

MCB type	Rating (A)	Relative number of LED drivers (%)
B	4	25
B	6	40
B	10	63
B	13	81
B	16	100 (reference)
B	20	125
B	25	156
B	32	200
B	40	250
C	4	42
C	6	63
C	10	104
C	13	135
C	16	170
C	20	208
C	25	260
C	32	340
C	40	415
D	4	80
D	6	130
D	10	210
D	13	280
D	16	350
D	20	470
D	25	550
D	32	700
D	40	940
L, I	16	108
L, I	10	65
G, U, II	16	212
G, U, II	10	127
K, III	16	254
K, III	10	154

The max. recommended amount of drivers in the table above is based on inrush current and only serves as guidance. The actual maximum amount in the application may differ; it is dependent steady-state current, MCB brand/type and inherent MCB tolerances.

**Note:** Keep in mind that in case a D type MCB is used that the steady-state current may be the limiting factor instead!

### Maximum recommended number of drivers per MCB

The maximum recommended amount of drivers on a 16 A type B Miniature Circuit Breaker (MCB) is stated in the driver datasheet. In the conversion table on the left that stated amount is used as reference (100%). The maximum quantity of drivers on different types of MCB can be calculated by the reference (see driver datasheet) x Relative number (last column).

Example:

If the datasheet states a max number on 16A type B= 20 drivers then for a 13A type C the max. amount of drivers be  $20 \times 135\% = 27$  drivers.

### Notes:

- Specified inrush current data is based on a average mains grid with an impedance of  $400\text{ m}\Omega + 800\mu\text{H}$ . Deviating mains grid impedance is of minor importance regarding the maximum amount of drivers per MCB.
- Specified maximum number of drivers is based on simultaneous switch-on, e.g. by a central switch or relay.
- For multiple MCBs in one cabinet the de-rating of the MCB manufacturer for steady-state load needs to be followed. If the actual de-rating is unknown then it is recommended to use a steady-state current de-rating of 0.8 by default. No de-rating is needed in respect to inrush current as this is not part of the thermal properties of the cabinet.
- The maximum number of drivers that can be connected to one 30mA Residential Current Device (RCD) is *typically* 30. However, the actual maximum amount depends on RCD brand and type so the actual number may vary and will have to be defined on-site.