COMPACT



PROFESSIONAL SYSTEM DESIGN ACC. TO EN ISO 13849

SUPPRESSOR MODULES AND EMC FILTERS FOR MAXIMUM MACHINE SAFETY

When designing a machine or a system that has to meet the safety-related requirements of category 2 of EN ISO 13849, you have to respect CCF (EN ISO 13849-1, chapter 6.2.5). CCF stands for "Common Cause Failure" and describes errors with a common cause.

EMC problems, overloads or over currents are among the possible causes for these failures that can be prevented by taking appropriate measures. By implementing these measures when designing your system, you score points. To be allowed to sell or operate machines and systems, you must have at least 65 points (out of 100). If you can prove that your machines and systems are installed safely according to the measures regarding safety-related control systems and protective measures against disturbances and failures, you'll get 40 points of the necessary 65 points.

EXCEPT FROM EN ISO 13849

	Measure	Points
	Separation	15
	Diversity	20
>	Design/application/experience – protection against over-voltage, over-loads, over-pressure, etc	. 1 5
	Design/application/experience – use of proven components	5
	Assessment/analysis	5
	Competency/training	5
→	Environment – protection from dirt and electromagnetic interference (EMC)	25
	Other mpacts	10
	Total	100

Murrelektronik offers an extensive range of products that contribute to the functional safety of control systems in machines and installations.

By reducing over voltages, suppressing asymmetrical and symmetrical interferences caused by cables and shielding static, electrical fields, you make sure that your control systems work safely and faultlessly.



HIGHLIGHTS

- You have to have 65 points out of 100 to meet the safety-related requirements according to EN ISO 13849
- The CCF value of a system will increase by 40 points by implementing a stable control system. This will allow the machine or system to work safely and faultlessly
- You can achieve optimum protection by taking small steps and making small expenditures

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SUPPRESSION MODULES FOR MOUNTING ON THE MOTOR

	Voltage	Motor Rating	Suppression	Mounting method	Art. No.
-//	3 x 575 V AC	5.5 kW	VDR	Connector with integr. motor suppression	236139
				Cable length 5 m	
	3 x 575 V AC	5.5 kW	VDR	Connector with integr. motor suppression	236142
				Cable length 10 m	
	3 x 400 V AC	7.5 KW	VDR	Inside the motor terminal box with foil	23115
	3 x 400 V AC	20 KW	VDR	Snaps onto DIN rail	23118
	3 x 575 V AC	4 KW	RC		23050
800	3 x 400 V AC	4 KW	VDR	With screw fixing on motor terminal box	23170
	3 x 400 V AC	7.5 KW	VDR	Metric: M16 x 1.5; M6	23171
	3 x 575 V AC	4 KW	VDR		23172
	3 x 575 V AC	7.5 KW	VDR		23173

SUPPRESSORS FOR SIEMENS CONTACTORS

	Voltage	Suppression	Suitable for	Art. No.
Maria	24240 V DC	Diode	3 RT 20.15/16/1/18	2000-68500-110 0000
RALL V	24 V AC/DC	VDR+LED	for size S00	2000-68500-741 0000
House and the second se	110 V AC/DC	VDR+LED		2000-68500-730 0000
	110 V AC/DC	RC		2000-68500-730 0000
400	230 V AC/DC	RC		2000-68500-232 0000
	24 V DC	Diode+LED	3 RT 20.25/26/27/28	2000-68400-201 0000
	24 V AC/DC	VDR+LED	for size SO	2000-68400-441 0000
	110 V AC/DC	VDR+LED		2000-68400-741 0000
	110 V AC/DC	RC		2000-68400-730 0000
	230 V AC/DC	RC		2000-68400-232 0000

EMC FILTERS

	Phases	Stages	Nominal Current	Mounting method	Art. No.
	1	1	10 A	Snaps on	10415
237	1	1	20 A		10416
The state of the s	1	2	2 A		10461
The state of the s	1	2	6 A		10464
The state of the s	1	2	10 A		10472
W. III	3	1	10 A		10512
	3	1	20 A		10513
	3	1	72 A	Screw fixing	10575
N Property	3	1	135 A		10578
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3	1	16 A		10532
1	3	2	25 A		10553

GROUND STRAPS

Cross Section	Length	Hole for	Art. No.
16 mm²	200 mm	M6	4000-71001-1620006
35 mm²	200 mm	M6	4000-71001-3520006
50 mm²	300 mm	M10	4000-71001-5030010
95 mm²	300 mm	M10	4000-71001-9530010