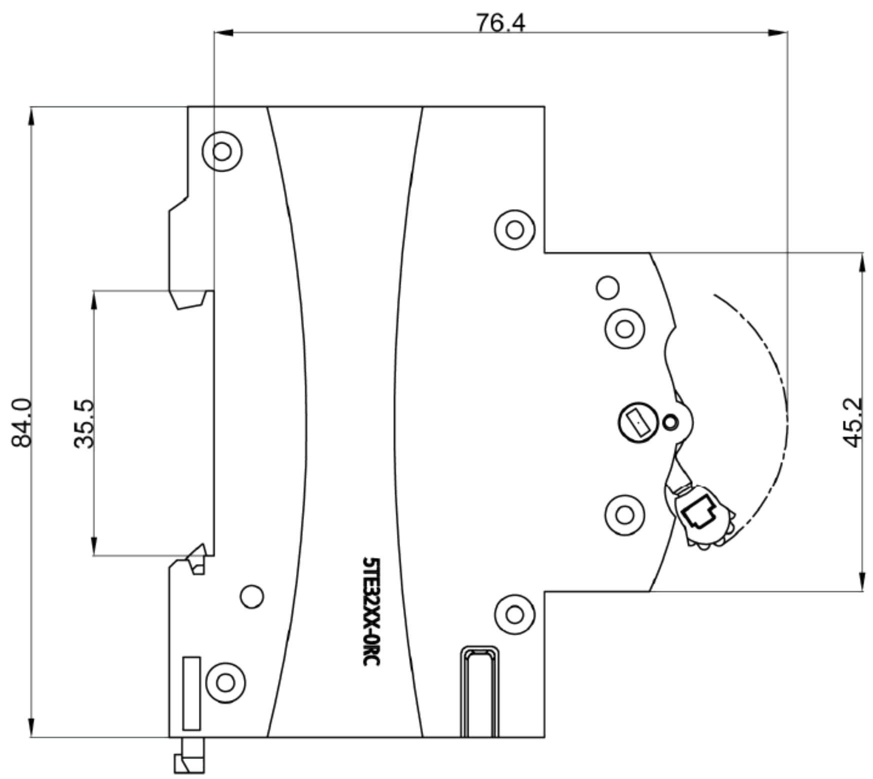
Product	In (A)	No. of poles	Article no.	Standard packaging No. of pieces	List price per PU (Per unit)
240V AC					
	25	1 pole	5TE3125-0RC	12	
	40		5TE3140-0RC	12	
	63		5TE3163-0RC	12	
	80		5TE3180-0RC	12	
	100		5TE3191-0RC	12	
	125		5TE3192-0RC	12	
415V AC					
	25	2 pole	5TE3225-0RC	6	
	40		5TE3240-0RC	6	
	63		5TE3263-0RC	6	
	80		5TE3280-0RC	6	
	100		5TE3291-0RC	6	
	125		5TE3292-0RC	6	
415V AC					
	25	3 pole	5TE3325-0RC	4	
	40		5TE3340-0RC	4	
	63		5TE3363-0RC	4	
	80		5TE3380-0RC	4	
	100		5TE3391-0RC	4	
	125		5TE3392-0RC	4	
415V AC					
	25	4 pole	5TE3425-0RC	3	
	40		5TE3440-0RC	3	
	63		5TE3463-0RC	3	
	80		5TE3480-0RC	3	
	100		5TE3491-0RC	3	
	125		5TE3492-0RC	3	

Dimension drawings

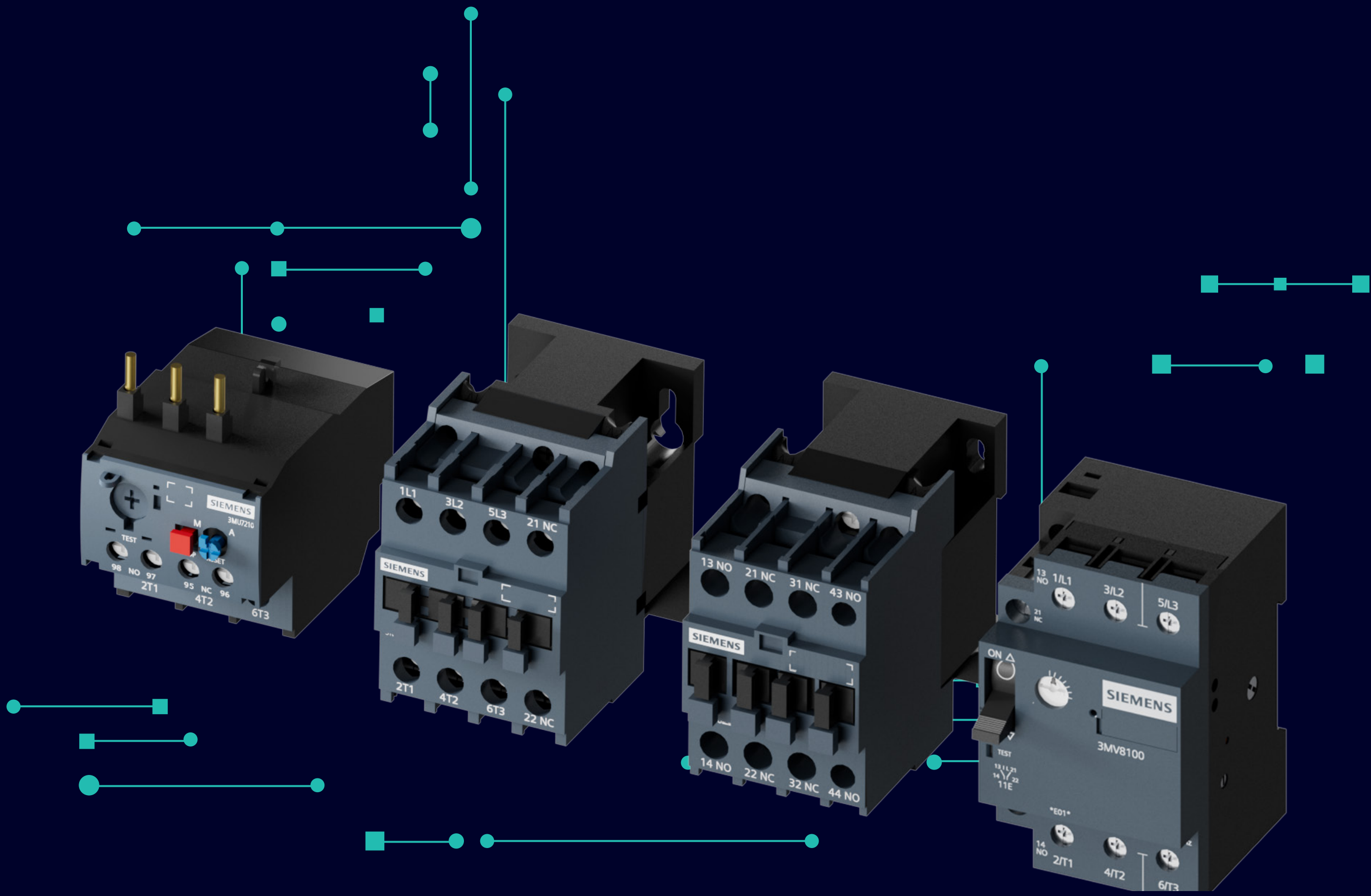
5TE isolators

1 pole and 2 pole





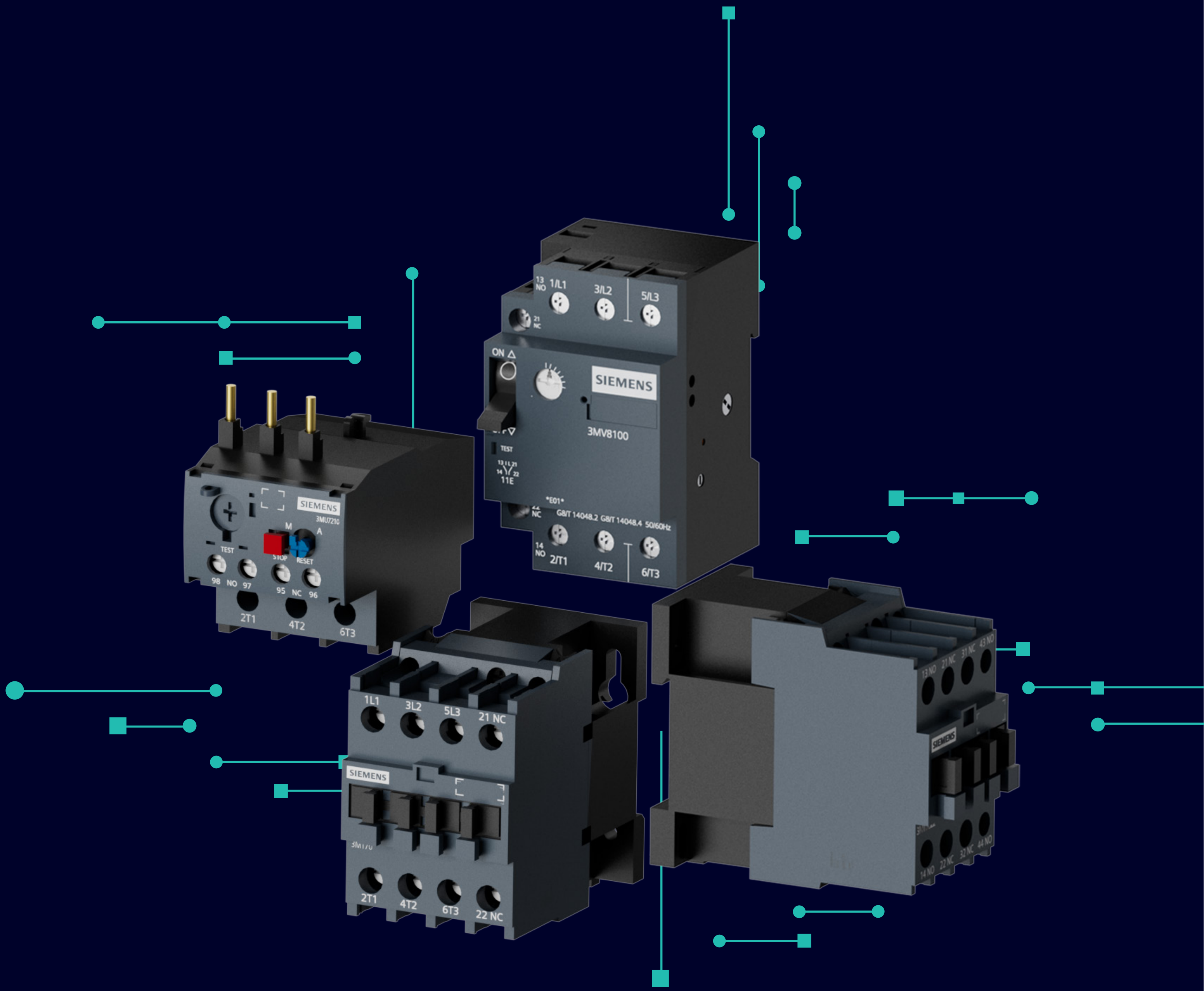
SINOVA control



SINOVA control

Experience the power of simplicity with our SINOVA control range of electrical protection products.

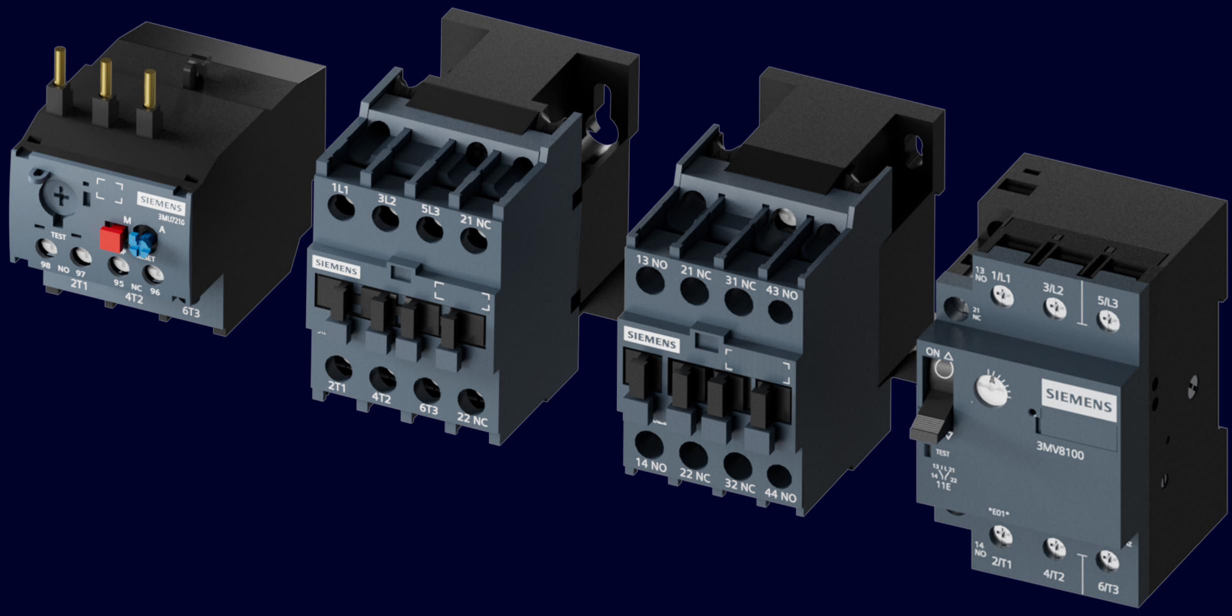
Our range of control products ensures efficient control and minimizes downtime with the help of our reliable contactors and motor protection devices. Additionally, our motor starter protectors prevent damage to your motors, fans, and pumps from overloads or short circuits. Experience the assurance of Siemens quality, made simple with exact product features to meet your specific needs.



3MT7, 3MH7, 3MU7 & 3MV8

contactors, overload relays & motor starter protectors

SINOVA The Power of **Simplicity**



3MT7, 3MH7, 3MU7 & 3MV8

contactors, overload relays & motor starter protectors

Product **highlights**

Adaptable

Our contactors and overload relays are designed to easily fit into various panel designs, catering to your control and protection requirements.

Trustworthy

Our contactors and overload relays ensure reliable motor protection with tested Type-2 coordinated feeder solutions.

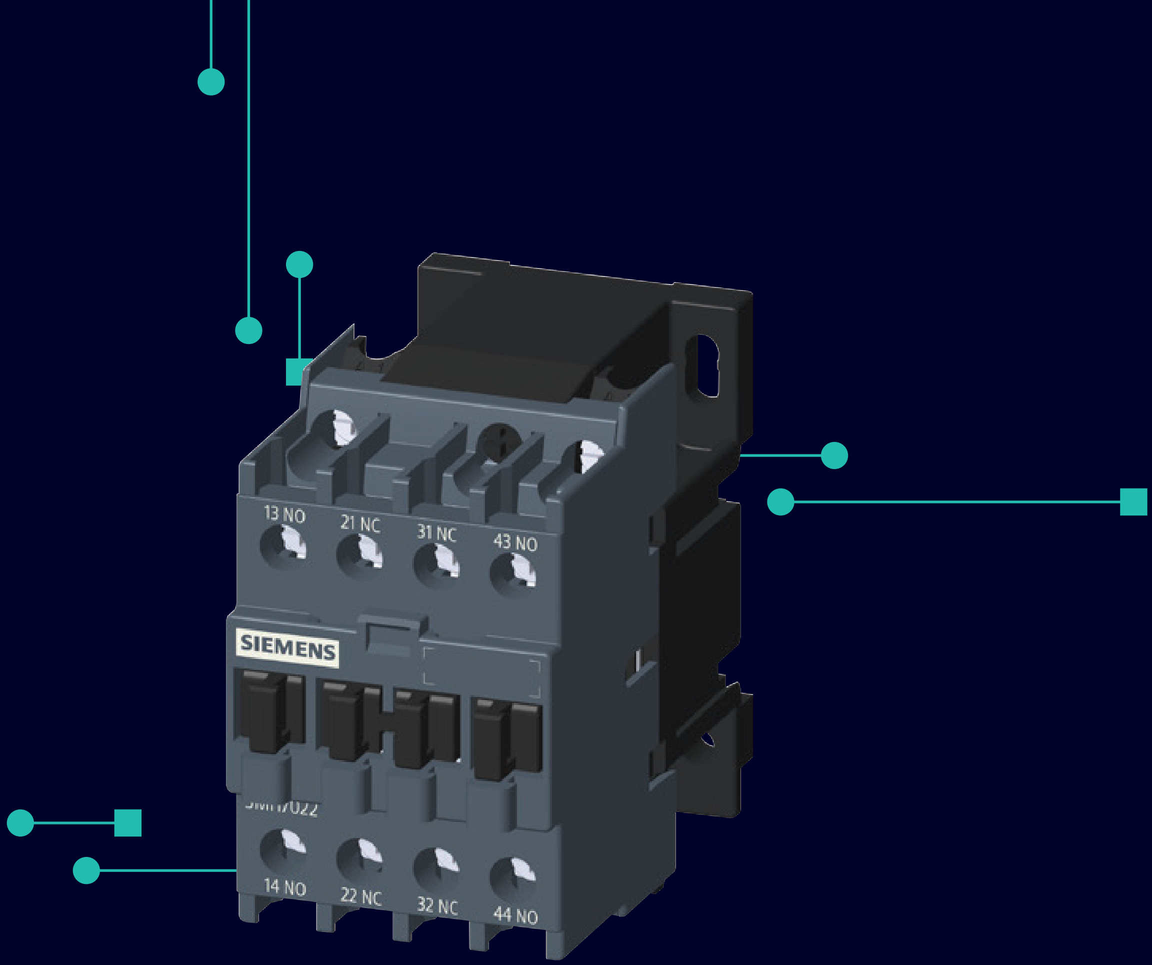
Assurance

Our contactors and overload relays are compliant with IEC 60947-4-1 and IEC 60947-5-1 standards, RoHS compliant, CE certified, and type-tested under the CB scheme.

Consistent design

Our contactors and overload relays are uniform in design aesthetic and compatible with accessories across the product ranges.

SINOVA The Power of **Simplicity**



3MH7 contactor relays

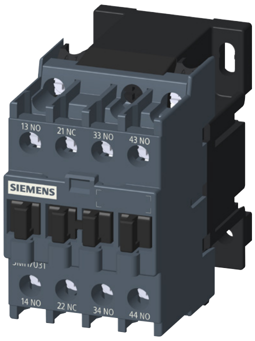
SINOVA The Power of **Simplicity**

Overview

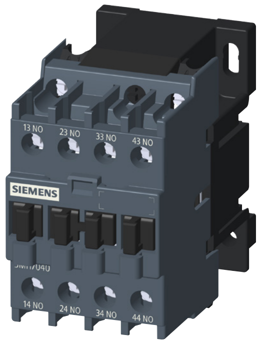
Product range

Contactor relays

3MH7022



3MH7031



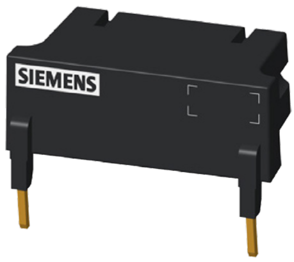
3MH7040

Accessories

1 pole & 2 pole front auxiliary switches

4 pole front auxiliary switches

Lateral auxiliary switches

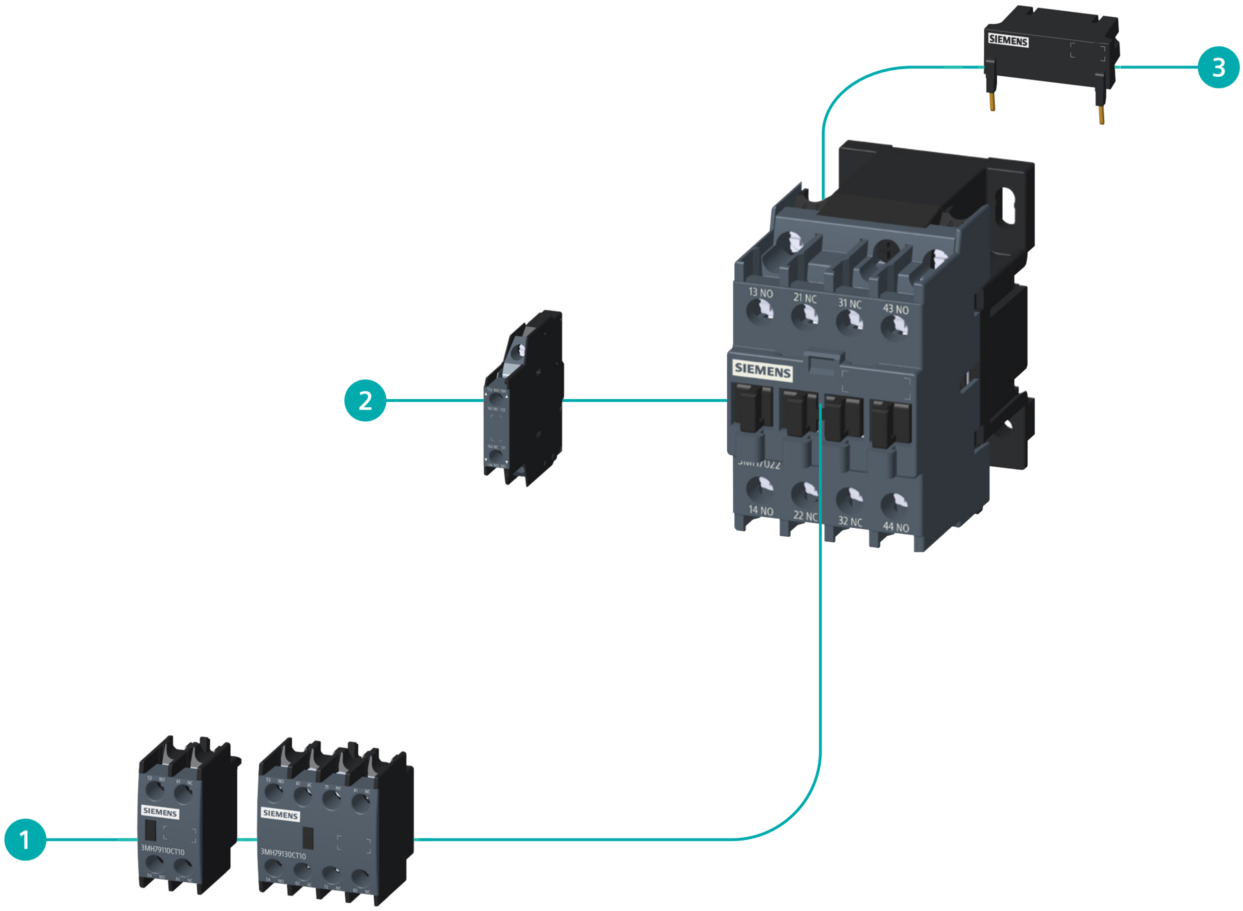


Surge suppressor

Note: You will find a detailed range of accessories in the Accessories and Spare parts section from page 100 to page 101.

Overview

System overview



1. Front auxiliary switches
2. Lateral auxiliary switches
3. Surge suppressor

Note: The linking lines indicate the correct placement of the accessories onto the product.

Technical specifications

3MH7 contactor relays

				
Type		**3MH7022**	**3MH7031**	**3MH7040**
General data				
Dimension (W x H x D) • Basic unit	mm	45 x 74.4 x 81.8		
Mounting position		22.5° inclination forward and backward, and 360° rotation, in relation to normal vertical mounting plane		
Mechanical service life • Basic unit • Basic unit with mounted auxiliary switch	 Operating cycles Operating cycles	 10,000,000 10,000,000		
Rated insulation voltage U_i (pollution degree 3)	V	1000		
Rated impulse withstand voltage U_{imp}	kV	6		
Permissible ambient temperature During operation During storage	 °C °C	 -5 ... +55 -25 ... +70		
Relative air humidity	**%**	10 ... 95		
Degree of protection IP on the front		IP20		
Installation altitude at height above sea level, maximum	m	2000		
Short circuit protection				
With fuse links of operational class gG:	A	10		

Technical specifications

3MH7 contactor relays

Type		3MH7022	3MH7031	3MH7040
Conductor cross-sections				
Auxiliary conductors and coil terminals				
Solid or stranded	mm^2	1 x (1.0 ... 4.0 mm^2); 2 x (1.0 ... 4.0 mm^2)		
Finely stranded with end sleeve	mm^2	1 x (1.0 ... 2.5 mm^2); 2 x (1.0 ... 1.5 mm^2)		
• Terminal screw		M3.5		
- Tightening torque	Nm	1.2		
Control				
Solenoid coil operating range				
• AC operation	at 50Hz	0.85 ... 1.1 x Us		
	at 60Hz	0.85 ... 1.1 x Us		
Power consumption of the solenoid coil				
• AC operation, 50Hz				
- Closing	VA/p.f.	70 / 0.75		
- Closed	VA/p.f.	11 / 0.3		
• AC operation, 50Hz wide band				
- Closing	VA/p.f.	90 / 0.75		
- Closed	VA/p.f.	15 / 0.3		
• AC operation, 50/60Hz				
- Closing	VA/p.f.	80 / 0.75		
- Closed	VA/p.f.	12 / 0.3		
Operating times within operating range				
• AC operation				
- Closing delay	ms	7 ... 22		
- Opening delay	ms	5 ... 20		

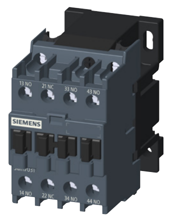
Technical specifications

3MH7 contactor relays

					
Type			**3MH7022**	**3MH7031**	**3MH7040**
Rated data of the auxiliary contacts					
Number of NO contacts			2	3	4
Number of NC contacts			2	1	0
Load rating with AC					
• **Rated operational currents I_e**					
- AC-12	690V	A		10	
- AC-15 at rated operational voltage U_e	230V	A		6	
	400V	A		3	
	500V	A		2	
	690V	A		1	
• **Load rating with DC (1 conducting path)**					
- DC-12, at rated operational voltage U_e	24V	A		6	
	110V	A		3	
	220V	A		1	
- DC-13, at rated operational voltage U_e	24V	A		6	
	110V	A		1	
	220V	A		0.3	
	440V	A		0.14	
	600V	A		0.1	
Switching frequency	Operating cycles/hour				
• **Rated operation for utilization category**					
	AC-12/DC-12	1/h		800	
	AC-15	1/h		800	
	DC-131/h	1/h		800	
• **No load switching frequency**		1/h		1800	

Selection & ordering data

3MH7 contactor relays



3MH7031-1A..0

Operational current AC-15 at 230V AC	Contacts		Article no.	List price per PU (Per Unit)
	NO	NC		
6A	4	0	3MH7040-1A..0	
6A	3	1	3MH7031-1A..0	
6A	2	2	3MH7022-1A..0	

.. Please enter coil codes from table below.

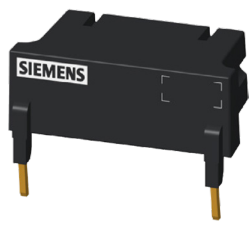
Coil code (AC)											
Frequency	24V	36V	48V	110V	220V	230V	380V	400V	415V	165-273V	353-455V
50Hz	B0	G0	H0	F0	M0	P0	Q0	V0	R0	S0	T0
50/60Hz	C2	G2	H2	F2	N2	L2	Q2	V2	R2	-	-

Accessories

1 pole and 2 pole front auxiliary switches

4 pole front auxiliary switches

Lateral auxiliary switches



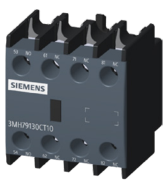
Surge suppressor

Please refer to the next page for more information on accessories.

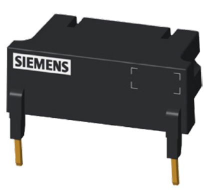
Selection & ordering data

3MH7 contactor relays | Accessories for contactors

Auxiliary switches

Product image	No. of auxiliary contacts NO	No. of auxiliary contacts NC	Mounting position	Compatible contactor	Maximum mountable auxiliary switches	Article no.	List price per PU (Per Unit)
1 pole & 2 pole front auxiliary switches 	1	-	Front	Contactor relays	1	3MH7910-0CT10	
	-	1				3MH7901-0CT10	
	2	-				3MH7920-0CT10	
	1	1				3MH7911-0CT10	
	-	2				3MH7902-0CT10	
4 pole front auxiliary switches 	4	-				3MH7940-0CT10	
	3	1				3MH7931-0CT10	
	2	2				3MH7922-0CT10	
	1	3				3MH7913-0CT10	
	-	4				3MH7904-0CT10	
Lateral auxiliary switches 	2	-	First left or first right		2	3MH7920-0CL10	
	1	1				3MH7911-0CL10	

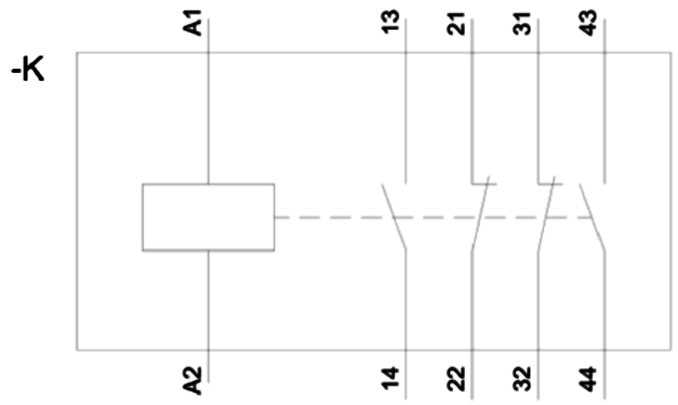
Surge suppressor

Product image	Voltage	Mounting position	Compatible contactor	Article no.	List price per PU (Per Unit)
	24-48V AC 50/60Hz	Between A1-A2 coil terminals	3MH7 and 3MT7 Size 0, 1, 2, 3, 4	3MT7900-1SC21	
	110-240V AC 50/60Hz			3MT7900-1SL21	
	380-440V AC 50/60Hz			3MT7900-1SV21	

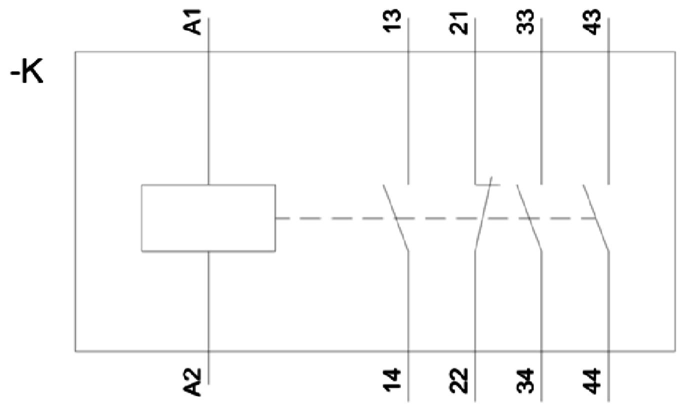
Wiring diagrams

3MH7 contactor relays

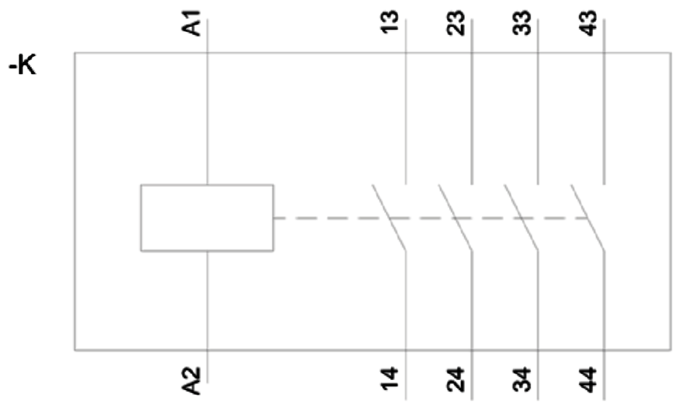
3MH7022 (2NO+2NC)



3MH7031 (3NO+1NC)



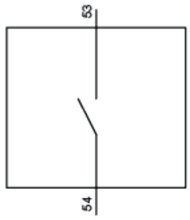
3MH7040 (4NO)



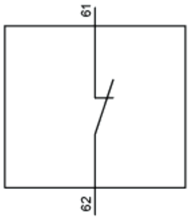
Wiring diagrams

Accessories

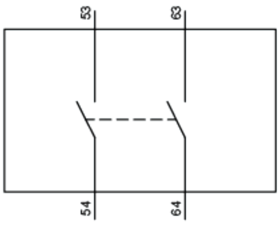
1 pole and 2 pole front auxiliary switches



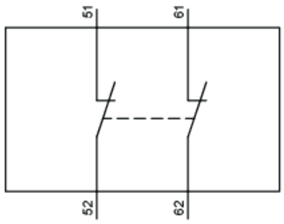
1 pole 1NO



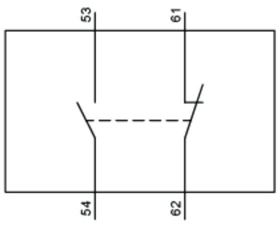
1 pole 1NC



2 pole 2NO

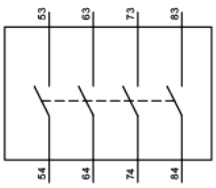


2 pole 2NC

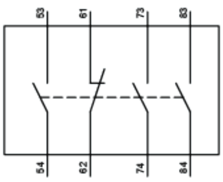


2 pole 1NO+1NC

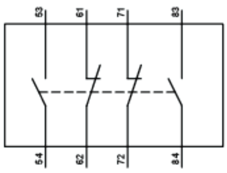
4 pole front auxiliary switches



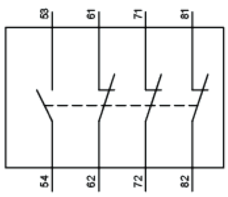
4 pole 4NO



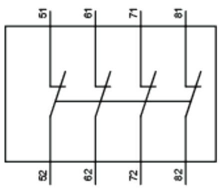
4 pole 3NO+1NC



4 pole 2NO+2NC

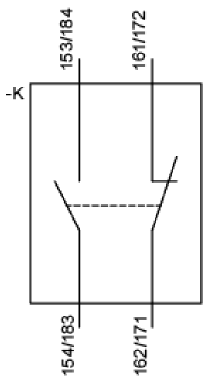


4 pole 1NO+3NC

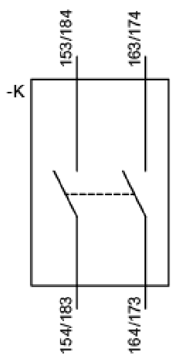


4 pole 4NC

Lateral auxiliary switches



2 pole 1NO+1NC

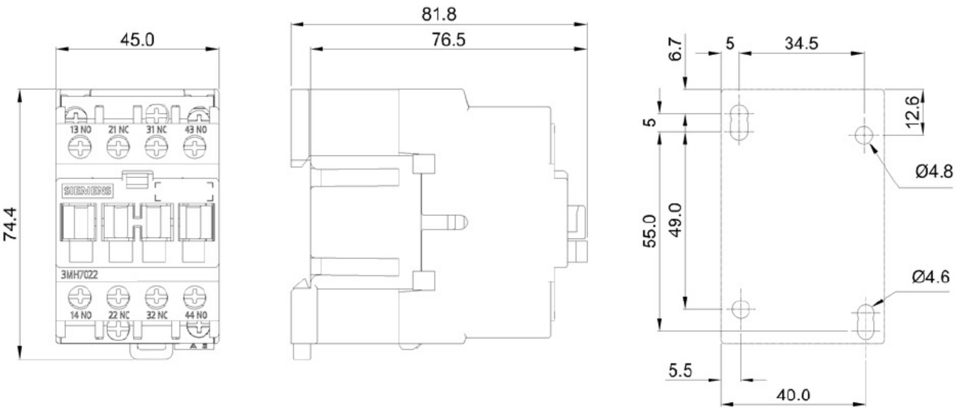


2 pole 2NO

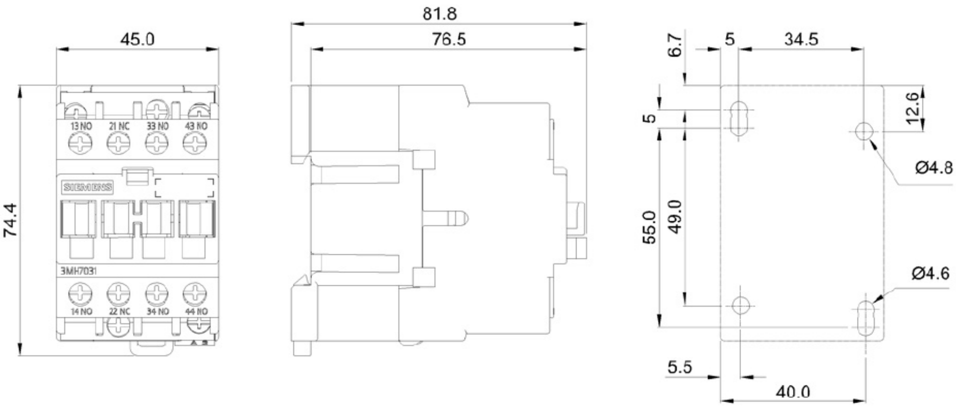
Dimension drawings

3MH7 contactor relays

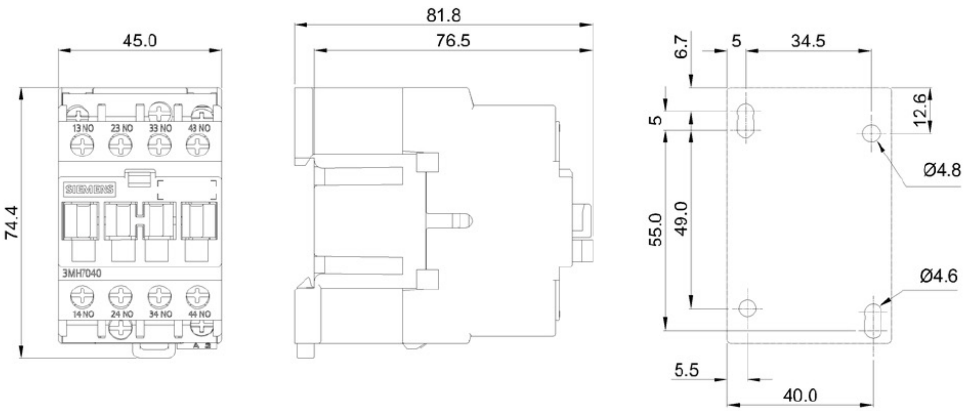
3MH7022 (2NO+2NC)



3MH7031 (3NO+1NC)



3MH7040 (4NO)

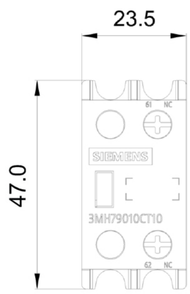


Note: All dimensions are in mm.

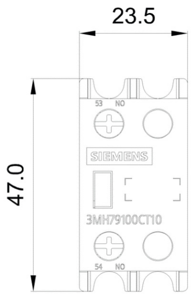
Dimension drawings

Accessories

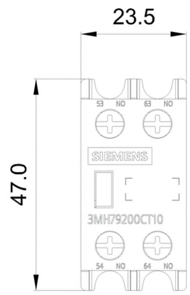
1 pole and 2 pole front auxiliary switches



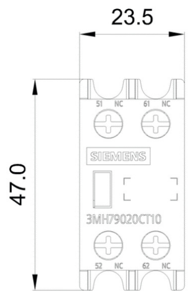
Front view
1 pole 1NC



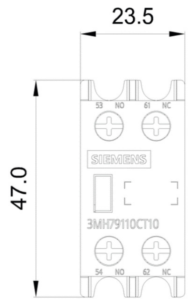
Front view
1 pole 1NO



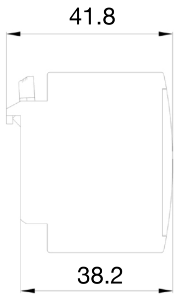
Front view
2 pole 2NO



Front view
2 pole 2NC

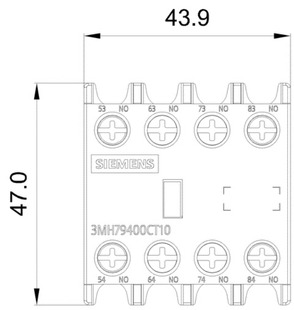


Front view
2 pole 1NO+1NC

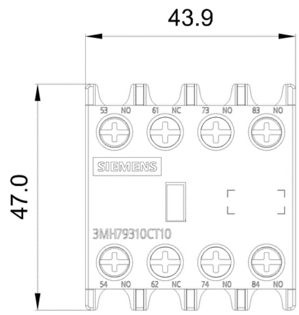


Side view

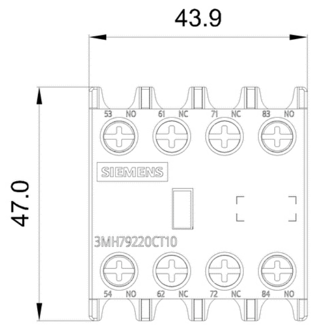
4 pole front auxiliary switches



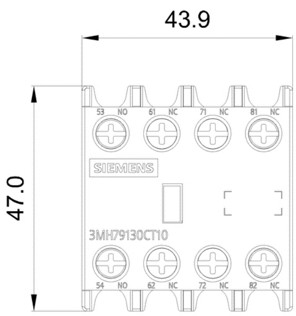
Front view
4NO



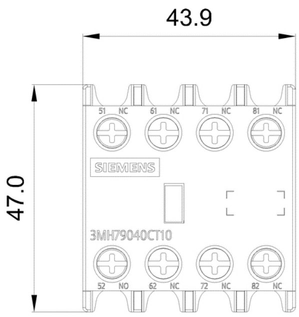
Front view
3NO+1NC



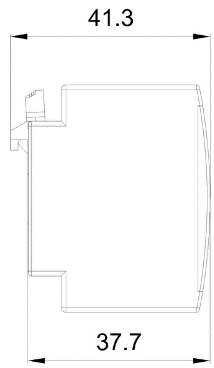
Front view
2NO+2NC



Front view
1NO+3NC



Front view
4NC



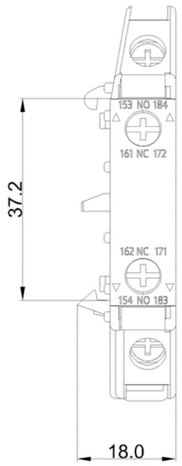
Side view
4 pole

Note: All dimensions are in mm.

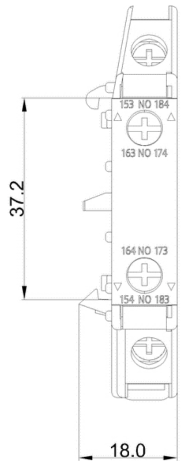
Dimension drawings

Accessories

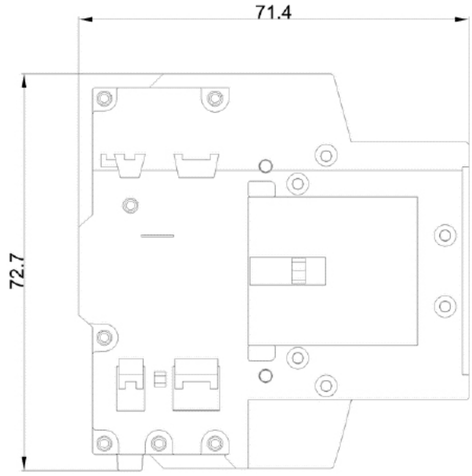
Lateral auxiliary switches



Front view
2 pole 1NO+1NC

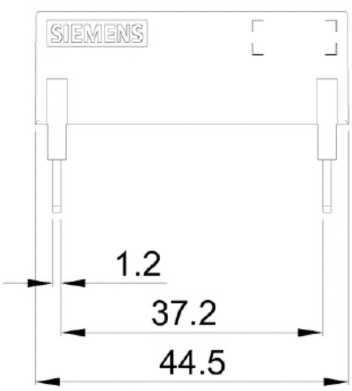


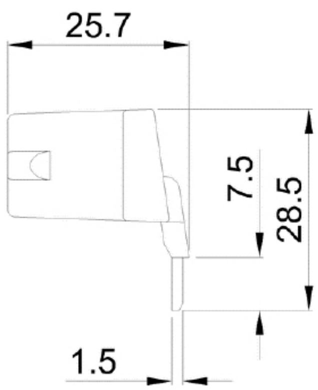
Front view
2 pole 2NO



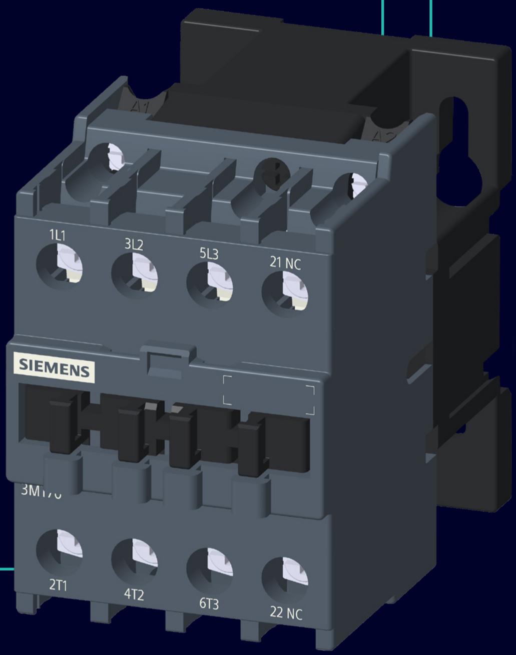
Side view
2 pole

Surge suppressor





Note: All dimensions are in mm.



3MT7 power contactors

SINOVA The Power of **Simplicity**

Overview

Product range

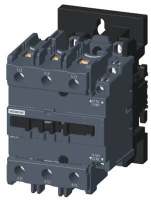
Contactors rating 6A to 95A

Size 0

Size 1

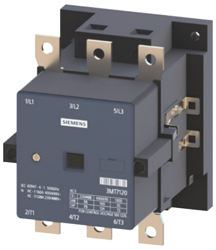
Size 2

Size 3



Size 4

Contactors rating 120A to 400A



Size 5

Size 6

Size 7

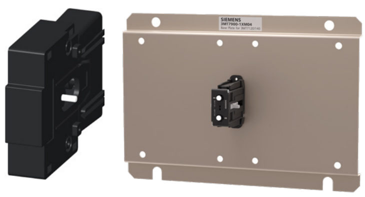
Size 8

Accessories

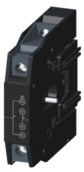
1 pole & 2 pole front auxiliary switches

4 pole front auxiliary switches

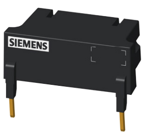
Lateral auxiliary switches



Mechanical interlock



Electro-mechanical interlock



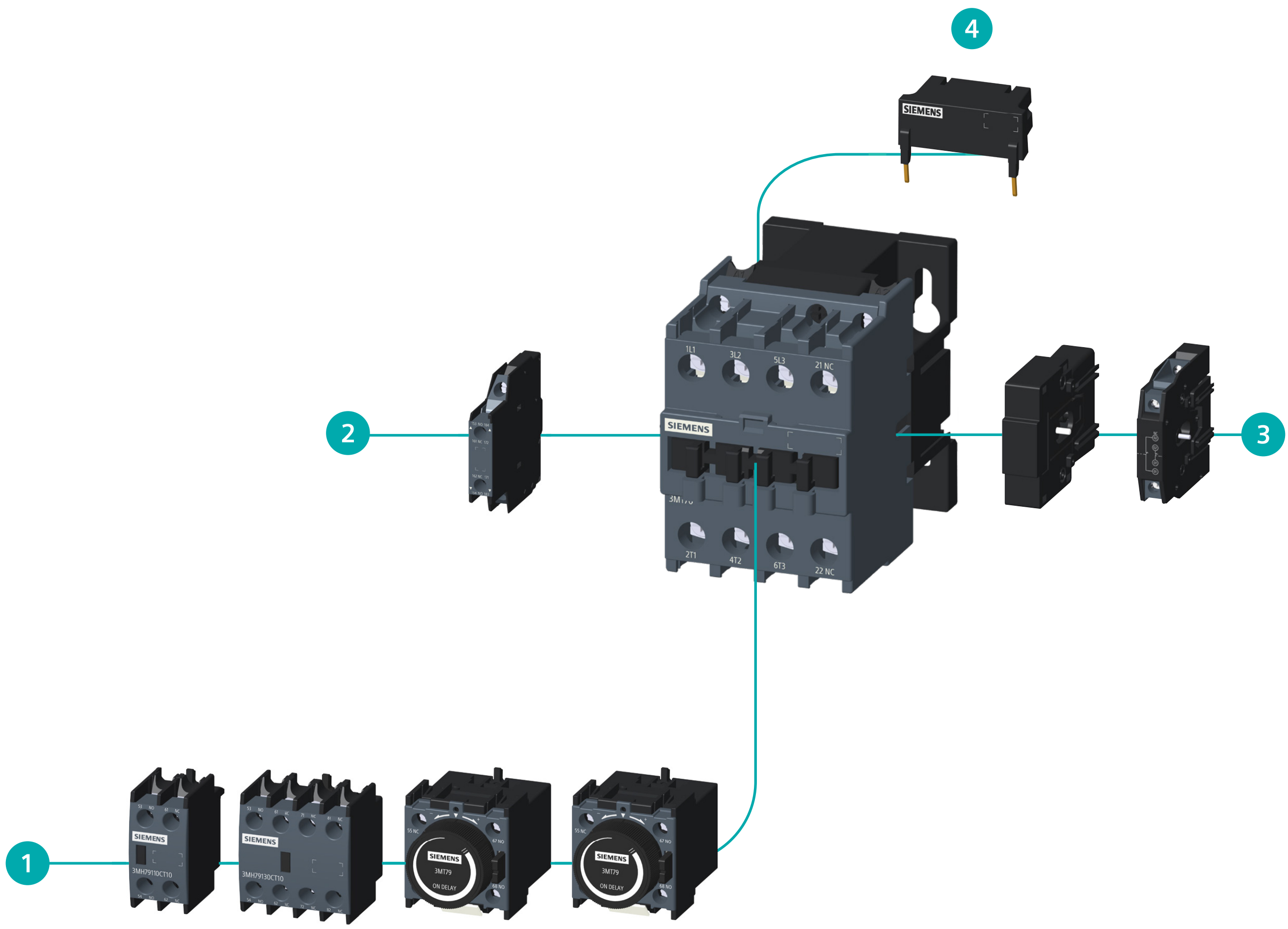
Surge suppressor

ON delay pneumatic timer

Note: You will find a detailed range of accessories in the Accessories and Spare parts section from page 123 to page 126.

Overview

System overview



1. Front auxiliary switches, OFF delay pneumatic timer
2. Lateral auxiliary switches
3. Mechanical interlock, Electro-mechanical interlock
4. Surge suppressor

Note: The linking lines indicate the correct placement of the accessories onto the product.

Technical specifications

3MT7 3 pole power contactors 6A to 95A

Type		3MT7006-0	3MT7010-0	3MT7012-0	3MT7018-1	3MT7022-1
Size		0	0	0	1	1
General data						
Dimension (W x H x D)						
• Basic unit	W mm	45			45.5	
	H mm	74.4			74.5	
	D mm	81.8			86.8	
Mounting position		22.5° inclination forward and backward, and 360° rotation, in relation to normal vertical mounting plane				
Rated insulation voltage U_i (pollution degree 3)						
• Main circuit	V	1000				
• Auxiliary circuit	V	1000				
Rated impulse withstand voltage U_{imp}						
• Main circuit	kV	6				
• Auxiliary circuit	kV	6				
Permissible ambient temperature						
During operation	°C	-5 ... +55				
During storage	°C	-25 ... +70				
Relative air humidity	%	10 ... 95				
Degree of protection IP on the front		IP20				
Installation altitude at height above sea level, maximum	m	2000				
Short circuit protection						
Main circuit						
• Fuse links, operational class gG						
- Type of coordination "1"	A	32	32	32	40	40
- Type of coordination “2"	A	25	25	25	32	32
Auxiliary circuit						
• Fuse links, operational class gG	A	10				

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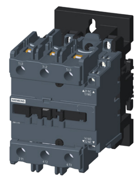
<tr><td colspan="4"></td><td colspan="3"></td><td colspan="2"></td></tr>
<tr><th>3MT7025-2</th><th>3MT7032-2</th><th>3MT7038-2</th><th>3MT7040-2</th><th>3MT7040-3</th><th>3MT7050-3</th><th>3MT7065-3</th><th>3MT7080-4</th><th>3MT095-4</th></tr>
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<tr><td colspan="9"></td></tr>
<tr><td colspan="4">56
82.9
95</td><td colspan="3">74.5
127.4
112.6</td><td colspan="2">84.5
127.4
121.3</td></tr>
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in relation to normal vertical mounting plane</td></tr>
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1000</td></tr>
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6</td><td colspan="5">8
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-25 ... +70</td></tr>
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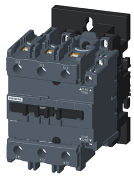
Technical specifications

3MT7 3 pole power contactors 6A to 95A

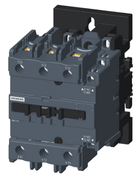
Type		3MT7006-0	3MT7010-0	3MT7012-0	3MT7018-1	3MT7022-1
Size		0	0	0	1	1
Conductor cross-sections						
Main conductors Solid or stranded	mm²	1 x (1 ... 4 mm²); 2 x (1 ... 4 mm²)			1 x (1.5 ... 6 mm²); 2 x (1.5 ... 6 mm²)	
Finely stranded with end sleeve	mm²	1 x (1 ... 4 mm²); 2 x (1 ... 1.5 mm²)			1 x (1 ... 6 mm²); 2 x (1 ... 2.5 mm²)	
• Terminal screw - Tightening torque	Nm	M3.5 1.2			M3.5 1.7	
Auxiliary conductors and coil terminals Solid or stranded	mm²	1 x (1.0 ... 4.0 mm²); 2 x (1.0 ... 4.0 mm²)				
Finely stranded with end sleeve	mm²	1 x (1.0 ... 2.5 mm²); 2 x (1.0 ... 1.5 mm²)				
• Terminal screw - Tightening torque	Nm	M3.5 1.2				
Control						
Solenoid coil operating range • AC operation	at 50Hz at 60Hz	0.85 ... 1.1 x Us 0.85 ... 1.1 x Us				
Power consumption of the solenoid coil (maximum)						
• AC operation, 50Hz						
- Closing	VA/p.f.	70 / 0.75				
- Closed	VA/p.f.	11 / 0.3				
• AC operation, 50Hz wide band						
- Closing	VA/p.f.	90 / 0.75				
- Closed	VA/p.f.	15 / 0.3				
• AC operation, 50/60Hz						
- Closing	VA/p.f.	80 / 0.75				
- Closed	VA/p.f.	12 / 0.3				
Operating times within operating range						
• AC operation						
- Closing delay	ms	9 ... 25				
- Opening delay	ms	4 ... 15				

								
3MT7025-2	**3MT7032-2**	**3MT7038-2**	**3MT7040-2**	**3MT7040-3**	**3MT7050-3**	**3MT7065-3**	**3MT7080-4**	**3MT095-4**
2	2	2	2	3	3	3	4	4
1 x (1.5 ... 10 mm²); 2 x (1.5 ... 6 mm²)				1 x (2.5 ... 25 mm²); 2 x (2.5 ... 16 mm²)			1 x (4 ... 50 mm²); 2 x (4 ... 35 mm²)	
1 x (1.5 ... 10 mm²); 2 x (1.5 ... 4 mm²)				1 x (2.5 ... 25 mm²); 2 x (2.5 ... 10 mm²)			1 x (4 ... 50 mm²); 2 x (4 ... 16 mm²)	
M4 1.85				M8 5			M10 9	
1 x (1.5 ... 4.0 mm²); 2 x (1.5 ... 4.0 mm²) 1 x (1.5 ... 4.0 mm²); 2 x (1.5 ... 4.0 mm²) M4 1.85				1 x (1.0 ... 4.0 mm²); 2 x (1.0 ... 4.0 mm²) 1 x (1.0 ... 2.5 mm²); 2 x (1.0 ... 1.5 mm²) M3.5 1.2				
0.85 ... 1.1 x Us 0.85 ... 1.1 x Us								
100 / 0.75 15 / 0.3 120 / 0.75 15 / 0.3 110 / 0.75 15 / 0.3				230 / 0.75 44 / 0.3 - - 280 / 0.75 41 / 0.3				
12 ... 27 5 ... 22				17 ... 29 6 ... 15			17 ... 38 5 ... 23	

Technical specifications

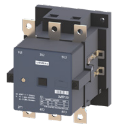
3MT7 3 pole power contactors 6A to 95A

Type		**3MT7006-0**	**3MT7010-0**	**3MT7012-0**	**3MT7018-1**	**3MT7022-1**
Size		0	0	0	1	1
Rated data for main contacts						
Load rating with AC						
• Utilization category AC-1						
- Rated operational currents I_e At 40 °C up to 690V	A	25	25	25	32	32
Utilization categories AC-3						
- Rated operational currents I_e at 400V, 55 °C	A	6	9	12	18	22
- Rated operational currents I_e at 690V, 55 °C	A	4	5.2	6.7	10.4	12.8
Rated operating power						
• Operating power at AC-3 at 400V	kW	2.2	4	5.5	7.5	11
• Operating power at AC-3 at 690V	kW	3	5.5	5.5	7.5	11
Power loss per pole	W	2.5	2.5	2.5	3.1	3.1
Mechanical service life (in million)						
• Basic unit	Operating cycles	10	10	10	10	10
Switching frequency in operating cycles/hour						
• No load switching frequency	1/h	1800	1800	1800	1800	1800
• Switching frequency AC-1	1/h	600	600	600	600	600
• Switching frequency AC-3	1/h	750	750	750	750	750
Rated data for auxiliary contacts						
Number of auxiliary contacts		1NO or 1NC				
Load rating with AC						
• Rated operational currents I_e						
- AC-12 690V	A	10				
- AC-15 at rated operational voltage U_e 230V	A	6				
400V	A	3				
500V	A	2				
690V	A	1				
• Load rating with DC (1 conducting path)						
- DC-12, at rated operational voltage U_e 24V	A	6				
110V	A	3				
220V	A	1				
- DC-13, at rated operational voltage U_e 24V	A	6				
110V	A	1				
220V	A	0.3				
440V	A	0.14				
600V	A	0.1				

								
3MT7025-2	**3MT7032-2**	**3MT7038-2**	**3MT7040-2**	**3MT7040-3**	**3MT7050-3**	**3MT7065-3**	**3MT7080-4**	**3MT095-4**
2	2	2	2	3	3	3	4	4
40	40	50	50	60	80	80	125	125
25 13	32 16	38 18.2	40 18.2	40 24	50 24	65 32	80 47	95 47
11 11	15 15	18.5 15	18.5 15	18.5 22	22 22	30 30	37 45	45 45
3.6	5.2	5.2	5.2	5.4	7.4	6.4	13.7	13.7
10	10	10	10	5	5	5	3	3
1800 600 750	1800 600 600	1800 600 600	1800 600 600	1200 600 600	1200 600 600	1200 600 600	1200 600 400	1200 600 400
1NO or 1NC 10 6 3 2 1				1NO + 1NC 10 6 3 2 1				
6 3 1 6 1 0.3 0.14 0.1								

Technical specifications

3MT7 3 pole power contactors 120A to 400A

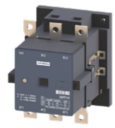


Type			3MT7120	3MT7140
Size			5	5
General data				
Dimension (W x H x D)				
Basic unit	W	mm	120	120
	H	mm	150	150
	D	mm	152	152
Mounting position			22.5° inclination forward and backward, and 90° to right / 90° to left, in relation to normal vertical mounting plane, i.e., coil terminals always on top side	
Rated insulation voltage Ui (pollution degree 3) **Main circuit**		V	1000	
Rated impulse withstand voltage U_{imp} **Main circuit**		kV	8	
Permissible ambient temperature				
During operation		°C	-5 ... +55	
During storage		°C	-25 ...+70	
Relative air humidity		%	10-95	
Degree of protection IP			IP00	
Installation altitude at height above sea level, maximum		m	2000	
Short circuit protection				
Basic unit				
• Fuse links, operational class gG				
- Type of coordination "1"		A	400	400
- Type of coordination "2"		A	200	250
Conductor cross-sections				
Main conductors				
Stranded wire with cable lug		mm²	2x (50 ... 120 mm²)	2x (50 ... 120 mm²)
Finely stranded with cable lug		mm²	2x (35 ... 95 mm²)	2x (35 ... 95 mm²)
Terminal bar (max. width)		mm²	2x(20x3) mm	2x(20x3) mm
Terminal screw			M8 x 25	M8 x 25
Tightening torque		Nm	10 ... 14 Nm	10 ... 14 Nm
Control				
Solenoid coil operating range				
• AC operation		at 50Hz	0.85 to 1.1 x Us	
		at 60Hz	0.85 to 1.1 x Us	

<table>
<tr><td colspan="2"></td><td colspan="2"></td><td></td></tr>
<tr><td>3MT7170</td><td>3MT7205</td><td>3MT7250</td><td>3MT7300</td><td>3MT7400</td></tr>
<tr><td>6</td><td>6</td><td>7</td><td>7</td><td>8</td></tr>
<tr><td colspan="5"></td></tr>
<tr><td>135
180
185</td><td>135
180
185</td><td>150
205
198</td><td>150
205
198</td><td>160
204
222</td></tr>
<tr><td colspan="5">22.5° inclination forward and backward, and 90° to right / 90° to left, in relation to normal vertical mounting plane, i.e., coil terminals always on top side</td></tr>
<tr><td colspan="5">1000</td></tr>
<tr><td colspan="5">8</td></tr>
<tr><td colspan="5">-5 ... +55
-25 ...+70
10-95
IP00
2000</td></tr>
<tr><td colspan="5"></td></tr>
<tr><td>400
250</td><td>400
250</td><td>500
400</td><td>500
400</td><td>630
500</td></tr>
<tr><td colspan="5"></td></tr>
<tr><td>2x (50 ... 120 mm²)
2x (35 ... 95 mm²)
2x(20x3) mm
M8 x 25
10 ... 14 Nm</td><td>2x (50 ... 120 mm²)
2x (35 ... 95 mm²)
2x(20x3) mm
M8 x 25
10 ... 14 Nm</td><td>2x (70 ... 240 mm²)
2x (50... 240 mm²)
2x(25x5) mm
M10 x 30
14 ... 24 Nm</td><td>2x (70 ... 240 mm²)
2x (50... 240 mm²)
2x(25x5) mm
M10 x 30
14 ... 24 Nm</td><td>2x (70 ... 240 mm²)
2x (50 ... 240mm²)
2x(25x5) mm
M10 x 30
14 ... 24 Nm</td></tr>
<tr><td colspan="5"></td></tr>
<tr><td colspan="5">0.85 to 1.1 x Us
0.85 to 1.1 x Us</td></tr>
</table>

Technical specifications

3MT7 3 pole power contactors 120A to 400A



Type		3MT7120	3MT7140
General data			
Power consumption of the solenoid coil (maximum)			
• AC operation, 50Hz			
- Closing	VA/p.f.	550 / 0.45	
- Closed	VA/p.f.	40 / 0.24	
• AC operation, 50/60Hz			
- Closing	VA/p.f.	660 / 0.45	
- Closed	VA/p.f.	56 / 0.24	
Operating times within operating range			
• AC operation			
- Closing delay	ms	22-37	
- Opening delay	ms	8-30	
Rated data for main contacts			
Load rating with AC			
Utilization category AC-1			
Rated operational currents I_e at 400V, 40°C	A	160	160
Utilization categories AC-3			
Rated operational currents I_e at 400V	A	120	140
Rated operational currents I_e at 690V	A	110	100
Rated operating power			
Operating power at AC-3 at 400V	kW	55	75
Operating power at AC-3 at 690V	kW	100	110
Mechanical service life (in million)			
Basic unit	Operating cycles	3	
Switching frequency in operating cycles hour			
No load switching frequency	Cycles/h	5000	5000
Switching frequency AC-1	Cycles/h	800	800
Switching frequency AC-3	Cycles/h	750	750

				
3MT7170	**3MT7205**	**3MT7250**	**3MT7300**	**3MT7400**
910 / 0.38 65 / 0.26 1080 / 0.38 80 / 0.27		1440 / 0.34 95 / 0.24 1780 / 0.32 122 / 0.23		2450 / 0.21 115 / 0.33 3050 / 0.32 165 / 0.29
25-40 10-30		25-40 10-30		25-40 8-30
210	220	300	300	400
170 170	205 170	250 250	300 250	400 400
90 156	110 156	132 235	160 235	200 375
		3		
5000 800 700	5000 750 500	3000 800 700	3000 750 500	3000 700 500

Selection & ordering data

3MT7 power contactors

Size	Rated data					Article no.	List price per PU (Per Unit)
	AC-3 at 400V at 55°C	Ratings of three-phase motors at 50Hz and 400V	AC-1 at 690V at 40°C	Auxiliary contacts			
	A	kW	A	NO	NC		
Size 0 	6	2.2	25	1	-	3MT7006-0AA10-0A..	
	6	2.2	25	-	1	3MT7006-0AA01-0A..	
	9	4	25	1	-	3MT7010-0AA10-0A..	
	9	4	25	-	1	3MT7010-0AA01-0A..	
	12	5.5	25	1	-	3MT7012-0AA10-0A..	
	12	5.5	25	-	1	3MT7012-0AA01-0A..	
Size 1 	18	7.5	32	1	-	3MT7018-1AA10-0A..	
	18	7.5	32	-	1	3MT7018-1AA01-0A..	
	22	11	32	1	-	3MT7022-1AA10-0A..	
	22	11	32	-	1	3MT7022-1AA01-0A..	
Size 2 	25	11	40	1	-	3MT7025-2AA10-0A..	
	25	11	40	-	1	3MT7025-2AA01-0A..	
	32	15	40	1	-	3MT7032-2AA10-0A..	
	32	15	40	-	1	3MT7032-2AA01-0A..	
	38	18.5	50	1	-	3MT7038-2AA10-0A..	
	38	18.5	50	-	1	3MT7038-2AA10-0A..	
	40	18.5	50	1	-	3MT7040-2AA10-0A..	
	40	18.5	50	-	1	3MT7040-2AA10-0A..	
Size 3 	40	18.5	60	1	1	3MT7040-3AA11-0A..	
	50	22	80	1	1	3MT7050-3AA11-0A..	
	65	30	80	1	1	3MT7065-3AA11-0A..	
Size 4 	80	37	125	1	1	3MT7080-4AA11-0A..	
	95	45	125	1	1	3MT7095-4AA11-0A..	

Note: .. Please enter coil voltage from "Coil code (AC)" table on page no. 126.

Selection & ordering data

3MT7 power contactors

Size	Rated data					Article no.	List price per PU (Per Unit)
	AC-3 at 400V at 55°C	Ratings of three-phase motors at 50Hz and 400V	AC-1 at 690V at 40°C	Auxiliary contacts			
	A	kW	A	NO	NC		
Size 5 	120	55	160	-	-	3MT7120-5AA00-0A..	
	140	75	160	-	-	3MT7140-5AA00-0A..	
Size 6 	170	90	210	-	-	3MT7170-6AA00-0A..	
	205	110	220	-	-	3MT7205-6AA00-0A..	
Size 7 	250	132	300	-	-	3MT7250-7AA00-0A..	
	300	160	300	-	-	3MT7300-7AA00-0A..	
Size 8 	400	200	400	-	-	3MT7400-8AA00-0A..	

Selection & ordering data

Spare top housing

Size	AC-3 at 400V at 55°C	Ratings of three-phase motors at 50Hz and 400V	AC-1 at 690V at 40°C	Auxiliary contacts		Article no.	List price per PU (Per Unit)
	A	kW	A	NO	NC		
Size 0 	6	2.2	25	1	-	3MT7906-0HA10	
	6	2.2	25	-	1	3MT7906-0HA01	
	9	4	25	1	-	3MT7910-0HA10	
	9	4	25	-	1	3MT7910-0HA01	
	12	5.5	25	1	-	3MT7912-0HA10	
	12	5.5	25	-	1	3MT7912-0HA01	
Size 1 	18	7.5	32	1	-	3MT7918-1HA10	
	18	7.5	32	-	1	3MT7918-1HA01	
	22	11	32	1	-	3MT7922-1HA10	
	22	11	32	-	1	3MT7922-1HA01	
Size 2 	25	11	40	1	-	3MT7925-2HA10	
	25	11	40	-	1	3MT7925-2HA01	
	32	15	40	1	-	3MT7932-2HA10	
	32	15	40	-	1	3MT7932-2HA01	
	38	18.5	50	1	-	3MT7938-2HA10	
	38	18.5	50	-	1	3MT7938-2HA01	
	40	18.5	50	1	-	3MT7940-2HA10	
	40	18.5	50	-	1	3MT7940-2HA01	
Size 3 	40	18.5	60	1	1	3MT7940-3HA11	
	50	22	80	1	1	3MT7950-3HA11	
	65	30	80	1	1	3MT7965-3HA11	
Size 4 	80	37	125	1	1	3MT7980-4HA11	
	95	45	125	1	1	3MT7995-4HA11	

Selection & ordering data

Spare contact kit

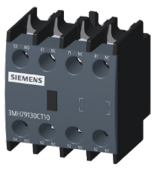
Main contact kits for Size 5, 6, 7, 8 contactors (Set of 6 fixed & 3 moving contacts)			
For contactors	AC-3 rating	Article no.	List price per PU (Per Unit)
3MT71205AA000A..	120A	3MT7912-0KA00	
3MT71405AA000A..	140A	3MT7914-0KA00	
3MT71706AA000A..	170A	3MT7917-0KA00	
3MT72056AA000A..	205A	3MT7920-5KA00	
3MT72507AA000A..	250A	3MT7925-0KA00	
3MT73007AA000A..	300A	3MT7930-0KA00	
3MT74008AA000A..	400A	3MT7940-0KA00	

Accessories

Pneumatic timer Compatible with 3MT7 3 pole power contactors Size 0, 1, 2, 3, 4							
Product image	No. of auxiliary contacts		Mounting position	Function	Timing	Article no.	List price per PU (Per Unit)
	NO	NC			Seconds		
ON delay pneumatic timer 	1	1	Top	ON delay	0.1-3	3MT7900-0PN10	
					0.1-30	3MT7900-0PN20	
					10-180	3MT7900-0PN30	
OFF delay pneumatic timer 				OFF delay	0.1-3	3MT7900-0PF10	
					0.1-30	3MT7900-0PF20	
					10-180	3MT7900-0PF30	

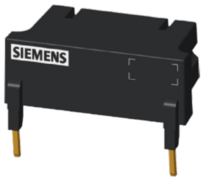
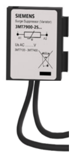
Selection & ordering data

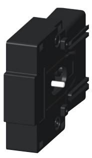
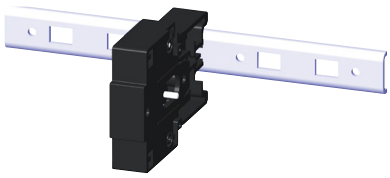
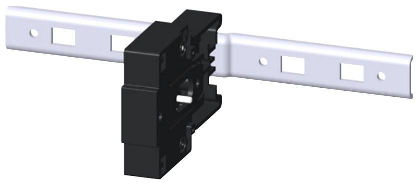
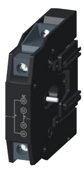
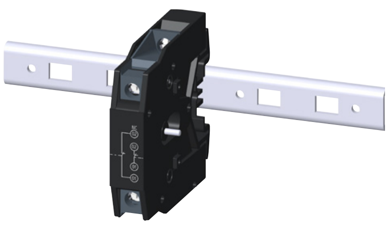
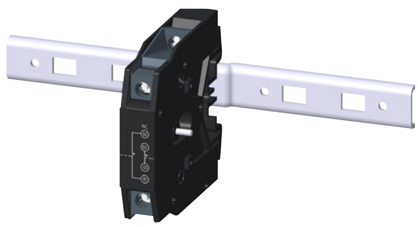
Accessories

<table>
<tr><th colspan="9">Auxiliary switches
Compatible with 3MT7 3 pole power contactors</th></tr>
<tr><th rowspan="2">Product image</th><th colspan="2">No. of auxiliary contacts</th><th rowspan="2">Mounting position</th><th rowspan="2">Compatible contactor</th><th rowspan="2">Maximum mountable auxiliary switches</th><th rowspan="2">Article no.</th><th rowspan="2">List price per PU (Per Unit)</th></tr>
<tr><th>NO</th><th>NC</th></tr>
<tr><td rowspan="5">1 pole & 2 pole front auxiliary switches
</td><td>1</td><td>-</td><td rowspan="10">Front</td><td rowspan="12">Size
0, 1, 2, 3, 4</td><td rowspan="10">1</td><td>3MH7910-0CT10</td><td></td></tr>
<tr><td>-</td><td>1</td><td>3MH7901-0CT10</td><td></td></tr>
<tr><td>2</td><td>-</td><td>3MH7920-0CT10</td><td></td></tr>
<tr><td>1</td><td>1</td><td>3MH7911-0CT10</td><td></td></tr>
<tr><td>-</td><td>2</td><td>3MH7902-0CT10</td><td></td></tr>
<tr><td rowspan="5">4 pole front auxiliary switches
</td><td>4</td><td>-</td><td>3MH7940-0CT10</td><td></td></tr>
<tr><td>3</td><td>1</td><td>3MH7931-0CT10</td><td></td></tr>
<tr><td>2</td><td>2</td><td>3MH7922-0CT10</td><td></td></tr>
<tr><td>1</td><td>3</td><td>3MH7913-0CT10</td><td></td></tr>
<tr><td>-</td><td>4</td><td>3MH7904-0CT10</td><td></td></tr>
<tr><td rowspan="4">Lateral auxiliary switches
</td><td>2</td><td>-</td><td rowspan="2">First left or first right</td><td rowspan="2">2</td><td>3MH7920-0CL10</td><td></td></tr>
<tr><td>1</td><td>1</td><td>3MH7911-0CL10</td><td></td></tr>
<tr><td rowspan="2">1</td><td rowspan="2">1</td><td>First left or first right</td><td rowspan="2">Size
5, 6, 7, 8</td><td>2</td><td>3MH79110CL21</td><td></td></tr>
<tr><td>Second left or second right</td><td>2</td><td>3MH79110CL22</td><td></td></tr>
</table>

Selection & ordering data

Accessories

Surge suppressor Compatible with SINOVA 3MT7 3 pole power contactors					
Product image	**Voltage**	**Mounting position**	**Compatible contactor**	**Article no.**	**List price per PU (Per Unit)**
Surge suppressor 	24-48V AC 50/60Hz	Between A1-A2 coil terminals	Size 0, 1, 2, 3, 4	3MT7900-1SC21	
	110-240V AC 50/60Hz			3MT7900-1SL21	
	380-440V AC 50/60Hz			3MT7900-1SV21	
Surge suppressor 	Less than 48V	Between A1-A2 coil terminals	Size 5, 6, 7, 8	3MT79002SC22	
	48 - 127V			3MT79002SF22	
	127 - 240V			3MT79002SL22	
	240 - 400V			3MT79002SV02	
	400 - 600V			3MT79002SR02	

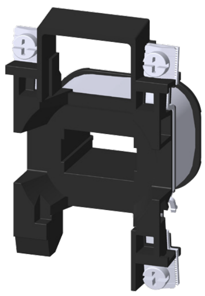
Interlock For 3MT7 3 pole power contactors						
Mechanical interlock	Suitable for contactors Size 0, 1, 2	 3MT7900-1XM01	Suitable for contactor Size 3	 3MT7900-1XM02	Suitable for contactor Size 4	 3MT7900-1XM03
Electro-mechanical interlock		 3MT7900-1XE01		 3MT7900-1XE02		 3MT7900-1XE03

Selection & ordering data

Accessories

Mechanical Interlock For 3MT7 3 pole power contactors			
Product image	**Contactor**	**Article no.**	**List price per PU (Per Unit)**
Mechanical interlock 	Size 5	3MT7900-1XM04	
	Size 6	3MT7900-1XM05	
	Size 7	3MT7900-1XM06	
	Size 8	3MT7900-1XM07	
	Size 5 / Size 6	3MT7900-1XM45	
	Size 6 / Size 7	3MT7900-1XM56	

Spares

Product image	Size of contactor	Article no.	List price per PU (Per Unit)
Spare coils 3MT79000L..1 	Size 0, 1	3MT79000L..1	
	Size 2	3MT79000L..2	
	Size 3, 4	3MT79000L..3	
	Size 5	3MT79000L..5	
	Size 6	3MT79000L..6	
	Size 7	3MT79000L..7	
	Size 8	3MT79000L..8	

.. Please enter coil codes from table below

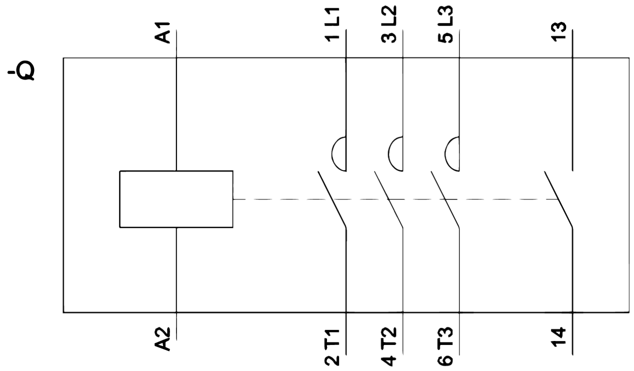
Coil code (AC)												
Frequency	**24V**	**36V**	**48V**	**110V**	**220V**	**230V**	**380V**	**400V**	**415V**	**165-273V***	**353-455V***	**550V**
50Hz	B0	G0#	H0	F0	M0	P0	Q0	V0	R0	S0	T0	A5@
50/60Hz	C2	G2#	H2#	F2	N2	L2	Q2	V2#	R2#	-	-	-

Note:
*T0 and S0 wide band coils are available up to Size 2 contactors
#Not available for Size 5, 6, 7 and 8 contactors
@Available only for Size 5, 6, 7 and 8 contactors

Wiring diagrams

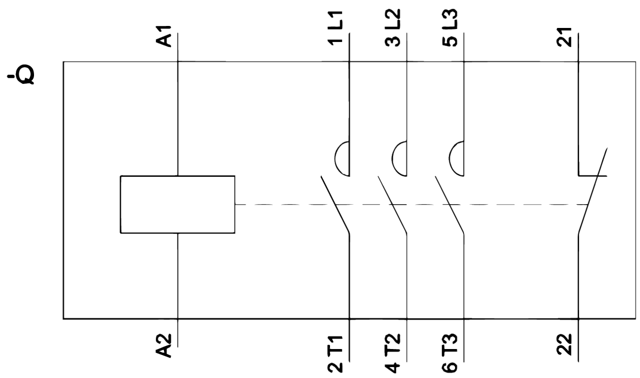
3MT7 power contactors

Size 0, Size 1, Size 2 (1NO version)



Size 0: 6A / 9A / 12A
Size 1: 18A / 22A
Size 2: 25A / 32A / 38A / 40A

Size 0, Size 1, Size 2 (1NC version)

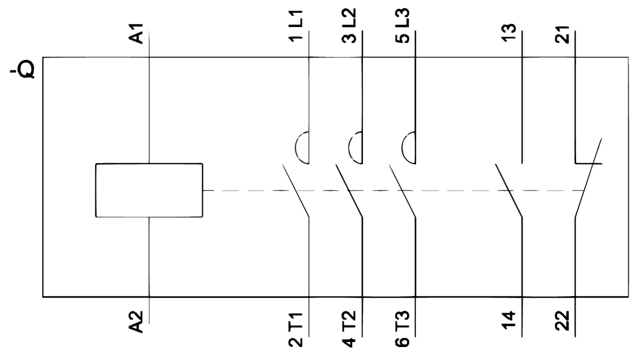


Size 0: 6A / 9A / 12A
Size 1: 18A / 22A
Size 2: 25A / 32A / 38A / 40A

Wiring diagrams

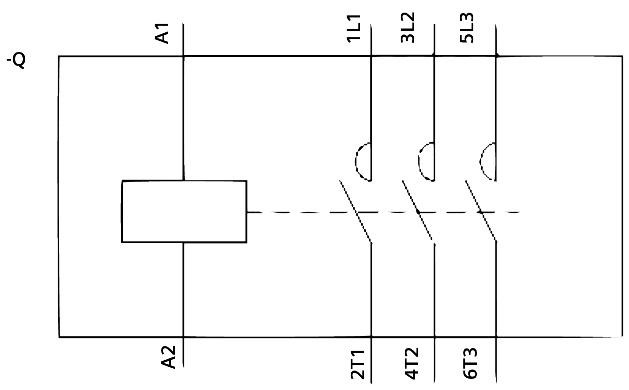
3MT7 power contactors

Size 3, Size 4 (1NO+1NC version)



Size 3: 40A / 50A / 65A
Size 4: 80A / 95A

Size 5, Size 6, Size 7 Size 8

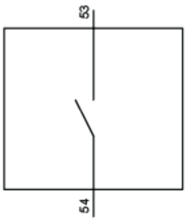


Size 5: 120-140A
Size 6: 170-205A
Size 7: 250-300A
Size 8: 400A

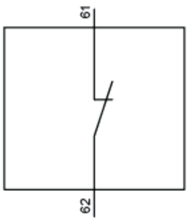
Wiring diagrams

Accessories

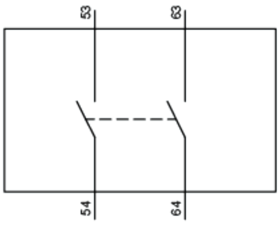
1 pole and 2 pole front auxiliary switches



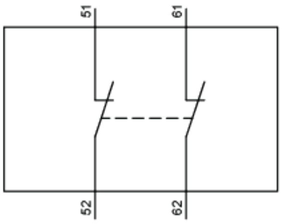
1 pole 1NO



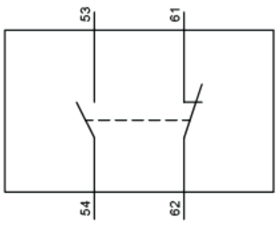
1 pole 1NC



2 pole 2NO

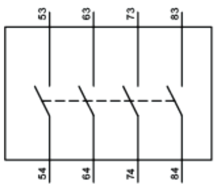


2 pole 2NC

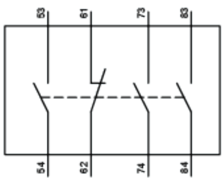


2 pole 1NO+1NC

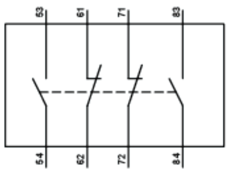
4 pole front auxiliary switches



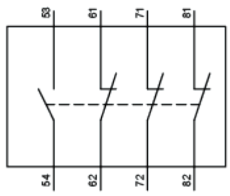
4 pole 4NO



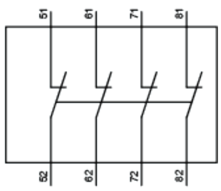
4 pole 3NO+1NC



4 pole 2NO+2NC

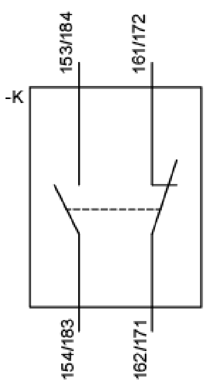


4 pole 1NO+3NC

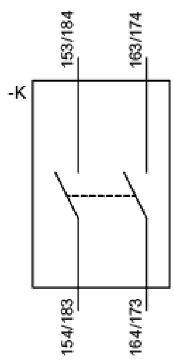


4 pole 4NC

Lateral auxiliary switches



2 pole 1NO+1NC

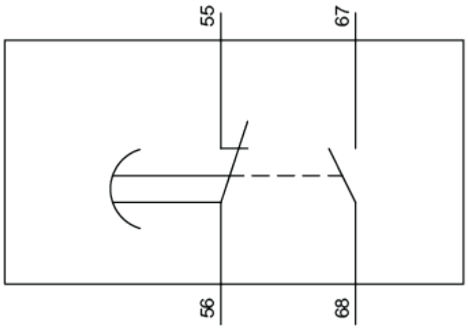


2 pole 2NO

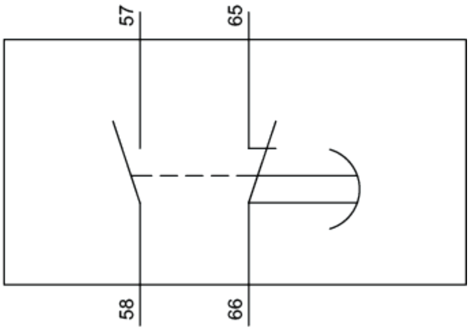
Wiring diagrams

Accessories

Pneumatic timer

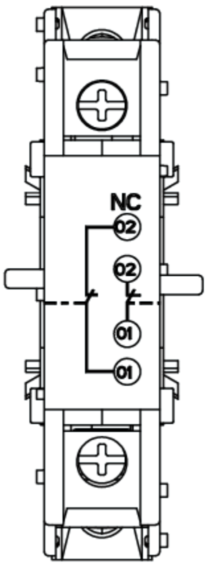


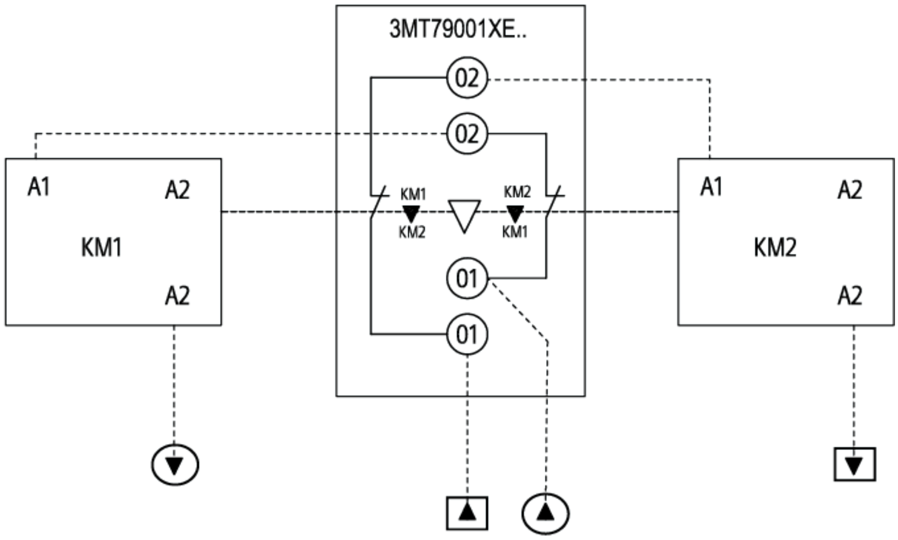
ON delay timer



OFF delay timer

Electro-mechanical interlock

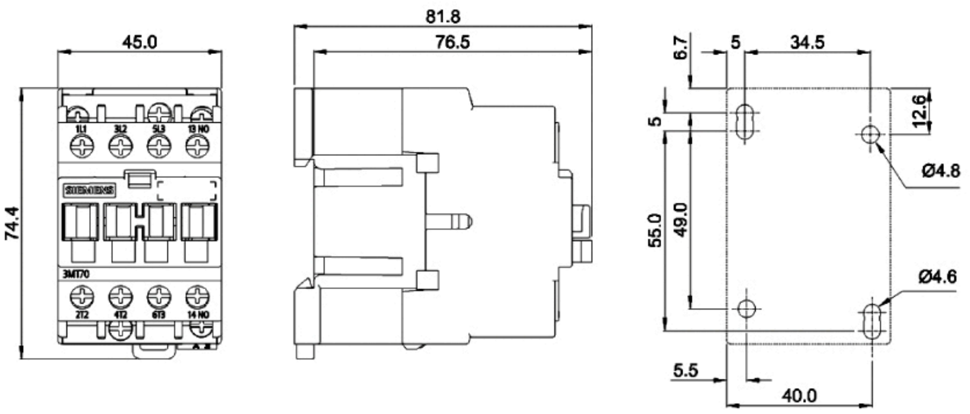




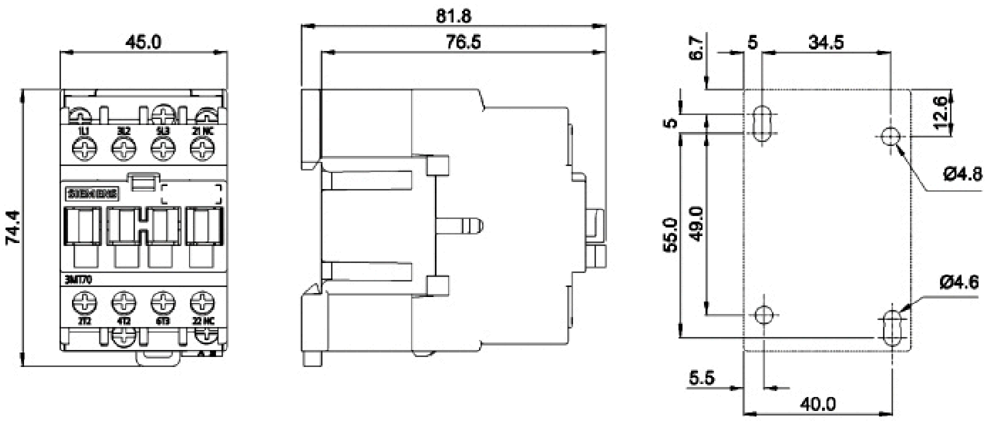
Dimension drawings

Contactor

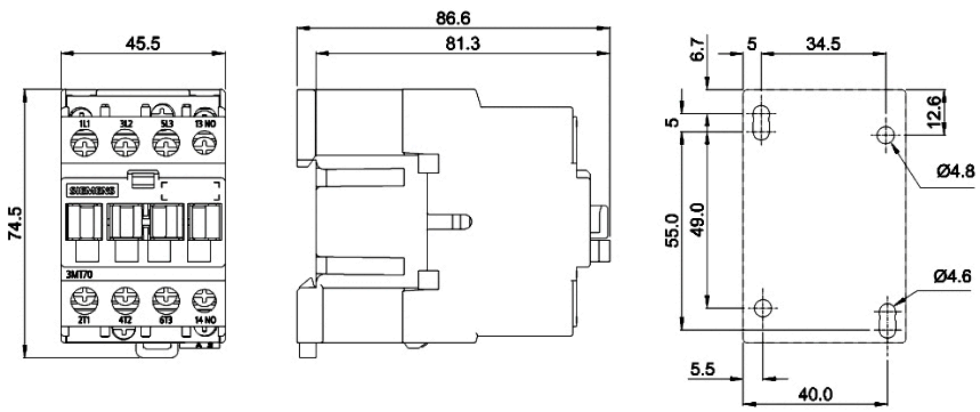
Size 0 (1NO version) — **6A / 9A / 12A**



Size 0 (1NC version) — **6A / 9A / 12A**



Size 1 (1NO version) — **18A / 22A**

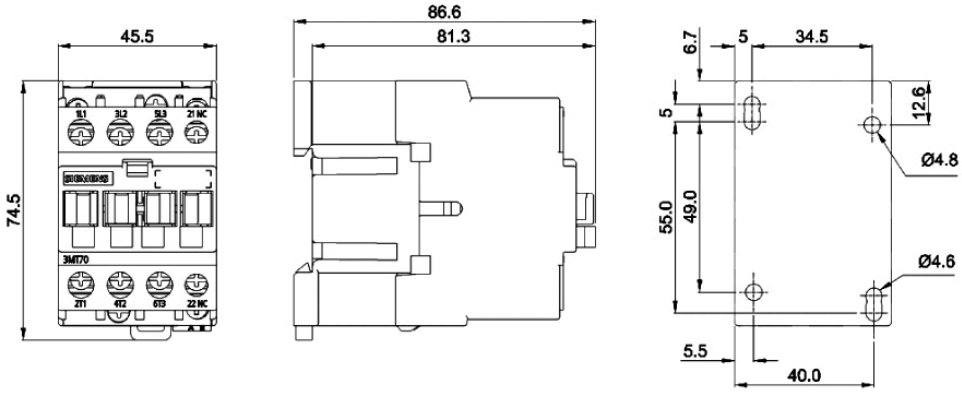


Note: All dimensions are in mm.

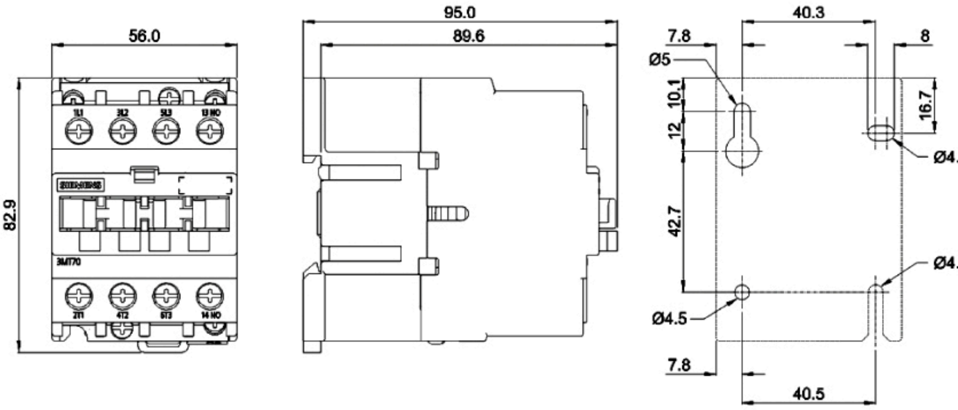
Dimension drawings

Contactor

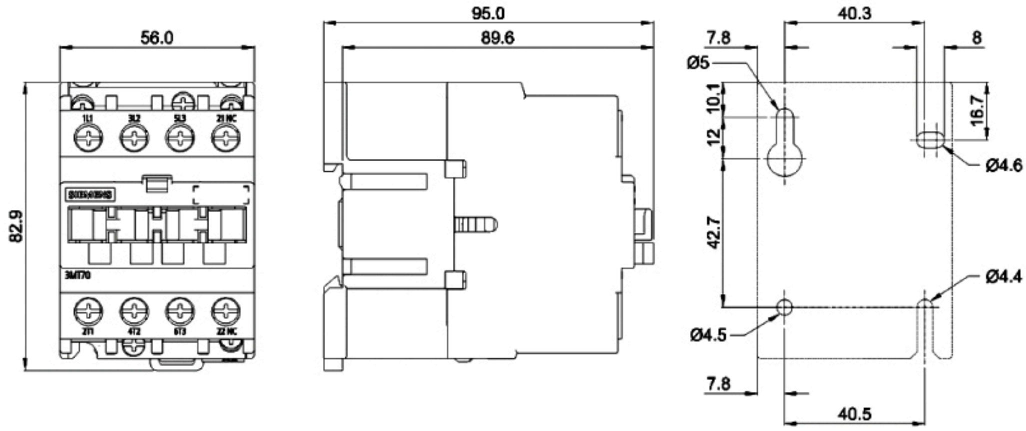
Size 1 (1NC version)	18A / 22A



Size 2 (1NO version)	25A / 32A / 38A / 40A



Size 2 (1NC version)	25A / 32A / 38A / 40A

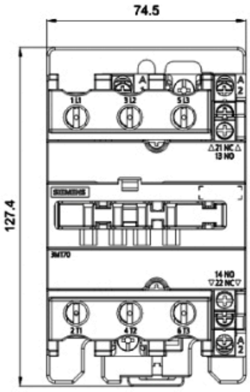


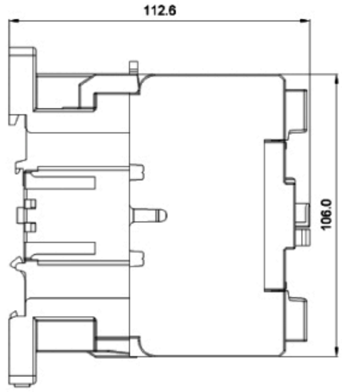
Note: All dimensions are in mm.

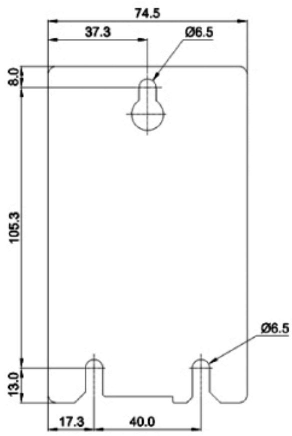
Dimension drawings

Contactor

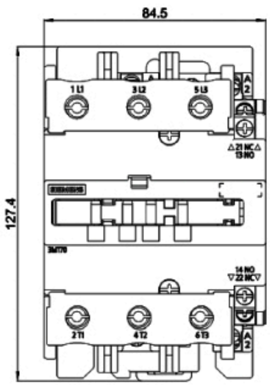
Size 3 (1NO+1NC) **40A / 50A / 65A**

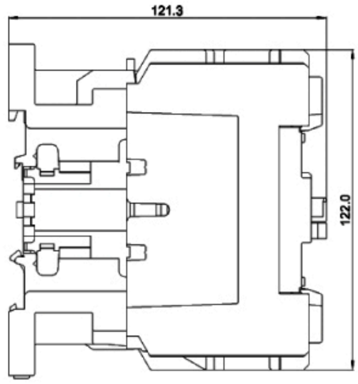


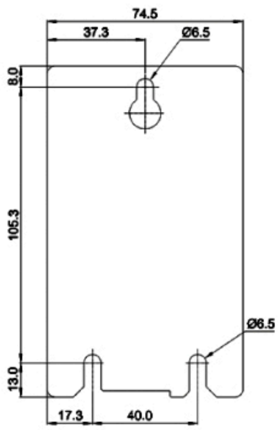




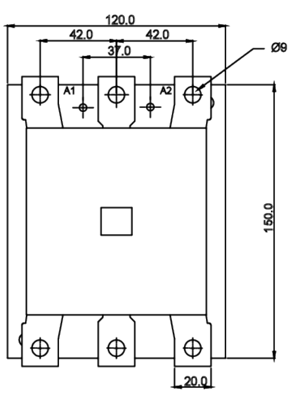
Size 4 (1NO+1NC) **80A / 95A**

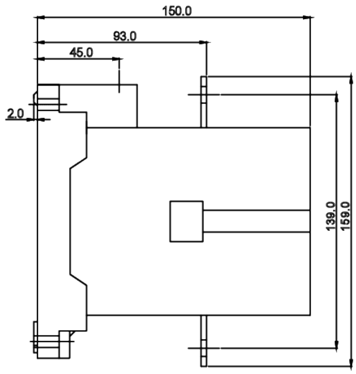


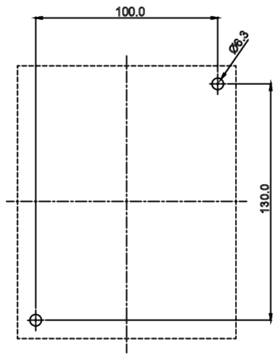




Size 5 **120 / 140A**





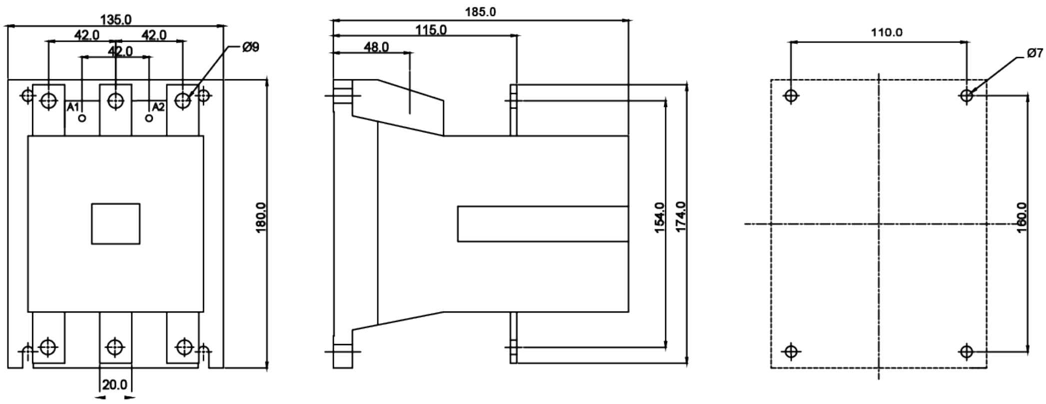


Note: All dimensions are in mm.

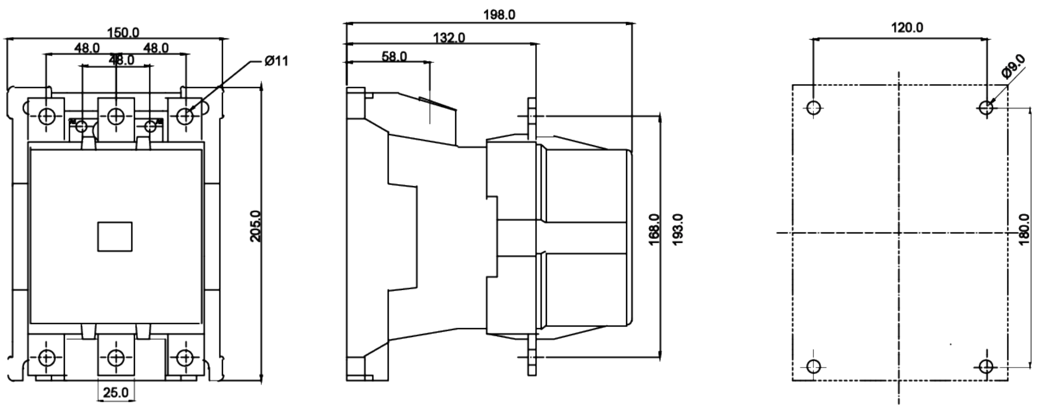
Dimension drawings

Contactor

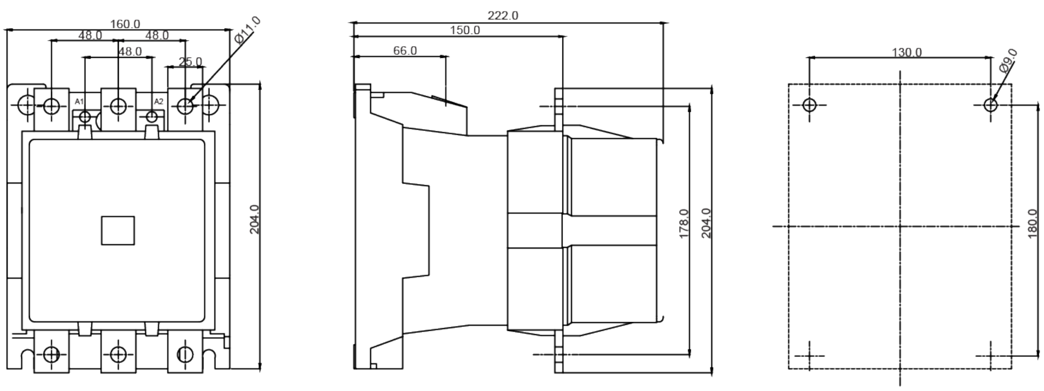
Size 6	170 / 205A



Size 7	250 / 300A



Size 8	400A

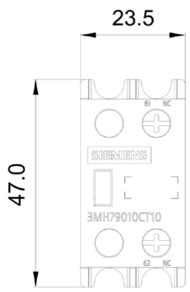


Note: All dimensions are in mm.

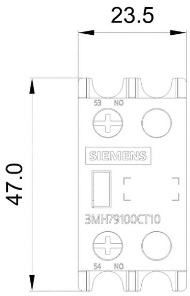
Dimension drawings

Accessories

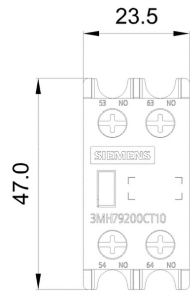
1 pole and 2 pole front auxiliary switches



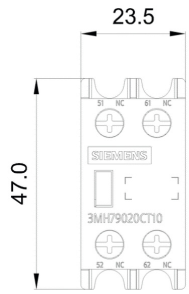
Front view
1 pole 1NC



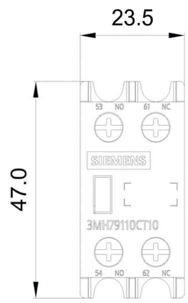
Front view
1 pole 1NO



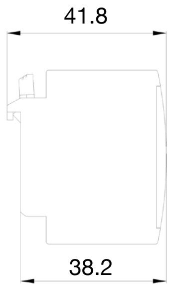
Front view
2 pole 2NO



Front view
2 pole 2NC

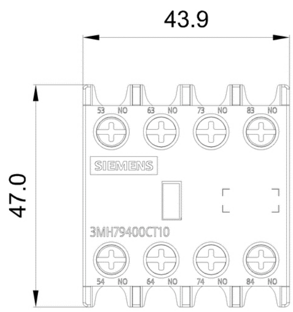


Front view
2 pole 1NO+1NC

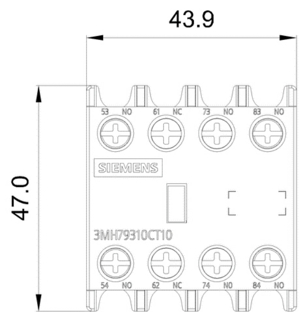


Side view

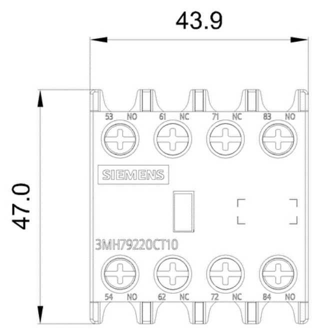
4 pole front auxiliary switches



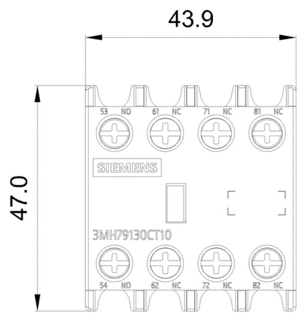
Front view
4NO



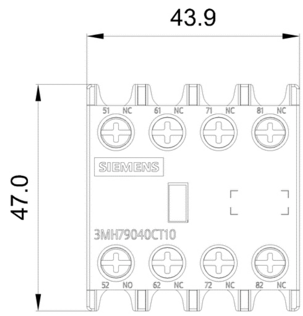
Front view
3NO+1NC



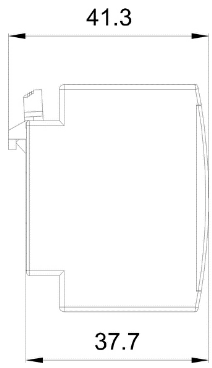
Front view
2NO+2NC



Front view
1NO+3NC



Front view
4NC



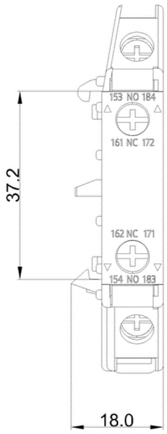
Side view
4 pole

Note: All dimensions are in mm.

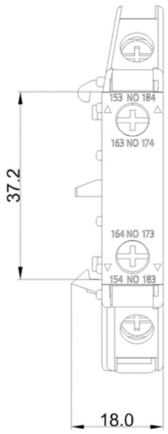
Dimension drawings

Accessories

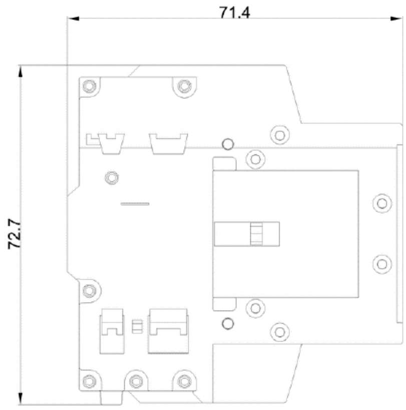
Lateral auxiliary switches



Front view
2 pole 1NO+1NC

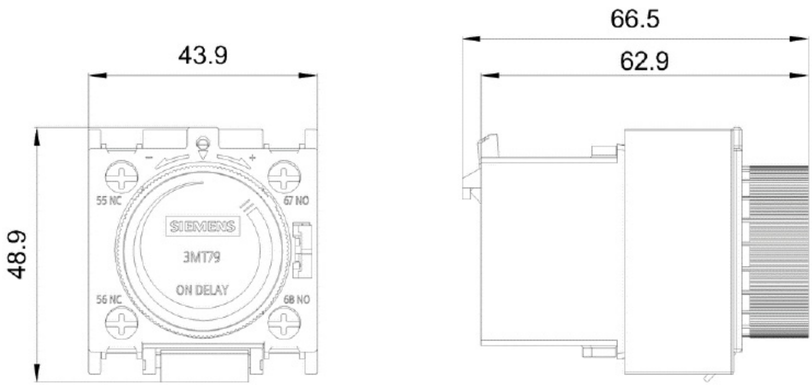


Front view
2 pole 2NO

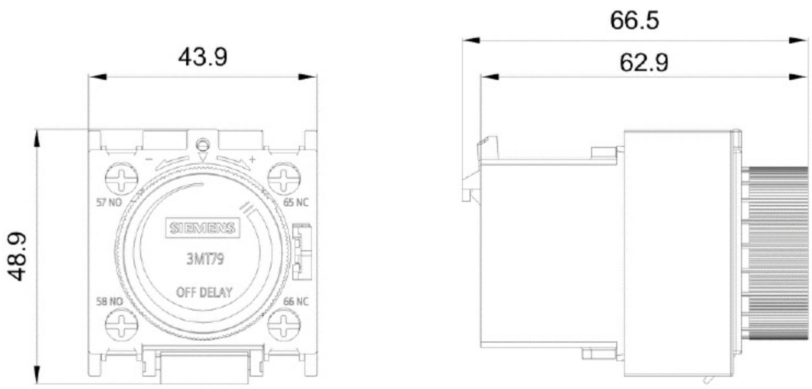


Side view
2 pole

Pneumatic timer



ON delay



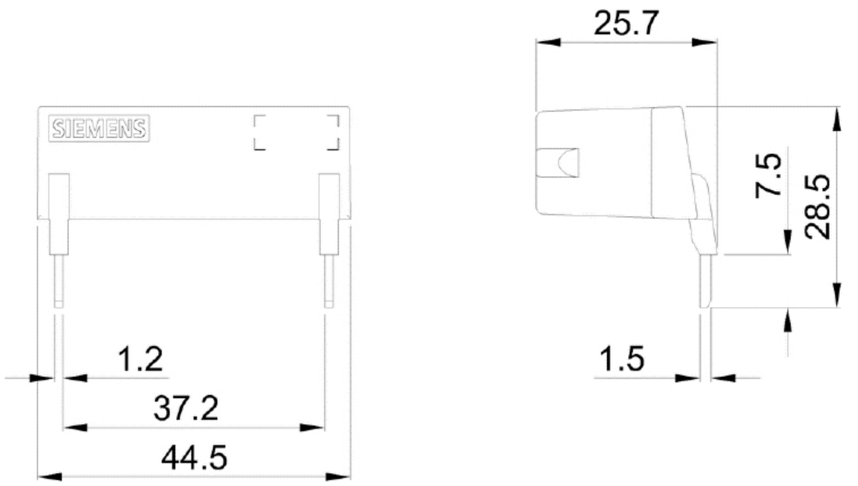
OFF delay

Note: All dimensions are in mm.

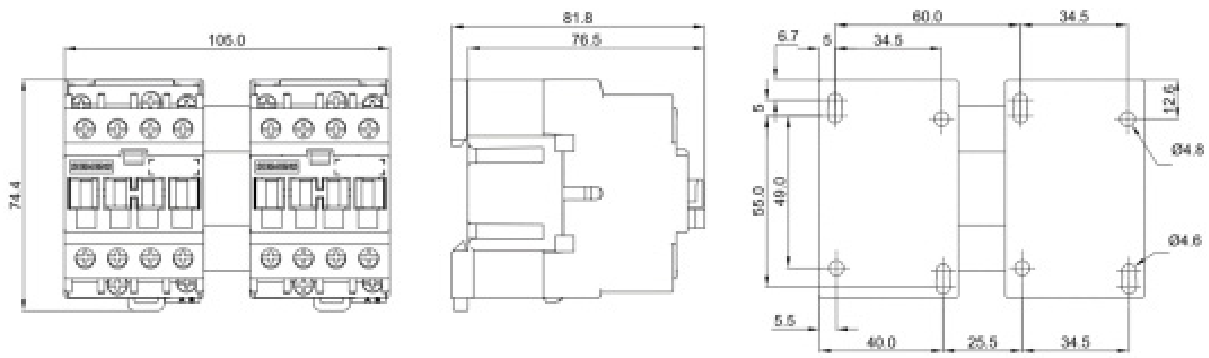
Dimension drawings

Accessories

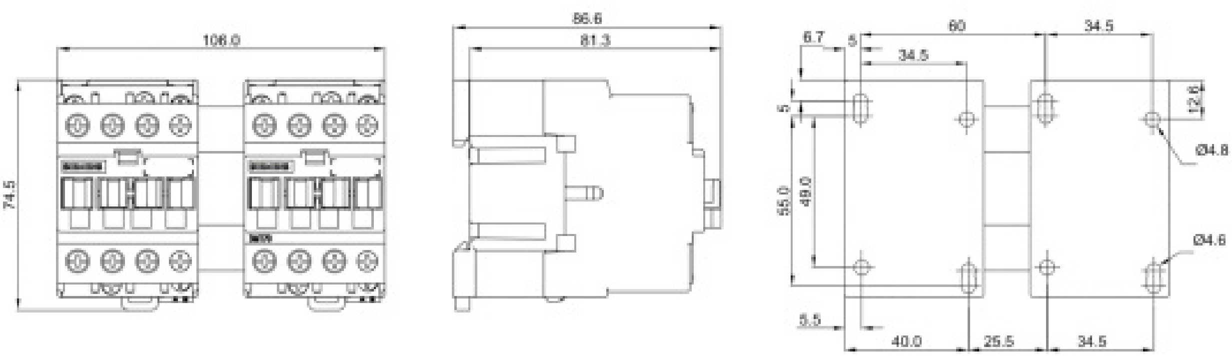
Surge suppressor



Mechanical / electro-mechanical interlock with contactor



3MT79001XM01 / 3MT79001XE01
with Size 0 contactors



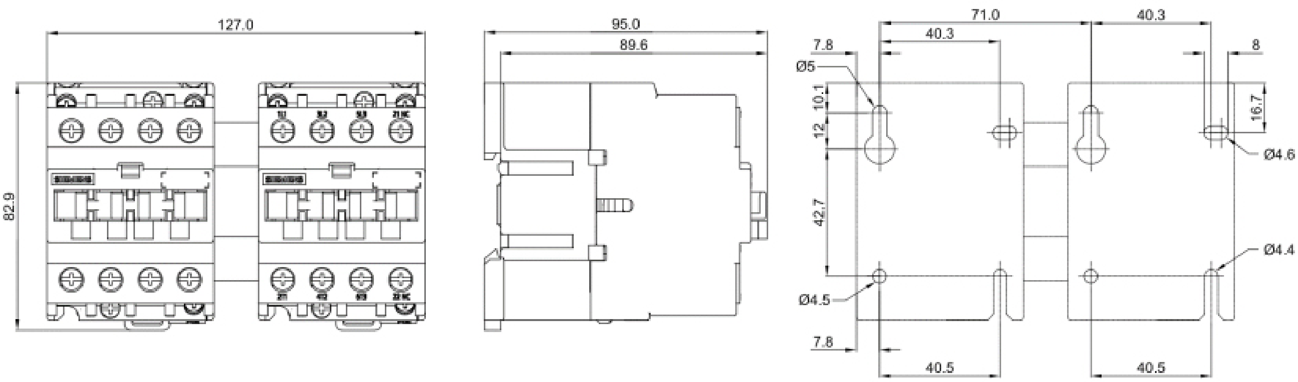
3MT79001XM01 / 3MT79001XE01
with Size 1 contactors

Note: All dimensions are in mm.

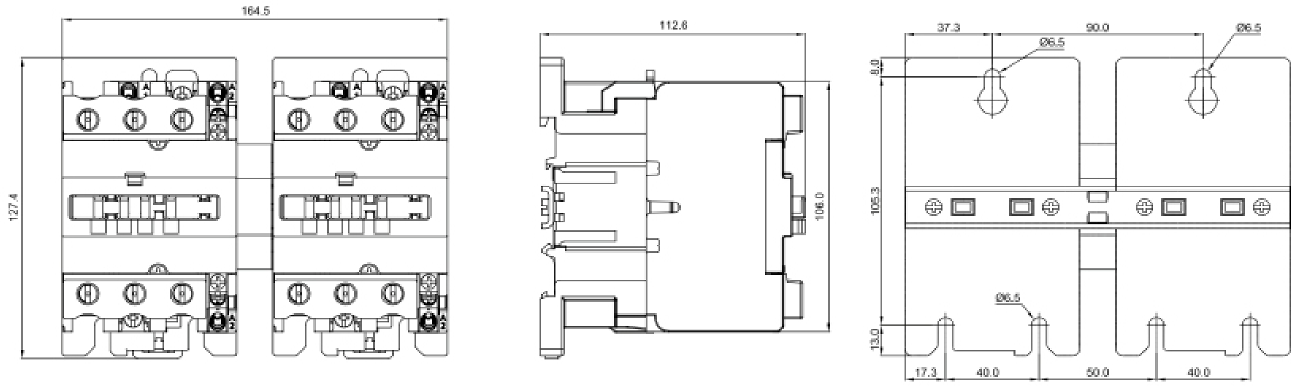
Dimension drawings

Accessories

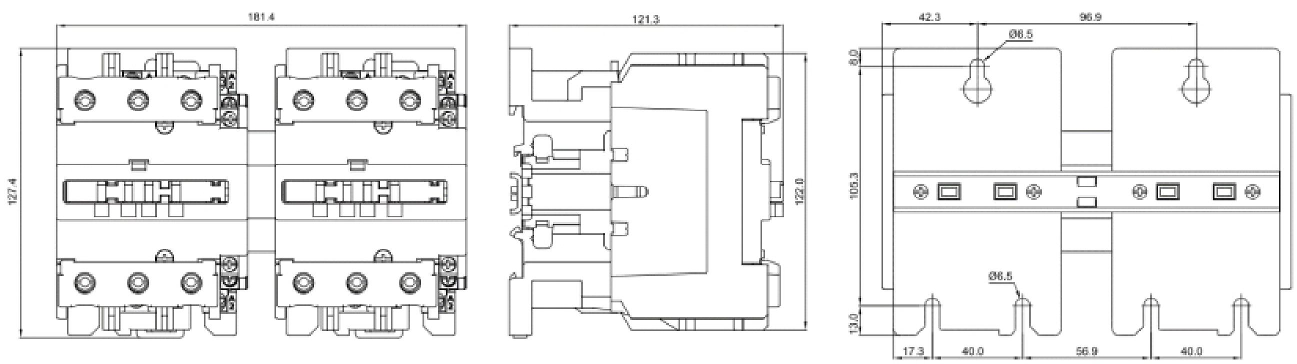
Mechanical / electro-mechanical interlock with contactor



3MT79001XM01 / 3MT79001XE01
with Size 2 contactors

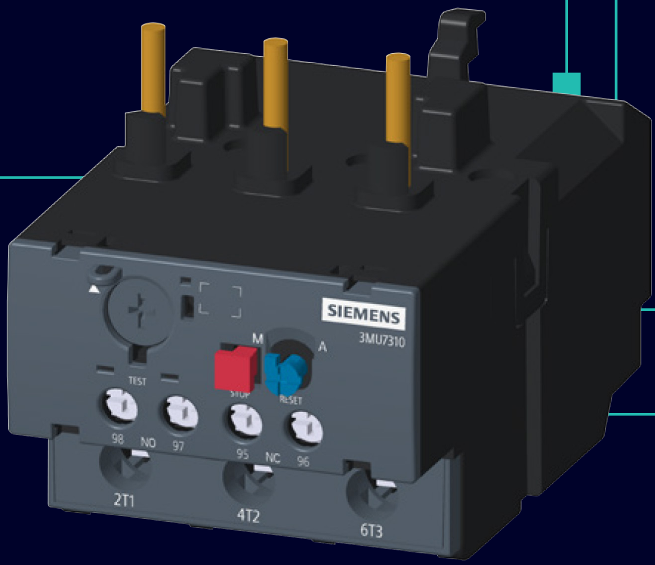


3MT79001XM02 / 3MT79001XE02
with Size 3 contactors



3MT79001XM03 / 3MT79001XE03
with Size 4 contactors

Note: All dimensions are in mm.



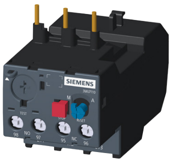
3MU7
overload relays

SINOVA The Power of **Simplicity**

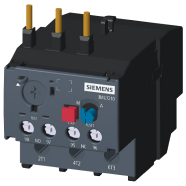
Overview

Product range

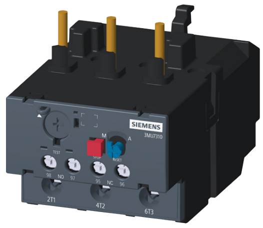
Thermal overload relays - Tripping class 10



3MU71



3MU72



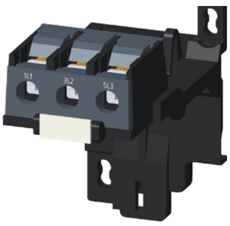
3MU73

Thermal overload relays - Tripping class 10A

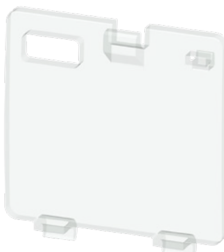
3MU74

3MU75

Accessories



Relay stand-alone installation kit

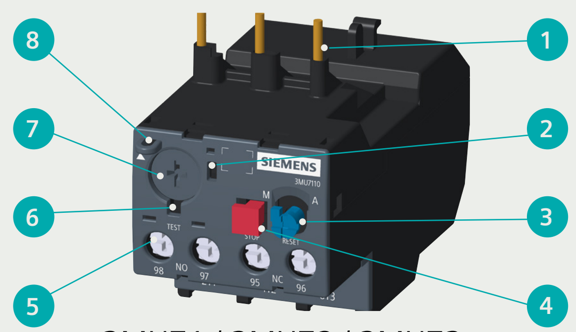


Relay setting dial sealing cover

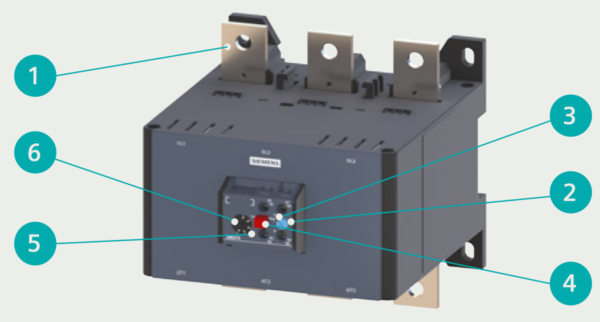
Note: Accessories shown are only applicable to 3MU71, 3MU72 and 3MU73.
You can find detailed range of accessories in the Accessories section at page 149.

Overview

Functions



3MU71 / 3MU72 / 3MU73



3MU74 / 3MU75

1. Connection for mounting onto contactors
2. Relay status
3. Selector switch for auto / manual reset and reset button
4. Stop button
5. Auxiliary circuit terminals
6. Test function
7. Motor current setting dial
8. Provision for fixing sealing cover

1. Terminals for cable / bar connection
2. Relay status
3. Selector switch for auto / manual reset and reset button
4. Stop / test button
5. Auxiliary circuit terminals
6. Motor current setting dial

Protection

- Tripping due to overload
- Tripping due to single-phase failure

Application

Our 3MU7 thermal overload relays are suitable for applications that require optimum inverse-time delayed protection of three-phase or single-phase AC motors. In the case of a single-phase motor, all the conducting paths of the relay must be connected in series. 3MU71 / 3MU72 / 3MU73 relays comply with tripping class 10 and 3MU74 / 3MU75 relays comply to tripping class 10A as per IEC 60947-4-1. The 3MU7 thermal overload relays compensate ambient temperature from the range of -5 to +55°C according to IEC 60947-4-1.

Technical specifications

3MU7 thermal overload relays

				
Type		**3MU71**	**3MU72**	**3MU73**
General data				
Dimension (W x H x D)				
• Basic unit	mm	44 x 63.6 x 91.8	54 x 76.1 x 92.4	70 x 79.2 x 115
Tripping in the event of		Overload, single-phase failure		
Trip class acc. to IEC 60947-4-1		Class 10		
Reset		Manual		
Recovery		Minimum recovery time depends on the strength of the tripping current and characteristic		
Rated insulation voltage U_i (pollution degree 3)	V	690		
Rated impulse withstand voltage U_{imp} Main circuit Aux circuit	kV kV	6 4		
Permissible ambient temperature During operation During storage	 °C °C	 -5 ... +55 -25 ... +70		
Relative air humidity	%	10 ... 95		
Degree of protection IP on the front		IP20		
Installation altitude at height above sea level, maximum	m	2000		
Mounting position		22.5° inclination forward and backward, and ± 90° rotation, in relation to normal vertical mounting plane		
Type of mounting		Direct mounting on contactor Or stand-alone installation by screw fixing Or snap-on mounting on standard mounting rail		

Technical specifications

3MU7 thermal overload relays

				
Type		**3MU71**	**3MU72**	**3MU73**
Main circuit				
Rated operational voltage U_e	V	400 / 690 (L-N / L-L)		
Operating frequency	Hz	50 / 60		
Current setting	A A	0.10 ... 0.16 to 17 ... 25	23 ... 32 to 28 ... 36	23 ... 32 to 80 ... 93
Power loss for rated current in hot state (maximum) • Per pole (maximum)	W W	16.2 5.4	16.5 5.5	25.5 8.5
Short circuit protection • With fuse without contactor • With fuse with contactor		Refer "Selection & ordering data" Refer Type-2 coordination charts		
Auxiliary circuit				
Number of NO contacts		1		
Number of NC contacts		1		
Auxiliary contacts – Assignment		1 NO for the signal "tripped"; 1 NC for disconnecting the contactor		
Contact rating of the auxiliary contacts				
• AC-12 at 690V	A	5		
• AC-15 at rated operational voltage U_e - 24V - 48V - 110V - 220V - 380V - 600V - 690V	 A A A A A A A	 4.17 4.17 3.64 2.73 1.58 1 0.7		

Technical specifications

3MU7 thermal overload relays

				
Type		**3MU71**	**3MU72**	**3MU73**
• DC-13, at rated operational voltage U_e (1 conducting path)				
- 24V	A	4.17		
- 48V	A	2.08		
- 110V	A	0.45		
- 220V	A	0.2		
- 440V	A	0.05		
Short circuit protection of auxiliary circuit				
• With fuse links of operational class gG:	A	10		
Conductor cross-sections				
Main conductors				
Solid or stranded	mm²	1 x (1 ... 6 mm²)	1 x (1.5 ... 10mm²)	1 x (4 ... 35 mm²)
Finely stranded with end sleeve	mm²	1x (1 ... 10 mm²)	1x (1.5 ... 10 mm²)	1x (2.5 ... 35 mm²)
• Terminal screw		M4	M4	M10
- Tightening torque	Nm	1.85	2.5	9
Auxiliary conductors				
Solid or stranded	mm²	1 x (1.0 ... 4.0 mm²)		
Finely stranded with end sleeve	mm²	1 x (1.0 ... 4.0 mm²)		
• Terminal screw		M3.5		
- Tightening torque	Nm	1.2		

Technical specifications

3MU7 thermal overload relays

Type			3MU74	3MU75
General data				
Dimension (W x H x D)				
• Basic unit		mm	147 x 157 x 173	
Tripping in the event of			Overload, single-phase failure	
Trip class acc. to IEC 60947-4-1			Class 10A	
Reset			Manual and remote reset	
Recovery			Minimum recovery time depends on the strength of the tripping current and characteristic	
Rated insulation voltage U_i (pollution degree 3)		V	1000	
Rated impulse withstand voltage U_{imp}	Main circuit Aux circuit	kV kV	8 6	
Permissible ambient temperature During operation During storage		 °C °C	 -5 ... +55 -25 ... +70	
Relative air humidity		%	10 ... 95	
Degree of protection IP on the front			IP00	
Installation altitude at height above sea level, maximum		m	2000	
Mounting position			22.5° inclination forward and backward, and ± 90° rotation, in relation to normal vertical mounting plane	
Type of mounting			Stand-alone installation by screw fixing	

Technical specifications

3MU7 thermal overload relays

			
Type		**3MU74**	**3MU75**
Main circuit			
Rated operational voltage U_e	V	230 / 400 (L-N / L-L)	
Operating frequency	Hz	50 / 60	
Current setting	A	85-135 to 250-400	312-500
Power loss for rated current in hot state (maximum) • Per pole (maximum)	W W	33.6 11.2	45 15
Short circuit protection of main circuit • With fuse links of operational class gG without contactor:	A	Refer “Selection & ordering data”	
Auxiliary circuit			
Number of NO contacts		1	
Number of NC contacts		1	
Auxiliary contacts – Assignment		1 NO for the signal “tripped”; 1 NC for disconnecting the contactor	
Contact rating of the auxiliary contacts			
• AC-12 at 690V	A	6	
• AC-15 at rated operational voltage U_e			
- 24V	A	2	
- 48V	A	1.25	
- 110V	A	1.25	
- 220V	A	1.15	
- 380V	A	1	
- 600V	A	0.3	
- 690V	A	0.3	

Technical specifications

3MU7 thermal overload relays

			
Type		**3MU74**	**3MU75**
• DC-13, at rated operational voltage Ue (1 conducting path)			
- 24V	A	1	
- 48V	A	0.4	
- 110V	A	0.22	
- 220V	A	0.1	
Short circuit protection of auxiliary circuit			
• With fuse links of operational class at 690V gG:	A	6	

Conductor cross-sections

Main conductors		3MU7410-3BA1	3MU7410-3EA1	3MU7510-4AA1
Flexible cable with Lugs	mm²	2 x (25 ... 95)	2 x (70 ... 240)	2 x (150 ... 240)
Terminal bar (max. width)	mm	2 x 20 x 3	2 x 25 x 3	2 x 30 x 5
• Terminal screw		M8	M10	M10
- Tightening torque	Nm	10-14	14-24	14-24
Auxiliary contacts				
Solid or stranded	mm²	2 x (1.0 ... 2.5 mm²)		
Finely stranded with end sleeve	mm²	2 x (0.75 ... 1.5 mm²)		
• Terminal screw		M3.5		
- Tightening torque	Nm	0.8-1.2		

Selection & ordering data

3MU7 thermal overload relays

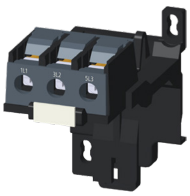
Size	Trip class	Rated power three-phase motor at 400V	Current setting value	Short circuit protection with fuse, type of coordination "2" (operational class gG)	Suitable for contactor size	Article no.	List price per PU (Per Unit)
		kW	A	A			
1 	Class 10	0.04	0.10-0.16	2	0, 1, 2	3MU7110-0AA0	
	Class 10	0.06	0.16-0.25	2	0, 1, 2	3MU7110-0BA0	
	Class 10	0.09	0.25-0.40	2	0, 1, 2	3MU7110-0CA0	
	Class 10	0.18	0.40-0.63	2	0, 1, 2	3MU7110-0DA0	
	Class 10	0.25	0.63-1	4	0, 1, 2	3MU7110-0EA0	
	Class 10	0.55	1-1.6	4	0, 1, 2	3MU7110-0FA0	
	Class 10	0.75	1.25-2	6	0, 1, 2	3MU7110-0GA0	
	Class 10	0.75	1.6-2.5	6	0, 1, 2	3MU7110-0HA0	
	Class 10	1.5	2.5-4	10	0, 1, 2	3MU7110-0JA0	
	Class 10	2.2	4-6	16	0, 1, 2	3MU7110-0KA0	
	Class 10	3	5.5-8	20	0, 1, 2	3MU7110-0LA0	
	Class 10	4	7-10	20	0, 1, 2	3MU7110-0MA0	
	Class 10	5.5	9-13	25	0, 1, 2	3MU7110-0NA0	
	Class 10	7.5	12-18	32	1, 2	3MU7110-0PA0	
	Class 10	11	17-25	50	1, 2	3MU7110-0QA0	
2 	Class 10	15	23-32	63	2	3MU7210-1AA0	
	Class 10	18.5	28-36	63	2	3MU7210-1BA0	
3 	Class 10	15	23-32	63	3, 4	3MU7310-2AA0	
	Class 10	18.5	30-40	80	3, 4	3MU7310-2BA0	
	Class 10	22	37-50	80	3, 4	3MU7310-2CA0	
	Class 10	30	48-65	80	3, 4	3MU7310-2DA0	
	Class 10	37	55-70	125	4	3MU7310-2EA0	
	Class 10	37	63-80	125	4	3MU7310-2FA0	
	Class 10	45	80-93	125	4	3MU7310-2GA0	

Selection & ordering data

3MU7 thermal overload relays

Size	Trip class	Current setting value	Short circuit protection with fuse, type of coordination “2" (operational class gG)	Suitable for contactor size	Article no.	List price per PU (Per Unit)
4 	Class 10A	85-135A	224	Screw mounting	3MU7410-3AA1	
	Class 10A	115-180A	250	Screw mounting	3MU7410-3BA1	
	Class 10A	160-250A	355	Screw mounting	3MU7410-3CA1	
	Class 10A	200-320A	400	Screw mounting	3MU7410-3DA1	
	Class 10A	250-400A	500	Screw mounting	3MU7410-3EA1	
5 	Class 10A	312-500A	500	Screw mounting	3MU7510-4AA1	

Accessories

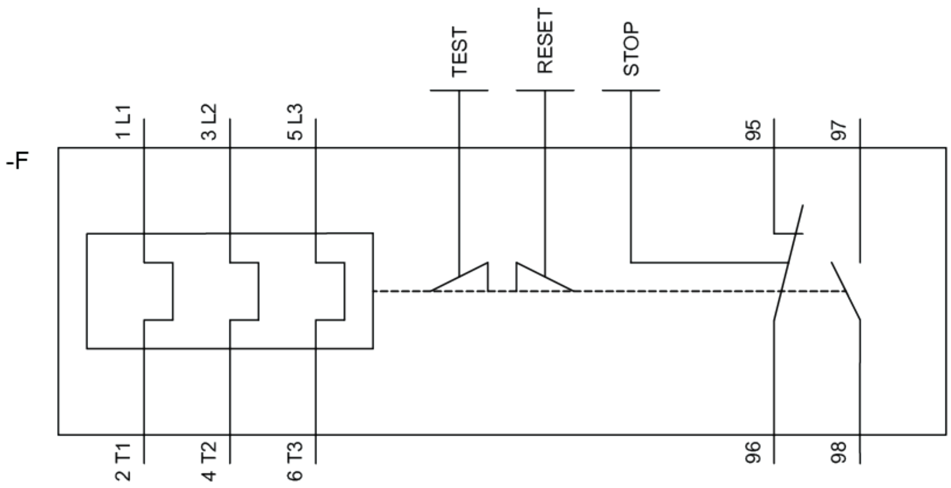
Type	Overload relay size	Article no.	List price per PU (Per Unit)
Relay stand-alone installation kit 	1	3MU7900-0MA10	
	2	3MU7900-0MA20	
	3	3MU7900-0MA30	
Relay setting dial sealing cover 	1	3MU7900-0CA00	
	2		
	3		

Note: Accessories shown are only applicable to 3MU71, 3MU72 and 3MU73.

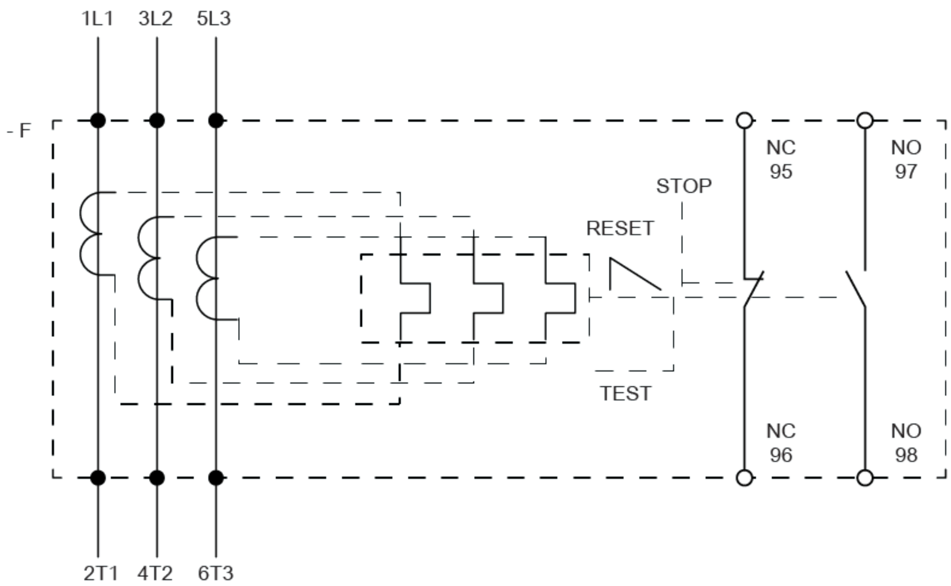
Wiring diagrams

3MU7 thermal overload relays

3MU71 / 3MU72 / 3MU73



3MU74 / 3MU75

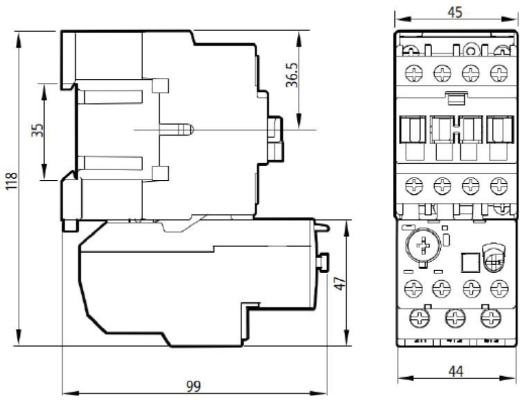


Dimension drawings

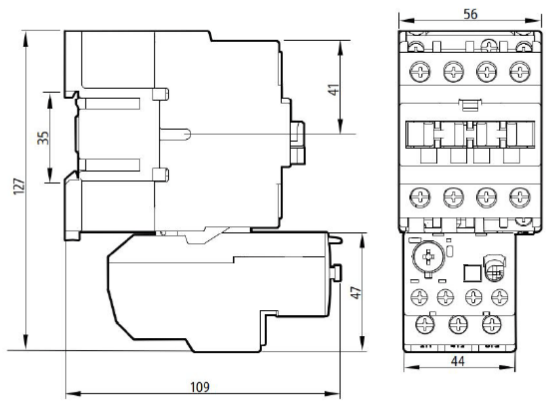
3MU7 thermal overload relays (with contactor)

Size 1 (3MU7110-0 AA0 ... QA0)

3MU711... + 3MT7006-0. to 3MT7022-1.

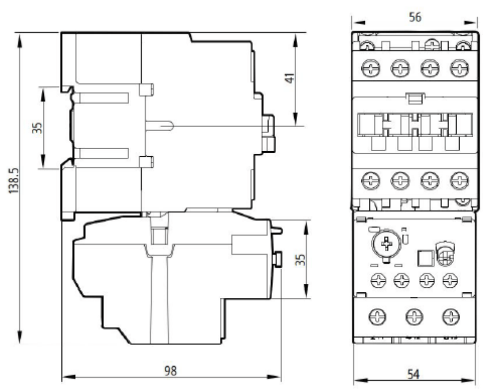


3MU711... + 3MT7025-2. to 3MT7040-2.



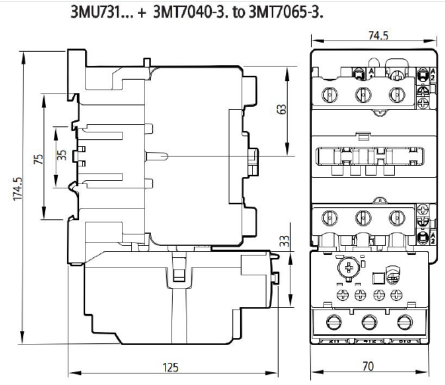
Size 2 (3MU7210-0 AA0 ... BA0)

3MU721... + 3MT7025-2. to 3MT7040-2.

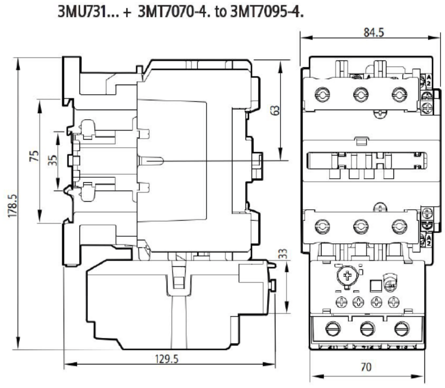


Size 3 (3MU7310-0 AA0 ... GA0)

3MU731... + 3MT7040-3. to 3MT7065-3.



3MU731... + 3MT7070-4. to 3MT7095-4.

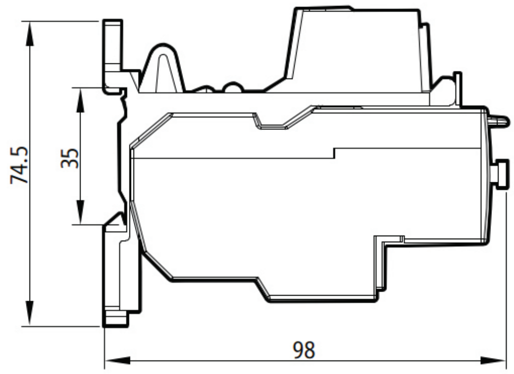


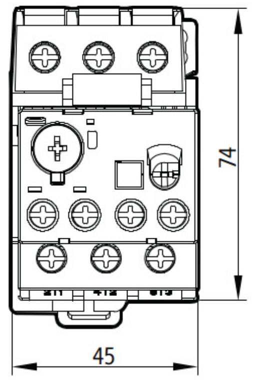
Note: All dimensions are in mm.

Dimension drawings

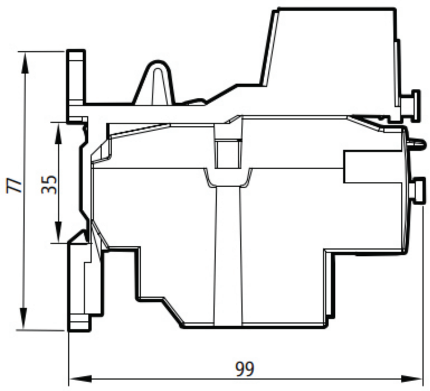
3MU7 thermal overload relays (with stand-alone installation kit)

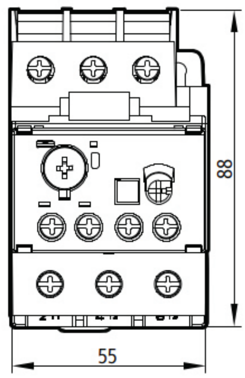
Size 1 (3MU7110-0 AA0 ... QA0 + 3MU7900-0MA10)



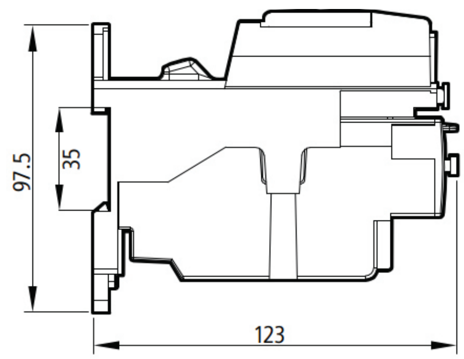


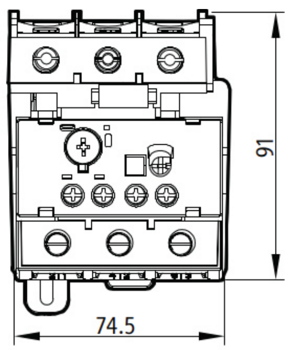
Size 2 (3MU7210-0 AA0 ... BA0 + 3MU7900-0MA20)





Size 3 (3MU7310-0 AA0 ... GA0 with 3MU7900-0MA30)



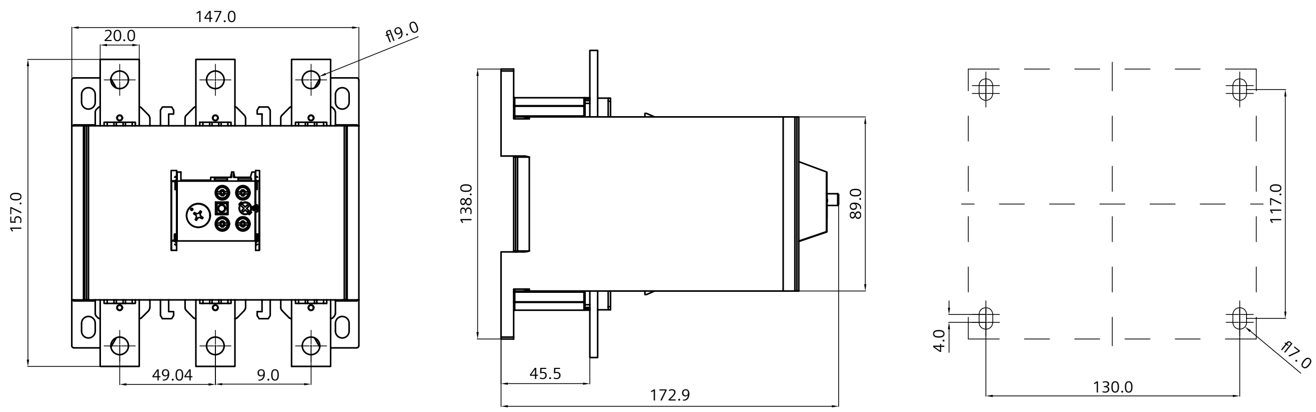


Note: All dimensions are in mm.

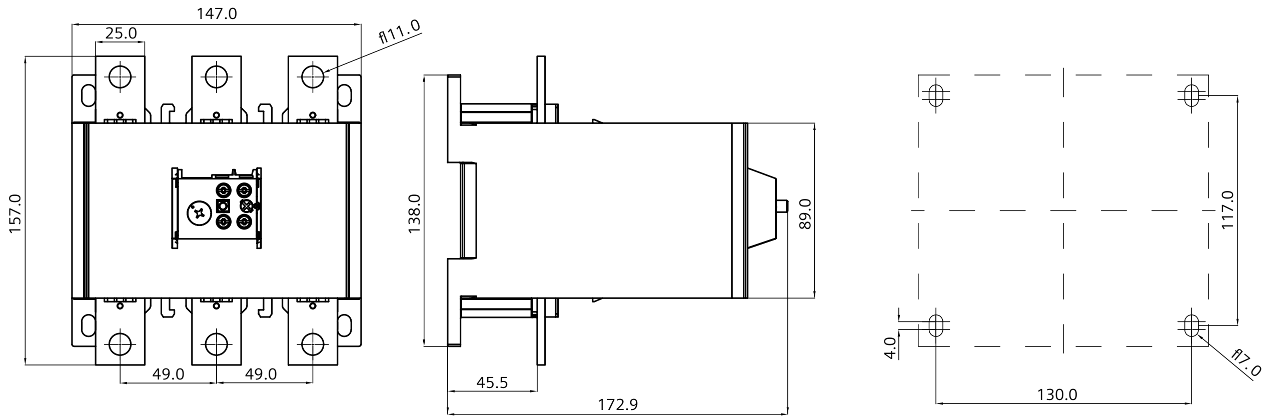
Dimension drawings

3MU7 thermal overload relays (stand-alone)

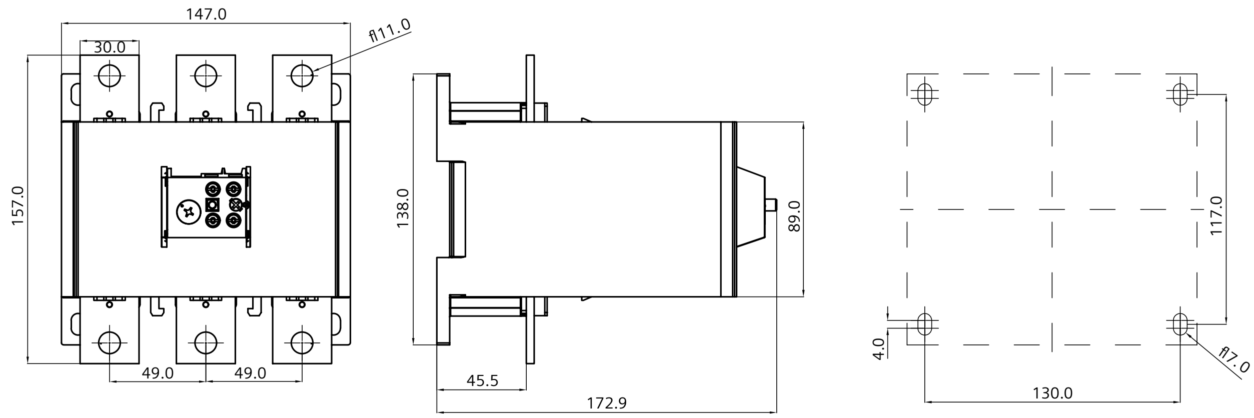
Size 4 **(3MU7410-3AA1 and 3MU7410-3BA1)**



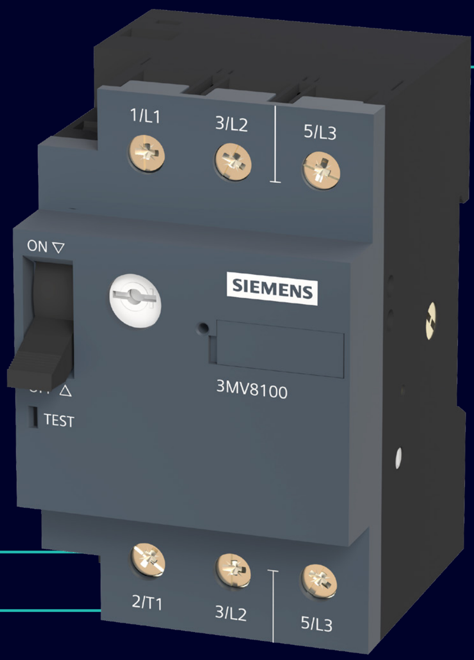
Size 4 **(3MU7410-3CA1, 3MU7410-3DA1 and 3MU7410-3EA1)**



Size 5 **(3MU7510-4AA1)**



Note: All dimensions are in mm.



3MV8 motor starter protectors

SINOVA The Power of **Simplicity**

Overview

Product range

Range of motor starter protectors

3MV81

3MV82

Accessories

Auxiliary contact

Short circuit fault indicator

Shunt release

Undervoltage release

Undervoltage release with lead action auxiliary contacts

Note: You will find a detailed range of accessories in the Accessories and Spare parts section at page 163.

Overview

System overview

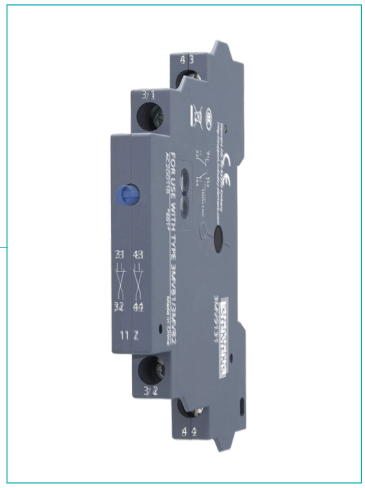
Shunt release

Undervoltage release

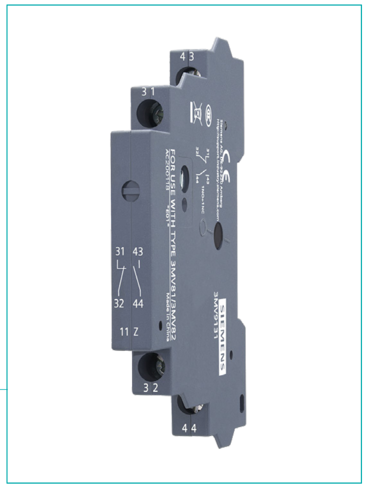
Undervoltage release
with lead action auxiliary contact

3MV81

3MV82



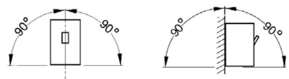
Short circuit fault indicator



Auxiliary switch

Technical specifications

3MV8 motor starter protectors

			
Type		**3MV81**	**3MV82**
General data			
Dimension • Basic unit W H D	mm mm mm	54 86 70	70 115 108.5
Mounting position		 90° inclination forward, backward, left and right	
Rated insulation voltage U_i (pollution degree 3) • Main circuit	V	750	
Rated impulse withstand voltage U_{imp} • Main circuit	kV	6	
Tripping class acc. to IEC 60947-4-1		Class 10A	
Permissible ambient temperature During operation During storage	°C °C	-20 ... +55 -50 ... +80	
Relative air humidity	%	10 ... 90	
Degree of protection IP on the front		IP20 (with wiring)	
Installation altitude at height above sea level, maximum	m	2000	
Rated data for main contacts			
Load rating with AC • **Utilization category for circuit breaker** as per IEC 60947-2 / EN60947-2		A	
• **Utilization category for starter** as per IEC 60947-4-1 / EN60947-4-1		AC-3	
Utilization categories AC-3 - Rated operational currents Ie up to 690V, 55°C	A	25	52
Power loss per pole	W	I_e (A): 0.6 / 4 / 6 / 25 P (W): 5 / 6 / 7 / 9	I_e (A): 2.4 / 6 / 25 / 52 P (W): 8 / 7 / 14 / 23
Mechanical service life • Basic unit Electrical service life AC-3 @400V	Operating cycles Operating cycles	100,000 <=25A 100,000 <=25A	30,000 >25A 30,000 >25A
Switching frequency in operating cycles/hour • Switching frequency AC-3	1/h	25	25

Technical specifications

3MV8 motor starter protectors

				
Type			**3MV81**	**3MV82**
Rated data for auxiliary contacts				
Load rating with AC				
• **Rated operational currents I_e**				
- AC-15 at rated operational voltage U_e	230V	A	3	
	415V	A	1.5	
	500V	A	1	
• **Load rating with DC (1 conducting path)**				
- DC-13, at rated operational voltage U_e	24V	A	2.8	
	60V	A	0.7	
	220V	A	0.3	
Switching frequency				
• **Rated operation for utilization category**	AC-15/DC-13	1/h	25	
Short circuit protection				
Auxiliary circuit				
• Back-up fuse (gL/gG)		A	10	
• Miniature circuit breaker		A	6	
Conductor cross-sections				
Main conductors				
Solid or stranded		mm^2	2 x (1 ... 6 mm^2)	1 x (1.5 ... 25 mm^2); 2 x (1.5 ... 16 mm^2); 1.5 ... 25 +1.5 ...10 mm^2
Finely stranded with end sleeve		mm^2	2 x (1 ... 4 mm^2)	1 x (1 ... 16 mm^2); 2 x (1 ... 10 mm^2); 1 ... 16 +1 ... 6 mm^2
• Terminal screw			M4	M5
- Tightening torque		Nm	1 ... 1.5	2.5 ... 3
Auxiliary conductors				
Solid or stranded		mm^2	2 x (0.5 ... 2.5 mm^2);	2 x (0.5 ... 2.5 mm^2);
Finely stranded with end sleeve		mm^2	2 x (0.5 ... 2.5 mm^2);	2 x (0.5 ... 1.5 mm^2);
• Terminal screw			M3	M3
- Tightening torque		Nm	0.8 ...1.2	0.8 ...1.2

Technical specifications

Rated short-circuit breaking capacity

Type	Rating	<=240V AC			<=415V AC			<=440V AC			<=500V AC			<=690V AC		
		I_{cu} (kA)	I_{cs} (kA)	Fuse (gL/gG)	I_{cu} (kA)	I_{cs} (kA)	Fuse (gL/gG)	I_{cu} (kA)	I_{cs} (kA)	Fuse (gL/gG)	I_{cu} (kA)	I_{cs} (kA)	Fuse (gL/gG)	I_{cu} (kA)	I_{cs} (kA)	Fuse (gL/gG)
3MV81	<= 1A	100	100	•	100	100	•	100	100	•	100	100	•	100	100	•
	1.6A	100	100	•	100	100	•	100	100	•	100	100	•	2	2	20A
	2.4A	100	100	•	100	100	•	100	100	•	10	10	35A	2	2	35A
	3.2 & 4A	100	100	•	100	100	•	10	10	50A	3	3	50A	2	2	50A
	5 & 6A	100	100	•	100	100	•	5	5	63A	3	3	63A	2	2	63A
	8 & 10A	100	100	•	10	10	80A	5	5	80A	3	3	80A	2	2	80A
	13 & 16A	100	100	•	6	6	80A	5	5	80A	3	3	80A	2	2	80A
	20 & 25A	10	10	100A	6	6	80A	5	5	80A	3	3	80A	2	2	80A
3MV82	<= 2.4A	100	100	•	100	100	•	100	100	•	100	100	•	100	100	•
	4A	100	100	•	100	100	•	100	100	•	100	100	•	4	4	80A
	6A	100	100	•	100	100	•	100	100	•	100	50	•	4	4	100A
	10A	100	100	•	100	100	•	100	50	•	10	5	160A	4	4	125A
	16A	100	100	•	100	100	•	25	13	200A	10	5	160A	4	4	125A
	25A	100	100	•	100	50	•	25	13	200A	10	5	200A	4	4	160A
	32 & 52A	100	100	•	35	17	200A	25	13	200A	10	5	200A	4	4	160A

Note: "•" Indicates that no fuse is required because the breaking capacity of the circuit breakers is not less than 100kA. When the short circuit current at the installation point exceeds the circuit breaker's rated short circuit breaking capacity, the breakers must be protected by a backup fuse. The maximum rating of the backup fuse is given in the table for 100kA breaking capacity.

According to IEC 60947-2, the relationship between the short circuit breaking capacity and the minimum short circuit breaking capacity depends on the corresponding power factor.

Short circuit breaking capacity (A)	Power factor	Short circuit making capacity (A)
$I \leq 3000$	0.9	1.42 x I
$3000 < I \leq 4500$	0.8	1.47 x I
$4500 < I \leq 6000$	0.7	1.5 x I
$6000 < I \leq 10000$	0.5	1.7 x I
$10000 < I \leq 20000$	0.3	2.0 x I
$20000 < I \leq 50000$	0.25	2.1 x I
$50000 < I$	0.2	2.2 x I

Selection & ordering data

3MV8 motor starter protectors

Product image	Rated current	Motor power	Current setting for thermal overload	Instantaneous trip	Auxiliary contacts	Article no.	List price per PU (Per Unit)
	(A)	(kW)	(A)	(A)			
3MV8100-0..00 	0.16	0.04	0.11 ~ 0.16	1.9	-	3MV8100-0MB00	
	0.24	0.06	0.16 ~ 0.24	2.9	-	3MV8100-0MC00	
	0.4	0.09/0.12	0.24 ~ 0.4	4.8	-	3MV8100-0MD00	
	0.6	0.12/0.18	0.4 ~ 0.6	7.2	-	3MV8100-0ME00	
	1	0.25	0.6 ~ 1	12	-	3MV8100-0MF00	
	1.6	0.37/0.55	1 ~ 1.6	19	-	3MV8100-0MG00	
	2.4	0.75	1.6 ~ 2.4	29	-	3MV8100-0MH00	
	3.2	1.1	2 ~ 3.2	38	-	3MV8100-0NH00	
	4	1.1/1.5	2.4 ~ 4	48	-	3MV8100-0MJ00	
	5	1.5/2.2	3.2 ~ 5	60	-	3MV8100-0NJ00	
	6	2.2	4 ~ 6	72	-	3MV8100-0MK00	
	8	3	5 ~ 8	96	-	3MV8100-0NK00	
	10	3/4	6 ~ 10	120	-	3MV8100-0ML00	
	13	4/5.5	8 ~ 13	156	-	3MV8100-0NL00	
	16	7.5	10 ~ 16	190	-	3MV8100-0MM00	
	20	7.5	14 ~ 20	240	-	3MV8100-0MN00	
	25	11	18 ~ 25	300	-	3MV8100-0MP00	
	0.16	0.04	0.11 ~ 0.16	1.9	1NO+1NC	3MV8100-1MB00	
	0.24	0.06	0.16 ~ 0.24	2.9	1NO+1NC	3MV8100-1MC00	
	0.4	0.09/0.12	0.24 ~ 0.4	4.8	1NO+1NC	3MV8100-1MD00	
	0.6	0.12/0.18	0.4 ~ 0.6	7.2	1NO+1NC	3MV8100-1ME00	
	1	0.25	0.6 ~ 1	12	1NO+1NC	3MV8100-1MF00	
	1.6	0.37/0.55	1 ~ 1.6	19	1NO+1NC	3MV8100-1MG00	
	2.4	0.75	1.6 ~ 2.4	29	1NO+1NC	3MV8100-1MH00	
	3.2	1.1	2 ~ 3.2	38	1NO+1NC	3MV8100-1NH00	
	4	1.1/1.5	2.4 ~ 4	48	1NO+1NC	3MV8100-1MJ00	
	5	1.5/2.2	3.2 ~ 5	60	1NO+1NC	3MV8100-1NJ00	
	6	2.2	4 ~ 6	72	1NO+1NC	3MV8100-1MK00	
	8	3	5 ~ 8	96	1NO+1NC	3MV8100-1NK00	
	10	3/4	6 ~ 10	120	1NO+1NC	3MV8100-1ML00	
	13	4/5.5	8 ~ 13	156	1NO+1NC	3MV8100-1NL00	
	16	7.5	10 ~ 16	190	1NO+1NC	3MV8100-1MM00	
	20	7.5	14 ~ 20	240	1NO+1NC	3MV8100-1MN00	
	25	11	18 ~ 25	300	1NO+1NC	3MV8100-1MP00	

Selection & ordering data

3MV8 motor starter protectors

Product image	Rated current	Motor power	Current setting for thermal overload	Instantaneous trip	Auxiliary contacts	Article no.	List price per PU (Per Unit)
	(A)	(kW)	(A)	(A)			
3MV8200-1..00 	1.6	0.37/0.55	1 ~ 1.6	19	-	3MV8200-0MG00	
	2.4	0.75	1.6 ~ 2.4	29	-	3MV8200-0MH00	
	4	1.1/1.5	2.4 ~ 4	48	-	3MV8200-0MJ00	
	6	2.2	4 ~ 6	72	-	3MV8200-0MK00	
	10	3/4	6 ~ 10	120	-	3MV8200-0ML00	
	16	5.5/7.5	10 ~ 16	190	-	3MV8200-0MM00	
	25	11	16 ~ 25	300	-	3MV8200-0MN00	
	32	15	22 ~ 32	380	-	3MV8200-0MP00	
	40	18.5	28 ~ 40	480	-	3MV8200-0MQ00	
	52	22	36 ~ 52	600	-	3MV8200-0MR00	
	1.6	0.37/0.55	1 ~ 1.6	19	1NO+1NC	3MV8200-1MG00	
	2.4	0.75	1.6 ~ 2.4	29	1NO+1NC	3MV8200-1MH00	
	4	1.1/1.5	2.4 ~ 4	48	1NO+1NC	3MV8200-1MJ00	
	6	2.2	4 ~ 6	72	1NO+1NC	3MV8200-1MK00	
	10	3/4	6 ~ 10	120	1NO+1NC	3MV8200-1ML00	
	16	5.5/7.5	10 ~ 16	190	1NO+1NC	3MV8200-1MM00	
	25	11	16 ~ 25	300	1NO+1NC	3MV8200-1MN00	
	32	15	22 ~ 32	380	1NO+1NC	3MV8200-1MP00	
	40	18.5	28 ~ 40	480	1NO+1NC	3MV8200-1MQ00	
	52	22	36 ~ 52	600	1NO+1NC	3MV8200-1MR00	

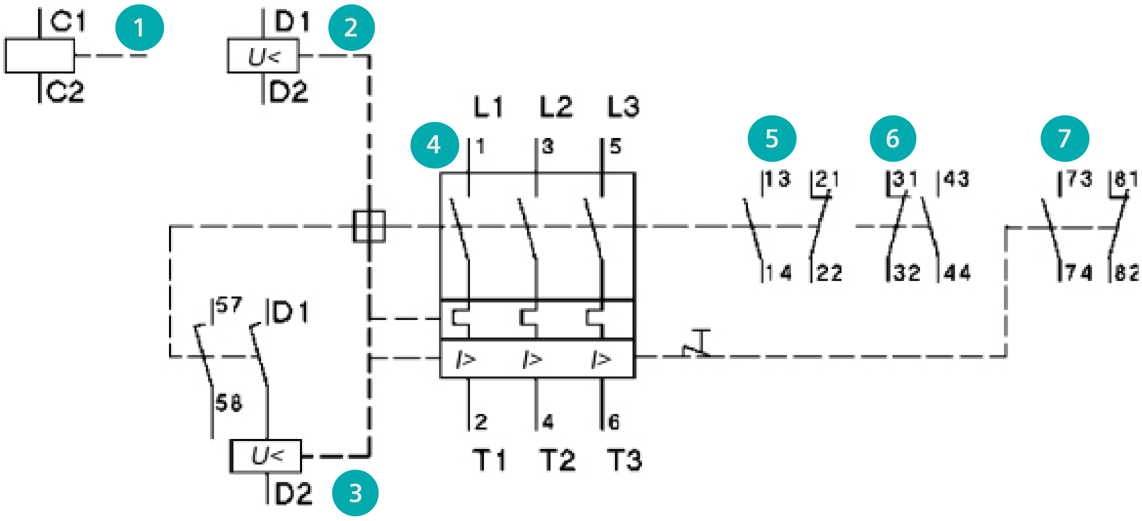
Selection & ordering data

Accessories

Type	Suitable for	Mounting	Auxiliary contacts	Article no.	List price per PU (Per Unit)
Auxiliary contact 	3MV81 / 3MV82	Right side	1NO+1NC	3MV9131-3AA00	
Short circuit fault indicator 	3MV81 / 3MV82	Right side	1NO+1NC	3MV9131-7AA00	
Undervoltage release 	3MV81 / 3MV82	Left side	AC230V 50Hz	3MV9132-0AB15	
			AC240V 50Hz	3MV9132-0AB25	
			AC400V 50Hz	3MV9132-0AB17	
			AC415V 50Hz	3MV9132-0AB18	
			AC120V 60Hz	3MV9132-0AB23	
			AC208V 60Hz	3MV9132-0AB24	
			AC240V 60Hz	3MV9132-0AB26	
Undervoltage release with lead action auxiliary contacts 	3MV81 / 3MV82	Left side	AC230V 50Hz	3MV9132-0AB35	
			AC240V 50Hz	3MV9132-0AB45	
			AC400V 50Hz	3MV9132-0AB37	
			AC415V 50Hz	3MV9132-0AB38	
			AC120V 60Hz	3MV9132-0AB43	
			AC208V 60Hz	3MV9132-0AB44	
			AC240V 60Hz	3MV9132-0AB46	
Shunt release 	3MV81 / 3MV82	Left side	AC24V 50Hz	3MV9132-0AB50	
			AC230V 50Hz	3MV9132-0AB55	
			AC240V 50Hz	3MV9132-0AB65	
			AC400V 50Hz	3MV9132-0AB57	
			AC415V 50Hz	3MV9132-0AB58	
			AC120V 60Hz	3MV9132-0AB63	
			AC208V 60Hz	3MV9132-0AB64	
			DC24-60V	3MV9132-0AB66	
			DC110-240V	3MV9132-0AB73	

Note:
(1) Auxiliary contacts and short circuit fault indicators can be installed on the right side of the circuit breakers at the same time (the short circuit fault indicators are installed on the inside first, and the auxiliary contacts are installed on the outside). It is also possible to install only one auxiliary contact or only one short circuit fault indicator.
(2) Undervoltage release, undervoltage release with advance action auxiliary contact, and shunt release are all installed on the left side of the circuit breakers, but only one of the three can be installed at a time.

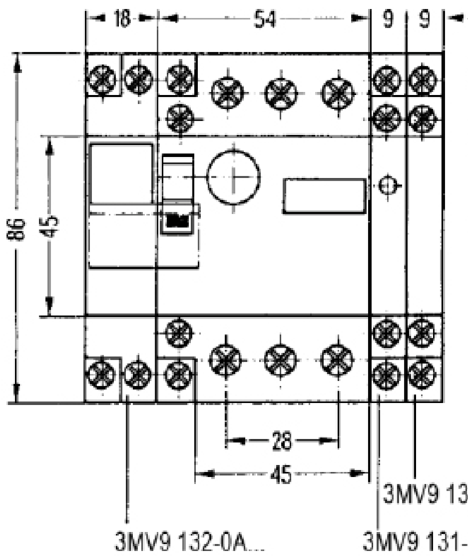
Wiring diagram



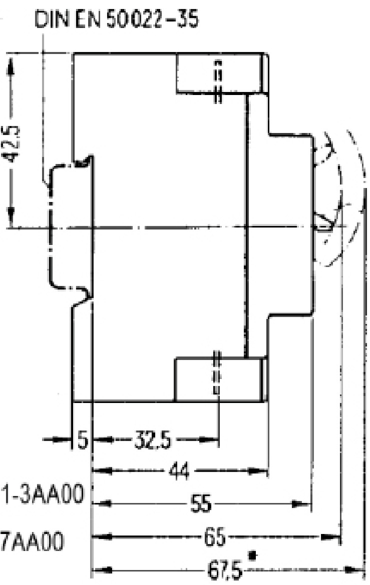
1. Shunt release
2. Undervoltage release
3. Undervoltage release with lead action contacts
4. 3MV8 motor starter protector
5. Internal auxiliary contacts
6. Additional auxiliary contacts
7. Short circuit fault indicator

Dimension drawings

3MV81

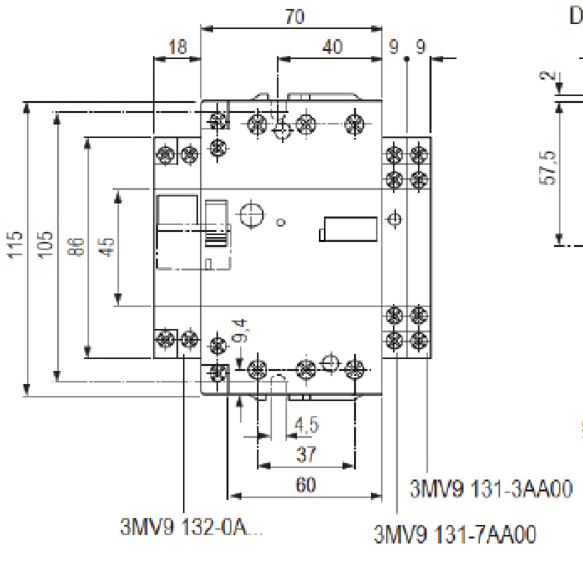


Front view

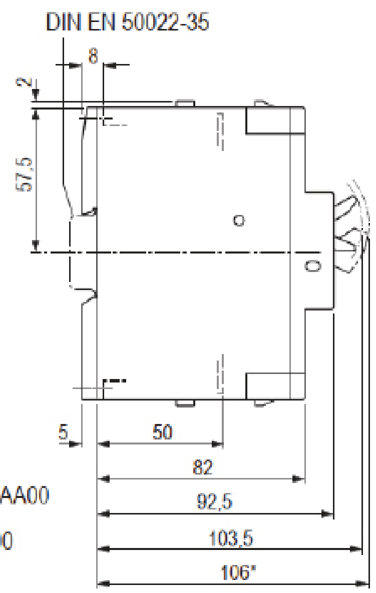


Side view

3MV82



Front view



Side view

Note: All dimensions are in mm.

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