

# Modulostar® CMS8

Modular fuse-holders

## FUSE HOLDERS, FUSE BASES AND SUPPORTS

### IEC CYLINDRICAL FUSE HOLDERS



The innovative and comprehensive Modulostar® range of Mersen fuse-holders. Modular fuse-holders are finger-safe under IEC standards to an IP20 grade of protection, including fuse changing (with the flick of a finger). Modular fuse-holders are available in 1, 2, 3 or 4 poles, with or without visual blown fuse indicator, in IEC version or IEC + UL version. Multi-pole units can also be field assembled by ordering pin-ties assembly kit. Modulostar® range is made of tough and durable thermoplastic or thermoset material.

## TECHNICAL DATA OVERVIEW

|                 |                                            |
|-----------------|--------------------------------------------|
| Voltage AC      | 500 VAC                                    |
| Voltage DC      | 500 VDC                                    |
| Amper (A)       | 25 A                                       |
| Mounting        | Installation on to DIN rails to EN 60715   |
| Product Size    | For cylindrical fuse links 8.5x31.5 aM, gG |
| Number of Poles | 1 to 4 poles                               |

## FEATURES & BENEFITS

- Finger safe
- Degree of protection: IP20
- Optional visual blown fuse indicator
- DIN rail mounting
- Modular design
- Lockable
- Multi-pole assembly kit available
- Sealable in closed and open position
- Plastic material UL94V2 mini
- Flame retardant materials with glow wire flammability index to 960°C

## APPLICATIONS

- All circuits up to 500VAC for protection of motors, transformers, low voltage distribution, control circuits
- Non-load operation

## STANDARDS

- IEC 60269-2 and IEC 60947-3 Compliance
- RoHS Compliant
- Plastic material: NF 16101 & 16102 Requirement 2 Compliant



## PRODUCT RANGE



CMS81



CMS82



CMS83



CMS83N



CMS81I



CMS83NI

### Modulostar® fuse-holders for 8.5x31.5 fuse-links, without indicator

| Catalog number | Item number | Number of poles/ phases | Design                               | Weight    | Package |
|----------------|-------------|-------------------------|--------------------------------------|-----------|---------|
| CMS810N        | D305006     | N                       | CMS8 CMS10 neutral conductor         | 0.0658 kg | 12      |
| CMS81          | X305000     | 1                       | CMS8 single pole                     | 0.0608 kg | 12      |
| CMS81N         | Y305001     | 1 + N                   | CMS8 single pole + neutral conductor | 0.07 kg   | 6       |
| CMS82          | Z305002     | 2                       | CMS8 double pole                     | 0.1216 kg | 6       |
| CMS83          | A305003     | 3                       | CMS8 triple pole                     | 0.1825 kg | 4       |
| CMS83N         | B305004     | 3 + N                   | CMS8 triple pole + neutral conductor | 0.2633 kg | 3       |
| CMS84          | C305005     | 4                       | CMS8 quadruple pole                  | 0.2433 kg | 3       |

### Modulostar® fuse-holders for 8.5x31.5 fuse-links, with indicator

| Catalog number | Item number | Number of poles/ phases | Design                               | Weight    | Package |
|----------------|-------------|-------------------------|--------------------------------------|-----------|---------|
| CMS81I         | E305007     | 1                       | CMS8 single pole                     | 0.0608 kg | 12      |
| CMS81NI        | F305008     | 1 + N                   | CMS8 single pole + neutral conductor | 0.1316 kg | 12      |
| CMS83I         | H305010     | 3                       | CMS8 triple pole                     | 0.1825 kg | 6       |
| CMS83NI        | J305011     | 3 + N                   | CMS8 triple pole + neutral conductor | 0.2633 kg | 4       |
| CMS84I         | K305012     | 4                       | CMS8 quadruple pole                  | 0.2433 kg | 3       |
| CMS82I         | G305009     | 2                       | CMS8 double pole                     | 0.1216 kg | 6       |

## TECHNICAL DATA

|                                                                | CMS8                                                                                                                                                                                                                   | CMS8I                                                                                                                                                                                                                  |
|----------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Size                                                           | 8.5 x 31.5                                                                                                                                                                                                             | 8.5 x 31.5                                                                                                                                                                                                             |
| Number of poles/phases                                         | 1, 1+N, 2, 3, 3+N, 4                                                                                                                                                                                                   | 1, 1+N, 2, 3, 3+N, 4                                                                                                                                                                                                   |
| Conventional free air thermal current with fuse links $I_{th}$ | 25 A                                                                                                                                                                                                                   | 25 A                                                                                                                                                                                                                   |
| Power dissipation at $I_{th}$                                  | 2.5 W                                                                                                                                                                                                                  | 2.5 W                                                                                                                                                                                                                  |
| Utilisation category                                           | AC20B/DC20B                                                                                                                                                                                                            | AC20B/DC20B                                                                                                                                                                                                            |
| Rated insulation voltage $U_i$                                 | 500 V                                                                                                                                                                                                                  | 500 V                                                                                                                                                                                                                  |
| Rated impulse withstand voltage $U_{imp}$                      | 6 kV                                                                                                                                                                                                                   | 6 kV                                                                                                                                                                                                                   |
| Degree of protection                                           | IP 20                                                                                                                                                                                                                  | IP 20                                                                                                                                                                                                                  |
| Voltage limit for blown fuse indicator                         | -                                                                                                                                                                                                                      | 230 to 690V AC/DC                                                                                                                                                                                                      |
| Indication System                                              | -                                                                                                                                                                                                                      | with indicator                                                                                                                                                                                                         |
| Operating temperature                                          | -25°C to 60°C                                                                                                                                                                                                          | -25°C to 60°C                                                                                                                                                                                                          |
| Connection                                                     | Max. tightening torque: 2.2Nm (19lbs.-in)<br>Rigid wire = 1-16mm <sup>2</sup> (16-6AWG)<br>Multistrand wire = 0.75-10mm <sup>2</sup> (18-8AWG)<br>PZ2 or flat 5.5x1mm screw drivers recommended<br>(max. diameter 6mm) | Max. tightening torque: 2.2Nm (19lbs.-in)<br>Rigid wire = 1-16mm <sup>2</sup> (16-6AWG)<br>Multistrand wire = 0.75-10mm <sup>2</sup> (18-8AWG)<br>PZ2 or flat 5.5x1mm screw drivers recommended<br>(max. diameter 6mm) |
| Storage temperature                                            | -25°C to 80°C                                                                                                                                                                                                          | -25°C to 80°C                                                                                                                                                                                                          |

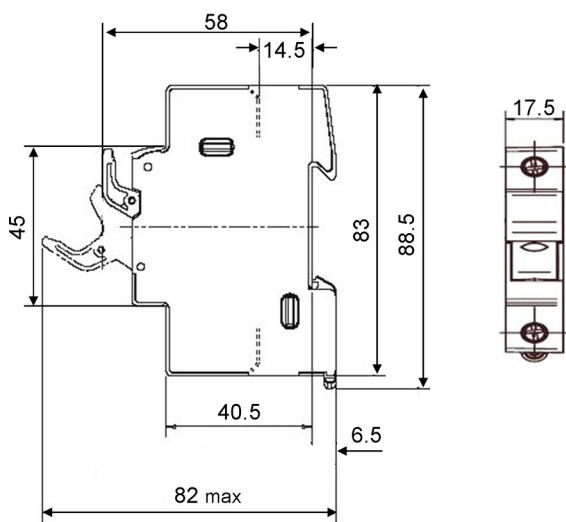
## SPECIFIC USAGE CONDITIONS

|                           |       |      |      |      |      |
|---------------------------|-------|------|------|------|------|
| Ambient temperature       | >20°C | 30°C | 40°C | 50°C | 60°C |
| Derating factor ( $I_e$ ) | 1     | 0.95 | 0.9  | 0.8  | 0.7  |

|                                         |        |      |
|-----------------------------------------|--------|------|
| No of poles (side by side)              | 1 to 3 | >= 4 |
| Derating factor of current ( $I_{th}$ ) | 1      | 0.9  |

## DIMENSIONS

### Modulostar® CMS8 fuse-holders for cylindrical fuse-links class 8.5x31.5mm



Dimensions in mm

ACCESSORIES



CMS8010PAK + fuse-holder

Kit for multi phase connection

| Catalog number | Item number | Weight | Description                             | Weight | Package |
|----------------|-------------|--------|-----------------------------------------|--------|---------|
| CMS810PAK      | Z233725     | 0.5 g  | Links for connection of multipole units | 0.5 g  | 12      |



TAGLOCKCMS810

LOCK

Locking devices

| Catalog number | Item number | Weight   | Description                   | Weight | Package |
|----------------|-------------|----------|-------------------------------|--------|---------|
| TAGLOCKCMS810  | A235773     | 9 g      | Locking kit (Tag and lockout) | 9 g    | 1       |
| LOCK           | M223525     | 0.475 kg | Padlock                       | 475 g  | 1       |



TBB1A

TBB1C



TBB23A

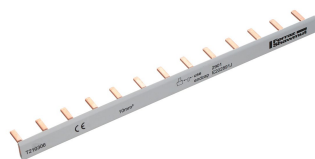
TBB23C

Power supply

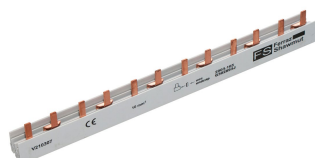
| Catalog number | Item number | Weight | Description                                | Application          | Weight | Package |
|----------------|-------------|--------|--------------------------------------------|----------------------|--------|---------|
| TBB1A          | D210315     | 10.1 g | 1 phase axial incoming power supply        | Max. rms current 90A | 10.1 g | 50      |
| TBB1C          | E210316     | 10 g   | 1 phase lateral incoming power supply      | Max. rms current 90A | 10 g   | 50      |
| TBB23A         | F210317     | 23.3 g | 2 & 3 phases axial incoming power supply   | Max. rms current 90A | 23.3 g | 50      |
| TBB23C         | G210318     | 23.1 g | 2 & 3 phases lateral incoming power supply | Max. rms current 90A | 23.1 g | 50      |

MERSEN reserves the right to change, update or correct, without notice, any information contained in this datasheet.

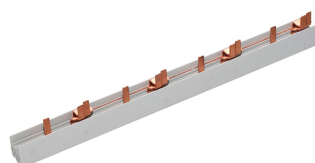
## ACCESSORIES



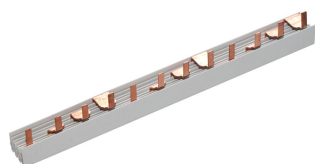
CMS810BB1F13



CMS810BB2F6



CMS810BB3F4



CMS810BB4F3

### Wiring bars / Insulated bus bars

| Catalog number | Item number | Weight  | Description                                                                                      | Application                                          | Weight | Package |
|----------------|-------------|---------|--------------------------------------------------------------------------------------------------|------------------------------------------------------|--------|---------|
| CMS810BB1F13   | T210306     | 40.2 g  | single pole, 10 mm <sup>2</sup> , partition 17,5 mm (distance of poles), peg design, L-shaped    | Max. rms current 63A, for installation of 13 modules | 33.5 g | 10      |
| CMS810BB2F6    | V210307     | 80 g    | double pole, 10 mm <sup>2</sup> , partition 17,5 mm (distance of poles), peg design, L-shaped    | Max. rms current 63A, for installation of 6 modules  | 80 g   | 10      |
| CMS810BB3F4    | W210308     | 95.8 g  | triple pole, 10 mm <sup>2</sup> , partition 17,5 mm (distance of poles), peg design, L-shaped    | Max. rms current 100A, for installation of 4 modules | 84 g   | 10      |
| CMS810BB4F3    | X210309     | 0.12 kg | quadruple pole, 10 mm <sup>2</sup> , partition 17,5 mm (distance of poles), peg design, L-shaped | Max. rms current 100A, for installation of 3 modules | 120 g  | 10      |