



Switch-disconnector 3p 160A



Powering Business Worldwide™


Part no.
Article no.

PN2-160
266005

Delivery programme

Product range			Switch-disconnectors
Protective function			Disconnectors/main switches
Standard/Approval			IEC
Installation type			Fixed
Construction size			PN2
Description			Main switch characteristics including positive drive to IEC/EN 60204 and VDE 0113. Isolating characteristics to IEC/EN 60947-3 and VDE 0660. Busbar tag shroud to VDE 0160 Part 100.
Number of conductors			3 pole
Standard equipment			Screw connection
Switch positions			I, 0
Rated current = rated uninterrupted current	$I_n = I_u$	A	160
Short-circuit protection max. fuse gL-characteristic		A gL	250

Switch-disconnectors

Rated surge voltage invariability	U_{imp}		
Main contacts		V	8000
Auxiliary contacts		V	6000
Rated operational voltage	U_e	V AC	690
Rated current = rated uninterrupted current	$I_n = I_u$	A	160
Rated uninterrupted current	I_u	A	
IEC/EN 61131-3	I_u	A	250
Overvoltage category/pollution degree			III/3
Rated insulation voltage	U_i	V	690
Use in unearthed supply systems		V	 690
			Rated operating voltage: 40-60 Hz
Other technical data (sheet catalogue)			Weight Temperature dependency, Derating Effective power loss

Rated short-circuit making capacity

690 V 50/60 Hz	I_c	kA	5.5
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Rated short-time withstand current

$t = 0.3$ s	I_{cw}	kA	3.5
$t = 1$ s	I_{cw}	kA	3.5
			The rated short-time withstand current for PN2/N2 in conjunction with earth-fault release NZM2-4-XFI... $I_{cw} = 1.5$ kA

Rated conditional short-circuit current

With back-up fuse		A gG/ gL	PN2(N2)-160...250: 250
400 ... 415 V		kA	100
690 V		kA	80
With downstream fuse		A gG/ gL	PN2(N2)-160...250: 250
400 ... 415 V		kA	100
690 V		kA	80

Rated making and breaking capacity

Rated operational current	I_e	A	
415 V	I_e	A	250
690 V	I_e	A	250
415 V	I_e	A	250
690 V	I_e	A	250
Lifespan, mechanical	Operations		20000
Max. operating frequency		Ops/h	120

Lifespan, electrical

400 V V 50/60 Hz	Operations		10000
415 V V 50/60 Hz	Operations		10000
690 V 50/60 Hz	Operations		7500
400 V 50/60 Hz	Operations		7500
415 V 50/60 Hz	Operations		7500
690 V 50/60 Hz	Operations		5000
			For current heat loss per pole the specification refers to the maximum rated operational current of the frame size.
Current heat losses per pole at I_u are based on the maximum rated operational current of the frame size.		W	16
			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

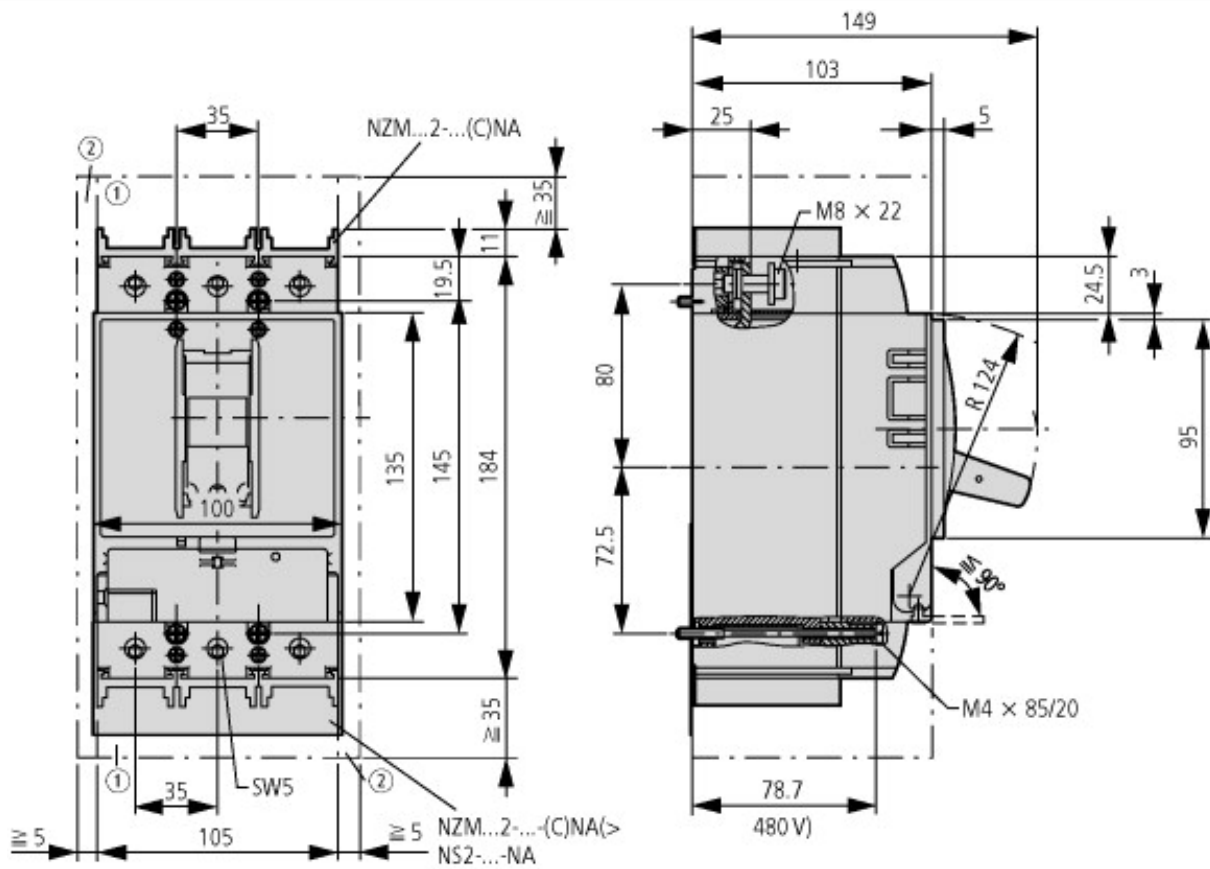
Standard equipment			Screw connection
Overview			<p>Basic equipment</p> <p>Box terminal ● - - -</p> <p>Screw connection - ● ● ●</p> <p>Accessories</p> <p>Box terminal - ● ● -</p> <p>Screw connection ● - - ●</p> <p>Tunnel terminal ● ● ● ●</p> <p>Connection on rear Flat conductor terminal - - - ●</p>
Round copper conductor			
Box terminal			
Solid		mm ²	1 x (4 - 16) 2 x (4 - 16)
Stranded		mm ²	1 x (25 - 185) 2 x (25 - 70)
Tunnel terminal			
Solid		mm ²	1 x (16 - 185)
Stranded		mm ²	
Stranded		mm ²	1 x (25 - 185)
Bolt terminal and rear-side connection			
Direct on the switch			
Solid		mm ²	1 x (4 - 16) 2 x (4 - 16)
Stranded		mm ²	1 x (25 - 185) 2 x (25 - 70)
Al conductors, Cu cable			
Solid		mm ²	1 x 16
Stranded		mm ²	
Stranded		mm ²	1 x (25 - 185)
Bolt terminal and rear-side connection			

Flat copper strip, with holes	min.	mm	2 x 16 x 0.8
Flat copper strip, with holes	max.	mm	10 x 16 x 0.8
Cu strip (number of segments x width x segment thickness)			
Box terminal			
	min.	mm ²	2 x 9 x 0.8
	max.	mm ²	10 x 16 x 0.8
Bolt terminal and rear-side connection			
Flat copper strip, with holes	min.	mm	2 x 16 x 0.8
Flat copper strip, with holes	max.	mm	10 x 16 x 0.8
Copper busbar (width x thickness)			
Bolt terminal and rear-side connection			
Screw connection			M8
Direct on the switch			
	min.	mm ²	16 x 5
	max.	mm ²	20 x 5
Control cables			
		mm ²	1 x (0.75 - 2.5) 2 x (0.75 - 1.5)

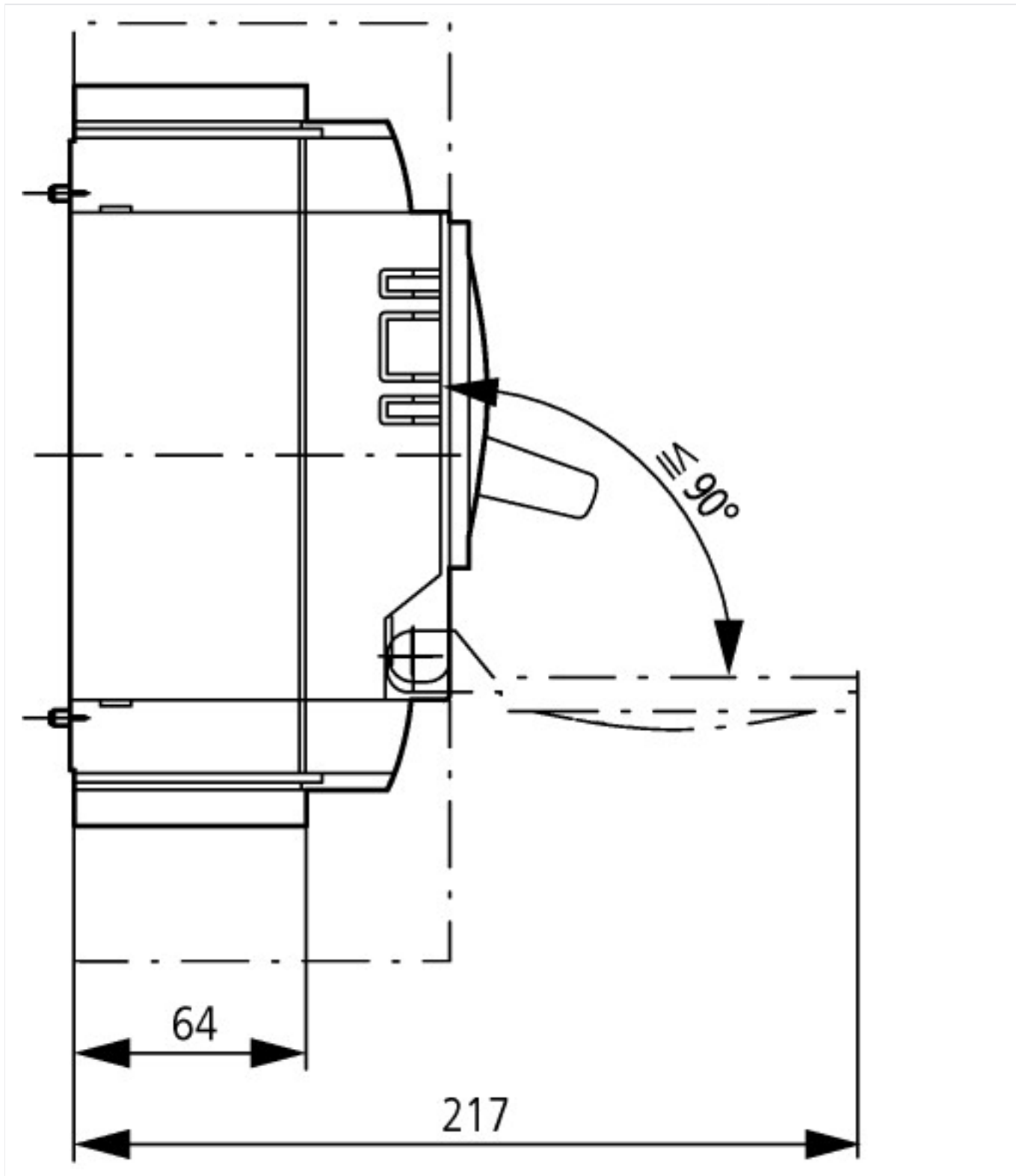
Technical data ETIM 4.0

Version as switch disconnecter compact			1
Version as main switch			1
Version as maintenance-/service switch			1
Version as safety switch			0
Version as emergency stop installation			1
Max. rated operation voltage U _e AC		V	690
Rated permanent current I _u		A	160
Rated operation power AC-3, 400 V		kW	90
Rated operation power at AC-23, 400V		kW	90
Conditioned rated short-circuit current I _q		kA	100
Number of poles			3
Number of auxiliary contacts as normally closed contact			0
Number of auxiliary contacts as normally open contact			0
Number of auxiliary contacts as change-over contact			0
Motor drive optional			0
Motor drive integrated			0
Voltage release optional			0
Device construction			Built-in device fixed built-in technique
Suitable for ground mounting			1
Suitable for front mounting			0
Suitable for front mounting center			0
Suitable for distribution board installation			1
Suitable for intermediate mounting			1
Type of control element			Rocker lever
Interlockable			1
Connection type main current circuit			Screw connection
Degree of protection (IP), front side			IP20

Dimensions



- ① Blow out area, minimum clearance to adjacent parts
- ② Minimum clearance to adjacent parts



Additional product information (links)

IL01206006Z (AWA1230-1916) Circuit-Breaker, basic unit

IL01206006Z (AWA1230-1916) Circuit-Breaker, basic unit

ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL01206006Z2011_07.pdf

IL01206006Z (AWA1230-1916) Circuit-Breaker, basic unit

ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL01206006Z2012_06.pdf