Table 1 Ordering codes and characteristics

Type		B3	B4 *)	B4
Ordering code		V23103-S2232-B302	V23103-S2032-B402	V23103-S2332-B402
Description	page	8.17	8.18	8.18
Load switching circuit				
Zero-point switch		yes	yes	no
Switching current (see derating curves)	A_{rms}	2	2.5	2.5
Switching voltage	V_{rms}	240	240	240
Switching voltage range	V_{rms}	24 ... 280	24 ... 280	24 ... 280
Max. repetitive peak blocking voltage	V_S	600	600	600
Frequency range	Hz	47 ... 63	47 ... 63	47 ... 63
Max. surge current, 1 cycle 50 Hz, non-repetitive, peak value	A_S	100	100	100
Min. switching current (holding current)	mA_{rms}	50	50	50
Max. off-state current (leakage current)	mA_{rms}	5	4.5	4.5
Max. on-state voltage (peak value) at max. switching current	V_S	1.6	1.6	1.6
Zero voltage	V_S	± 60	± 30	–
Critical rate of rise of off-state voltage (du/dt)	V/µs	200	200	200
Critical commutation rate of voltage rise	V/µs	5	5	5
Critical rate of rise of on-state current (di/dt)	A/µs	20	20	20
Peak load integral, 10 ms	A^2s	50	50	50
Max. operate time	ms	10	10	0.1
Control circuit				
Control voltage	V DC	3 ... 6	3 ... 30	3 ... 20
Pick-up voltage	V DC	≤ 3	≤ 3	≤ 3
Release voltage	V DC	> 1	> 1	> 1
Control current at max. control voltage	mA DC	< 18	< 30	< 30
Control circuit resistance	Ω	330	1000	680
General				
Operating temperature range, typical	°C	– 25...+ 80	– 25...+ 80	– 25...+ 80
Storage temperature range	°C	– 40...+ 100	– 40...+ 100	– 40...+ 100
Test voltage input – output	kV_{rms}	2.5	2.5	2.5
input – case	kV_{rms}	–	–	–
output – case	kV_{rms}	–	–	–
Insulation resistance	Ω	10^{10}	10^{10}	10^{10}
Approvals		UL	SEV, UL	UL

*) SCS – preferred standard type
[1]) Creepage distances and clearances > 8 mm, VDE 0806 and VDE 0750
[2]) Creepage distances and clearances > 8 mm, VDE 0806 and VDE 0700

Type	B5	B5	A3 *)	B1 *)	B1 *)	B1 *)	B1
	V23103-S4032-B502[2])	V23103-S4332-B502	V23100-S0302-A303	V23103-S2033-B105	V23103-S2333-B105	V23103-S4033-B105[1])	V23103-S4333-B105
page	8.19	8.19	8.20	8.16	8.16	8.16	8.16
Load switching circuit							
	yes	no	yes	yes	no	yes	no
A_{rms}	2.5	2.5	3	5	5	5	5
V_{rms}	240	240	240	380	380	380	380
V_{rms}	24 ... 280	24 ... 280	24 ... 280	24 ... 480	24 ... 480	24 ... 480	24 ... 480
V_S	600	600	600	1200	1200	1200	1200
Hz	47 ... 63	47 ... 63	47 ... 63	47 ... 63	47 ... 63	47 ... 63	47 ... 63
A_S	100	100	50	100	100	100	100
mA_{rms}	50	50	50	50	50	50	50
mA_{rms}	4.5	4.5	5.5	4.5	4.5	4.5	4.5
V_S	1.6	1.6	1.6	1.6	1.6	1.6	1.6
V_S	± 30	± 30	± 30	± 65	–	± 65	–
V/µs	200	200	200	200	200	200	200
V/µs	5	5	5	–	–	–	–
A/µs	20	20	20	20	20	20	20
A^2s	50	50	18	50	50	50	50
ms	10	0.1	10	10	0.1	10	0.1
Control circuit							
V DC	3 ... 20	3 ... 20	3 ... 30	3 ... 30	3 ... 20	3 ... 20	3 ... 20
V DC	≤ 3	≤ 3	≤ 3	≤ 3	≤ 3	≤ 3	≤ 3
V DC	> 1	> 1	> 1	> 1	> 1	> 1	> 1
mA DC	< 30	< 30	< 20	< 30	< 30	< 20	< 30
Ω	680	680	1500	1000	680	1000	680
General							
°C	–25...+80	–25...+80	–25...+80	–25...+80	–25...+80	–25...+80	–25...+80
°C	–40...+100	–40...+100	–40...+100	–40...+100	–40...+100	–40...+100	–40...+100
kV_{rms}	3.75	2.5	2.5	2.5	2.5	4	4
kV_{rms}	–	–	–	–	–	–	–
kV_{rms}	–	–	–	–	–	–	–
Ω	10^{10}	10^{10}	10^{10}	10^{10}	10^{10}	10^{10}	10^{10}
	VDE, UL	UL	–	SEV, UL	UL	VDE, SEV, CSA	–

Table 1 Ordering codes and characteristics

Type			A2 *)	A2	A2 *)
Ordering code			V23100-S0302-A210	V23100-S4032-A210[1])	V23100-S0302-A225
Description		page	8.21	8.21	8.21
Load switching circuit					
Zero-point switch			yes	yes	yes
Switching current (see derating curves)		A_{rms}	10	10	25
Switching voltage		V_{rms}	240	240	240
Switching voltage range		V_{rms}	24 ... 280	24 ... 280	24 ... 280
Max. repetitive peak blocking voltage		V_S	600	600	600
Frequency range		Hz	47 ... 63	47 ... 63	47 ... 63
Max. surge current, 1 cycle 50 Hz, non-repetitive, peak value		A_S	115	90	300
Min. switching current (holding current)		mA_{rms}	50	50	50
Max. off-state current (leakage current)		mA_{rms}	8	8	8
Max. on-state voltage (peak value) at max. switching current		V_S	1.6	1.6	1.6
Zero voltage		V_S	± 25	± 25	± 25
Critical rate of rise of off-state voltage (du/dt)		V/µs	200	200	200
Critical commutation rate of voltage rise		V/µs	5	200	5
Critical rate of rise of on-state-current (di/dt)		A/µs	10	10	10
Peak load integral, 10 ms		A^2s	66	40	450
Max. operate time		ms	10	10	10
Control circuit					
Control voltage		V DC	3 ... 30	3 ... 30	3 ... 30
Pick-up voltage		V DC	≤ 3	≤ 3	≤ 3
Release voltage		V DC	> 1	> 1	> 1
Control current at max. control voltage		mA DC	< 20	< 30	< 20
Control circuit resistance		Ω	1500	1000	1500
General					
Operating temperature range, typical		°C	–25...+80	–25...+80	–25...+80
Storage temperature range		°C	–40...+100	–40...+100	–40...+100
Test voltage	input – ouput	kV_{rms}	2.5	3.75	2.5
	input – case	kV_{rms}	2.5	2.5	2.5
	output – case	kV_{rms}	2.5	2.5	2.5
Insulation resistance		Ω	10^{10}	10^{10}	10^{10}
Approvals			–	VDE	–
Accessories					
Protective cover; description on page 8.24			V23100-Z2008*)		

*) SCS – preferred standard type
[1]) Creepage distances and clearances > 8 mm, VDE 0806 and VDE 0750

Type	A2	A8 *)	A8	A2 *)	A2	A8	A8
	V23100-S4032-A225 [1])	V23100-S2034-A825	V23100-S2234-A825	V23100-S0302-A240	V23100-S4032-A240 [1])	V23100-S2034-A840	V23100-S2234-A840
page	8.21	8.21	8.21	8.21	8.21	8.21	8.21
Load switching circuit							
	yes	yes	no	yes	yes	yes	no
A_{rms}	25	25	25	40	40	40	40
V_{rms}	240	415	415	240	240	415	415
V_{rms}	24 ... 280	24 ... 480	24 ... 480	24 ... 280	24 ... 280	24 ... 480	24 ... 480
V_S	600	1000	1000	600	600	1000	1000
Hz	47 ... 63	47 ... 63	47 ... 63	47 ... 63	47 ... 63	47 ... 63	47 ... 63
A_S	230	230	230	400	350	350	350
mA_{rms}	50	50	50	50	50	50	50
mA_{rms}	8	8	8	8	8	8	8
V_S	1.6	1.6	1.6	1.6	1.6	1.6	1.6
V_S	± 25	± 25	–	± 25	± 25	± 25	–
V/µs	200	200	200	200	200	200	200
V/µs	200	200	200	5	200	200	200
A/µs	10	10	10	10	10	10	10
A^2s	265	265	265	800	610	610	610
ms	10	10	0.1	10	10	10	0.1
Control circuit							
V DC	3 ... 30	3 ... 30	3 ... 30	3 ... 30	3 ... 30	3 ... 30	3 ... 30
V DC	≤ 3	≤ 3	≤ 3	≤ 3	≤ 3	≤ 3	≤ 3
V DC	> 1	> 1	> 1	> 1	> 1	> 1	> 1
mA DC	< 30	< 20	< 20	< 20	< 30	< 20	< 20
Ω	1000	1500	1500	1500	1000	1500	1500
General							
°C	–25...+80	–25...+80	–25...+80	–25...+80	–25...+80	–25...+80	–25...+80
°C	–40...+100	–40...+100	–40...+100	–40...+100	–40...+100	–40...+100	–40...+100
kV_{rms}	3.75	2.5	2.5	2.5	3.75	2.5	2.5
kV_{rms}	2.5	2.5	2.5	2.5	2.5	2.5	2.5
kV_{rms}	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Ω	10^{10}	10^{10}	10^{10}	10^{10}	10^{10}	10^{10}	10^{10}
	VDE, UL	–	–	–	VDE, UL	–	–
Accessories							
Cover	V23100-Z2008*)						

Solid State Relay Type B1

Type B1

With or without zero-point switch

Immersion cleanable

For printed circuit mounting,
pin arrangement suits 2.54 mm grid
in acc. with DIN 40801

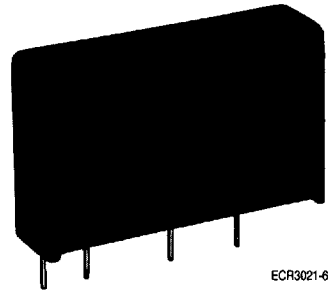
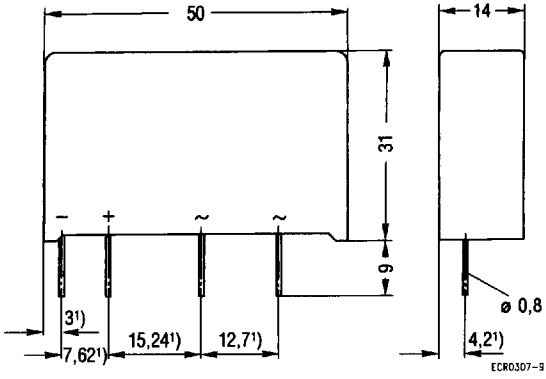
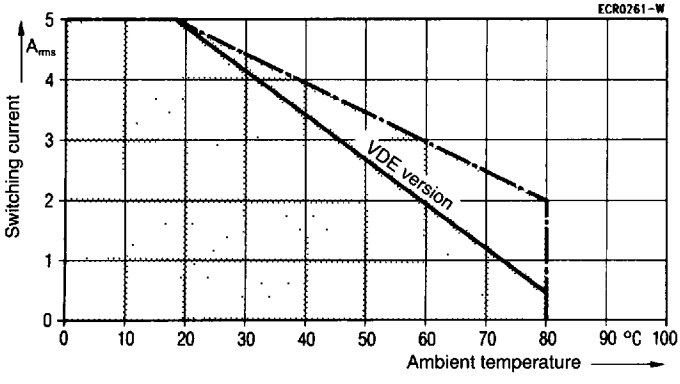


Illustration approx. original size
Approx. weight 35 g



¹) referred to wire outlet through sealing compound

Derating curve



Switching current as a function of ambient temperature

Solid State Relay Type B3

Type B3

With zero-point switch

Immersion cleanable

For printed circuit mounting
pin arrangement suits 2.54 mm grid
in acc. with DIN 40801

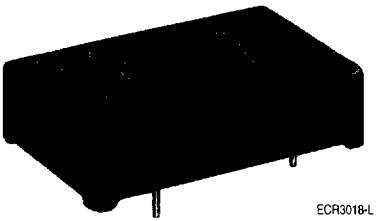
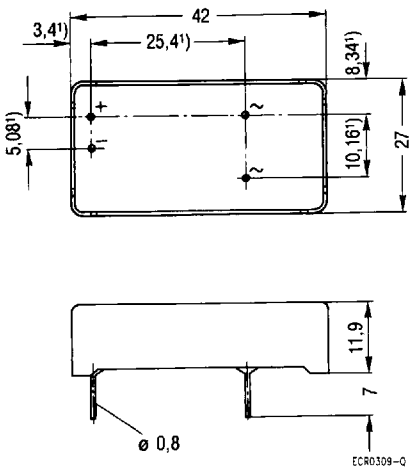
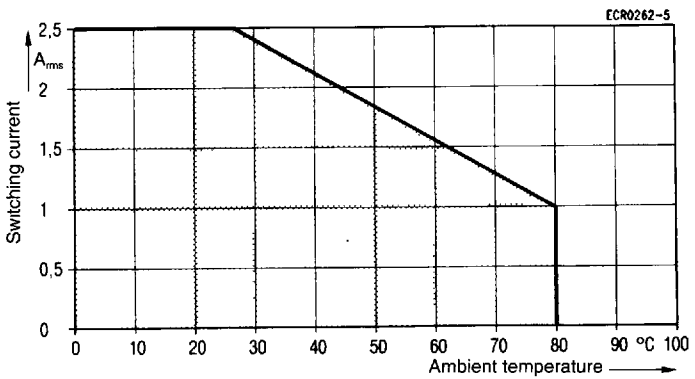


Illustration approx. original size
Approx. weight 24 g



¹) referred to wire outlet through sealing compound

Derating curve



Switching current as a function of ambient temperature

Solid State Relay Type B4

SIEMENS/ POTTER/BRUMFIELD

Type B4

With or without zero-point switch

Immersion cleanable

For printed circuit mounting,
pin arrangement suits 2.54 mm grid
in acc. with DIN 40801

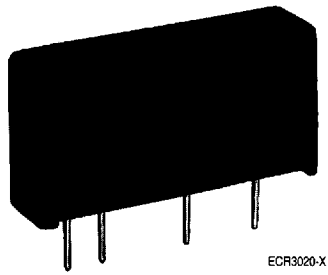
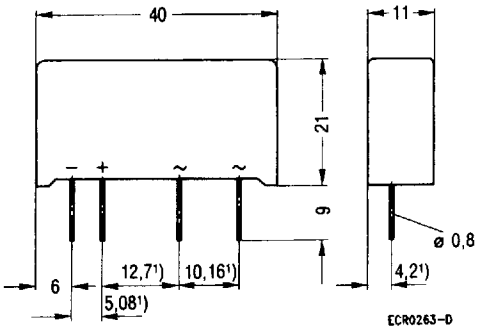
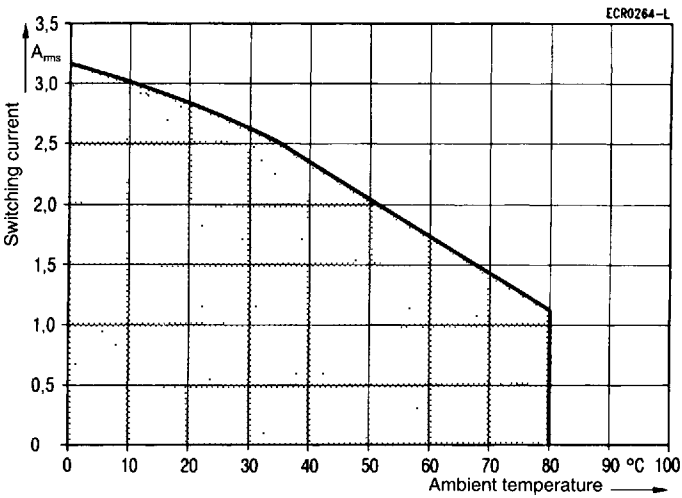


Illustration approx. original size
Approx. weight 18.5 g



¹) referred to wire outlet through sealing compound

Derating curve



Switching current as a function of ambient temperature