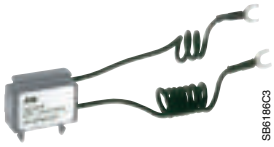
Surge Suppressors for Contactor Coils



RT 7/...



RV-BC 6/...



RV 5/50



RC 5-1/50

Ordering Details

For contactors	Control voltage V	d.c.	a.c.	Type	Order code	Packing pieces	Weight kg 1 piece
BC 9 ... BC 30, and KC TBC 9 ... TBC 30 KC and TKC	12 ... 32	●	–	RT 7/32	FPTN 377 043 R0001	10	0.007
	25 ... 65	●	–	RT 7/65	FPTN 377 044 R0001	10	0.007
	50 ... 90	●	–	RT 7/90	FPTN 377 045 R0001	10	0.007
	77 ... 150	●	–	RT 7/150	FPTN 377 046 R0001	10	0.007
	150 ... 264	●	–	RT 7/264	FPTN 377 047 R0001	10	0.007
BC 9 ... BC 30 and KC	24 ... 60	●	–	RV-BC 6/60	GHV 250 1902 R0002	10	0.004
	50 ... 127	●	–	RV-BC 6/127	GHV 250 1908 R0002	10	0.004
	110 ... 250	●	–	RV-BC 6/250	GHV 250 1903 R0002	10	0.004
	200 ... 420	●	–	RV-BC 6/380	GHV 250 1904 R0002	10	0.004
BC 9 ... BC 30 and KC (1)	24 ... 60	●	–	RV-BC 6-F/60	GHV 250 1902 R0003	10	0.004
	50 ... 127	●	–	RV-BC 6-F/127	GHV 250 1908 R0003	10	0.004
	110 ... 250	●	–	RV-BC 6-F/250	GHV 250 1903 R0003	10	0.004
	200 ... 420	●	–	RV-BC 6-F/380	GHV 250 1904 R0003	10	0.004
AE 9 ... AE 110, TAE 45 ... TAE 110	12 ... 32	●	–	RT 5/32	1SBN 05 0020 R1000	2	0.015
	25 ... 65	●	–	RT 5/65	1SBN 05 0020 R1001	2	0.015
	50 ... 90	●	–	RT 5/90	1SBN 05 0020 R1002	2	0.015
	77 ... 150	●	–	RT 5/150	1SBN 05 0020 R1003	2	0.015
	150 ... 264	●	–	RT 5/264	1SBN 05 0020 R1004	2	0.015
A 9 ... A 110, AE 9 ... AE 110, TAE 45 ... TAE 110, N and NE	24 ... 50	●	●	RV 5/50	1SBN 05 0010 R1000	2	0.015
	50 ... 133	●	●	RV 5/133	1SBN 05 0010 R1001	2	0.015
	110 ... 250	●	●	RV 5/250	1SBN 05 0010 R1002	2	0.015
	250 ... 440	●	●	RV 5/440	1SBN 05 0010 R1003	2	0.015
A 9 ... A 40 and N	24 ... 50	–	●	RC 5-1/50	1SBN 05 0100 R1000	2	0.012
	50 ... 133	–	●	RC 5-1/133	1SBN 05 0100 R1001	2	0.012
	110 ... 250	–	●	RC 5-1/250	1SBN 05 0100 R1002	2	0.012
	250 ... 440	–	●	RC 5-1/440	1SBN 05 0100 R1003	2	0.012
A 45 ... A 300	24 ... 50	–	●	RC 5-2/50	1SBN 05 0200 R1000	2	0.015
	50 ... 133	–	●	RC 5-2/133	1SBN 05 0200 R1001	2	0.015
	110 ... 250	–	●	RC 5-2/250	1SBN 05 0200 R1002	2	0.015
	250 ... 440	–	●	RC 5-2/440	1SBN 05 0200 R1003	2	0.015

(1) The coils must be equipped with 2.8 mm flat pin lugs.

Note: The surge suppressors provided for A... contactors can be used for the UA, UA..-R and GA types.
The surge suppressors provided for AE 45 ... AE 110 contactors can be used for the GAE 75 types.

Surge Suppressors for Contactor Coils

Technical Data

Transil diode		RT 5/32 RT 7/32	RT 5/65 RT 7/65	RT 5/90 RT 7/90	RT 5/150 RT 7/150	RT 5/264 RT 7/264
Control voltage U_c	**V d.c.**	12 ... 32	25 ... 65	50 ... 90	77 ... 150	150 ... 264
Residual overvoltage (clipping voltage)	**V d.c.**	50	100	150	210	390
Opening time growth factor		2.5 ... 3				
Operating temperature	**°C**	-20 ... +70				
Connection to the coil terminals (parallel mounting)		**RT 5:** Clip-on for both fixing and connection. **RT 7:** Flexible, accessible leads, equipped with forked lugs.				
Fixing		**RT 5:** Clipped onto the top part of the contactor base. This mounting method prevents any projections and change in contactor dimensions. **RT 7:** Dovetail mounting on both the top and bottom part of the contactor base. Alternatively, they can be clipped onto the front part of the contactor head.				
Advantages		Good energy absorption - Unpolarized system - Simple, reliable system.				
Drawback		A certain delay on drop out which does not however reduce contactor breaking capacity.				

Varistor		RV-BC 6/60 RV-BC 6-F/60	RV-BC 6/127 RV-BC 6-F/127	RV-BC 6/250 RV-BC 6-F/250	RV-BC 6/380 RV-BC 6-F/380	
Control voltage U_c	**V d.c.**	24 ... 60	50 ... 127	110 ... 250	200 ... 420	
Residual overvoltage (clipping voltage)	**V d.c.**	137	305	510	730	
Opening time growth factor		1.1 ... 1.5				
Operating temperature	**°C**	-20 ... +70				
Connection to the coil terminals (parallel mounting)		**RV-BC 6:** Flexible, accessible leads, equipped with forked lugs. **RV-BC 6-F:** Flexible, accessible leads, equipped with 2.8 mm faston lugs.				
Fixing		Dovetail mounting on both the top and bottom part of the contactor base. Alternatively, they can be clipped onto the front part of the contactor head.				
Advantages		High energy absorption: good damping - Unpolarized system.				
Drawback		Clipping as from U_{vdr}*, thus voltage front up to this point.				

*U_{vdr} = Varistor operating voltage (voltage dependent resistor), tolerance ± 10 %.

Varistor		RV 5/50	RV 5/133	RV 5/250	RV 5/440	
Control voltage U_c	**V a.c./d.c.**	24 ... 50	50 ... 133	110 ... 250	250 ... 440	
Residual overvoltage (clipping voltage)	**V a.c./d.c.**	132	270	480	825	
Opening time growth factor		1.1 ... 1.5				
Operating temperature	**°C**	-20 ... +70				
Connection to the coil terminals (parallel mounting)		Clip-on for both fixing and connection.				
Fixing		Clipped onto the top part of the contactor base. This mounting method prevents any projections and change in contactor dimensions.				
Advantages		High energy absorption: good damping - Unpolarized system.				
Drawback		Clipping as from U_{vdr}*, thus voltage front up to this point.				

*U_{vdr} = Varistor operating voltage (voltage dependent resistor), tolerance ± 10 %.

RC type		RC 5-1/50 RC 5-2/50	RC 5-1/133 RC 5-2/133	RC 5-1/250 RC 5-2/250	RC 5-1/440 RC 5-2/440	
Control voltage U_c	**V a.c.**	24 ... 50	50 ... 133	110 ... 250	250 ... 440	
Residual overvoltage (clipping voltage)	**V a.c.**	2 to 3 x U_c max.				
Opening time growth factor		1.2 ... 1.3				
Operating temperature	**°C**	-20 ... +70				
Connection to the coil terminals (parallel mounting)		Clip-on for both fixing and connection.				
Fixing		Clipped onto the top part of the contactor base. This mounting method prevents any projections and change in contactor dimensions.				
Advantages		Very fast clipping - Attenuation of steep fronts and thus of high frequencies. No operating delays.				