






MPCBs MPX³


technical characteristics

Terminals

			MPX ³ 32S	MPX ³ 32H / 32 MA	MPX ³ 63H	MPX ³ 100H
Conformity to standards			IEC60947 UL508, UL508 Type E			
Approvals			CE, UL			
Terminal parts						
Screwdriver						
Single-core	1 conductor	(mm ²) / (AWG)	1...10 / 18...8	1...10 / 18...8	0.75...35 / 18...2	2.5...70 / 12...2/0
	2 conductor	(mm ²) / (AWG)	1...6 / 18...10	1...6 / 18...10	0.75...25 / 18...4	2.5...50 / 12...1/0
Standard	1 conductor	(mm ²) / (AWG)	1...6 / 18...10	1...6 / 18...10	0.75...35 / 18...2	2.5...70 / 12...2/0
	2 conductor	(mm ²) / (AWG)	1...6 / 18...10	1...6 / 18...10	0.75...25 / 18...4	2.5...50 / 12...1/0
Flexible	1 conductor	(mm ²) / (AWG)	1...6 / 18...10	1...6 / 18...10	0.75...25 / 18...4	2.5...50 / 12...1/0
	2 conductor	(mm ²) / (AWG)	0.75...4 / 18...10	0.75...4 / 18...10	0.75...16 / 18...6	2.5...35 / 10...2
Tightening torque		(Nm) / (lb-in)	0.8...2.5 / 7...22	0.8...2.5 / 7...22	3...4.5 / 26...39	4...6 / 35...53

Auxiliaries

			Auxiliary contacts for front mounting		Auxiliary contacts for left side mounting		Alarm switch for left side mounting	
Rated thermal current / lth at 40 °C ambient temperature	(A)		5		10		10	
	(A)		3		6		6	
Contact class coordination according to NEMA (UL/CSA-Standards)	AC		A600		A600		A600	
	DC		Q300		Q300		Q300	
Back-up fuses gG, gL		(A)	16		16		16	
Rated supply current								
AC-15	(V)	-	240	24	240	24	240	
	(A)	-	3	6	4	6	4	
DC-13	(V)	24	220	24	220	24	220	
	(A)	1	0.1	2	0.25	2	0.25	
Weight (g)			18		30		40	
Terminal parts								
Screwdriver					Pozi driv size 2			
Single-core	1 conductor	(mm ²) / (AWG)	0.5...2.5 / 20...14		0.5...2.5 / 20...14			
	2 conductor	(mm ²) / (AWG)	-		0.5...2.5 / 20...14			
Standard	1 conductor	(mm ²) / (AWG)	0.5...4 / 20...10		0.5...4 / 20...10			
	2 conductor	(mm ²) / (AWG)	0.75...2.5 / 18...14		0.75...2.5 / 18...14			
Tightening torque		(Nm) / (lb-in)	0.8...1.2 / 7...10		0.8...1.2 / 7...10			

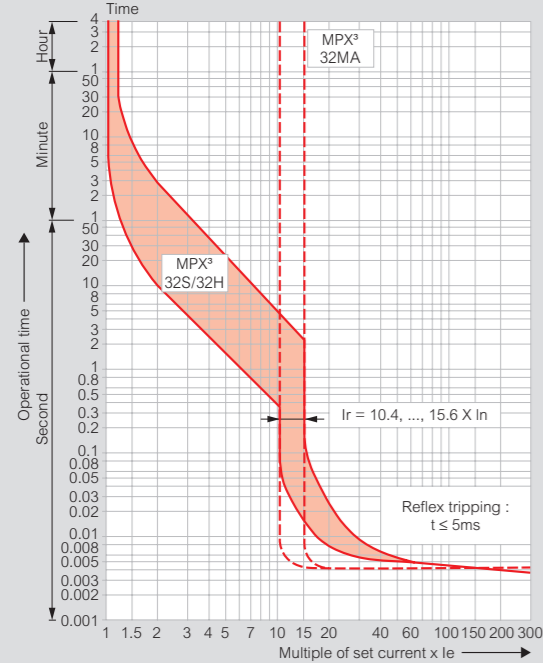
			Undervoltage release for right side mounting	Undervoltage release with 2 auxiliary contacts for right side mounting	Shunt release for right side mounting
Actuating voltage	Pull-in		0.7...1.1 x Us	0.85...1.1 x Us	0.85...1.1 x Us
	Drop-out			0.7...0.35 x Us	0.7...0.35 x Us
Rated control voltage	min:		24 V 50 Hz / 28 V 60 Hz	24 V 50 Hz / 28 V 60 Hz	24 V 50 Hz / 28 V 60 Hz
	max:		415-440 V 50 Hz / 460-480 V 60 Hz	415-440 V 50 Hz / 460-480 V 60 Hz	415-440 V 50 Hz / 460-480 V 60 Hz
Coil rating	Pull-in		8.5 VA, 6 W	8.5 VA, 6 W	8.5 VA, 6 W
	Hold		3 VA, 12 W	3 VA, 12 W	3 VA, 12 W
Opening time (ms)			-	20	20
Weight (g)			18	30	40
Terminal parts					
Screwdriver			Pozi driv size 2		
Single-core	1 conductor	(mm ²) / (AWG)	0.5...2.5 / 20...14		
	2 conductor	(mm ²) / (AWG)	0.5...2.5 / 20...14		
Standard	1 conductor	(mm ²) / (AWG)	0.5...4 / 20...10		
	2 conductor	(mm ²) / (AWG)	0.75...2.5 / 18...14		
Tightening torque		(Nm) / (lb-in)	0.8...1.2 / 7...10		

MPCBs MPX³

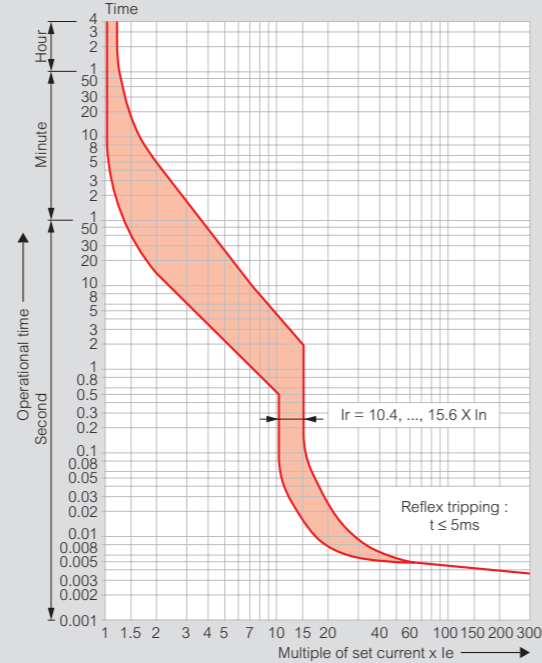
curves

Tripping curves

MPX³ 32S / 32H / 32MA



MPX³ 63H / 100H



1) Thermal release trip current :

The adjustable inverse bimetal trip reliability protects motors against overloads. The curve shows the mean operating current at an ambient temperature of 20 °C starting from cold. Careful testing and setting ensures effective motor protection even in the case of single-phasing.

2) Current setting Ie :

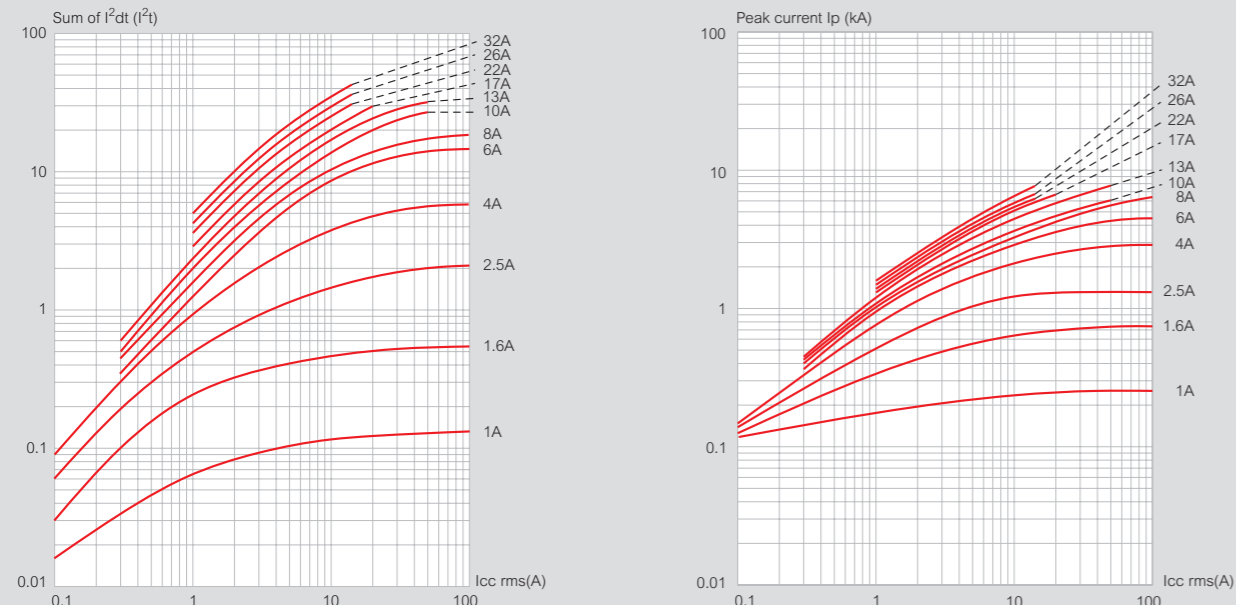
The overload trip corresponds to a thermal overload relay in a motor starter conforming to IEC 947-4-1. If a different value is prescribed (e.g. reduced Ie for cooling medium having a temperature higher than 40 °C or a place of installation higher than 2000m above sea level), the setting current is equal to the reduced rated current Ie of the motor, as per manufacturer specifications. When the MCPB is used outside the standard air temperature range (-5°C to +40°C) the thermal release needs to be calibrated by one point: one point lower from -20°C to -5°C and one point higher from +40°C to +60°C.

3) Magnetic release trip current :

The instantaneous magnetic trip has a fixed operating current setting. This corresponds to 13 times the maximum value of setting range, at a lower setting it is correspondingly higher.

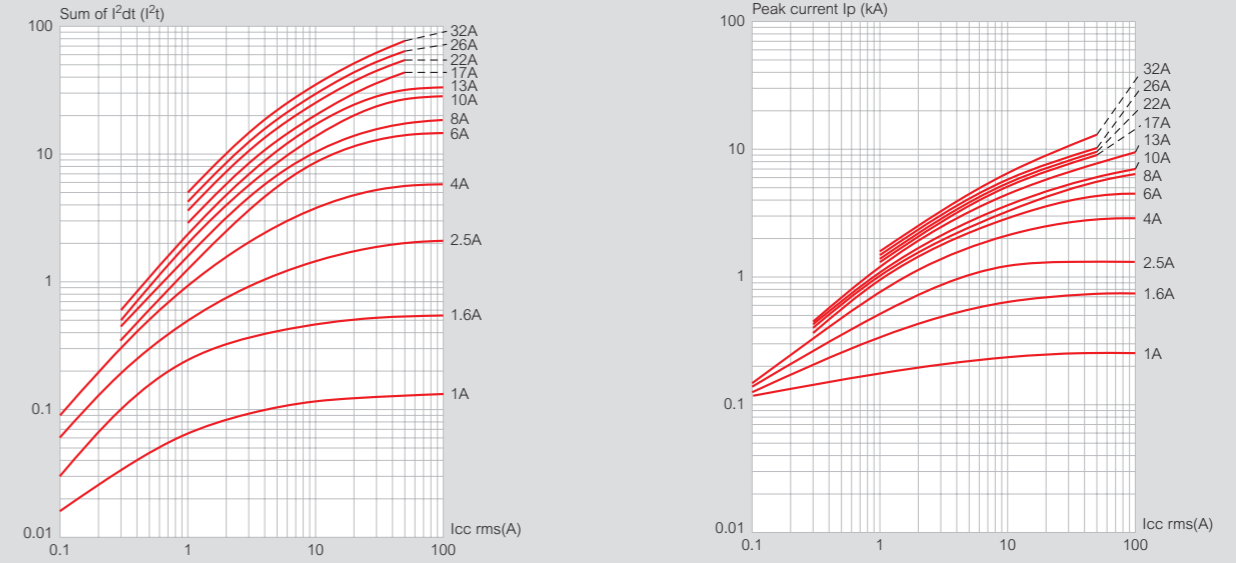
Thermal limit in kA²s in the magnetic operating zone (Ue=415V)

MPX³ 32S

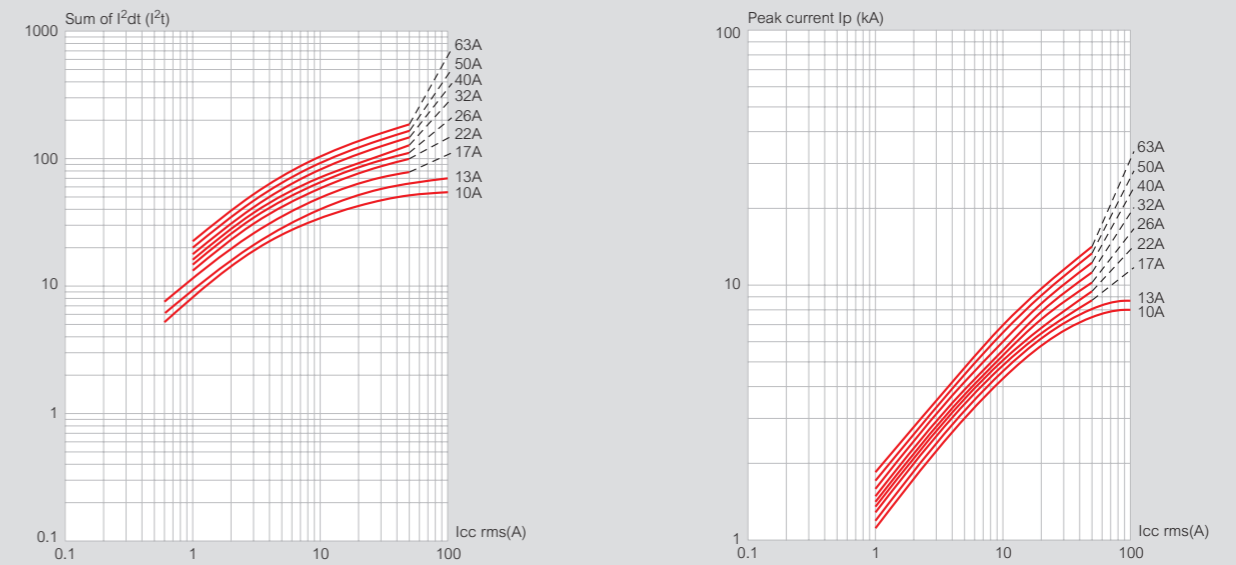


Thermal limit in kA²s in the magnetic operating zone (Ue=415V) (continued)

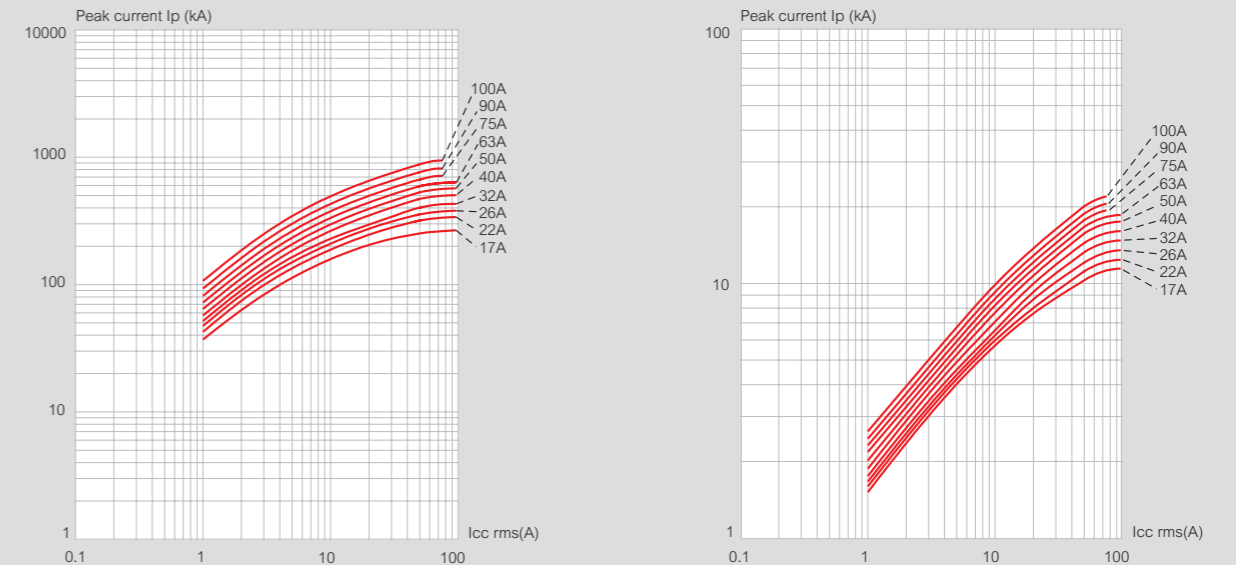
MPX³ 32H / 32MA



MPX³ 63H



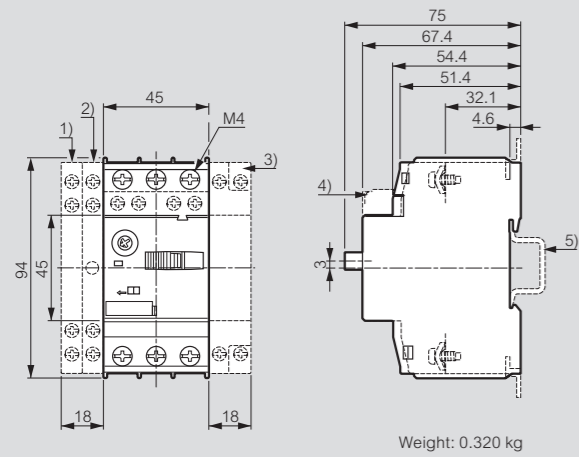
MPX³ 100H



MPCBs MPX³

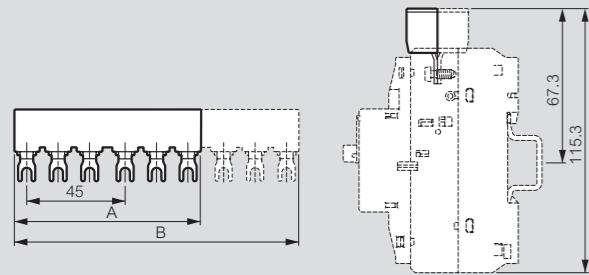
dimensions

MPX³ 32S



Weight: 0.320 kg

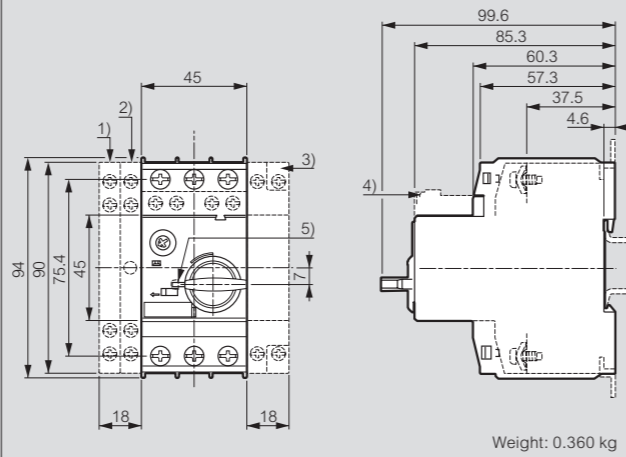
- 1) Side auxiliary contact
- 2) Side magnetic trip alarm contact
- 3) Side shunt release or Side undervoltage release
- 4) Front auxiliary contact
- 5) 35 mm standard mounting rail acc. to EN 50 022



Cat.No	Numbers of MPX ³	A ⁽¹⁾ (mm)	B (mm)
4 174 71	2	85	-
4 174 73	3	-	130
4 174 75	4	-	175
4 174 76	5	-	220

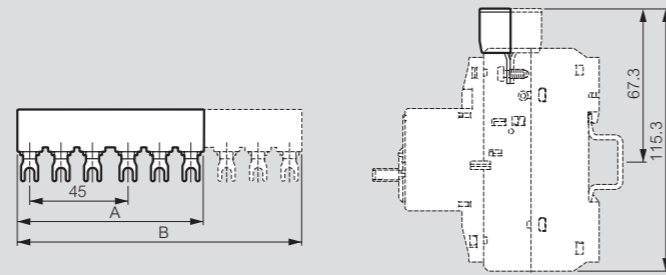
(1) Only for Cat.No 4 174 71

MPX³ 32H / 32MA



Weight: 0.360 kg

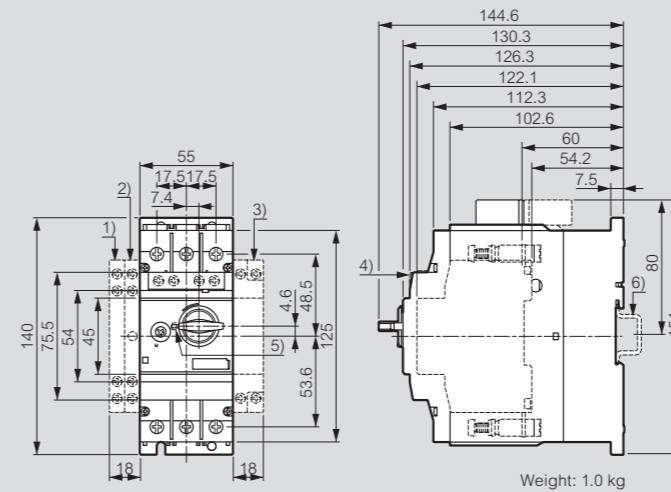
- 1) Side auxiliary contact
- 2) Side magnetic trip alarm contact
- 3) Side shunt release or Side undervoltage release
- 4) Front auxiliary contact
- 5) Handle lock in OFF position (Ø 5 mm)
- 6) 35 mm standard mounting rail acc. to EN 50 022



Cat.No	Numbers of MPX ³	A ⁽¹⁾ (mm)	B (mm)
4 174 71	2	85	-
4 174 73	3	-	130
4 174 75	4	-	175
4 174 76	5	-	220

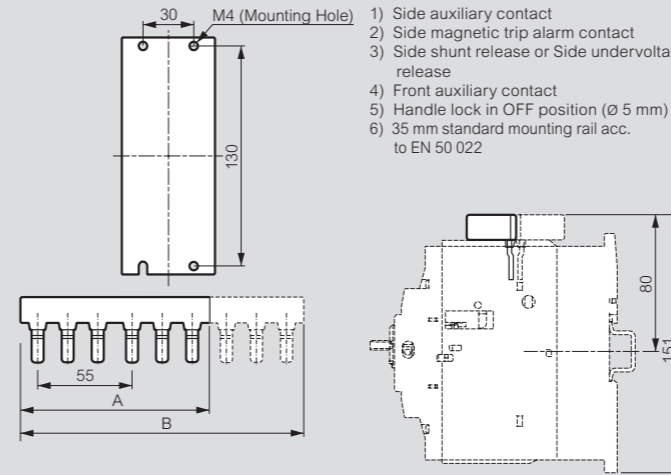
(1) Only for Cat.No 4 174 71

MPX³ 63H



Weight: 1.0 kg

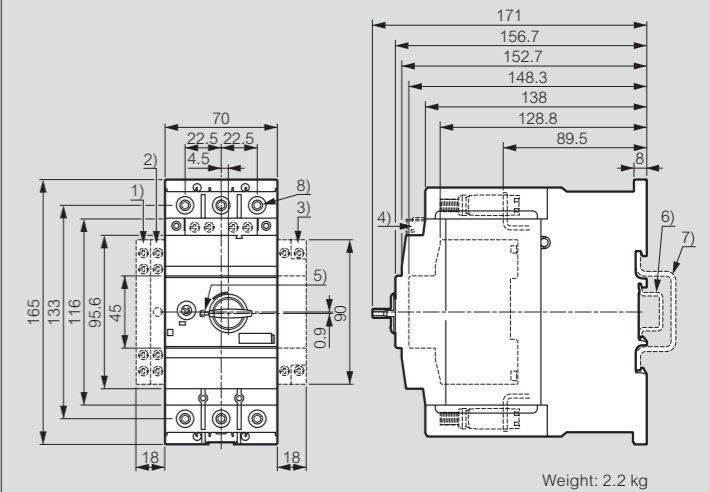
- 1) Side auxiliary contact
- 2) Side magnetic trip alarm contact
- 3) Side shunt release or Side undervoltage release
- 4) Front auxiliary contact
- 5) Handle lock in OFF position (Ø 5 mm)
- 6) 35 mm standard mounting rail acc. to EN 50 022



Cat.No	Numbers of MPX ³	A ⁽¹⁾ (mm)	B (mm)
4 174 72	2	110	-
4 174 74	3	-	165

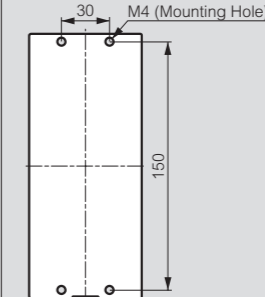
(1) Only for Cat.No 4 174 72

MPX³ 100H



Weight: 2.2 kg

- 1) Side auxiliary contact
- 2) Side magnetic trip alarm contact
- 3) Side shunt release or Side undervoltage release
- 4) Front auxiliary contact
- 5) Handle lock in OFF position (Ø 5 mm)
- 6) 35 mm standard mounting rail acc. to EN 50 022
- 7) 75 mm standard mounting rail acc. to EN 50 023
- 8) 4 mm hexagon socket screw

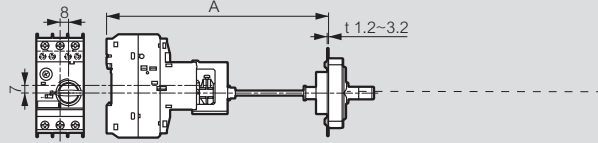


MPCBs MPX³

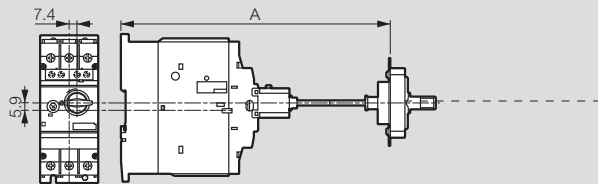
dimensions (continued)

External Handle

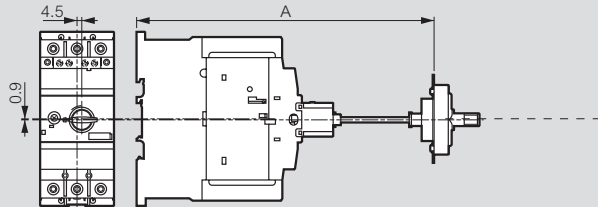
MPX³ 32H / 32MA - Cat.No 4 174 63



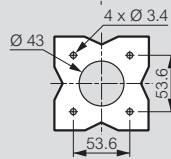
MPX³ 63H - Cat.No 4 174 64



MPX³ 100H - Cat.No 4 174 65

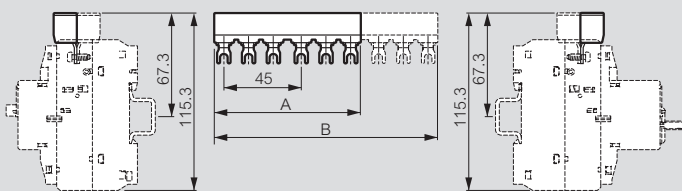


Cat.Nos	A (mm)	MMS Type
4 174 63	min: 148.6	MPX ³ 32H / 32MA
	max: 410.6 (Shaft 315mm)	
4 174 64	min: 193.6	MPX ³ 63H
	max: 455.6 (Shaft 315mm)	
4 174 65	min: 220	MPX ³ 100H
	max: 482 (Shaft 315mm)	

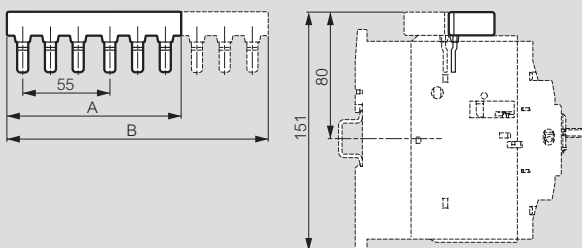


Phase Bus

Cat.Nos 4 174 71/73/75/76



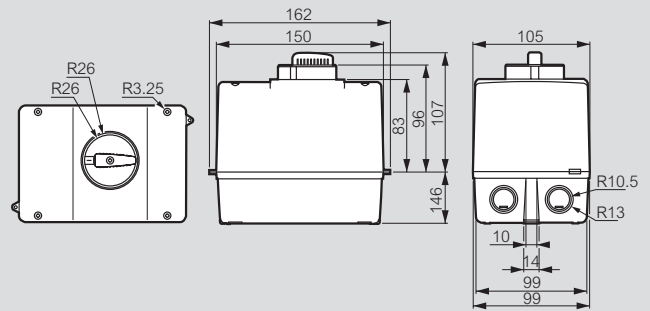
Cat.Nos 4 174 72/74



Cat.Nos	Number of MPX ³	A (mm)	B (mm)
4 174 71	2	85	-
4 174 72	3	-	130
4 174 73	2	110	-
4 174 74	3	-	165
4 174 75	4	-	175
4 174 76	5	-	220

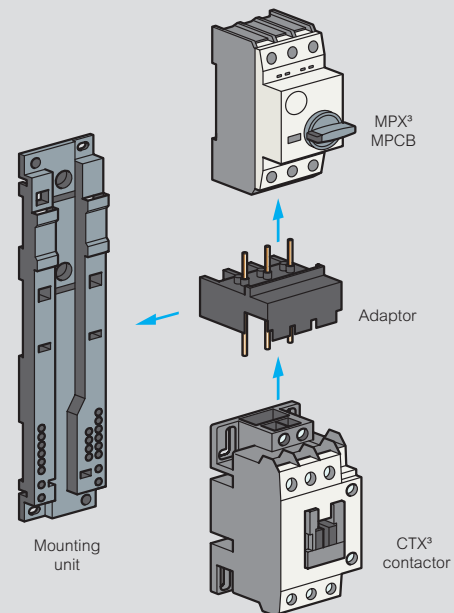
Enclosure

Cat.Nos 4 174 80/81



Mounting units - installation principle

Cat.Nos 4 174 60/61/62



MPX ³ MPCB	CTX ³ contactor	Adaptor	Mounting unit
MPX ³ 32S	CTX ³ mini ~	4 174 40	4 174 60
	CTX ³ mini =	4 174 41	
	CTX ³ 22 ~	4 174 48	
	CTX ³ 22 =	4 174 49	
	CTX ³ 40 ~	4 174 52	
MPX ³ 32H/MA	CTX ³ 40 =	4 174 53	4 174 60
	CTX ³ mini ~	4 174 42	
	CTX ³ mini =	4 174 43	
	CTX ³ 22 ~	4 174 50	
	CTX ³ 22 =	4 174 51	
MPX ³ 63H	CTX ³ 40 ~	4 174 54	4 174 61
	CTX ³ 40 =	4 174 55	
	CTX ³ 65 ~	4 174 56	
MPX ³ 100H	CTX ³ 65 =	4 174 57	4 174 62
	CTX ³ 100 ~	4 174 58	
	CTX ³ 100 =	4 174 59	