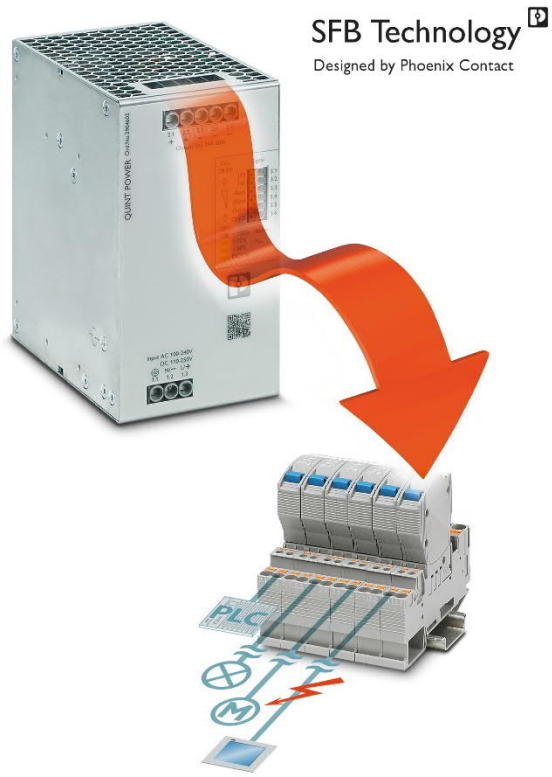
QUINT POWER –
Highst system availability due to SFB Technology

Standard circuit-breakers triggered reliably and quickly

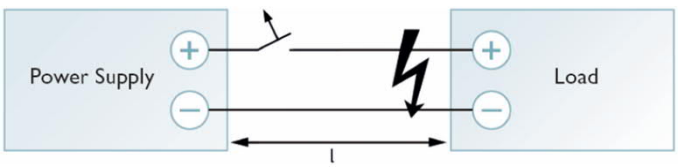


In order to be able to trigger standard circuit- breakers magnetically and quickly the SFB Technology supplies up to six times the nominal current for 15 ms.

SFB configuration

Observe the following framework conditions for determining the maximum distance between the power supply and load:

- ☑ The performance class of the power supply.
- ☑ The cross section of the connecting cable.
- ☑ The tripping characteristic of the fuse component.



Schematic diagram of the maximum cable length

Maximum distance between the power supply and load

The distances given in the table are worst-case values and therefore cover the entire tolerance range for the magnetic tripping of circuit breakers. The possible distances are often greater in practice.

QUINT POWER 24V/5A

Maximum distance l [m] with device circuit breaker		Conductor cross section			
		A [mm²]	0.75	1.0	1.5	2.5
		AWG	18	(17)	16	14
Phoenix Contact	CB TM1 1A SFB P		27	36	54	91
	CB TM1 2A SFB P		10	13	20	34

QUINT POWER 24V/10A

Maximum distance l [m] with device circuit breaker		Conductor cross section			
		A [mm²]	0.75	1.0	1.5	2.5
		AWG	18	(17)	16	14
Phoenix Contact	CM TM1 1A SFB P		27	36	54	91
	CM TM1 2A SFB P		18	25	37	63
	CM TM1 3A SFB P		11	15	22	38
	CM TM1 4A SFB P		6	8	13	22
	CM TM1 5A SFB P		4	5	8	14

QUINT POWER 24V/20A

Maximum distance l [m] with device circuit breaker		Conductor cross section					
		A [mm²]	0.75	1.0	1.5	2.5	4.0	6.0
		AWG	18	(17)	16	14	12	10
Phoenix Contact	CM TM1 1A SFB P		27	36	54	91	<130	<200
	CM TM1 2A SFB P		18	25	37	63	<100	<140
	CM TM1 3A SFB P		13	18	27	46	73	<100
	CM TM1 4A SFB P		10	14	21	35	57	86
	CM TM1 5A SFB P		8	11	17	29	46	70
	CM TM1 6A SFB P		6	8	12	20	32	48
	CM TM1 8A SFB P		--	5	7	12	20	30
	CM TM1 10A SFB P		--	3	4	8	13	19

QUINT POWER 24V/40A

Maximum distance l [m] with device circuit breaker		Conductor cross section						
	A [mm²]	0.75	1.0	1.5	2.5	4.0	6.0	10
	AWG	18	18	16	14	12	10	8
Phoenix Contact	CM TM1 1A SFB P	27	36	54	91	<130	<200	<300
	CM TM1 2A SFB P	18	25	37	63	<100	<140	<220
	CM TM1 3A SFB P	13	18	27	46	73	<100	<160
	CM TM1 4A SFB P	10	14	21	35	57	86	<140
	CM TM1 5A SFB P	8	11	17	29	46	70	<100
	CM TM1 6A SFB P	7	9	14	24	39	58	97
	CM TM1 8A SFB P	--	7	11	19	31	46	78
	CM TM1 10A SFB P	--	5	7	12	20	30	51
	CM TM1 12A SFB P	--	--	5	9	14	21	36
	CM TM1 16A SFB P	--	--	3	5	8	12	20

Thermomagnetic device circuit breaker, type: Phoenix Contact CB TM1 SFB

The cable lengths determined are based on the following parameters:

Tripping:	magnetic
DC correction factor (0 Hz):	Phoenix Contact = 1.0
Characteristic:	C Characteristic C (5 to 10 times the rated current) x correction factor
Ambient temperature:	+20 °C
Internal resistance R_i of the device circuit breaker:	taken into consideration
Comments:	In addition to the short-circuit current, the power supply unit also supplies half the nominal current for load paths connected in parallel.