

Fuse protection and switch disconnectors

Mini-VARIO and VARIO switch disconnectors

Applications	<p>Mini-Vario and Vario rotary switch disconnectors from 12 to 175 A are suitable for on-load making and breaking of utilisation categories AC-3 and DC-3 specific to motors.</p> <p>Vario switch disconnectors are suitable for isolator applications with fully visible breaking (since the handle cannot in the open position).</p>
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Switch type	Mini-VARIO for standard applications		VARIO for high performance applications		
Thermal current	12 A	20 A	12 A	20 A	25 A
Operational current AC-23 A at 400 Volts	8.1 A	11 A	8.1 A	11 A	14.5 A
Number of poles	3...5	3...5	3...6	3...6	3...6
Number of auxiliary contacts	1 or 2	1 or 2	1...4	1...4	1...4
Switch fixing: from the front	Screw fixing, 1 or 4 holes Fixing: 1 x Ø 22.5 hole or 4 x Ø 5.5 screws		Screw fixing, 1 or 4 holes Fixing: 1 x Ø 22.5 hole or 4 x Ø 5.5 screws		
from the back	Clip-on mounting on rail		Clip-on mounting on rail or screw fixing		
Reversible terminal blocks	Yes	Yes	Yes	Yes	Yes
Door mounting	Yes	Yes	Yes	Yes	Yes
Mounting at back of enclosure with door interlock	Yes	Yes	Yes	Yes	Yes
Enclosure reference	V●DN-12	V●DN-20	V●D-02 V●F-02	V●D-01 V●F-01	V●D-0 V●F-0
Product reference	VCFN-12GE	VCFN-20GE	V●F-02GE	V●F-01GE	V●F-0GE
Pages	23008/2 and 23007/2		23008/2 and 23007/2 and 23006/3		

resistive or mixed resistive and inductive circuits where frequent operation is required. They can also be used for direct switching of motors in indicate the “open” position unless all the contacts are actually open and separated by the appropriate isolating distance) and it is possible to padlock the handles



32 A	40 A	63 A	80 A	125 A	175 A
21.8 A	29 A	41.5 A	57 A	68.5 A	83 A
3...6	3...6	3...6	3...6	3 + N + PE	3 + N + PE
1...4	1...4	1...4	1...4	1...4	1...4

Fixing 4 x Ø 5.5 screws

Screw fixing

Yes	Yes	Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes	Yes	Yes
V●D-1 V●F-1	V●D-2 V●F-2	V●F-3	V●F-4	V●F-5	V●F-6
V●F-1GE	V●F-2GE	V●F-3GE	V●F-4GE	V●F-5GE	V●F-6GE

23008/2 and 23007/2 and 23006/3

Switch type		VN-12 VZN-12	V02 VZ-02	VN-20 VZN-20	V01 VZ-01	V0 VZ-0	VVD-0 VVE-0	V1 VZ-1	VVD-1 VVE-1
Environment									
Conforming to standards		IEC 947-3							
Product certifications		UL, CSA, GL							
Protective treatment		"TC"							
Degree of protection with protection shroud		IP 20 conforming to IEC 529							
Ambient air temperature	°C	- 20...+ 50							
Flame resistance		960 °C conforming to IEC 695-2-1							
Shock resistance 1/2 sine wave = 11 ms conforming to IEC 68-2-27		15 gn	30 gn	15 gn	30 gn				
Vibration resistance 10...150 Hz conforming to IEC 68-2-6		5 gn	1 gn	1 gn	1 gn				
Electrical characteristics, a.c. operation									
Rated operational voltage (Ue)	V	690	690	690	690	690	690	690	690
Rated impact withstand voltage (Uimp)	kV	6	8	6	8	8	8	8	8
Conventional thermal currents in free air (Ith) and rated uninterrupted (Iu)	A	12		20		25		32	
Conventional thermal current in enclosure (Ithe)	A	10		16		20		25	
Rated operational power and current									
AC-21A/22A 230...690 V	A	12		20		25		32	
AC-23A 230 V	A/kW	10.6/3		14/4		19.7/5.5		19.7/5.5	
240 V	A/kW	10.6/3		14/4		19.9/5.5		18.9/5.5	
400 V	A/kW	8.1/4		11/5.5		14.5/7.5		21.8/11	
415 V	A/kW	8.1/4		11/5.5		14/7.5		21/11	
500 V	A/kW	8.9/5.5		11.9/7.5		16.7/11		16.7/11	
690 V	A/kW	8.6/7.5		12.3/11		17.5/15		17.5/15	
Rated operational power									
AC-3 230/240 V	kW	1.5	1.5	3	3	4		4	
400/415 V	kW	3	3	4	4	5.5		7.5	
500 V	kW	4	4	5.5	5.5	7.5		7.5	
690 V	kW	4	5.5	5.5	7.5	11		11	
Intermittent duty class		30		30		30		30	
Characteristics in normal operating conditions									
Rated making capacity AC-21A/22A/23A (I rms)	A/400 V	120		200		250		320	
Rated breaking capacity AC-21A/22A/23A (I rms)	A/400 V	120		200		200		250	
Short-circuit characteristics									
Permissible rms short time rating (Icw)	A/400 V/1s	140	300	140	300	300		384	
Rated making capacity under short-circuit conditions (Icm) I peak	kA/400 V	0.5	1	0.5	1	1		1	
Rated conditional short-circuit current (I rms)	kA/400 V	6	10	6	10	10		10	
with aM/gG fuses	A	12		20		25		35	

V2 VZ-2	VVD-2 VVE-2	V3 VZ-3	VVD-3 VVE-3	V4 VZ-4	VVD-4 VVE-4	V5	V6	VZ7 VZ2-0	VZN-05 VZN-06
IEC 947-3								947-5	
UL, CSA, GL									
"TC"									
IP 20 conforming to IEC 529									
- 20...+ 50									
960 °C									
30 gn								-	
1 gn								-	
690	690	690	690	690	690	690	690	690	690
8	8	8	8	8	8	8	8	8	6
40	63	80	125	175	12	6			
32	50	63	100	140	10	4			
40	63	80	125	160	le/AC-15	le/AC-15			
25.8/7.5	50.3/15	61.2/18.5	71.9/22	96.6/30	6 A	6 A			
24.8/7.5	48.2/15	58.5/18.5	68/22	92.7/30	6 A	6 A			
29/15	41.5/22	57/30	68.5/37	83/45	4 A	4 A			
28/15	40/22	55/30	66/37	80/45	4 A	4 A			
28.5/18.5	44/30	54/37	64.5/45	79/55	2 A	2 A			
17.5/15	25/22	33/30	42/37	49/45	1 A	1 A			
5.5	11	15	22	30	-	-			
11	18.5	22	30	37	-	-			
15	22	30	37	45	-	-			
11	18.5	18.5	30	37	-	-			
30	30	30	30	30	-	-			
400	630	800	1250	1750	-	-			
320	500	640	1000	1400	-	-			
480	756	960	1500	2100	-	-			
1	2.1	2.1	2.8	2.8	-	-			
10	10	10	10	10	1	1			
50	63	80	125	200	16	1.6			

Switch type		VN-12 VZN-12	V02 VZ-02	VN-20 VZN-20	V01 VZ-01	V0 VZ-0	VVD-0 VVE-0	V1 VZ-1	VVD-1 VVE-1			
Electrical characteristics, d.c. operation												
Rated operational current												
	DC-1 (L/R = 1ms)	24 V	1 contact	A	12		20		25		32	
				2 contacts	A	12		20		25		32
				3 contacts	A	12		20		25		32
			48 V	1 contact	A	12		20		25		32
				2 contacts	A	12		20		25		32
				3 contacts	A	12		20		25		32
			60 V	1 contact	A	12		20		25		32
				2 contacts	A	12		20		25		32
				3 contacts	A	12		20		25		32
			110 V	1 contact	A	1.5		2		9		10
				2 contacts	A	8		10		12		16
				3 contacts	A	12		20		25		32
		220 V	1 contact	A	1.5		2		2.5		3	
			2 contacts	A	7		8		10		12	
			3 contacts	A	10		14		16		20	
		250 V	1 contact	A	0.6		0.7		0.8		1	
			2 contacts	A	3		4		6		8	
			3 contacts	A	8		10		12		16	
Rated operational current												
	DC-2 to DC-5 (L/R = 1ms)	24 V	1 contact	A	12		20		25		32	
				2 contacts	A	12		20		25		32
				3 contacts	A	12		20		25		32
			48 V	1 contact	A	12		20		25		32
				2 contacts	A	12		20		25		32
				3 contacts	A	12		20		25		32
			60 V	1 contact	A	10		14		16		20
				2 contacts	A	12		20		25		32
				3 contacts	A	12		20		25		32
			110 V	1 contact	A	1.5		2		2.5		3
				2 contacts	A	3		4		5		6
				3 contacts	A	12		20		25		32
			220 V	1 contact	A	0.4		0.5		0.5		0.8
				2 contacts	A	1.4		1.5		1.5		2
				3 contacts	A	1		2		3		4
			250 V	1 contact	A	0.3		0.4		0.5		0.8
				2 contacts	A	0.4		0.6		0.8		1
				3 contacts	A	1.2		2.4		1.6		2
	Other characteristics											
	Mechanical durability		Millions of op. cycles	0.05	0.1	0.05	0.1	0.1	0.1	0.1	0.1	
	Electrical durability in cat. AC-21		Millions of op. cycles	0.05	0.1	0.05	0.1	0.1	0.1	0.1	0.1	
	Electrical durability in cat. DC-1 to 5		Operating cycles	30 000		30 000		30 000		30 000		
	Suitable for isolation			Yes		Yes		Yes		Yes		
	Cabling	Flexible cable + cable end	mm²	4	6	4	6	6	6	6		
Solid cable		mm²	4	10	4	10	10	10	10			
Tightening torque		N.m	0.7	2.1	0.7	2.1	2.1	2.1	2.1			

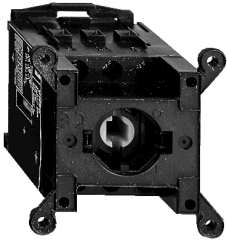
References :
pages 23050/2 to 23054/3

Dimensions, schemes :
pages 23004/2 to 23003/3

V2 VZ-2	VVD-2 VVE-2	V3 VZ-3	VVD-3 VVE-3	V4 VZ-4	VVD-4 VVE-4	V5	V6	VZ7 VZ2-0	VZN-05 VZN-06
40		63		80		125	175	8 (Ie/DC-11)	
40		63		80		125	175	–	
40		63		80		125	175	–	
40		63		80		125	175	8 (Ie/DC-11)	
40		63		80		125	175	–	
40		63		80		125	175	–	
35		40		50		60	70	4 (Ie/DC-11)	
40		63		80		125	175	–	
40		63		80		125	175	–	
12		20		25		30	12	2 (Ie/DC-11)	
20		63		80		125	175	–	
40		63		80		125	175	–	
4		6		8		12	15	1 (Ie/DC-11)	
14		25		30		40	50	–	
25		30		40		80	100	–	
2		4		5		6	10	0.8 (Ie/DC-11)	
12		20		25		30	40	–	
20		30		40		50	61	–	
40		63		80		125	175	–	
40		63		80		125	175	–	
40		63		80		125	175	–	
40		63		80		125	175	–	
40		63		80		125	175	–	
40		63		80		125	175	–	
25		40		50		60	70	–	
40		63		80		125	175	–	
40		63		80		125	175	–	
5		6		8		10	12	–	
8		10		20		22	24	–	
40		50		63		70	80	–	
1		1.5		2		2.2	2.4	–	
3		4		6		7	8	–	
7		10		15		16	13	–	
1		1.2		1.5		1.6	1.8	–	
2		3		6		7	8	–	
6		8		10		12	14	–	
0.1		0.03		0.03		0.03	0.03	0.1	0.05
0.1		0.03		0.03		0.03	0.03	0.1 (AC-15)	0.05
30 000		30 000		30 000		30 000	30 000	30 000 (DC-11)	
Yes		Yes		Yes		Yes	Yes	–	
6		16		16		70	70	2 x 0.75...1.5	
10		25		25		95	95	2 x 1...2.5	
2.1		4		4		22.6	22.6	0.7	

Protection components

Mini-VARIO switch disconnectors for standard applications
Switch bodies, add-on modules (for customer assembly)



VN-20



VZN-11



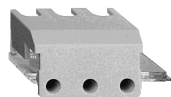
VZN-14



VZN-05



VZN-26



VZN-08

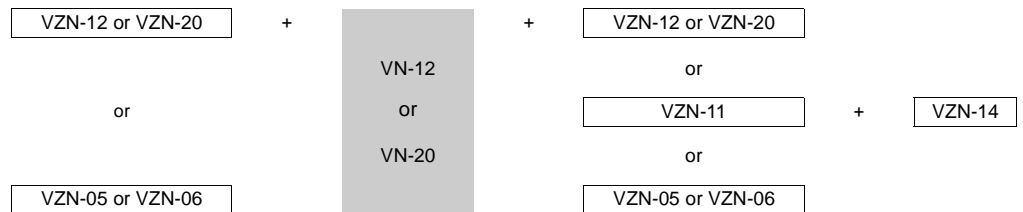
Switch bodies

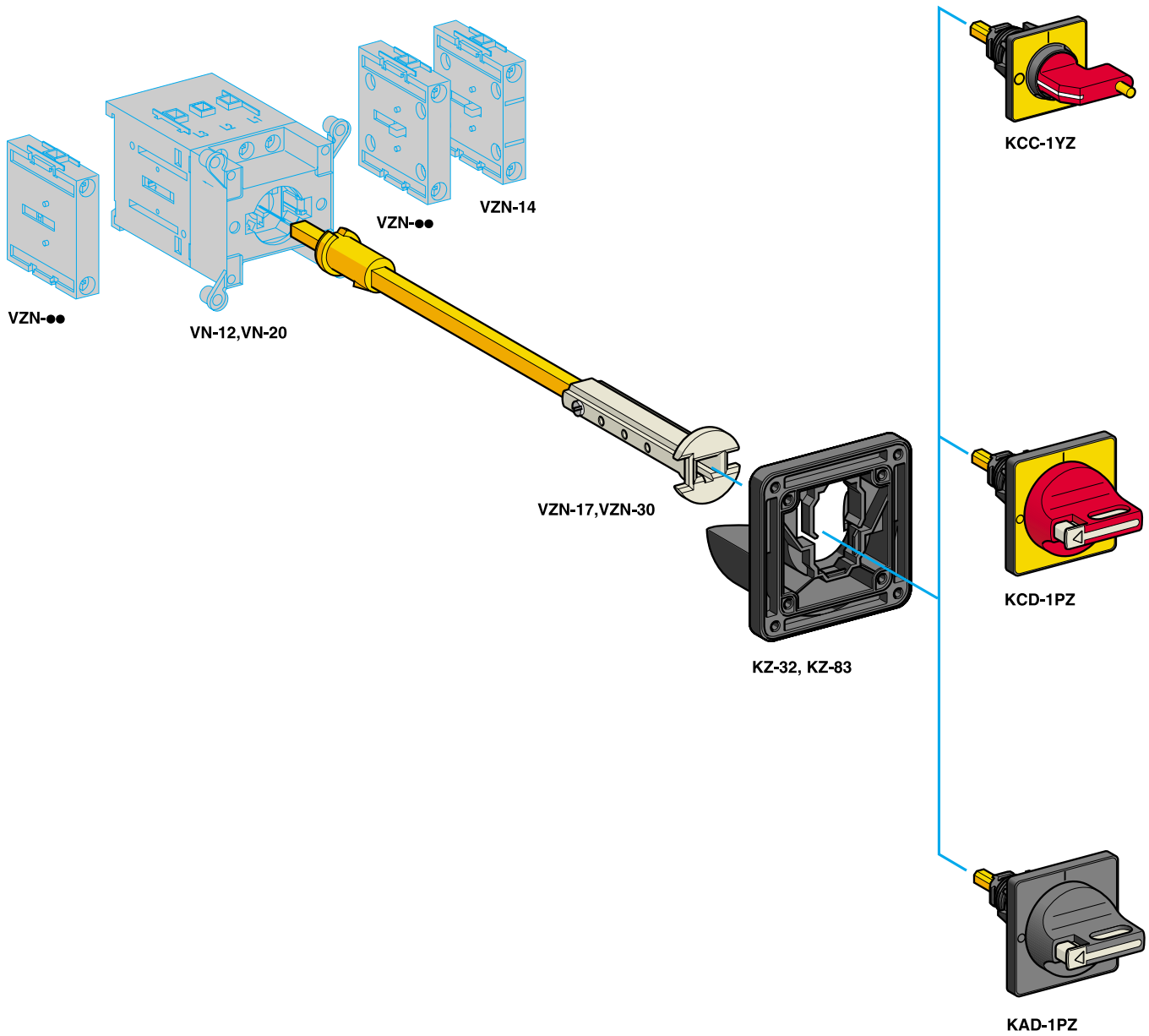
Description	Rating A	Reference	Weight kg
3-pole switch disconnectors	12	VN-12	0.110
	20	VN-20	0.110

Add-on modules

Description	Rating A	Reference	Weight kg
Main pole modules	12	VZN-12	0.020
	20	VZN-20	0.020
Neutral pole module with early make and late break contacts	12 and 20	VZN-11	0.020
Earthing module	12 and 20	VZN-14	0.016
Auxiliary contact block modules	1 N/O late make contact	VZN-05	0.020
	1 N/C early break contact	VZN-06	0.020
Input terminal protection shrouds	For add-on pole modules or auxiliary contact block modules (single-pole shroud)	VZN-26	0.004
	For switch bodies (3-pole switch shroud)	VZN-08	0.007


Maximum number of add-on modules that can be fitted on a switch body





Protection components

Mini-VARIO switch disconnectors for standard applications
Operators and accessories

- Degree of protection IP 65
- Marking on operator 
- Padlockable operating handle (padlocks not supplied)
- Operator fixing by 1 Ø 22.5 hole; for other operators see pages 23005/3 and 23005/5.
- For other accessories and empty enclosures, see pages 23005/6, 23005/7 and 23008/3.

Handles and front plates for main and emergency stop switch disconnectors

Handle	Front plate mm	Reference	Weight kg
Red, padlockable with 1 padlock (Ø 4 to Ø 6)	Yellow 45 x 45	KCC-1YZ	0.050
Red, padlockable with up to 3 padlocks (Ø 4 to Ø 8)	Yellow 60 x 60	KCD-1PZ	0.084

Handle and front plate for main switch disconnectors

Handle	Front plate mm	Reference	Weight kg
Black, padlockable with up to 3 padlocks (Ø 4 to Ø 8)	Black 60 x 60	KAD-1PZ	0.084

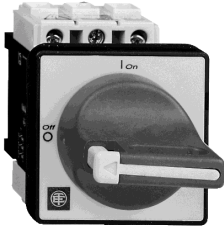
Components for door interlocking

For switch mounted at the back of an enclosure, in addition to a direct operator

Description	Front plate mm	Distance enc. back/ door mm	Sold in lots of	Unit reference	Weight kg
Shaft extension	–	300...330	1	VZN-17	0.100
		400...430	1	VZN-30	0.130
Door interlock plate	45 x 45 or 60 x 60	–	5	KZ-32	0.170
Plate for door mounting	45 x 45 or 60 x 60	–	5	KZ-83	0.205

Protection components

VARIO switch disconnectors for high performance applications
Complete units



VCF-0

- 3-pole rotary switch disconnectors, 12 to 175 A
- Marking on operator $\circ \downarrow$
- Padlockable operating handle (padlocks not supplied)
- Degree of protection IP 65

Main and emergency stop switch disconnectors for door mounting

Handle	Front plate mm	Fixing	Rating A	Reference	Weight kg	
Red, padlockable with up to 3 padlocks (\varnothing 4 to \varnothing 8)	Yellow 60 X 60	\varnothing 22.5	12	VCD-02	0.215	
			20	VCD-01	0.215	
			25	VCD-0	0.215	
			32	VCD-1	0.215	
			40	VCD-2	0.215	
		4 screws		12	VCF-02	0.250
				20	VCF-01	0.250
				25	VCF-0	0.250
				32	VCF-1	0.250
				40	VCF-2	0.250
Red, long, padlockable with up to 3 padlocks (\varnothing 4 to \varnothing 8)	Yellow 90 X 90	4 screws	125	VCF-5	1.200	
			175	VCF-6	1.200	
				63	VCF-3	0.560
				80	VCF-4	0.560



VCF-5

Main and emergency stop switch disconnectors for mounting at back of an enclosure (1)

Red, padlockable with up to 3 padlocks (\varnothing 4 to \varnothing 8)	Yellow 60 X 60	\varnothing 22.5	12	VCCD-02	0.392	
			20	VCCD-01	0.392	
			25	VCCD-0	0.392	
			32	VCCD-1	0.392	
			40	VCCD-2	0.392	
		4 screws		12	VCCF-02	0.527
				20	VCCF-01	0.527
				25	VCCF-0	0.527
				32	VCCF-1	0.527
				40	VCCF-2	0.527
Red, long, padlockable with up to 3 padlocks (\varnothing 4 to \varnothing 8)	Yellow 90 X 90	4 screws	125	VCCF-5	1.320	
			175	VCCF-6	1.320	
				63	VCCF-3	0.440
				80	VCCF-4	0.680

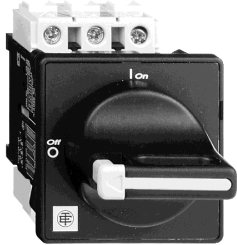


VCCF-0


(1) Unit supplied with a shaft extension VZN-17 and a door interlock plate KZ-32 or KZ-74, see page 23005/6.

Protection components

VARIO switch disconnectors for high performance applications
Complete units



VBD-0

- 3-pole rotary switch disconnectors, 12 to 175 A
- Marking on operator 
- Padlockable operating handle (padlocks not supplied)
- Degree of protection IP 65

Main switch disconnectors for door mounting

Handle	Front plate mm	Fixing	Rating A	Reference	Weight kg	
Black, padlockable with up to 3 padlocks (Ø4 to Ø 8)	Black 60 x 60	Ø 22.5	12	VBD-02	0.215	
			20	VBD-01	0.215	
			25	VBD-0	0.215	
			32	VBD-1	0.215	
			40	VBD-2	0.215	
	4 screws			12	VBF-02	0.250
				20	VBF-01	0.250
				25	VBF-0	0.250
				32	VBF-1	0.250
				40	VBF-2	0.250
			63	VBF-3	0.560	
			80	VBF-4	0.560	
			125	VBF-5	1.200	
Black, long, padlockable with up to 3 padlocks (Ø4 to Ø 8)	Black 90 x 90	4 screws	175	VBF-6	1.200	



VBF-4

Main and emergency stop switch disconnectors

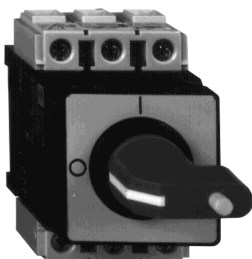
For mounting in an enclosure or for modular distribution boards

Handle	Front plate mm	Rating A	Reference	Weight kg
Red, padlockable with 1 padlock (Ø4 to Ø 6)	Yellow 45 x 45	25	VVE-0	0.250
		32	VVE-1	0.250
		40	VVE-2	0.250
		63	VVE-3	0.530
		80	VVE-4	0.530

Main switch disconnectors

For mounting in an enclosure or for modular distribution boards

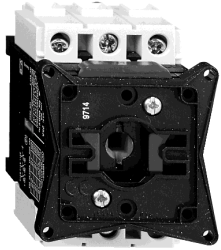
Handle	Front plate mm	Rating A	Reference	Weight kg
Black, not padlockable	Black 45 x 45	25	VVD-0	0.250
		32	VVD-1	0.250
		40	VVD-2	0.250
		63	VVD-3	0.560
		80	VVD-4	0.560



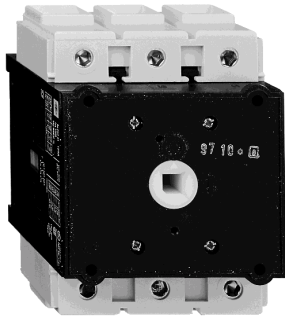
VVE-1

Protection components

VARIO switch disconnectors for high performance applications
Switch bodies, add-on modules, auxiliary contacts
(for customer assembly)



V0



V5



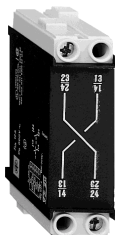
VZ-0



VZ-11



VZ-15



VZ-20

Switch bodies

Description	Rating A	Reference	Weight kg
3-pole switch disconnectors (1)	12	<u>V02</u>	0.200
	20	<u>V01</u>	0.200
	25	<u>V0</u>	0.200
	32	<u>V1</u>	0.200
	40	<u>V2</u>	0.200
	63	<u>V3</u>	0.500
	80	<u>V4</u>	0.500
	125	<u>V5</u>	0.900
	175	<u>V6</u>	0.900

Add-on modules

Main pole modules	12	<u>VZ-02</u>	0.050
	20	<u>VZ-01</u>	0.050
	25	<u>VZ-0</u>	0.050
	32	<u>VZ-1</u>	0.050
	40	<u>VZ-2</u>	0.050
	63	<u>VZ-3</u>	0.100
	80	<u>VZ-4</u>	0.100
Neutral pole modules with early make and late break contacts (1)	12 to 40	<u>VZ-11</u>	0.050
	63 and 80	<u>VZ-12</u>	0.100
	125 and 175	<u>VZ-13</u>	0.250
Earthing modules	12 to 40	<u>VZ-14</u>	0.050
	63 and 80	<u>VZ-15</u>	0.100
	125 and 175	<u>VZ-16</u>	0.250

Auxiliary contact block modules

Auxiliary contact block modules with 2 auxiliary contacts	N/O + N/C (2)	<u>VZ-7</u>	0.050
	N/O + N/O	<u>VZ-20</u>	0.050

(1) Protection shrouds are available if required: see page 23005/6.

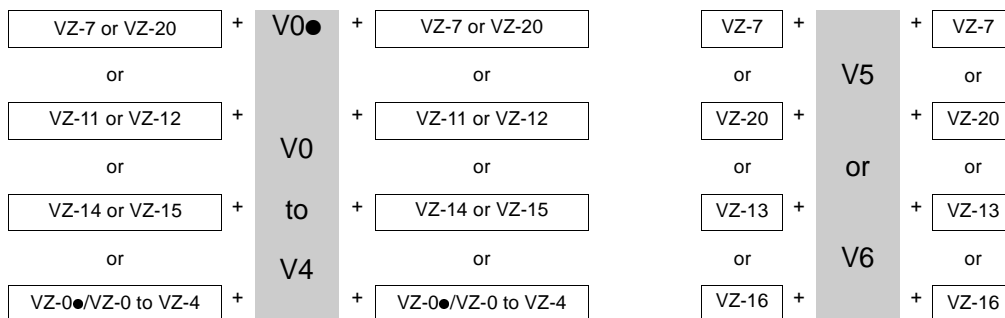
(2) Late make N/O, early break N/C contacts

Protection components

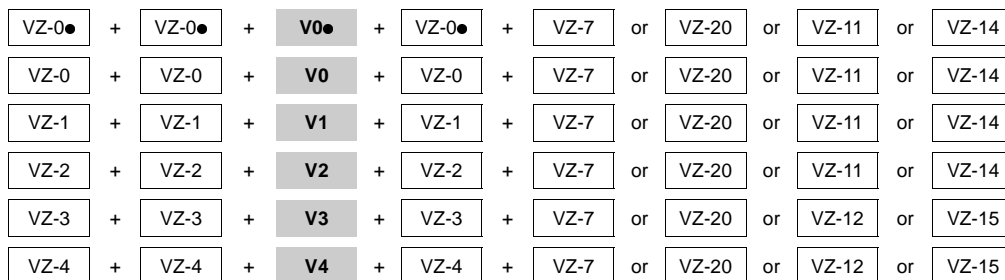
VARIO switch disconnectors for high performance applications
Switch bodies, add-on modules, auxiliary contacts
(for customer assembly)

Maximum number of add-on modules that can be fitted on a switch body

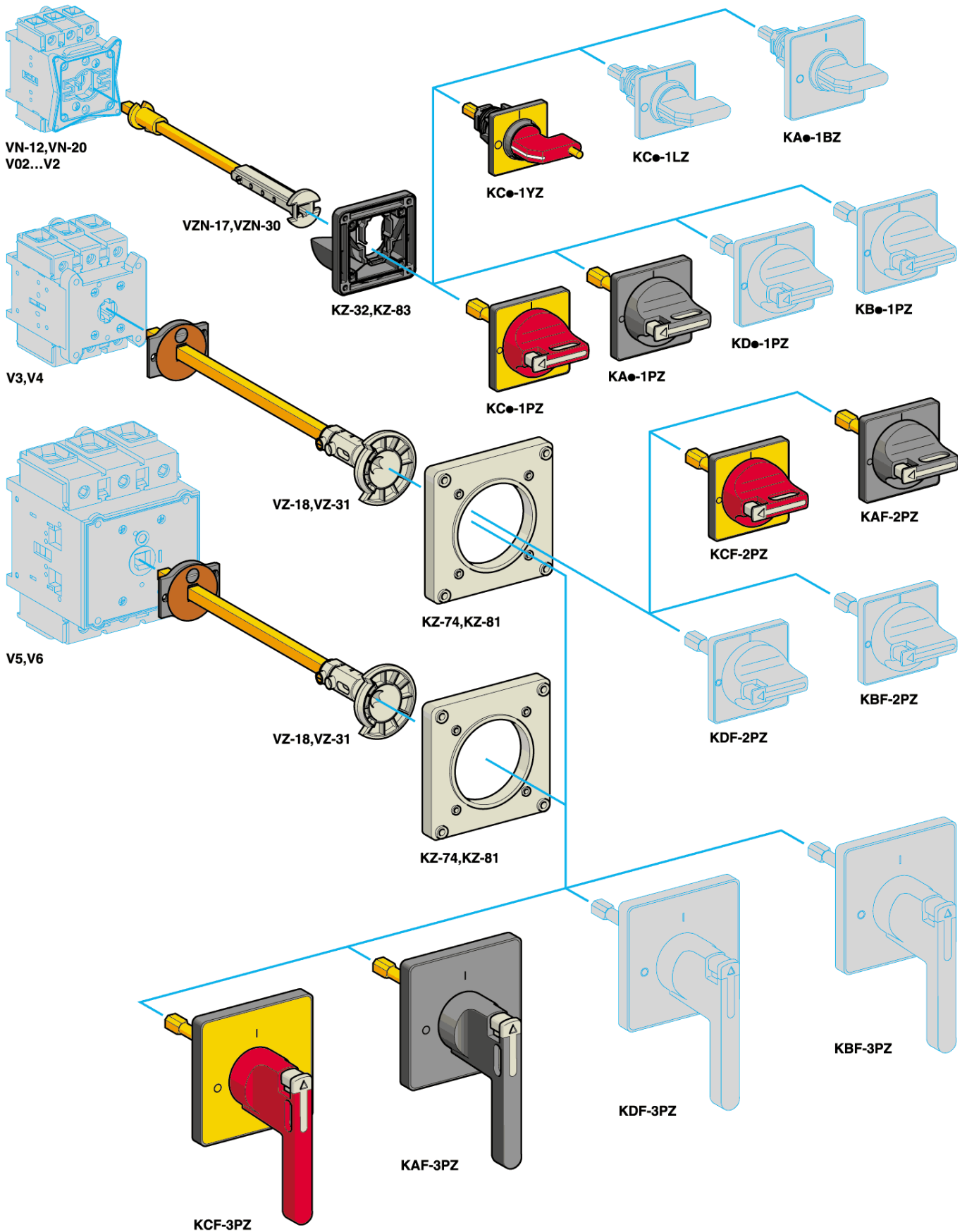
1 add-on module on each side of the switch body



2 add-on modules on each side of the switch body




Note : the add-on modules mounted next to the switch body are main poles. Maximum of 3 main poles per switch body.



Protection components

Mini-VARIO and VARIO switch disconnectors
Operators (for customer assembly)

- Marking on operator 
- Padlockable operating handle (padlocks not supplied)
- Degree of protection IP 65

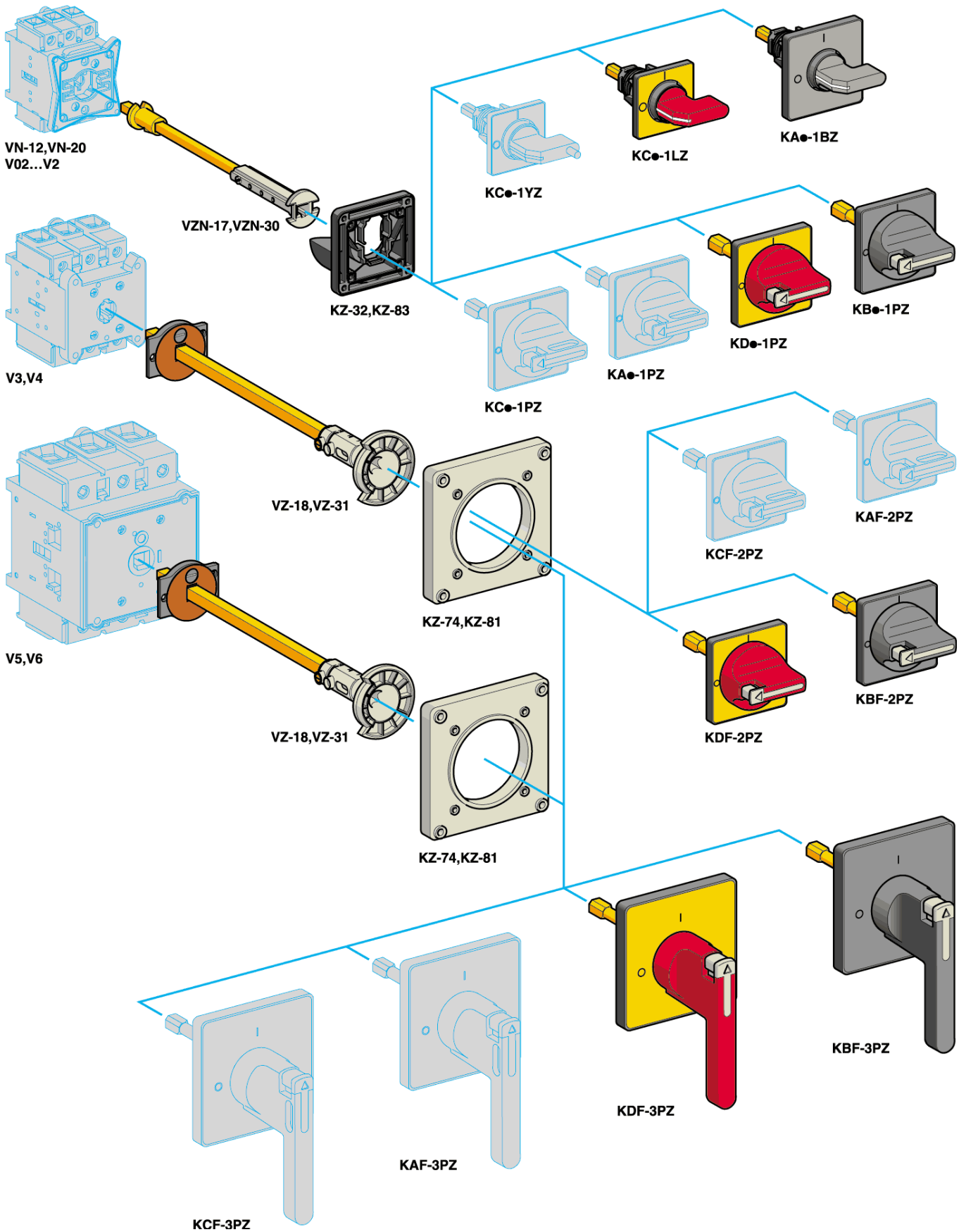
Handles and front plates for main and emergency stop switch disconnectors

For switch body	Operator		Reference	Weight kg
	Handle	Front plate Dimensions mm		
VN-12, VN-20 V02...V2	Red, padlockable with 1 padlock (Ø 4 to Ø 6)	Yellow 45 x 45	Ø 22.5	KCC-1YZ 0.050
			4 screws	KCE-1YZ 0.040
	Red, padlockable with up to 3 padlocks (Ø 4 to Ø 8)	Yellow 60 x 60	Ø 22.5	KCD-1PZ 0.082
			4 screws	KCF-1PZ 0.075
V3 and V4	Red, padlockable with up to 3 padlocks (Ø 4 to Ø 8)	Yellow 60 x 60	4 screws	KCF-2PZ 0.070
V5 and V6	Red, long, padlockable, with up to 3 padlocks (Ø 4 to Ø 8)	Yellow 90 x 90	4 screws	KCF-3PZ (1) 0.160

Handles and front plates for main switch disconnectors


For switch body	Operator		Reference	Weight kg
	Handle	Front plate Dimensions mm		
VN-12, VN-20 V02...V2	Black, padlockable with up to 3 padlocks (Ø 4 to Ø 8)	Black 60 x 60	Ø 22.5	KAD-1PZ 0.082
			4 screws	KAF-1PZ 0.075
V3 and V4	Black, padlockable with up to 3 padlocks (Ø 4 to Ø 8)	Black 60 x 60	4 screws	KAF-2PZ 0.070
V5 and V6	Black, long, padlockable with up to 3 padlocks (Ø 4 to Ø 8)	Black 90 x 90	4 screws	KAF-3PZ (1) 0.160

(1) For door mounting of 63 and 80 A switch disconnectors, adaptor plate KZ-106 must be ordered separately (see page 23005/6).



Protection components

Mini-VARIO and VARIO switch disconnectors
Operators, handles and front plates (for customer assembly)

- Marking on operator 
- Degree of protection IP 65

Handles and front plates for emergency stop switch disconnectors

For switch body	Operator Handle	Front plate		Reference	Weight kg
		Dimensions mm	Fixing		
VN-12, VN-20 V02...V2	Red, not padlockable	Yellow 45 x 45	Ø 22.5	KCC-1LZ	0.050
			4 screws	KCE-1LZ	0.040
		Yellow 60 x 60	Ø 22.5	KDD-1PZ	0.082
			4 screws	KDF-1PZ	0.075
V3 and V4	Red, long, not padlockable	Yellow 60 x 60	4 screws	KDF-2PZ	0.070
V5 and V6	Red, long, not padlockable	Yellow 90 x 90	4 screws	KDF-3PZ (1)	0.160

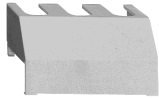
Handles and front plates for switch disconnectors

For switch body	Operator Handle	Front plate		Reference	Weight kg
		Dimensions mm	Fixing		
VN-12, VN-20 V02...V2	Black, not padlockable	Black 45 x 45	Ø 22.5	KAC-1BZ	0.050
			4 screws	KAE-1BZ	0.040
		Black 60 x 60	Ø 22.5	KBD-1PZ	0.055
			4 screws	KBF-1PZ	0.045
V3 and V4	Black, not padlockable	Black 60 x 60	4 screws	KBF-2PZ	0.070
V5 and V6	Black, not padlockable	Black 90 x 90	4 screws	KBF-3PZ (1)	0.160

(1) For door mounting of 63 and 80 A switch disconnectors, adaptor plate KZ-106 must be ordered separately (see next page).

Protection components

Mini-VARIO and VARIO switch disconnectors
Accessories



VZ-8



VZ-26



VZ-18



KZ-32



KZ-81

Input terminal protection shrouds

Description	For use on	Reference	Weight kg
For switch bodies (3-pole shroud)	V02...V2	VZ-8	0.015
	V3 and V4	VZ-9	0.020
	V5 and V6	VZ-10	0.060
For add-on pole modules (single-pole shroud)	VZ-02...VZ-2, VZ-11, VZ-14	VZ-26	0.005
	VZ-3, VZ-4, VZ-12, VZ-15	VZ-27	0.007
	VZ-13, VZ-16	VZ-28	0.020
For contact blocks with 2 auxiliary contacts	–	VZ-29	0.005

Components for door interlocking

For rear fixing switch disconnectors mounted at the back of an enclosure, in addition to a direct operator					
Description	For use on	Distance enc. back/door mm	Sold in lots of	Unit reference	Weight kg
Shaft extensions	VN-12, VN-20 V02...V2	300...330	1	VZN-17 (1)	0.100
		400...430	1	VZN-30 (1)	0.130
	V02...V2	300...330	1	VZ-17	0.075
		400...430	1	VZ-30	0.125
	V3 and V4	300...320	1	VZ-18	0.170
		400...420	1	VZ-31	0.215
V5 and V6	330...350	1	VZ-18	0.170	
	430...450	1	VZ-31	0.215	
Door interlock plates	VN-12, VN-20 V02...V2	–	5	KZ-32	0.177
		V3...V6	–	5	KZ-74
Description	For use on	Front plate dimensions mm	Sold n lots of	Unit reference	Weight kg
Plates for door mounting of handles with 4 screw fixing	VN-12, VN-20 V02...V2	45 x 45 or 60 x 60	5	KZ-83	0.205
		V3 and V4	60 x 60	5	KZ-81
	V3...V6	90 x 90	5	KZ-81	0.010
Adaptor plate for switch disconnectors	V3 and V4	90 x 90	5	KZ-106	0.075

(1) Can be used with V02 to V2 switches manufactured as from week 36/97.

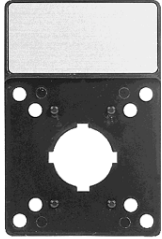
Characteristics :
pages 23011/2 to 23011/5

Dimensions :
pages 23004/2 to 23003/3

Schemes :
pages 24004/3 and 23003/3

3

Protection components

MINI-VARIO and VARIO switch disconnectors
Accessories

KZ-15



KZ-67



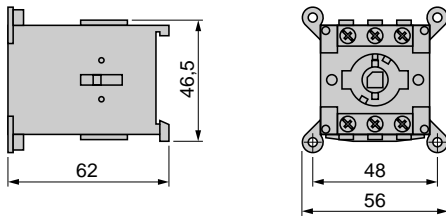
Z01

Accessories for operators

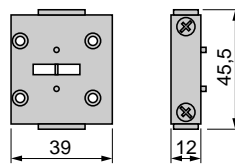
Description	For use on	Front plate dimensions mm	Sold in lots of	Unit reference	Weight kg
Legend bearer with silver coloured blank legend plate	Front plate	45 x 45	5	KZ-13	0.060
		60 x 60	5	KZ-15	0.065
		90 x 90	5	KZ-103	0.070
Legend bearer without legend plate	Front plate	45 x 45	20	KZ-14	0.060
		60 x 60	10	KZ-16	0.065
		90 x 90	5	KZ-101	0.070
Silver coloured blank legend plates for engraving by customer	KZ-14	–	20	KZ-76	0.020
	KZ-16	–	10	KZ-77	0.010
	KZ-101	–	5	KZ-100	0.005
Sealing kit	VN-12, VN-20	45 x 45	5	KZ-65	0.037
	V02...V2	60 x 60	5	KZ-66	0.033
	V3 and V4	60 x 60	5	KZ-62	0.033
	V3...V6	90 x 90	5	KZ-67	0.064
Tightening tool	For operators with Ø 22.5 fixing	–	5	Z01	0.050

Switch disconnectors

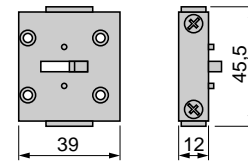
Switch bodies
VN-12, VN-20



Add-on modules
VZN-12, VZN-20



VZN-11, VZN-14
VZN-05, VZN-06

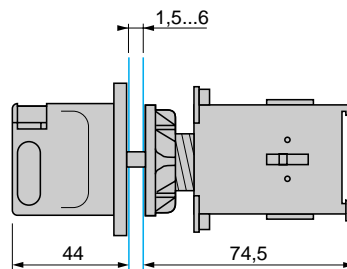
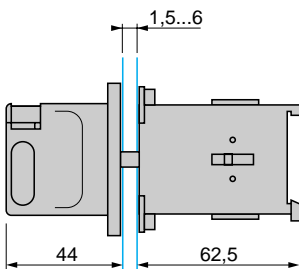


Switch disconnector mounted on enclosure door

VN-12, VN-20

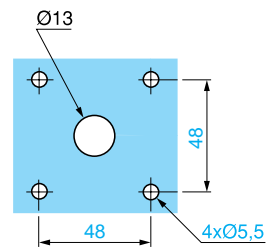
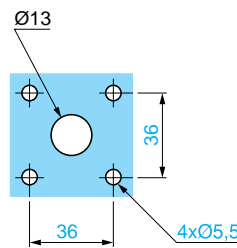
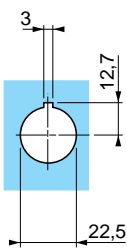
Single hole fixing

4 screw fixing



45 x 45 front plate

60 x 60 front plate

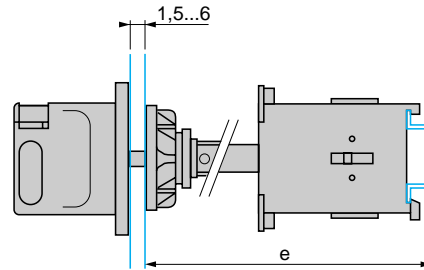
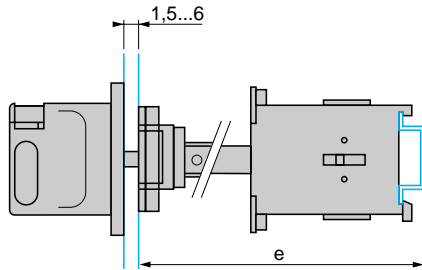


Switch disconnector mounted at back of enclosure with shaft extension VZN-17 or VZN-30 (clip-on mounting on \perp rail)

VN12, VN20

Single hole fixing

4 screw fixing



	Shaft extension	Distance (e) enc. back/door mm
VN-12, VN-20	VZN-17	300...330
	VZN-30	400...430

Schemes

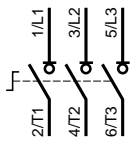
Switch body
VN-12, VN-20

Main pole module
VZN-12, VZN-20

Neutral pole module
VZN-11

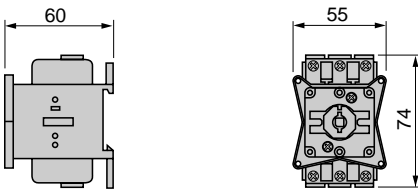
Auxiliary contact blocks
VZN-05

VZN-06

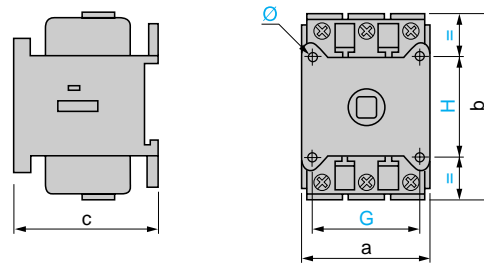


Switch disconnectors

Switch bodies
V0, V0 to V2



V3 to V6



	a	b	c	G	H	Ø
V3, V4	60	83	65	48	48	5.5
V5, V6	90	125	90	68	68	5.5

Add-on modules

VZ-02 to VZ-4
VZ-11 to VZ-16



	a	b	c
VZ-02 and VZ-01, VZ-0 to VZ-2, VZ-11, VZ-14	60	83	65
VZ-3, VZ-4, VZ-12, VZ-15	90	125	90
VZ-13, VZ-16	30	125	63

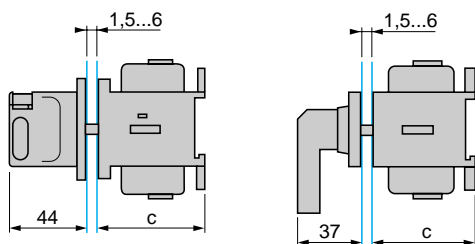
VZ-7, VZ-20



Switch disconnector mounted on enclosure door

V0, V0 to V4

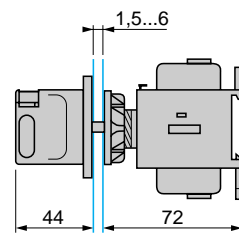
Single hole fixing



	c
V0, V0 to V2	60
V3, V4	65

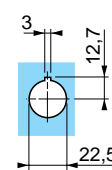
V0, V0 to V2

4 screw fixing



Single hole fixing

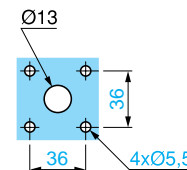
V0, V0 to V2



4 screw fixing

45 x 45 front plate

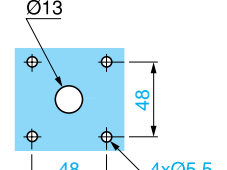
V0, V0 to V2



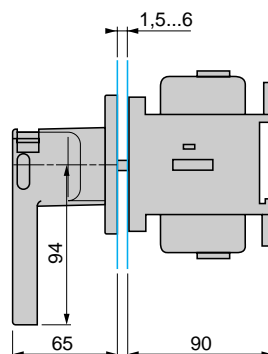
4 screw fixing

60 x 60 front plate

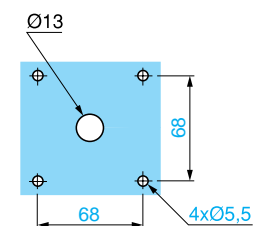
V0, V0 to V4




V5 and V6



4 screw fixing
 90 x 90 front plate

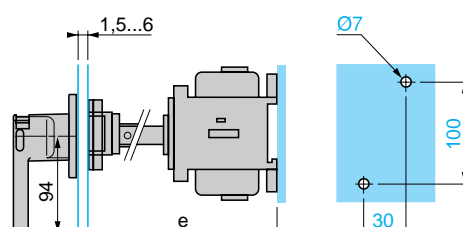
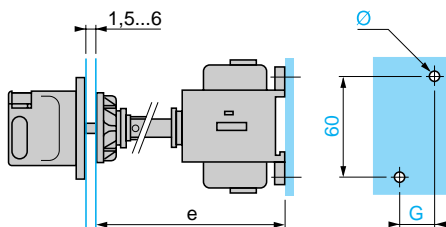
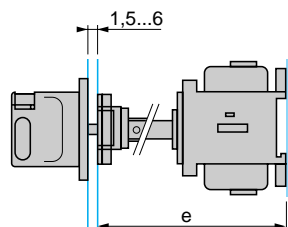


Switch disconnector mounted at back of enclosure

V0●, V0 to V2 with shaft extension
VZ-17 or VZ-30
(clip-on mounting on  rail possible for V0● to V2)

V3 to V4 with shaft extension
VZ-18 or VZ-31

V5 and V6 with shaft extension
VZ-18 or VZ-31



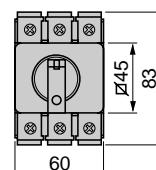
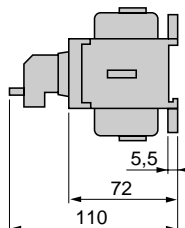
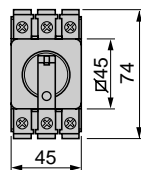
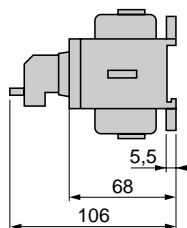
	Shaft extension	Distance (e) enc.back/door mm	Ø	G
V02 and V01	VZ-17	300...330	2 x 4,2	15
V0 to V2	VZ-30	400...430	2 x 4,2	15
V3 and V4	VZ-18	300...320	2 x 5	20
	VZ-31	400...420	2 x 5	20

	Shaft extension	Distance (e) enc.back/door mm
V5 and V6	VZ-18	330...350
	VZ-31	430...450

Switch disconnectors for modular distribution boards

VV●-0 to VV●-2

VV●-3 and VV●-4



Schemes

Switch body
V02 and V01
V0 to V6

Main pole module
VZ-02 and VZ-01
VZ-0 to VZ-4

Neutral pole module
VZ-11 to VZ-13

Auxiliary contact blocks
VZ-7 **VZ-20**

