

Diversity factor for built-in devices according to IEC 61 439-2

The following loading factors may be applied where more than one circuit is installed in one box or installation assembly and if no details of the rated current are known:

Number of circuits	Factor
2-3	0.9
4-5	0.8
6-9	0.7
10 and more	0.6

Rating of insulated conductors in switchgear assemblies

The selection of cross-section for the conductors within switchgear assemblies is subject to the responsibility of the manufacturer in accordance with IEC 61 439-1.

We recommend the following cross-sections dependent on the series-connected protective devices.

The values of Table 1 are based on the phase conductors.

Wiring information for devices (e.g. conductor size min. ... mm²) must be noted as a matter of priority.

Table 1:

Protective device	PVC H07V-K max. 70° C	NSGAFöu max. 90° C	Wiring strip max. 105° C
20 A	2.5 mm ²	2.5 mm ²	
25 A	4 mm ²	4 mm ²	
32/35 A	6 mm ²	6 mm ²	
40/50 A	10 mm ²	10 mm ²	
63 A	16 mm ²	16 mm ²	
80 A	25 mm ²	25 mm ²	
100 A	35 mm ²	25 mm ²	Mi VS 100
125 A	50 mm ²	35 mm ²	Mi VS 160
160 A	70 mm ²	70 mm ²	Mi VS 160
200 A	95 mm ²	95 mm ²	Mi VS 250
250 A	120 mm ²	120 mm ²	Mi VS 250
315 A		150 mm ²	Mi VS 400
400 A			Mi VS 400
630 A			Mi VS 630

Rating of the PE and N conductor per circuit

Phase conductor $\leq 16 \text{ mm}^2$ as phase conductor

Phase conductor $> 16 \text{ mm}^2$ 1/2 phase conductor cross-section.
at least however 16 mm^2
(not EMC-compliant)

In buildings with a high proportion of a.c. loads or sources of harmonic voltages (electronic ballasts or PCs), it can be necessary to implement the N conductor with the same current carrying capacity as the phase conductors.

For all Hensel busbar systems up to 630 A, the N conductor must be implemented with the same current carrying capacity.