




447-742 to 808

Energy Control Motor-Protective Circuit-Breakers

Standard pack: 1

1	2	3	4	5	6	7	8	9				
Rated un-interrupted current I_u			Type Article no	Price	Max. AC-3 rating 220 V 380 V 440 V 500 V 660 V 230 V 400 V 690 V 240 V 415 V			Rated un-interrupted current I_u	Overload release setting range I_r	Short-circuit release setting range I_m		
A			For additional actuating voltages Page 35/075		kW	kW	kW	kW	kW	A	A	A

Basic units, 3-pole

40		PKZ 2 026606
40	 SUVA approved	PKZ 2-RT 036966
40		PKZ 2/S (230 V 50 HZ) 063572

Emergency-stop switch
Red handle on yellow background
Lockable in Off position using up to three padlocks (hasp thickness 4-6 mm)

PKZ 2 basic unit with S-PKZ 2 high-capacity contact module fitted (1 M, 1 B)
Supplied mounted on C-PKZ 2 clip plate

Motor-protective trip blocks, 3-pole

With overload release

0.09	0.12	0.18	0.25	0.25	0.6	0.4-0.6	5-8
0.18	0.25	0.25	0.37	0.55	1	0.6-1	8-14
0.25	0.55	0.55	0.8	1.1	1.6	1-1.6	14-22
0.55	0.8	1.1	1.1	1.5	2.4	1.6-2.4	20-35
0.8	1.5	1.5	2.2	3	4	2.4-4	35-55
1.5	2.5	3	3	4	6	4-6	50-80
2.5	4	5	5.5	7.5	10	6-10	80-140
4	7.5	9	10	13.5	16	10-16	130-200
7.5	12.5	12.5	15	22	25	16-25	200-300
7.5	15	17.5	22	22	32	24-32	275-400
11	20	22	24	27	40	32-40	350-500

With overload release, with Hand/Auto position

0.09	0.12	0.18	0.25	0.25	0.6	0.4-0.6	5-8
0.18	0.25	0.25	0.37	0.55	1	0.6-1	8-14
0.25	0.55	0.55	0.8	1.1	1.6	1-1.6	14-22
0.55	0.8	1.1	1.1	1.5	2.4	1.6-2.4	20-35
0.8	1.5	1.5	2.2	3	4	2.4-4	35-55
1.5	2.5	3	3	4	6	4-6	50-80
2.5	4	5	5.5	7.5	10	6-10	80-140
4	7.5	9	10	13.5	16	10-16	130-200
7.5	12.5	12.5	15	22	25	16-25	200-300
7.5	15	17.5	22	22	32	24-32	275-400
11	20	22	24	27	40	32-40	350-500



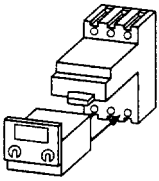
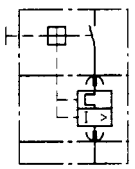
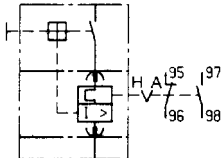
Without overload relay function


















0.6	5-8
1	8-14
1.6	14-22
2.4	20-35
4	35-55
6	50-80
10	80-140
16	130-200
25	200-300
32	275-400
40	350-500

PKZ 2 System Motor Protection Modules

Standard pack: 1 off

d pack. 1 off

	9	10	11	12	13	14	
	Short-circuit release setting range I_m 		Type Article no.	Price	Application notes	Combinations	Page
5-8			ZM-0,6-PKZ 2 024232		Suitable for the protection of EEx e motors PTB Certificate No. 3.53/388.299	 Accessoires 35/064 Circuit for ZM... PKZ 2  ZMR... PKZ 2  H Δ HAND position A Δ AUTO position In EEx e applications the break contact 95/96 must always be used to de-energize the contact module or contactor ZMR...-PKZ 2 motor-protective trip blocks cannot be combined with U/A voltage releases or RE/RS remote operators.	
8-14			ZM-1-PKZ 2 028979		Single-phasing sensitivity to IEC 947-4		
14-22			ZM-1,6-PKZ 2 031352		Overload release, adjustable $I_r = 0.6 - 1.0 \times I_n$		
20-35			ZM-2,4-PKZ 2 033725		Short-circuit release, adjustable $I_m = 8.5 - 14 \times I_n$ factory-set to $12 \times I_n$		
35-55			ZM-4-PKZ 2 036098				
50-80			ZM-6-PKZ 2 038471				
80-140			ZM-10-PKZ 2 040844				
130-220			ZM-16-PKZ 2 043217				
200-350			ZM-25-PKZ 2 045590				
275-425			ZM-32-PKZ 2 047963				
350-500			ZM-40-PKZ 2 050336				
5-8			ZMR-0,6-PKZ 2 033943		Single-phasing sensitivity and overload/short-circuit release settings, see above		
8-14			ZMR-1-PKZ 2 033950		Suitable for the protection of EEx e motors PTB Certificate No. 3.53/388.299 (Appendix 1)		
14-22			ZMR-1,6-PKZ 2 033952		When using motor-protective trip blocks with an overload relay function, the switch does not trip in the event of an overload; instead, a break contact (95/96) is actuated which de-energizes the contactor in the control circuit (suitable for switching contactors ≤ 18.5 kW AC-3).		
20-35			ZMR-2,4-PKZ 2 033955		Simultaneously, a make contact (97/98) is actuated which ensures remote indication. Break and make contacts are suitable for carrying two different potentials. In AUTO operating mode, make and break contacts automatically return to the rest position when the bimetals have cooled. The contactor can be energized again by actuating a push-button, for instance.		
35-55			ZMR-4-PKZ 2 033957				
50-80			ZMR-6-PKZ 2 033966				
80-140			ZMR-10-PKZ 2 033967				
130-220			ZMR-16-PKZ 2 033968				
200-350			ZMR-25-PKZ 2 033969				
275-425			ZMR-32-PKZ 2 033973				
350-500			ZMR-40-PKZ 2 033975				
5-8			M-0,6-PKZ 2 004537		In HAND operating mode, an acknowledgement must be made on the device locally in order to return the contacts to the rest position.		
8-14			M-1-PKZ 2 004538				
14-22			M-1,6-PKZ 2 004539				
20-35			M-2,4-PKZ 2 004540		Short-circuit release, adjustable $I_m = 8.5 - 14 \times I_n$ factory-set to $12 \times I_n$		
35-55			M-4-PKZ 2 004541				
50-80			M-6-PKZ 2 004542				
80-140			M-10-PKZ 2 004543				
130-220			M-16-PKZ 2 004544				
200-350			M-25-PKZ 2 004545				
275-425			M-32-PKZ 2 004546				
350-500			M-40-PKZ 2 004547				

-  **PKZ 0**
-  **35/008**
-  **35/012**
-  **35/016**
-  **35/018**
-  **PKZ 2**
-  **35/030**
-  **35/034**
-  **35/038**
-  **35/044**
-  **35/050**
-  **PKZM 1**
-  **35/058**
-  **35/060**
-  **35/068**
-  **35/080**
-  **35/096**

Energy Control Motor-Protective Circuit-Breakers

Normal switching duty For squirrel-cage motors

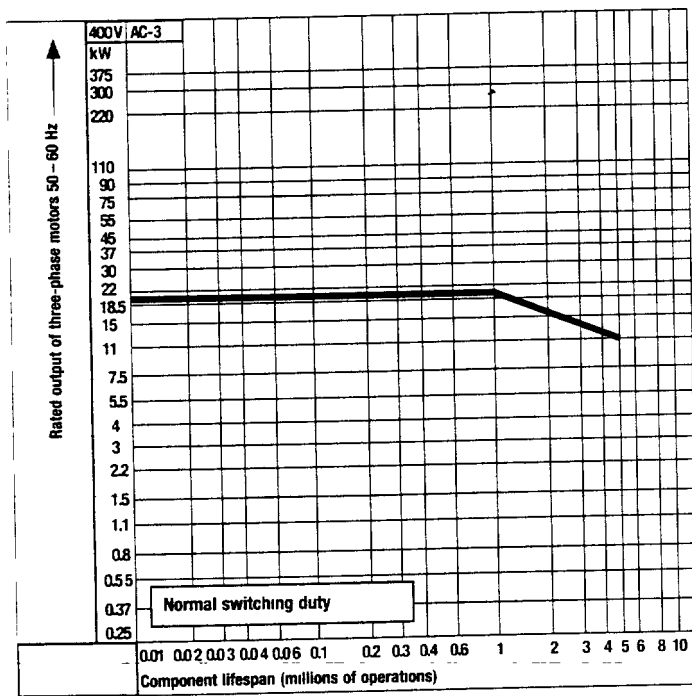
Operating characteristics: Starting: from rest after attaining full running speed
Stopping:

Typical applications: Compressors, Pumps, Fans, Valves, Lifts, Escalators, Conveyors, Bucket-elevators, Mixers, Agitators, Centrifuges, Air-conditioning systems

Drives in general for manufacturing and processing machines

Electrical characteristics: Make: up to 6 x rated motor current
Break: 1 x rated motor current

Utilization category: 99.9% AC-3 + 0.1% AC-4



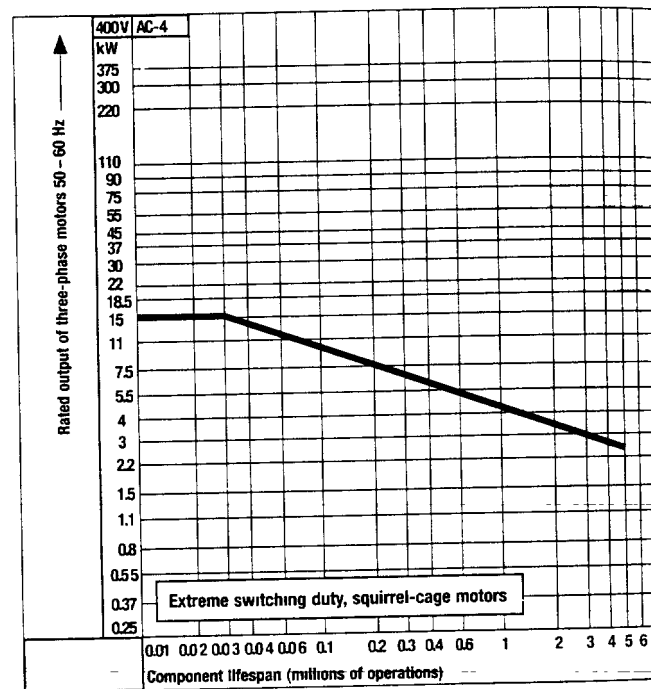
Extreme switching duty For squirrel-cage motors

Operating characteristics: Inching, plugging, reversing

Typical applications: Printing machines, Wire-drawing machines, Centrifuges, Special drives for manufacturing and processing machines

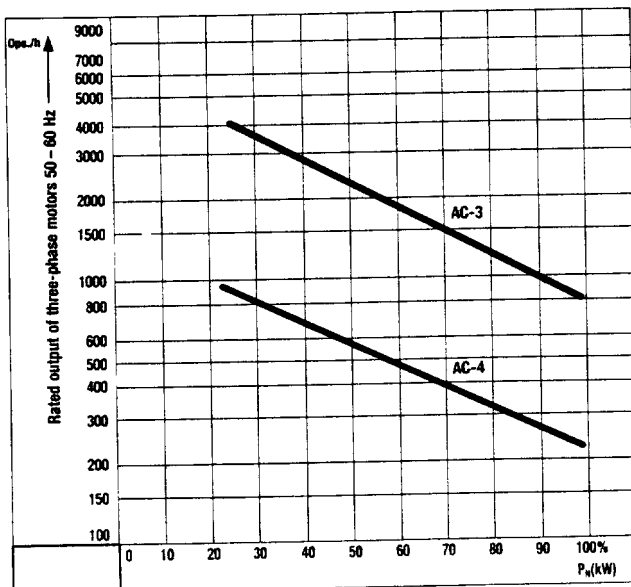
Electrical characteristics: Make: 6 x rated motor current
Break: 6 x rated motor current

Utilization category: 100% AC-4

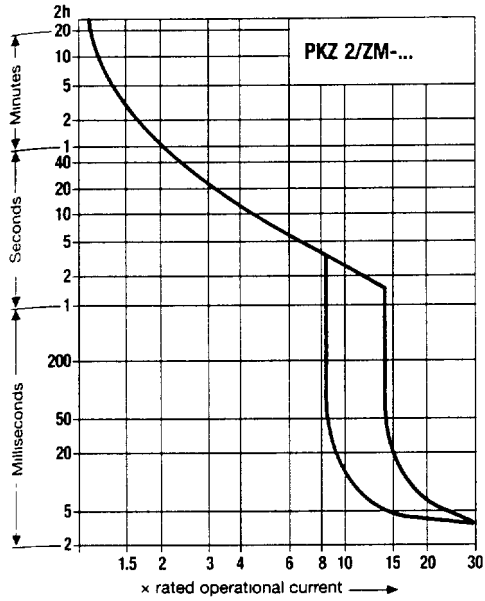


Determination of the maximum number of operations per hour dependent on the switching capacity (approximate values)

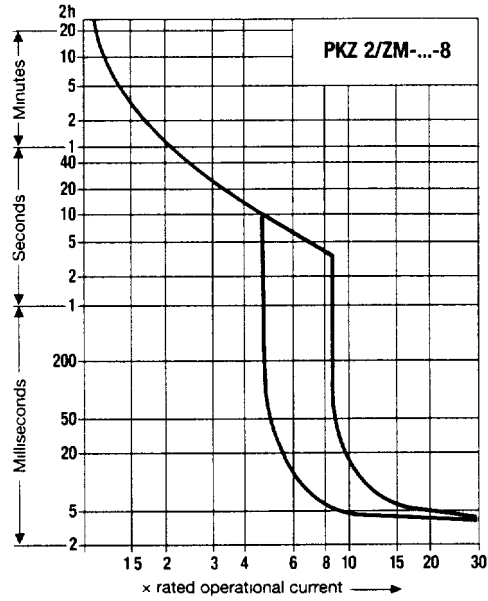
P_N = Max. motor rating (kW)
Ops./h = Max. operating frequency per hour



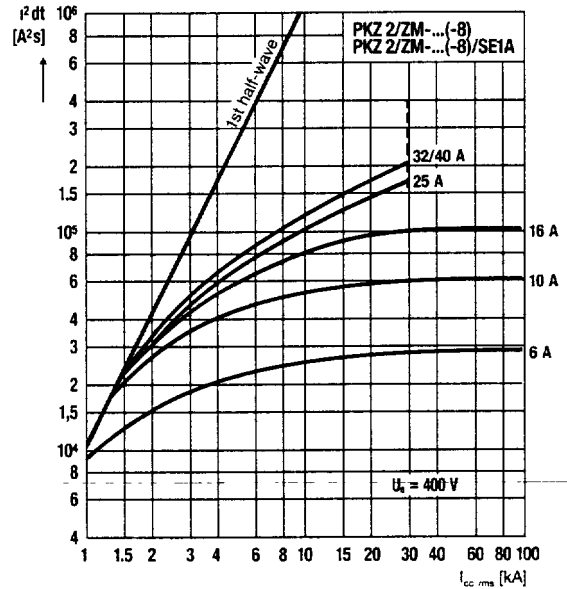
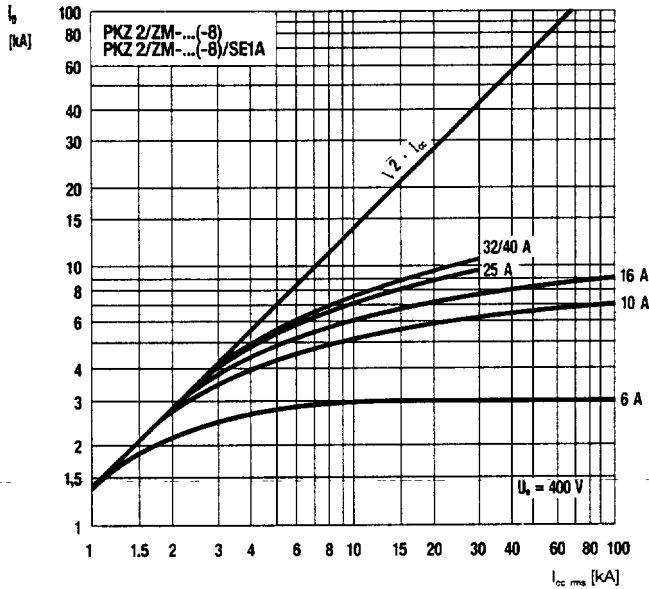
Tripping characteristics, motor protection



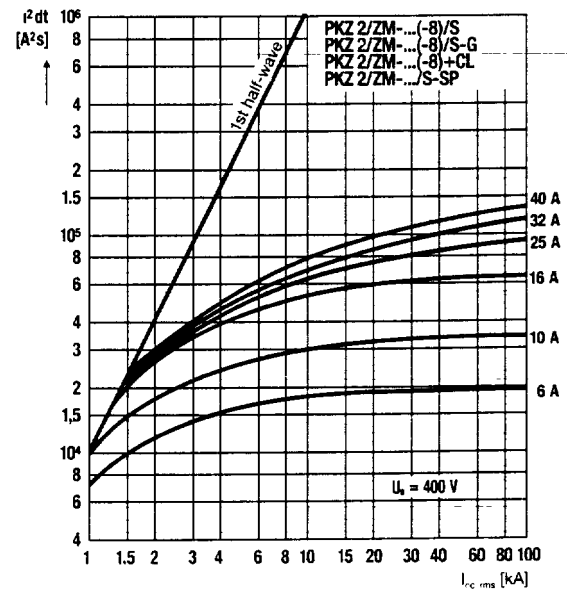
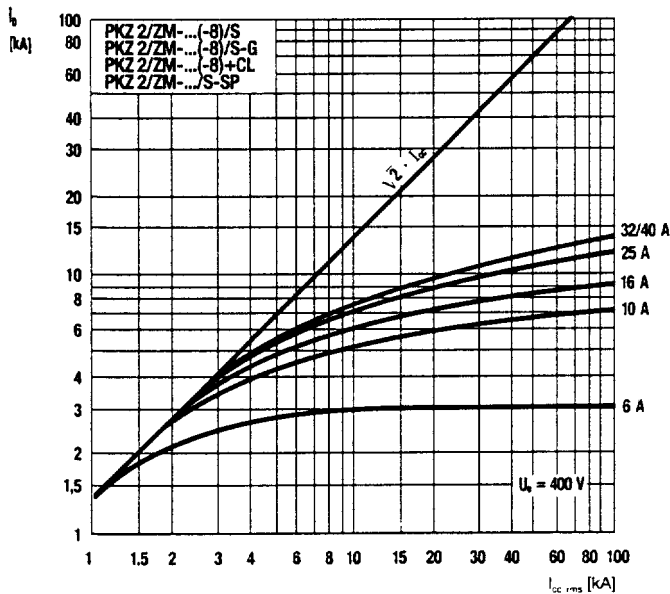
Tripping characteristics, cable and conductor protection



Let-through characteristics, circuit-breakers, compact starters



Let-through characteristics, high-capacity compact starter and circuit-breaker + CL current limiter



Energy Control Motor-Protective Circuit-Breakers

General

Standards

IEC 947, 204-1, 364
(BS) EN 60947, 60204
DIN VDE 0100, 0106 Part 101, 0110, 0113, 0660 Parts 100, 101, 102, 11
UL 508
CSA C 22.2 No. 14
PTB, GL, LRS, BV, GUS, RINA
DEMKO, SEMKO
NEMKO, Finland
Applied for DNV, PRS

Climatic proofing

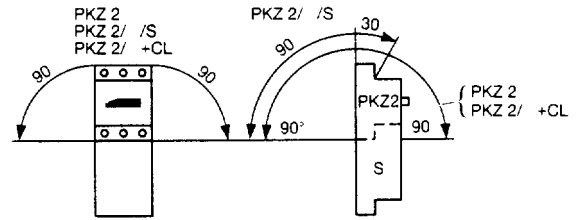
Damp heat to IEC 68 Part 2-3 and 2-30
Dry heat to IEC 68 Part 2-2, 85 °C

Ambient temperature

Storage Max./min. °C
Open Max./min. °C
Enclosed Max./min. °C

+70/-25
+60/-25
+40/-25

Mounting position



Degree of protection, DIN VDE 0106 Part 100

IP 20

Altitude

2000

Terminal capacities

1 conductor: solid, stranded Max./min. mm² 16/1.0
flexible with ferrule Max./min. mm² 10/1.5
2 conductors: solid, stranded Max./min. mm² 6/1.0
flexible with ferrule Max./min. mm² 6/1.5
Max./min. AWG 6/14

Test gauge to EN 50 027

B6

Specified tightening torque for terminal screws

Main cable Nm 1.7
Control circuit cable Nm 1.0

Rated short-circuit breaking capacity I_{cn}

Rated uninterrupted current I_u

Rated ultimate short-circuit breaking capacity I_{cu} /
rated service short-circuit breaking capacity I_{cs}

Back-up fuse aM or gL required when the short-circuit current exceeds the rated short-circuit breaking capacity of the PKZ 2. $I_{cc} > I_{cn}$

	220 V~	380 V~	440 V~	500 V~	660 V~
	230 V~	400 V~		690 V~	
	240 V~	415 V~			
A	kA	kA	kA	kA	kA

	220 V~	380 V~	440 V~	500 V~	660 V~
	230 V~	400 V~	440 V~	500 V~	690 V~
	240 V~	415 V~			
A	A	A	A	A	A

PKZ 2/ZM-...(-8) circuit-breaker and PKZ 2/ZM-...(-8)/SE 1A... compact starter PKZ 2/ZM-...(-8)/SE 1A-G compact starter

0.6	No back-up fuse required Inherently short-circuit-proof up to 100 kA					No back-up fuse required Inherently short-circuit-proof up to 100 kA				
1										
1.6										
2.4										
4						63				
6						80				
10	I_{cs} 30	I_{cs} 30	10/5	7/3.5	4.5/2.5	80		80	80	80
16	I_{cs} 30	I_{cs} 30	10/5	7/3.5	4.5/2.5	100		100	100	100
25	30/7.5	30/7.5	10/5	7/3.5	4.5/2.5	160	160	125	125	125
32	30/7.5	30/7.5	10/5	7/3.5	4.5/2.5	160	160	160	160	160
40	30/7.5	30/7.5	10/5	7/3.5	4.5/2.5	160	160	160	160	160

PKZ 2/ZM-...(-8)/S high-capacity compact starter and PKZ 2/ZM-...(-8) + CL circuit-breaker with current limiter PKZ 2/ZM-...(-8)/S-G high-capacity compact starter

0.6-2.4	No back-up fuse required Inherently short-circuit-proof up to 100 kA	10/5	No back-up fuse required Inherently short-circuit-proof up to 100 kA	80
4-6		10/5		100
10-16		10/5		160
25-40		10/5		160

PKZ 2 System Technical Data

1, 102, 107

Main contacts

Rated impulse withstand voltage U_{imp} V

Overtoltage category/pollution degree

Rated operational voltage U_o V~

Rated uninterrupted current $I_u =$ A

rated operational current I_o Hz

Frequency

Number of poles

Mechanical shock resistance (shock duration 20 ms) g
IEC 68-2-27

Current heat losses 3-pole at operational temperature W

Mechanical lifespan Operations

Electrical lifespan AC-3 Operations

AC-4 Operations

Max operating frequency Ops./hour

Operating times under short-circuit conditions

Minimum command time Approx. ms

Opening delay Approx. ms

Total opening time Approx. ms

Starter combination, type 2 coordination

Motor switching capacity AC-3 V~
DC-5 V-
A-

D.C. application.

Rated short-circuit breaking capacity I_{cn} (250 V DC) L/R = 15 ms kA

I_{cn} (125 V DC) kA

Trip blocks

Temperature compensation °C

Temperature compensation residual error %/K

Inherently short-circuit-proof range

Short-circuit release tolerance %

ZM- -PKZ 2, ZMR- -PKZ 2 motor-protective trip blocks

Adjustable overload releases

Adjustable short-circuit releases

Single-phasing sensitivity

ZM-..-8-PKZ 2 trip block for distribution circuit protection

Adjustable overload releases

Adjustable short-circuit releases

SE 1A...-PKZ 2, contact module

S-PKZ 2 high-capacity contact module

For differentiating feature, see Page 35/045, column 10

For different rated short-circuit breaking capacity in combination with circuit-breaker, see Page 35/088

Rated coil voltage 50/60 Hz V~

Operating range a.c.

Power consumption a.c. VA

Duty factor %

Operating times Closing delay ms

Opening delay ms

Rated making capacity $\cos \varphi = 0.45$ A

Rated breaking capacity $\cos \varphi = 0.45$ A

AC-1 duty A

Conventional free air thermal current $I_{th} = I_o$

Open, enclosed

16 $\frac{2}{3}$ - 400 Hz

AC-3/4 duty, 50 - 60 Hz

Rated operational current I_o

Open, enclosed

230 V~ A

400 V~ A

440 V~ A

500 V~ A

690 V~ A

Dual-frequency coil 50/60 Hz

Mechanical lifespan reduced by 30 %

Irrespective of direction of current flow

6000

III/3

690

40

50 - 60

3, 4

Circuit-breaker: 30

Compact starter: 8

High-capacity compact starter: 8

Circuit-breaker: 14

Compact starter: 23

High-capacity compact starter: 23

Circuit-breaker: 0.1 x 10⁶

Contact module 5 x 10⁶

High-capacity compact starter 5 x 10⁶

Circuit-breaker: 0.05 x 10⁶

Contact module: 1 x 10⁶ 20 kW

High-capacity compact starter: 1 x 10⁶ 20 kW

Contact module: 0.03 x 10⁶ 15 kW

High-capacity compact starter: 0.03 x 10⁶ 15 kW

Contact module characteristic, Page 35/087

High-capacity compact starter characteristic, Page 35/087

PKZ 2/ZM-...(-8)/S

PKZ 2/ZM-...(-8)

2

2

0.5

0.5

6

4

400 V 100 kA

IEC 947, EN 60947,
DIN VDE 0660 Part 102

Max. 690

Max. 250

Max. 40

PKZ 2/ZM- (+8)

PKZ 2/ZM- (+8)/S(+CL)

30

50

50

65

- 5 ... + 40

0.25

Up to 16 A at 400 V~

±20

0.6 - 1.0 x I_u

8.5 - 14 x I_u

IEC 947-4, DIN VDE 0660 Part 102

0.6 - 1.0 x I_u

5 - 8.5 x I_u

24 - 500

Pick-up 0.85 - 1.1 x U_s

Drop-out 0.4 - 0.6 x U_s

Pick-up ≤ 190

Seal ≤ 13

100

9 - 30

4 - 12

400

400

400

40

40

40

40

40

40

40

40

40

40

40

40

40

40

40

40

40

PKZ 0



35/008



35/012



35/016



35/018

PKZ 2



35/030



35/034



35/038



35/044



35/050

PKZM 1



35/058



35/060

35/068



35/080



35/096

Energy Control Motor-Protective Circuit-Breakers

SE 1A-G-10-PKZ 2 contact module
S-G-PKZ 2 high-capacity contact module
 For differentiating feature, see Page 35/045 column 2

S-G-PKZ 2 (24 V DC)
SE1A-G-10-PKZ 2
(24 V DC)

S-G-PKZ 2 (48 V DC)
SE1A-G-10-PKZ 2
(48 V DC)

			S-G-PKZ 2 (24 V DC) SE1A-G-10-PKZ 2 (24 V DC)	S-G-PKZ 2 (48 V DC) SE1A-G-10-PKZ 2 (48 V DC)
Rated coil voltage DC	V-		24	48
Pick-up	VA		150	150
Pick-up current	A		6.3 (16 - 22 ms)	3.3 (16 - 22 ms)
Sealing	W		2.7	2.8
Sealing current	mA		113	60
Auxiliary contacts				
Rated impulse withstand voltage U_{imp}	V		6000	
Overvoltage category/pollution degree			III/3	
Rated operational voltage U_o	V~		500	
Conventional free air thermal current I_n	A		6	
Rated operational current I_o AC-15 230/240-400/415-440/500 V 50 Hz				
		NHI 11-PKZ 2 NHI 11S-PKZ 2 NHI 2-11S-PKZ 2 HI 11S/EZ-PKZ 2	A	6 - 3 - 1.5
		NHI 22-PKZ 2 NHI 22S-PKZ 2 HI 11-S-PKZ 2 HI 20-S-PKZ 2	A	6 - 1.5 - 1.5
		AGM 2-11-PKZ 2	A	5 - 3 - 1.5
		ZMR-...PKZ2 95-96	A	1.5 - 0.7 - 0.5
		97-98	A	1.5 - 0.5 - 0.3
		ZMR-...PKZ 2 DC-13 24-60-110-220 V L/R ≤ 200 ms	A	1-0.8-0.7-0.3
Lifespan	mechanical		Operations	NHI .., NHI. S: 100000; AGM: 10000 NHI 2-11S, HI 11-S/EZ, HI...S: 5×10^6 ZMR-...: 10000
	electrical		Operations	NHI..., NHI. S. 50000; AGM. 5000 NHI 2-11S, HI 11-S/EZ, HI...S: 1×10^6 ZMR-...: 5000
Control by programmable controller			Control circuit reliability throughout entire mechanical lifespan Rated values $U_{imp} = 24$ V DC $I = 10$ mA, Voltage range to DIN 19 240	
Short-circuit rating without welding: Fuseless			With PKZM 1-6 : 240 V PKZM 1-4 : 415 V PKZM 1-1.6 : 500 V	
Fuse (gL)			A	10
Terminal capacities 1 conductor or 2 conductors solid and flexible with ferrule		Max./min. mm ² Max./min. AWG		2.5/0.5 14/22
Test gauge to EN 50 027				A2

(DC)
2

RE-PKZ 2 and RS-PKZ 2 remote operators

Rated impulse withstand voltage U_{imp}	V	6000
Overvoltage category/pollution degree		III/3
Rated operational voltage U_s AC (50/60 Hz), DC	V~ / V-	24 - 240
U_s AC (50/60 Hz)	V~	380 - 440
Required short-time rating	VA/W	700 30 ms
AC/DC		
Control transformer short-time rating	VA	1000 → STI 0,4 (primary/secondary voltage)
Short-circuit voltage	%	3.9 see Page 42/004
Make time	ms	≤ 30
Break time	ms	≤ 30
Reset time to Off	ms	≤ 30
Operating frequency	Ops./h	60
Operating range a.c.		0.85 - 1.1 × U_s
d.c.		0.85 - 1 × U_s
Lifespan, electrical	Operations	50 000
Integral auxiliary contacts Hand/Auto 33/34		
Conventional free air thermal current I_m	A	1.5
Rated operational current I_s		
AC-14 230/240 400/415 440 V 50 Hz	A	1.5 - 1 - 0.5
Terminal capacities		
1 conductor or 2 conductors		
solid and flexible with ferrule	Max./min. mm ² Max./min. AWG	2.5/0.5 22/14

RE-PKZ 2: Power section and control section separate, but with same potential (5 terminals) (see Page 35/042)
Upon actuation the **power section** is supplied directly from the mains system (**700 VA/W 30 ms**)
Control section can be operated by:

Control power consumption of RE-PKZ 2: VA/W

RS-PKZ 2: Power section and control section (always 24 V DC) galvanically isolated from each other (5 terminals) (see Page 35/042)
Upon actuation the **power section** is supplied directly from the mains system (**700 VA/W 30 ms**)
Control section can be operated by:

Control power consumption of RS-PKZ 2: W

Voltage releases

Rated impulse withstand voltage U_{imp}	V	6000
Overvoltage category/pollution degree		III/3
Rated operational voltage U_s AC (50/60 Hz)	V~	24 - 600
DC	V-	A-PKZ 2 24 - 250, U-PKZ 2 24 - 125

Terminal capacities		
1 conductor or 2 conductors		
solid and flexible with ferrule	Max./min. mm ² Max./min. AWG	2.5/0.5 14/22

Shunt releases

Operating range a.c.		0.7 - 1.1 × U_s
d.c.		0.7 - 1.1 × U_s
Power consumption		
Pick-up a.c.	VA	5
Sealing a.c.	VA	3
Pick-up d.c.	W	3
Sealing d.c.	W	0.3

Undervoltage releases

Drop-out voltage		0.7 - 0.35 × U_s
Power consumption		
Pick-up a.c.	VA	5
Sealing a.c.	VA	3
Pick-up d.c.	W	3
Sealing d.c.	W	3

Drop-out delay with UVHI-PKZ 2 ms 200

Rated operational current I_s		
AC-15 230 V - 400 V - 440 V		
U-HI 20-PKZ 2	A	6 - 3 - 1.5
UVHI-PKZ 2		

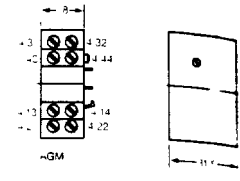
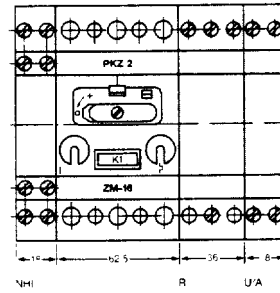
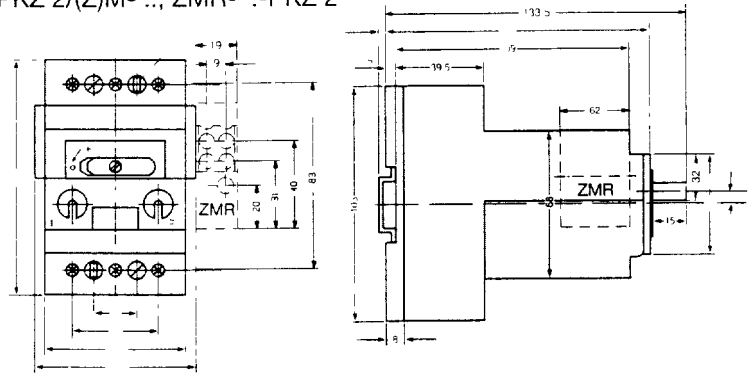
cal lifespan

- PKZ 0 
- 35/008 
- 35/012 
- 35/016 
- 35/018 
- PKZ 2 
- 35/030 
- 35/034 
- 35/038 
- 35/044 
- 35/050 
- PKZM 1 
- 35/058 
- 35/060 
- 35/068 
- 35/080 
- 35/096

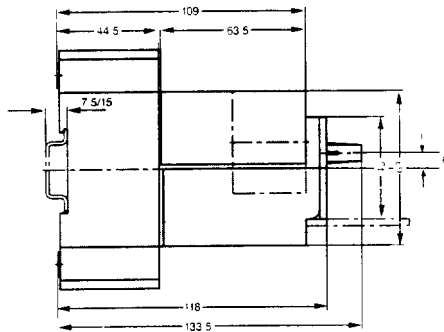
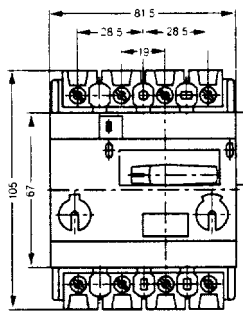
Energy Control Motor-Protective Circuit-Breakers

Circuit-breakers and trip-blocks
PKZ 2/(Z)M-..., ZMR-...-PKZ 2

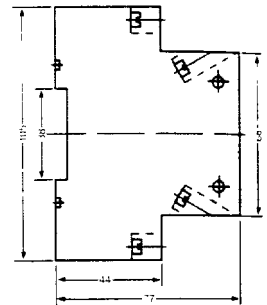
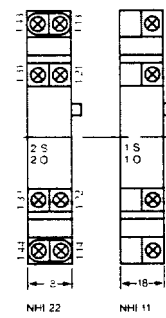
Trip-indicating contact
AGM 2-11-PKZ 2



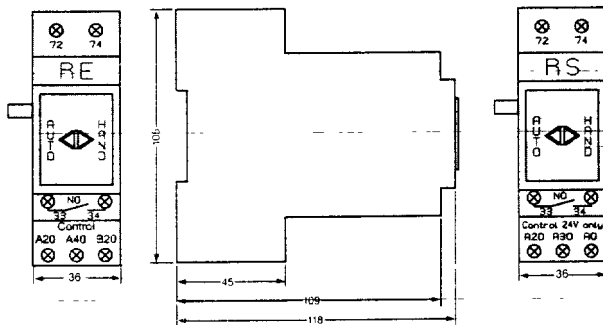
Circuit-breakers
PKZ 24/(Z)M-...



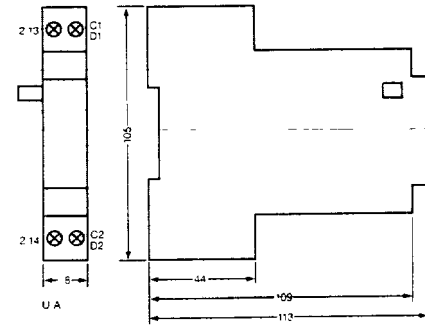
Standard auxiliary contacts
NHI...-PKZ 2



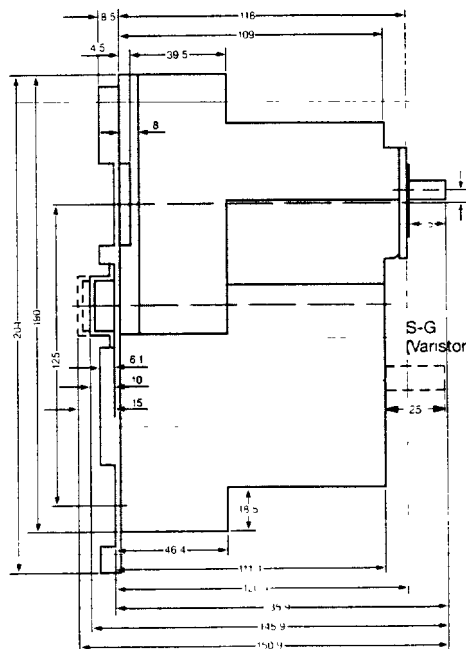
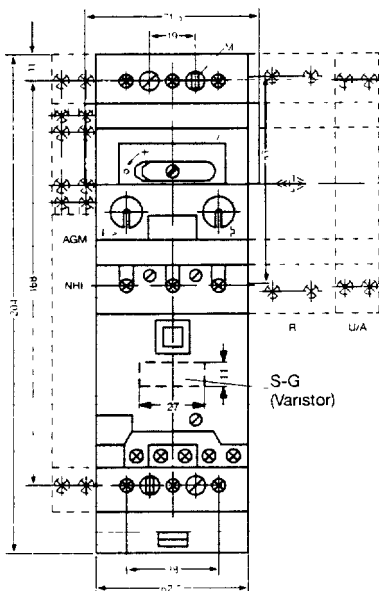
Remote operators
RE-PKZ 2 (...), RS-PKZ 2 (...)



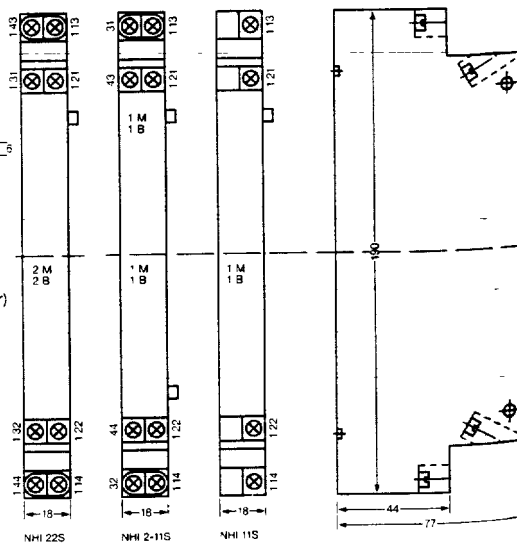
Voltage releases



Starter combinations
PKZ 2/ZM-.../S,
PKZ 2/ZM-.../SE 1A...,
PKZ 2/ZM-.../S-G

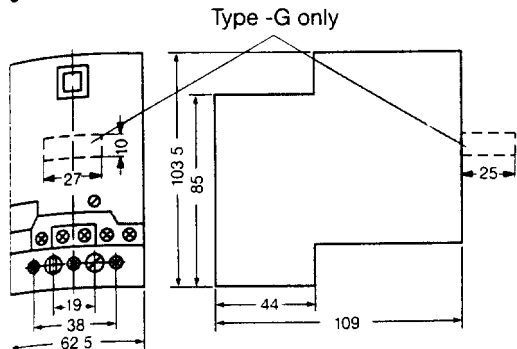


Standard auxiliary contacts, starter combinations
NHI...S-PKZ 2

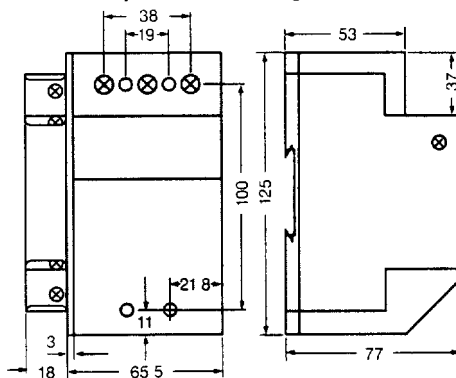


contacts
2

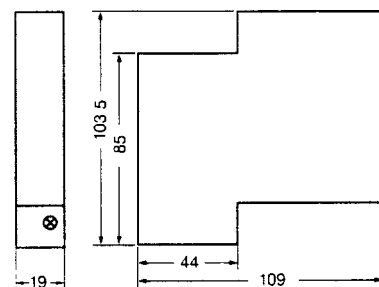
SE1A(-G) contact module/
S(-G) high-capacity contact module/
CL current limiter and DI residual-current relay



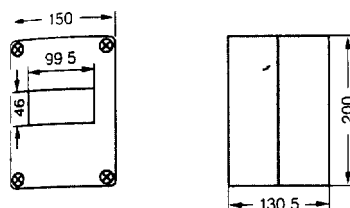
EZ base for separate mounting
HI11-S/EZ standard auxiliary contact
for EZ separate mounting



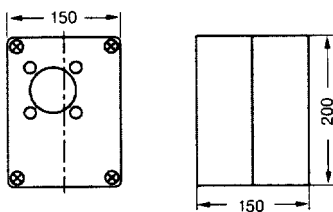
Neutral conductor module for
SE1A(-G) contact module/S(-G) high-
capacity contact module/CL current
limiter and DI residual-current relay



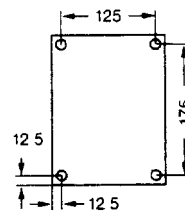
CI enclosure
CI 19 EA IP 40



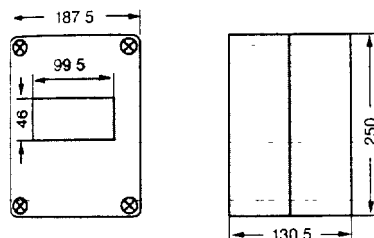
CI 19 EB, CI 19 ED IP 65



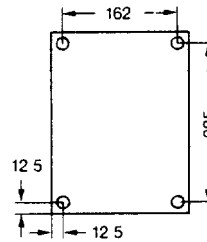
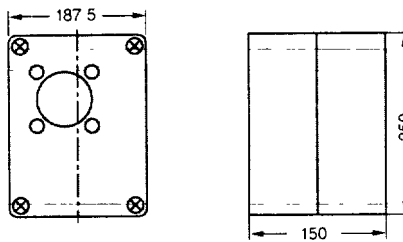
Drilling dimensions



CI 23 EA IP 40

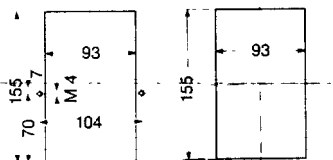
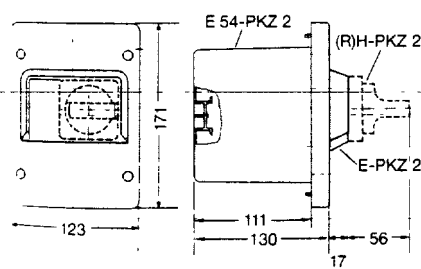


CI 23 EB IP 65



Flush mounting enclosures

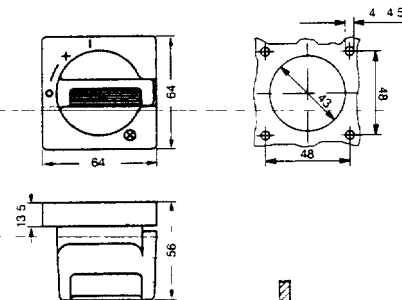
E-PKZ 2 Front IP 41
E 54-PKZ 2 Front IP 54



Mounting aperture
for 1.5 - 50 mm
panel thickness

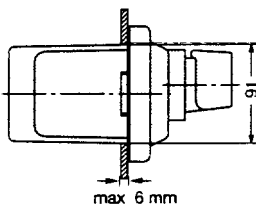
Mounting aperture
for 1.5 - 6 mm
panel thickness

Door coupling handle
(R)H-PKZ 2

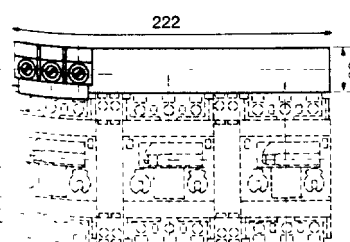


At least 100 mm
to hinge cover

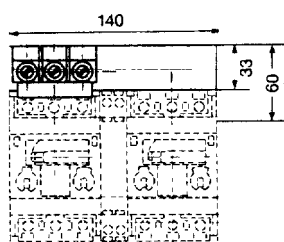
Mounting depth: 133 mm or
171 - 300 mm from top edge
of mounting rail to the
inside of panel door/cover



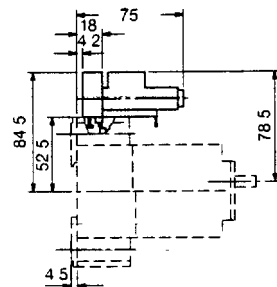
Three-phase commoning link
B 3 1/3 PKZ 2



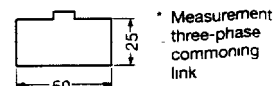
Three-phase commoning link
B 3 1/3 PKZ 2



Terminals
BK 50/3-PKZ 2

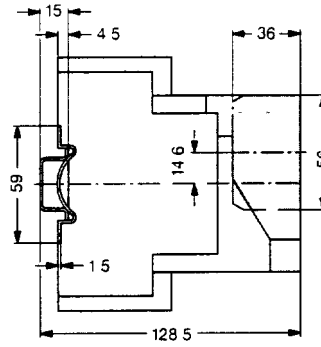
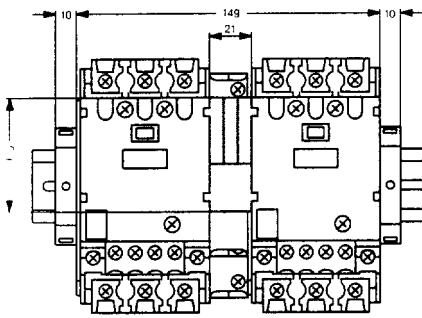


Shroud for unused
terminals
HB 3-PKZ 2

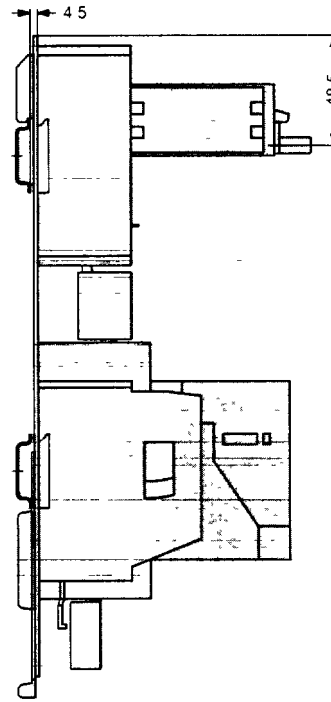
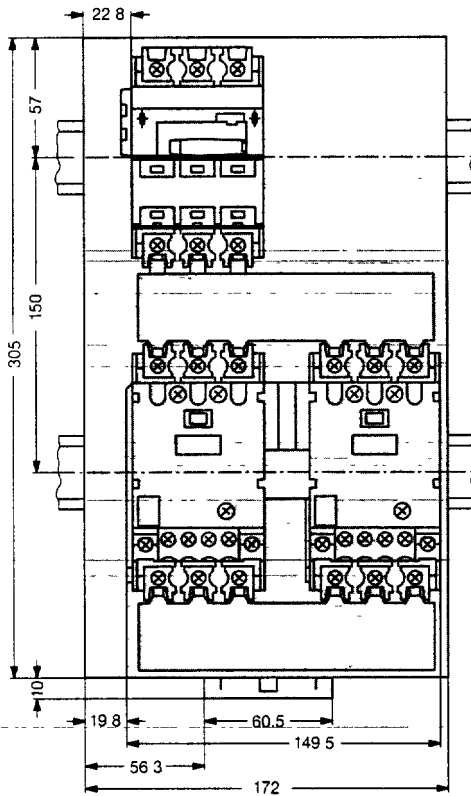


Energy Control Motor-Protective Circuit-Breakers

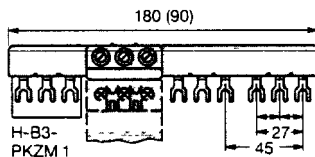
MV-PKZ 2 mechanical interlock for contact module and high-capacity contact module



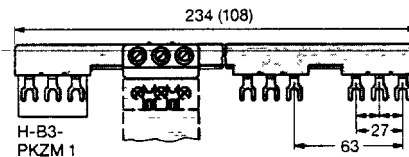
PKZ 2/SW-MV-11 reversing combination
(see Page 36/011)



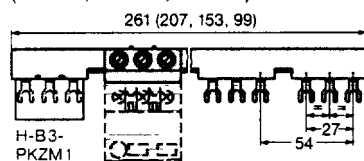
**Three-phase
commoning link**
B3 0/4-PKZ 0
B3.0/2-PKZ 0



**Three-phase
commoning link**
B3 2/4-PKZ 0
B3 2/2-PKZ 0

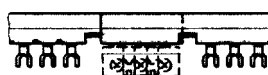
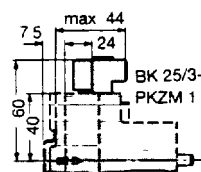


**Three-phase
commoning link**
B3.1/5-PKZM 0
(B3.1/4; B3.1/3; B3.1/2)

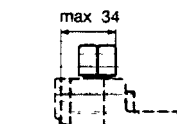


Terminal
BK25/3-PKZM 1

**Shroud for
unused terminals**
H-B3-PKZM 1

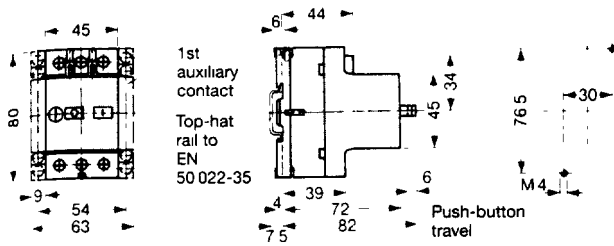


Overlapping mounting
to extend three-phase
commoning link

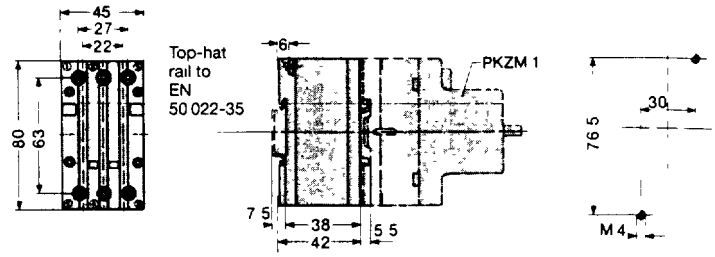


PKZ 0, PKZ 2, PKZM 1 Motor-Protective Circuit-Breakers Dimensions

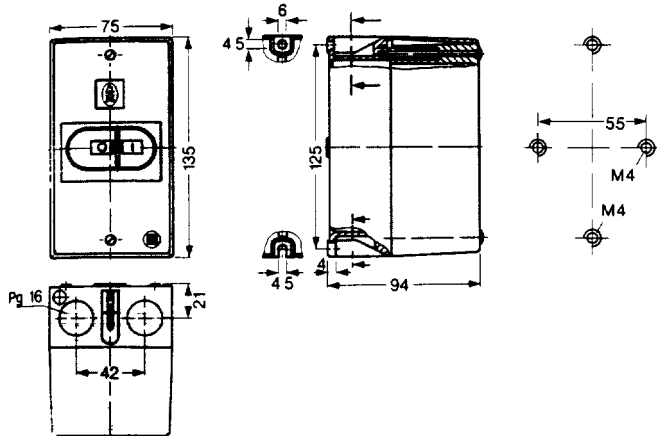
Motor-protective circuit-breaker PKZM 1-...



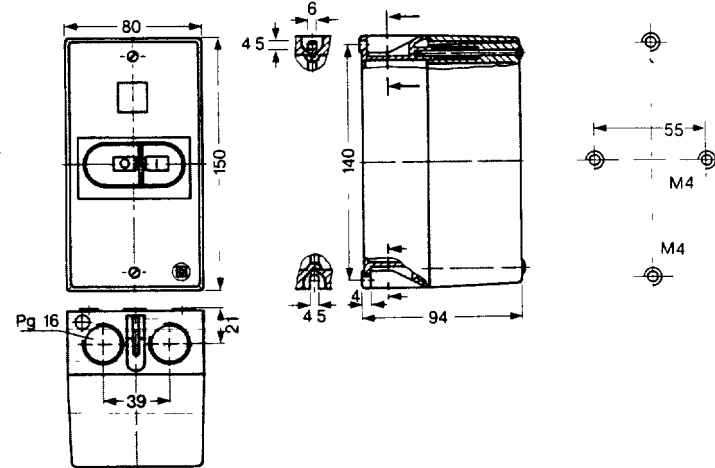
Current limiters CL-PKZM 1



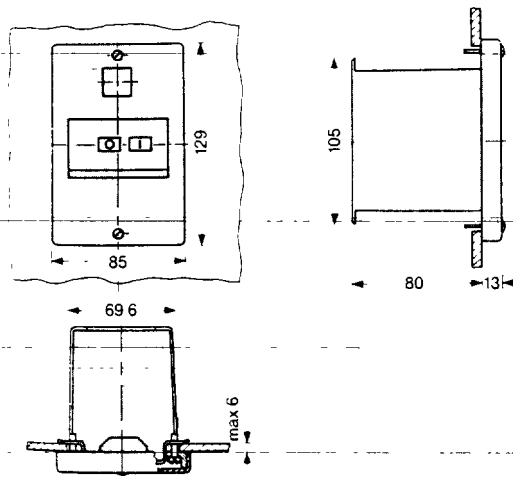
Surface mounting starters CI-PKZM 1 PKZM 1-.../I



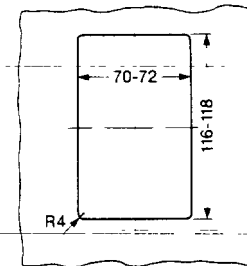
CI 1-PKZM 1 PKZM 1-.../I1-G



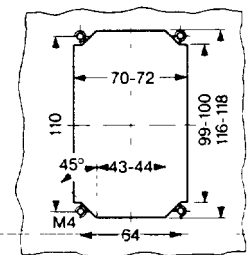
Flush mounting starters E-PKZM 1 PKZM 1-.../E



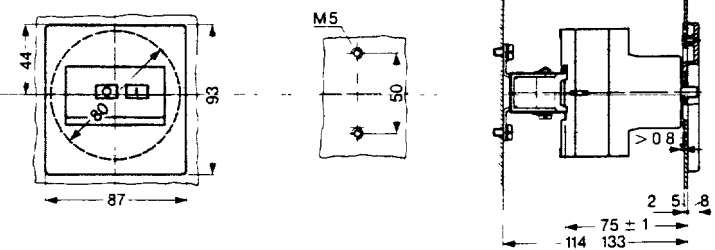
Mounting aperture for 2-6 mm panel thickness



Mounting aperture for 6-20 mm panel thickness or fixing with M 4 x 12 bolts



Rear mounting starters Z-PKZM 1 PKZM 1-.../Z



Emergency-stop operation P-PKZM 1 PS-V-PKZM 1 P-V-PKZM 1

