

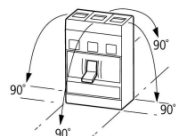


ACB 400-3P

Delivery programme

Product range			Circuit-breaker
Protective function			System and cable protection Photovoltaic applications
Standard/Approval			IEC
Installation type			Fixed
Release system			Thermomagnetic release
Construction size			NZM3
Number of poles			3 pole
Standard equipment			Screw connection
Switching capacity			
400/415 V 50/60 Hz	I_{cu}	kA	50
Rated current = rated uninterrupted current			
Rated current = rated uninterrupted current	$I_n = I_u$	A	400
Setting range			
Overload trip			
	I_r	A	320 - 400
Short-circuit releases			
Non-delayed	$I_i = I_n \times \dots$		6 - 10

General

Standards			IEC/EN 60947
Protection against direct contact			Finger and back of hand proof to VDE 0106 Part 100
Climatic proofing			Damp heat, constant to IEC 60068-2-78 Damp heat, cyclic to IEC 60068-2-30
Ambient temperature		°C	
Ambient temperature, storage		°C	- 40 - + 80
Operation		°C	- 25 ... + 70
Mechanical shock resistance (10 ms half-sinusoidal shock) according to IEC 60068-2-27		g	20 (half-sinusoidal shock 20 ms)
Safe isolation to VDE 0106 Part 101 and Part 101/A1			
Between auxiliary contacts and main contacts		V AC	500
between the auxiliary contacts		V AC	300
Weight		kg	6.34
Mounting position			
Mounting position			Vertical and 90° in all directions  With residual-current release XFI: - NZM1, N1, NZM2, N2: vertical and 90° in all directions with plug-in adapter elements - NZM1, N1, NZM2, N2: vertical, 90° right/left with withdrawable unit: - NZM3, N3: vertical, 90° left - NZM4, N4: vertical with remote operator: - NZM2, N(S)2, NZM3, N(S)3, NZM4, N(S)4: vertical and 90° in all directions

Direction of incoming supply			as required
Degree of protection			
Device			In the operating controls area: IP20 (basic degree of protection)
Enclosures			With insulating surround: IP40, with door coupling rotary handle: IP66
Terminations			Tunnel terminal: IP10 Phase isolator and strip terminal: IP00
Other technical data (sheet catalogue)			Weight Temperature dependency, Derating Effective power loss

Circuit-breakers

Rated current = rated uninterrupted current	$I_n = I_u$	A	400
Rated surge voltage invariability	U_{imp}		
Main contacts		V	8000
Auxiliary contacts		V	6000
Rated operational voltage	U_e	V AC	690
Overvoltage category/pollution degree			III/3
Rated insulation voltage	U_i	V	1000
Use in unearthed supply systems		V	 690

Switching capacity

Rated short-circuit making capacity	I_{cm}		
240 V	I_{cm}	kA	187
400/415 V	I_{cm}	kA	105
440 V 50/60 Hz	I_{cm}	kA	74
525 V 50/60 Hz	I_{cm}	kA	53
690 V 50/60 H	I_c	kA	40
Rated short-circuit breaking capacity I_{cn}	I_{cn}		
I_{cu} to IEC/EN 60947 test cycle O-t-CO	I_{cu}	kA	
240 V 50/60 Hz	I_{cu}	kA	85
400/415 V 50/60 Hz	I_{cu}	kA	50
440 V 50/60 Hz	I_{cu}	kA	35
525 V 50/60 Hz	I_{cu}	kA	25
690 V 50/60 Hz	I_{cu}	kA	20
500 V DC	I_{cu}	kA	30
750 V DC	I_{cu}	kA	30
I_{cs} to IEC/EN 60947 test cycle O-t-CO-t-CO	I_{cs}	kA	
240 V 50/60 Hz	I_{cs}	kA	85
400/415 V 50/60 Hz	I_{cs}	kA	50
440 V 50/60 Hz	I_{cs}	kA	35
525 V 50/60 Hz	I_{cs}	kA	13
690 V 50/60 Hz	I_{cs}	kA	5
			Maximum back-up fuse, if the expected short-circuit currents at the installation location exceed the switching capacity of the circuit-breaker.
Rated short-time withstand current			
$t = 0.3$ s	I_{ow}	kA	3.3
$t = 1$ s	I_{ow}	kA	3.3
Utilization category to IEC/EN 60947-2			A
Rated making and breaking capacity			
Rated operational current	I_e	A	
AC-1			
380 V 400 V	I_e	A	630
415 V	I_e	A	500
690 V	I_e	A	630
AC--3			

380 V 400 V	I _e	A	400
415 V	I _e	A	400
660 V 690 V	I _e	A	400
DC - -1			
500 V DC	I _e	CSA	500
750 V DC	I _e	CSA	500
DC - 3			
500 V DC	I _e	CSA	500
750 V DC	I _e	CSA	500
Lifespan, mechanical (of which max. 50 % trip by shunt/undervoltage release)	Operations		15000
Lifespan, electrical			
AC-1			
400 V V 50/60 Hz	Operations		5000
415 V V 50/60 Hz	Operations		5000
690 V 50/60 Hz	Operations		3000
AC--3			
400 V 50/60 Hz	Operations		2000
415 V 50/60 Hz	Operations		2000
690 V 50/60 Hz	Operations		2000
DC - -1			
500 V DC		Operations	5000
750 V DC		Operations	5000
DC - 3			
500 V DC	Operations		2000
750 V DC	Operations		2000
Max. operating frequency		Ops/h	60
Current heat losses per pole at I _g are based on the maximum rated operational current of the frame size.		W	40
			For current heat loss per pole the specification refers to the maximum rated operational current of the frame size.
Total downtime in a short-circuit		ms	< 10

Terminal capacity

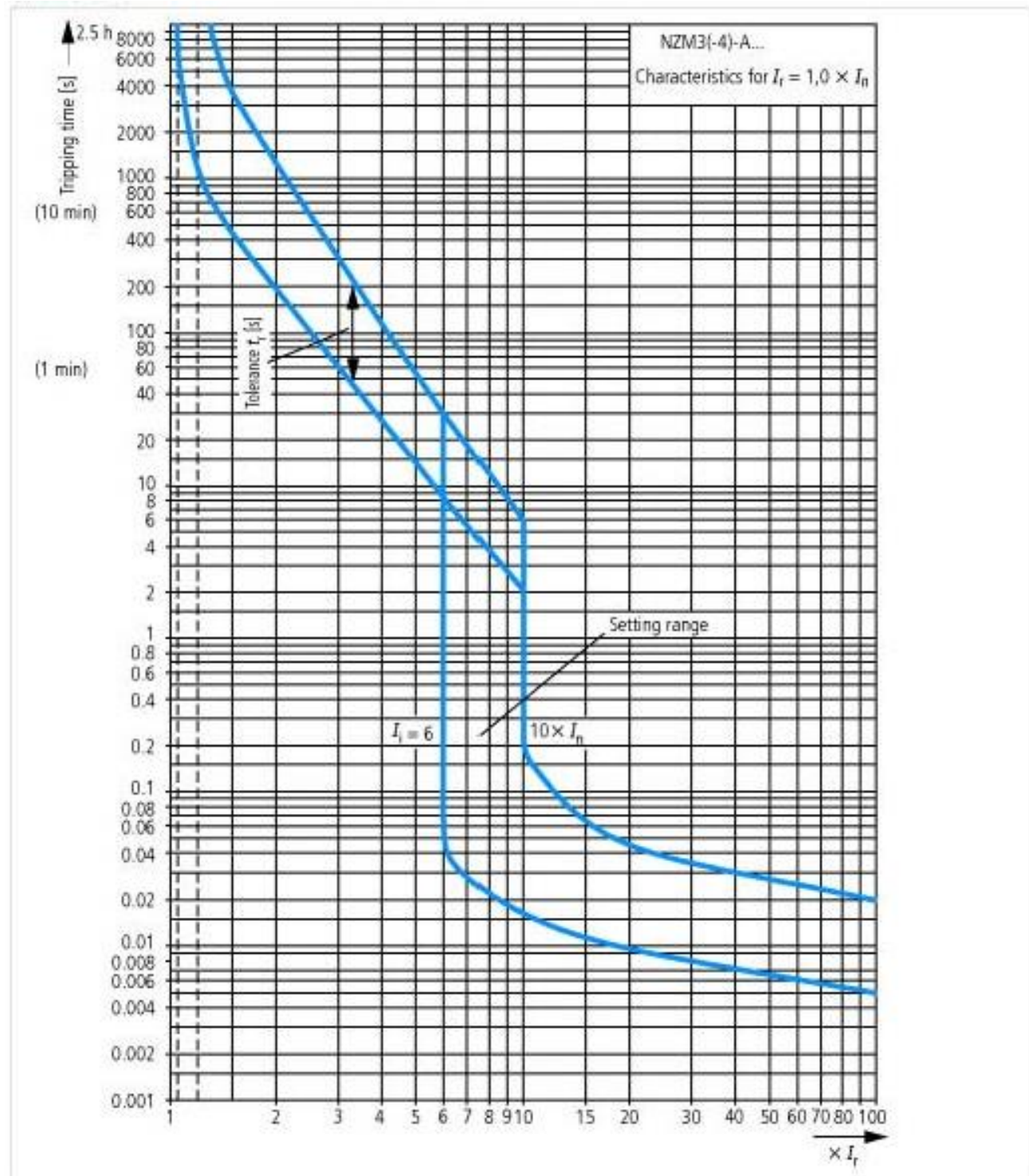
Standard equipment			Screw connection
Round copper conductor			
Tunnel terminal			
Solid		mm ²	1 x (16 - 185)
Copper busbar (width x thickness)	mm		
Bolt terminal and rear-side connection			
Screw connection			M10

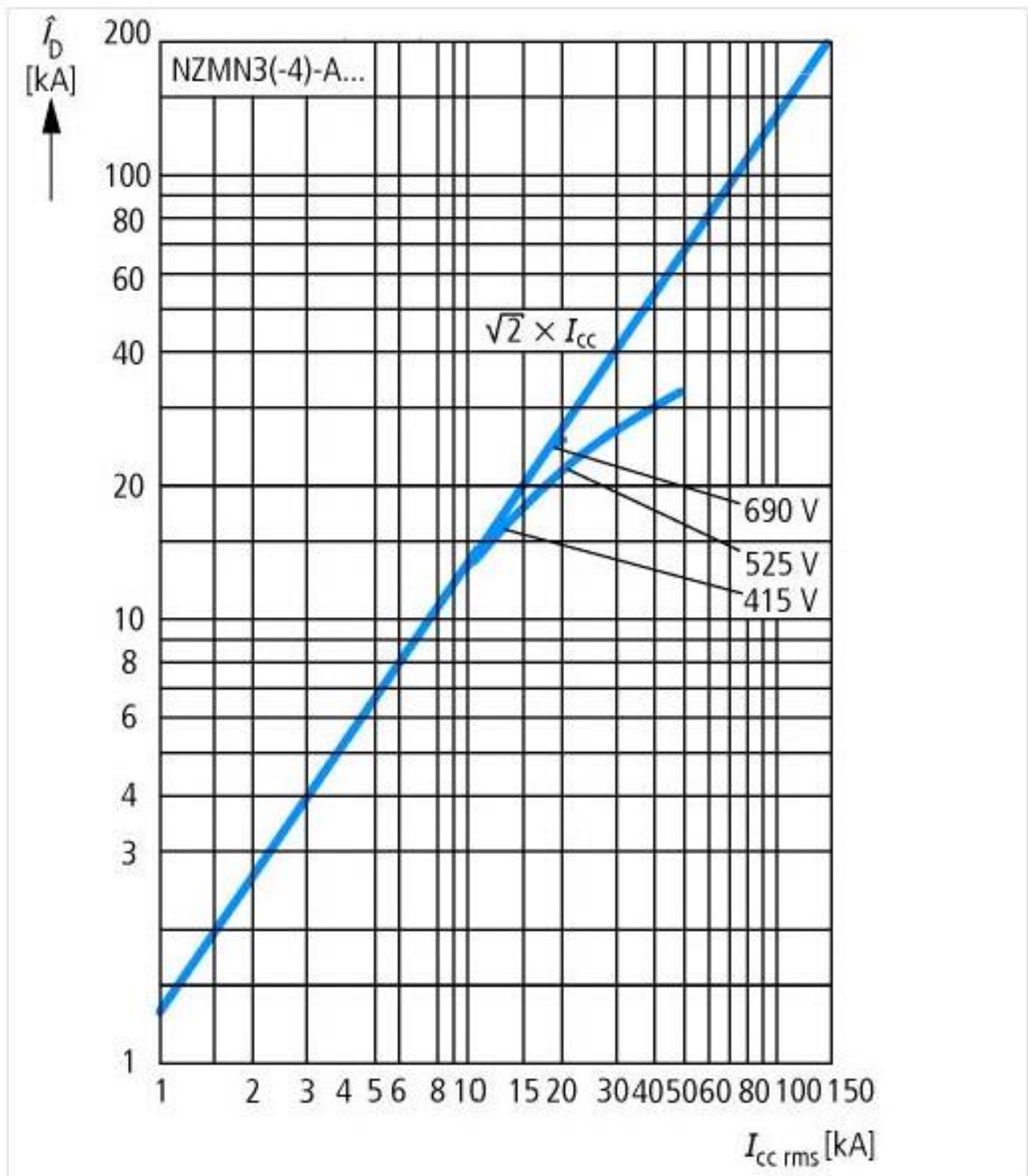
Technical data ETIM 4.0

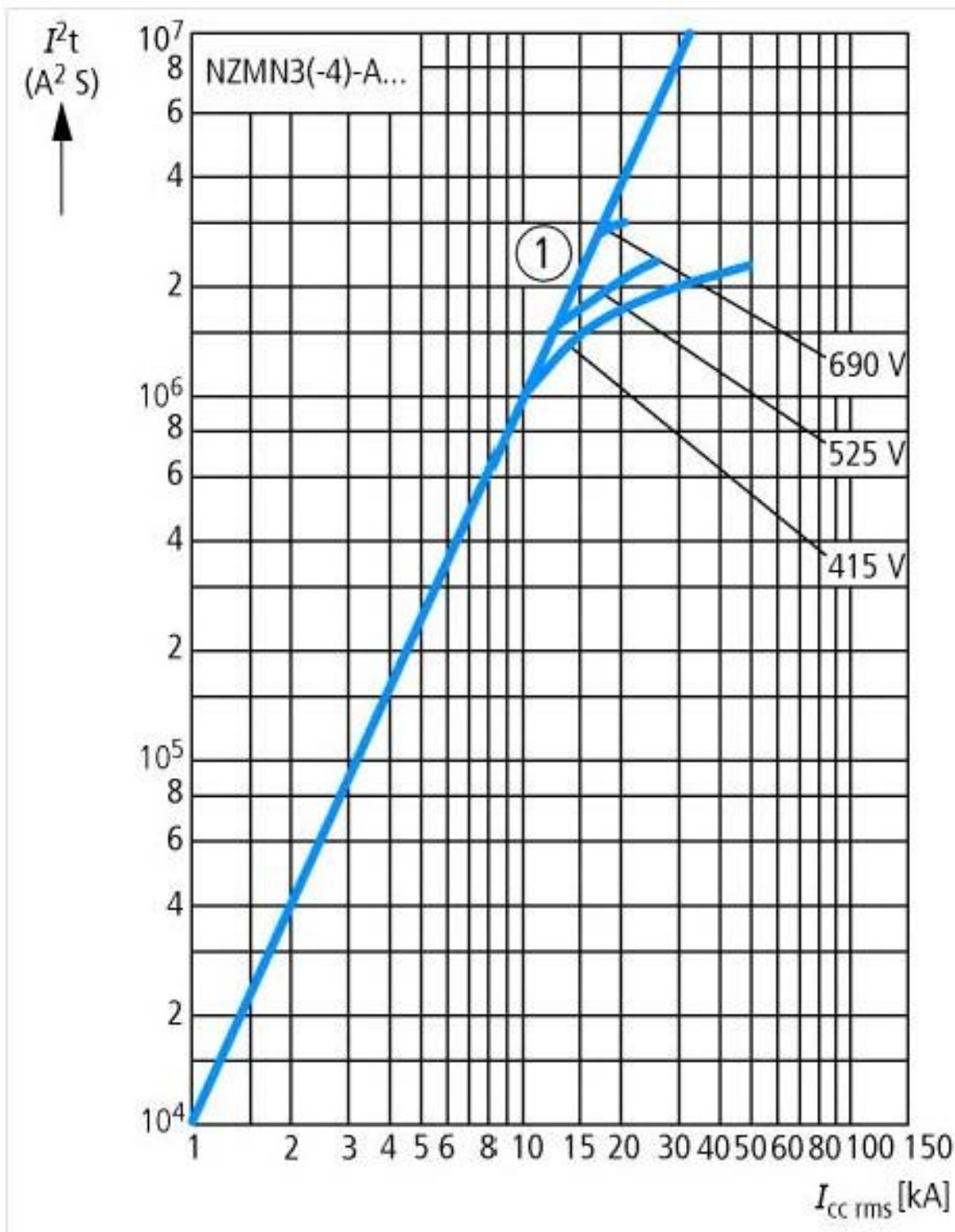
Number of poles			3
Rated uninterrupted current I _u		A	400
Number of auxiliary contacts as N/Cs			0
Number of auxiliary contacts as N/Os			0
Device construction			Built-in device fixed built-in technique
With under voltage release			No
Motor operator optional			YES
Integrated earth fault protection			No
Suitable for DIN rail (top hat rail) mounting			No
Setting range non-delayed short-circuit release		A	4000
Setting range short-term delayed short-circuit release		A	0
Rated short-circuit breaking capacity I _{cu} at 400 V, 50 Hz		kA	50
Switched-off indicator available			No

Type of control element		Toggle lever
Connection type main current circuit		Screw connection
Motor operator integrated		No
Position of connection for main circuit		Front connection
Protection type (IP)		IP20
Number of auxiliary contacts as changeover contact		0
Setting range of overload releases	A	400

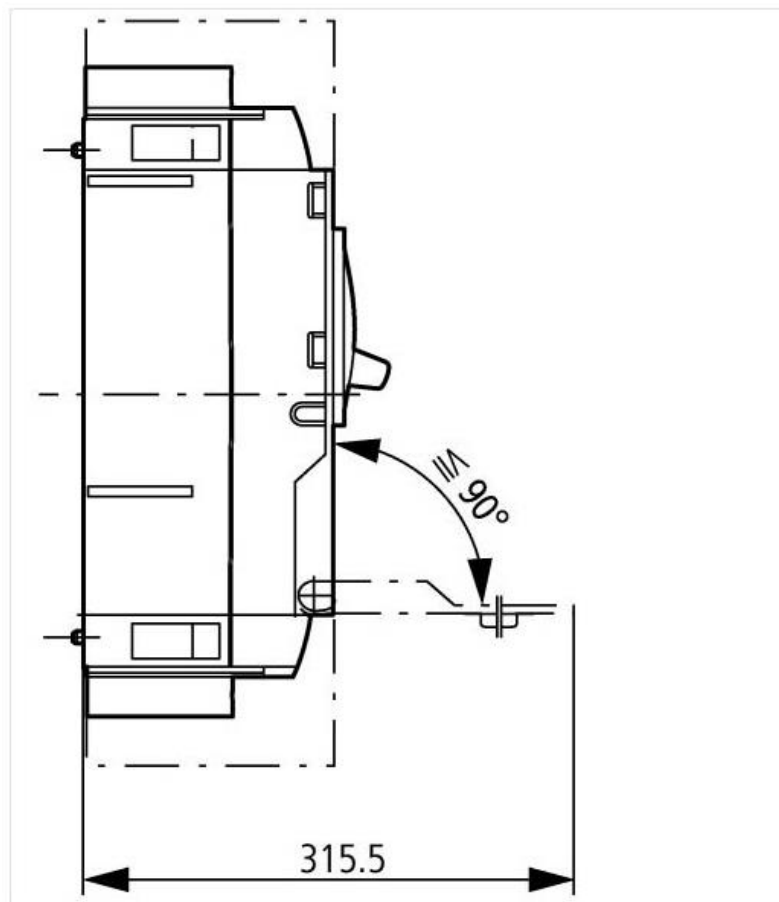
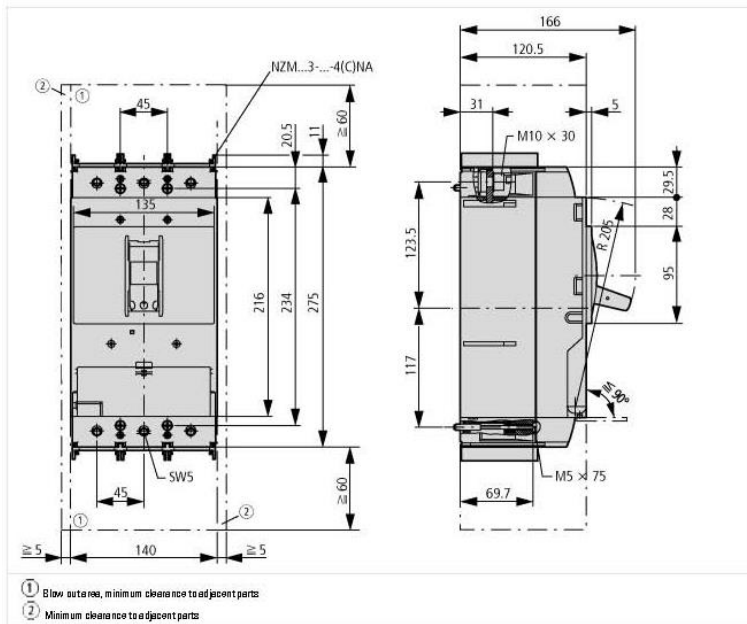
Characteristics







Dimensions



Additional product information (links)

Setting-Specific Representation of Tripping Characteristics and Competent Assessment of their Interaction

http://www.moeller.net/binary/ver_techpapers/ver943en.pdf

Busbar Component Adapters for modern Industrial control panels

http://www.moeller.net/binary/ver_techpapers/ver960en.pdf