FDV dokumentasjon

Automater S 220 K karakteristikk	Typebetegnelse		El.nummer
	S 221 K 0,2A	GHS2210001R0087	1631500
	S 221 K 0,3A	GHS2210001R0117	1631501
	S 221 K 0,5A	GHS2210001R0157	1631502
	S 221 K 0,75A	GHS2210001R0187	1631503
	S 221 K 1A	GHS2210001R0217	1631504
	S 221 K 1,6A	GHS2210001R0257	1631505
	S 221 K 2A	GHS2210001R0277	1631506
	S 221 K 3A	GHS2210001R0317	1631507
	S 221 K 4A	GHS2210001R0337	1631508
	S 221 K 6A	GHS2210001R0377	1631509
	S 221 K 8A	GHS2210001R0407	1631510
	S 221 K 10A	GHS2210001R0427	1631515
	S 221 K 16A	GHS2210001R0467	1631516
	S 221 K 20A	GHS2210001R0487	1631520
	S 221 K 25A	GHS2210001R0517	1631525
	S 221 K 32A	GHS2210001R0537	1631532
	S 221 K 40A	GHS2210001R0557	1631540
	S 221 K 50A	GHS2210001R0577	1631550
	S 221 K 63A	GHS2210001R0607	1631563
	S 222 K 0,2A	GHS2220001R0087	1631600
	S 222 K 0,3A	GHS2220001R0117	1631601
	S 222 K 0,75A	GHS2220001R0187	1631603
	S 222 K 1A	GHS2220001R0217	1631604
	S 222 K 1,6A	GHS2220001R0257	1631605
	S 222 K 3A	GHS2220001R0277	1631606
	S 222 K 2A	GHS2220001R0317	1631607
	S 222 K 4A	GHS2220001R0337	1631608
	S 222 K 6A	GHS2220001R0377	1631609
	S 222 K 8A	GHS2220001R0407	1631610
	S 222 K 10A	GHS2220001R0427	1631615
	S 222 K 16A	GHS2220001R0467	1631616
	S 222 K 20A	GHS2220001R0487	1631620
	S 222 K 25A	GHS2220001R0517	1631625
	S 222 K 32A	GHS2220001R0537	1631632
	S 222 K 40A	GHS2220001R0557	1631640
	S 222 K 50A	GHS2220001R0577	1631650
	S 222 K 63A	GHS2220001R0607	1631663
	S 223 K 0,3A	GHS2230001R0117	1631701
	S 223 K 0,5A	GHS2230001R0157	1631702
	S 223 K 0,75A	GHS2230001R0187	1631703
	S 223 K 1A	GHS2230001R0217	1631704
	S 223 K 1,6A	GHS2230001R0257	1631705
	S 223 K 2A	GHS2230001R0277	1631706
	S 223 K 3A	GHS2230001R0317	1631707
	S 223 K 4A	GHS2230001R0337	1631708
	S 223 K 6A	GHS2230001R0377	1631709
	S 223 K 8A	GHS2230001R0407	1631710
	S 223 K 10A	GHS2230001R0427	1631715
	S 223 K 16A	GHS2230001R0467	1631716
	S 223 K 20A	GHS2230001R0487	1631720
	S 223 K 25A	GHS2230001R0517	1631725
	S 223 K 32A	GHS2230001R0537	1631732
	S 223 K 40A	GHS2230001R0557	1631740
	S 223 K 50A	GHS2230001R0577	1631750
	S 223 K 63A	GHS2230001R0607	1631763

FDV	Automatene er produsert og testet i henhold til IEC 60947-2, EN 60898-1	Ingen krav til periodisk vedlikehold.

Tekniske Data

No. of poles:	1-, 2- and 3-pole
specifications:	IEC 60947-2, EN 60898-1, VDE 0641 T11
rated current I_n:	0.2 to 63 A

internal resistance:

nominal current I_n/A	internal resistance per pole mΩ	power loss per pole W
0.2	32000	1.3
0.3	13500	1.2
0.5	6400	1.6
0.75	2900	1.6
1	1400	1.4
1.6	630	1.6
2	420	1.7
3	160	1.4
4	120	1.9
6	47	1.7
8	34	2.2
10	9.6	1
16	7.6	2.0
20	5.1	2.1
25	4.4	2.8
32	3.3	3.4
40	2.6	4.2
50	1.7	4.3
63	1.6	6.4

operating voltage U_n: 1-pole 400/690 V ~ 60 V ⎓
multi-pole 690 V ~ 110 V ⎓
The tripping values for electromagnetic trip releases are valid for AC values from 16 ⅔ to 60 Hz. Deviating frequencies or DC current will cause the tripping characteristics to change as is indicated in the table on page 6.

min. rated voltage U_{Bmin}:	12 V ~, 12 V ⎓ (with respect to contact stability)
insulation group acc. to former VDE 0110: pollution degree 2	C at 500 V ~ } compareable to B at 750 V ~ } overvoltage category III
trip-free mechanism:	miniature circuit-breaker and auxiliary switch
housing:	plastic, gray RAL 7035
operating lever:	black, in ON and OFF position sealable; lockable with lock adapter (see Accessories)

connection:	individual or busbar
terminals:	combined box terminal with M5 screw
connection capacity (Cu):	1 x 25 mm² or 2 x 10 mm² for finely stranded to massive conductors min. cross section 1 mm²
protection according to IEC 60529, EN 60529, VDE 0470:	IP 20
size:	DIN 43 880, frame size 1
depth of device:	83 mm
dimensions:	see illustrations on page 15
mounting position:	optional
fixing:	snap-on onto DIN rails-EN 60 715, 35 mm width, screw fixing by means of mounting plate(see Accessories)
climatic resistance: according to DIN 40 046 or, as applicable, IEC 60068:	constant climate 23/83, 40/93, 55/20 (°C/Rh) alternating climate (24 h cycle) 25/95 – 40/93 (°C/Rh)
ambient temperature:	T_{max} + 55 °C, T_{min} – 25 °C
shock resistance:	10 g at least 20 impacts shock duration 13 ms
vibration resistance:	5 g, at least 30 minutes
mechanical service life:	20,000 operations
service life at rated load and operating voltage:	20,000 operations, I_n 0,2 ... 32 A 4,000 operations, I_n 40 ... 63 A
specifications:	VDE 0660, IEC 60 947-2

Auxiliary switch S 220-H 11

terminal:	M 3.5 screw with captive clamping washer
connection capacity (Cu):	2 x 0.75 ... 2.5 mm² ... 1.5 mm² with connector sleeve
permanent current I_{th2}:	5 A
rated current I_n at:	220 V ~: 5 A 400 V ~: 2 A 60 V ⎓: 2 A 110 V ⎓ : 1.5 A 250 V ⎓ : 1 A
min. switching capacity:	5 VA

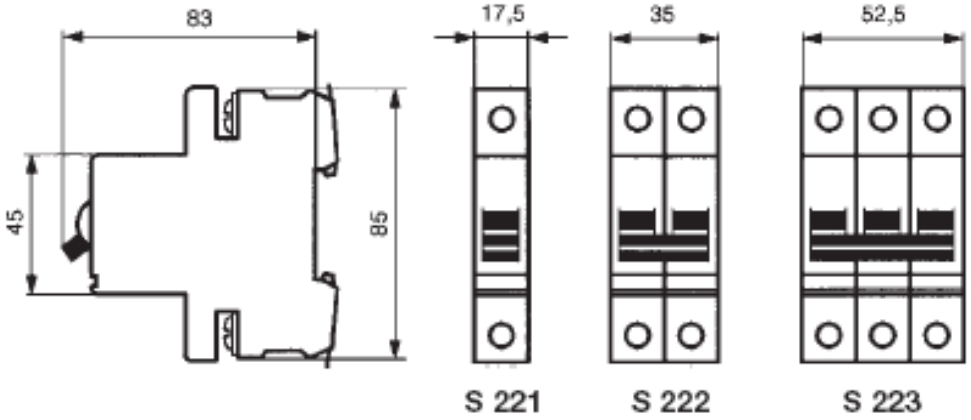
Short circuit capacity according to IEC-157-1/P-2, VDE 0660/8.69 Part 1 or, as applicable, VDE Part 101/P-2, VDE 0660/8.69 Part 1

nominal current-range	AC							DC
	1-phase			2/3-phase				1-pole
	up to 133 V ~	230 V ~	400 V ~	133/230 V ~	230/400 V ~	290/500 V ~	400/690 V ~	up to 60 V – ⑤
0.2 up to 1 A	unlimited	unlimited	unlimited	unlimited	unlimited	unlimited	unlimited	unlimited
1.6 and 2 A	unlimited	unlimited	1.5 kA cos φ = 0.95	unlimited	unlimited	6 kA cos φ = 0.7	1.5 kA cos φ = 0.95	unlimited
3 and 4 A	15 kA cos φ = 0.3	4.5 kA cos φ = 0.8	1.5 kA cos φ = 0.95	15 kA cos φ = 0.3	4.5 kA cos φ = 0.8	3 kA cos φ = 0.9	1.5 kA cos φ = 0.95	8 kA T ≤ 13 ms
6 and 8 A	15 kA cos φ = 0.3	6 kA cos φ = 0.7	1.5 kA cos φ = 0.95	15 kA cos φ = 0.3	6 kA cos φ = 0.7	4.5 kA cos φ = 0.8	1.5 kA cos φ = 0.95	8 kA T ≤ 13 ms
10 up to 32 A	30 kA cos φ = 0.25	10 kA cos φ = 0.5	6 kA cos φ = 0.7	30 kA cos φ = 0.25	10 kA cos φ = 0.5	10 kA cos φ = 0.5	6 kA cos φ = 0.7	8 kA T ≤ 13 ms
40 up to 63 A	6 kA cos φ = 0.7	4.5 kA cos φ = 0.8	3 kA cos φ = 0.9	6 kA cos φ = 0.7	4.5 kA cos φ = 0.8	4.5 kA cos φ = 0.9	3 kA cos φ = 0.9	6 kA T ≤ 13 ms

⑤ In symmetrically earthed DC circuits, S 222 two-pole devices (two poles connected in series) can be used up to 110 V DC. In this case, the short-circuit capacity is one grade above the 1-pole version (10 kA instead of 8 kA). Any connection is possible, polarity does not need to be taken into account.

Tekniske Data

Dimensions in mm



Tripping characteristics

standard	tripping characteristic and rated current range (ref. reference range)	thermal trip tripping currents: conv.non-trip. current I_1	conventional trip. current I_2	tripping time	electromagnetic trip ③ tripping currents: hold impacts from	trips at the latest at	tripping time
VDE 0660/8.69 Part 1 ② IEC 157-1, VDE 0660/8.69 Part1	K 0.2 to 63 A	1.05 • I_n	1.2 • I_n	> 2 h ①	8 • I_n		> 0.2 s
			1.5 • I_n	< 2 h ①			
		6.0 • I_n	> 2 s (T_j)	< 2 min ①	14 • I_n	< 0.2 s	

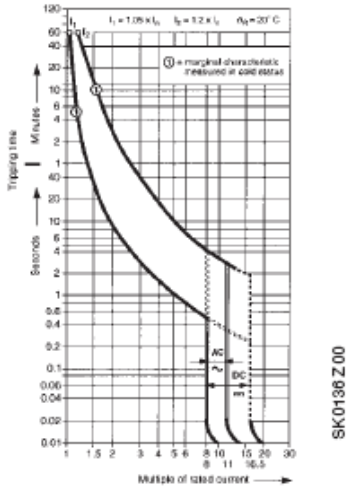
① as from operating temperature (after I_1 > 2 h).

② Standard IEC 157-1, DIN VDE 0660/8.69 has been ineffective, but is still referred to due to its complete statement on the tripping characteristics.

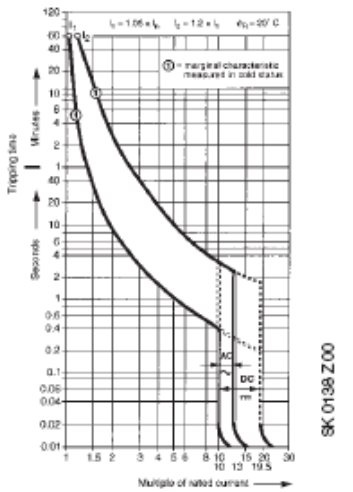
③ **Frequency influence of electromagnetic trips**
The tripping values indicated for electromagnetic trips apply to a frequency of 16 $^2/_3$ ... 60 Hz. Deviating frequencies or DC current will cause the tripping characteristics to change by the factor indicated in the following table.

	AC 100 Hz	200 Hz	400 Hz	DC
factor ca.	1.1	1.2	1.5	1.5

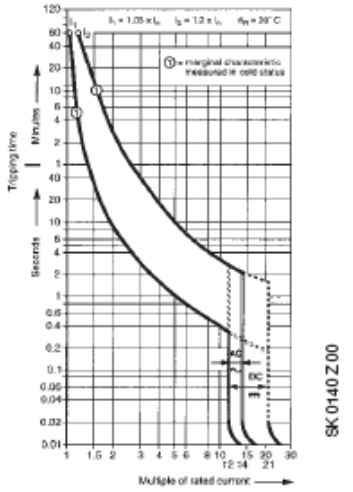
tripping values of thermal trips are frequency-independent.



S 220-K 0,2 ... 8 A
K 40 ... 63 A



S 220-K 10 ... 16 A



S 220-K 20 ... 32 A

Produsent	Navn	Adresse	Tlf.	Faks	E-post
	ABB AS	Pb. 797, Brakerøya 3002 Drammen	03500	32858010	automasjonsprodukter@no.abb.com