

# Modulostar® CMS27 - Ultrasafe™ US27

Modular fuse-holders

## FUSE HOLDERS, FUSE BASES AND SUPPORTS

### UL/CSA FUSE HOLDERS



The innovative and comprehensive Modulostar® range of Mersen fuse-holders.

Modular fuse-holders are finger-safe as per 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 or 3 poles, with or without visual blown fuse indicators, in IEC + UL version.

Multi-pole units can also be field assembled by ordering pin-ties assembly kit. The range offers the possibility to use microswitches (supplied with the holders or ordered separately) to allow remote indication. Modulostar® range is made of tough and durable thermoplastic or thermoset material.

### TECHNICAL DATA OVERVIEW

UL ratings AC / DC	800 V, 150 A, 200 kA
Rated insulation voltage $U_i$	800 V
Amper (A) (IEC)	140 A
SCCR	200 kA
Mounting	Installation on to DIN rails to EN 60718
Product Size	For cylindrical fuse links 27x60 or J60
Number of poles	1 to 4 poles

### FEATURES & BENEFITS

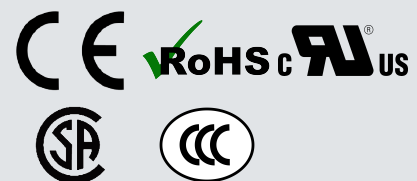
- Finger safe
- Degree of protection: IP20
- Optional visual blown fuse indicator & microswitch
- Designs available for DIN rail mounting and direct mounting on board
- Modular design
- Multi-pole assembly kit available
- Plastic material UL94V2 mini
- Flame retardant materials with glow wire flammability index to 960°C

### APPLICATIONS

- All circuits up to 800V using semi-conductor fuses for protection of small inverters, UPS systems, motor drives, etc.
- Non-load operation

### STANDARDS

- IEC 60269-2 and IEC 60947-3 Compliance
- UL4248-1 Compliant
- RoHS Compliant
- Plastic material: NF 16101 & 16102 Requirement 2 Compliant
- Vibration tested for marine and railway applications
- CCC (screw terminal connection only)



## PRODUCT RANGE



CMS27I

### Modulostar® fuse holders for 27x60 fuse-links, without indicator

Catalog number	Item number	Number of poles/phases	Design	Package	Weight
CMS27I	R210580	1	single pole	3	0.30 kg
CMS271N	S210581	1 + N	single pole + neutral conductor	1	0.72 kg
CMS272	T210582	2	double pole	1	0.67 kg
CMS273	V210583	3	triple pole	1	0.91 kg
CMS273N	W210584	3 + N	triple pole + neutral conductor	1	1.25 kg
CMS27N	B210152	N	neutral conductor	3	0.37 kg



US27I

### UltraSafe™ fuse holders for 27x60 fuse-links, with indicator

Catalog number	Item number	Number of poles/phases	Design	Package	Weight
US271I	J226420	1	single pole	3	0.30 kg
US271NI	K226421	1+N	single pole + neutral conductor	1	0.73 kg
US272I	L226422	2	double pole	1	0.67 kg
US273I	M226423	3	triple pole	3	1 kg
US273NI	N226424	3+N	triple pole + neutral conductor	1	1.27 kg

### UltraSafe™ fuse holders for 27x60 fuse-links, without indicator



US273

Catalog number	Item number	Number of poles/phases	Design	Package	Weight
US271	G320005	1	single pole	3	0.30 kg
US272	H320006	2	double pole	1	0.66 kg
US273	J320007	3	triple pole	3	0.9 kg
US27N	R232729	N	neutral conductor	3	0.37 kg



US271MI

### UltraSafe™ fuse holders for 27x60 fuse-links, with auxiliary microswitch and indicator

Catalog number	Item number	Number of poles/phases	Design	Package	Weight
US271MI	R227600	1	single pole	1	0.32 kg
US272M2I	T227602	2	double pole, 2 microswitches	1	0.7 kg
US272MI	S227601	2	double pole, 1 microswitch	1	0.68 kg

### UltraSafe™ fuse holders for 27x60 fuse-links, with auxiliary microswitch, indicator and ring lug connection

Catalog number	Item number	Number of poles/phases	Design	Package	Weight
US271MIRING	Z227607	1	single pole	1	0.54 kg
US272M2IRING	B227609	2	double pole, 2 microswitches	1	1.00 kg

### UltraSafe™ fuse holders for 27x60 fuse-links, with indicator and ring lug connection

Catalog number	Item number	Number of poles/phases	Design	Package	Weight
US271NIRING	E223518	1+N	single pole + neutral conductor	1	0.8 kg
US27IRING	B223515	1	single pole	3	0.47 kg
US272IRING	C223516	2	double pole	1	1.00 kg
US273IRING	D223517	3	triple pole	3	1.39 kg
US27NIRING	F223519	N	neutral conductor	3	0.34 kg

# Modulostar<sup>®</sup> CMS27 - Ultrasafe<sup>™</sup> US27

## Modular fuse-holders

### TECHNICAL DATA

	<b>CMS27</b>	<b>US27I</b>	<b>US27</b>	<b>US27M</b>	<b>US27MIRING</b>	<b>US27IRING</b>
Size	27x60	27x60	27x60	27x60	27x60	27x60
Installation mode	direct mounting on board: 2xM4 screw with tightening torque 1-1.2Nm (8 to 10.6lbs-in)	direct mounting on board: 2xM4 screw with tightening torque 1-1.2Nm (8 to 10.6lbs-in)	direct mounting on board: 2xM4 screw with tightening torque 1-1.2Nm (8 to 10.6lbs-in)	direct mounting on board: 2xM4 screw with tightening torque 1-1.2Nm (8 to 10.6lbs-in)	direct mounting on board: 2xM4 screw with tightening torque 1-1.2Nm (8 to 10.6lbs-in)	direct mounting on board: 2xM4 screw with tightening torque 1-1.2Nm (8 to 10.6lbs-in)
Number of poles/phases	1, 1+N, 2, 3, 3+N	1, 1+N, 2, 3, 3+N	1, 1+N, 2, 3	1, 2	1, 2	1, 1+N, 2, 3
Conventional free air thermal current with fuse links $I_{th}$	140 A	140 A	140 A	140 A	140 A	140 A
Max. power dissipation of fuse links $P_n$	11 W	11 W	11 W	11 W	11 W	11 W
Utilisation category	AC20B/DC20B	AC20B/DC20B	AC20B/DC20B	AC20B/DC20B	AC20B/DC20B	AC20B/DC20B
Rated insulation voltage $U_i$	800 V	800 V	800 V	800 V	800 V	800 V
Rated impulse withstand voltage $U_{imp}$	8 kV	8 kV	8 kV	8 kV	8 kV	8 kV
Degree of protection	IP 20	IP 20	IP 20	IP 20	IP 20	IP 20
Voltage limit for blown fuse indicator	-	230 to 690V AC/DC	-	-	-	230 to 690V AC/DC
Indication System	-	with indicator	-	with auxiliary microswitch	with auxiliary microswitch and special connection	with indicator and special connection
Operating temperature	-25°C to 60°C	-25°C to 60°C	-25°C to 60°C	-25°C to 60°C	-25°C to 60°C	-25°C to 60°C
Storage temperature	-25°C to 80°C	-25°C to 80°C	-25°C to 80°C	-25°C to 80°C	-25°C to 80°C	-25°C to 80°C
Connection	rigid wire = 1.5-50mm <sup>2</sup> (16-1/0AWG) multistrand wire = 1.5-16mm <sup>2</sup> (16-6AWG) recommended tightening torque: 3.5Nm (30lbs-in) PZ3 or flat 8x1.2mm screw drivers recommended	rigid wire = 1.5-50mm <sup>2</sup> (16-1/0AWG) multistrand wire = 1.5-16mm <sup>2</sup> (16-6AWG) recommended tightening torque: 3.5Nm (30lbs-in) PZ3 or flat 8x1.2mm screw drivers recommended	rigid wire = 1.5-50mm <sup>2</sup> (16-1/0AWG) multistrand wire = 1.5-16mm <sup>2</sup> (16-6AWG) recommended tightening torque: 3.5Nm (30lbs-in) PZ3 or flat 8x1.2mm screw drivers recommended	rigid wire = 1.5-50mm <sup>2</sup> (16-1/0AWG) multistrand wire = 1.5-16mm <sup>2</sup> (16-6AWG) recommended tightening torque: 3.5Nm (30lbs-in) PZ3 or flat 8x1.2mm screw drivers recommended	-	-
<b>Auxiliary switches</b>						
Rated insulation voltage AC	250 V	250 V	250 V	250 V	250 V	250 V
Rated operational current to IEC 60947-5-1/AC15	4A/24V, 4A/48V, 3A/127V, 2,5A/240V	4A/24V, 4A/48V, 3A/127V, 2,5A/240V	4A/24V, 4A/48V, 3A/127V, 2,5A/240V	4A/24V, 4A/48V, 3A/127V, 2,5A/240V	4A/24V, 4A/48V, 3A/127V, 2,5A/240V	4A/24V, 4A/48V, 3A/127V, 2,5A/240V
Rated operational current to IEC 60947-5-1/AC13	3A/24V, 1A/48V, 0,2A/127V, 0,1A/240V	3A/24V, 1A/48V, 0,2A/127V, 0,1A/240V	3A/24V, 1A/48V, 0,2A/127V, 0,1A/240V	3A/24V, 1A/48V, 0,2A/127V, 0,1A/240V	3A/24V, 1A/48V, 0,2A/127V, 0,1A/240V	3A/24V, 1A/48V, 0,2A/127V, 0,1A/240V
Min. operational current AC/DC	100 mA	100 mA	100 mA	100 mA	100 mA	100 mA
Min_operational_voltage AC/DC	20 V	20 V	20 V	20 V	20 V	20 V
Connection	Faston lugs	Faston lugs	Faston lugs	Faston lugs	Faston lugs	Faston lugs

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

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### SPECIFIC USAGE CONDITIONS

Ambient temperature	> 20°C	30°C	40°C	50°C	60°C
Derating factor (I <sub>e</sub> )	1	0.95	0.9	0.8	0.7

No of poles (side by side)	1 to 3	4 to 6	>= 7
Derating factor of current (I <sub>th</sub> )	1	0.95	0.9

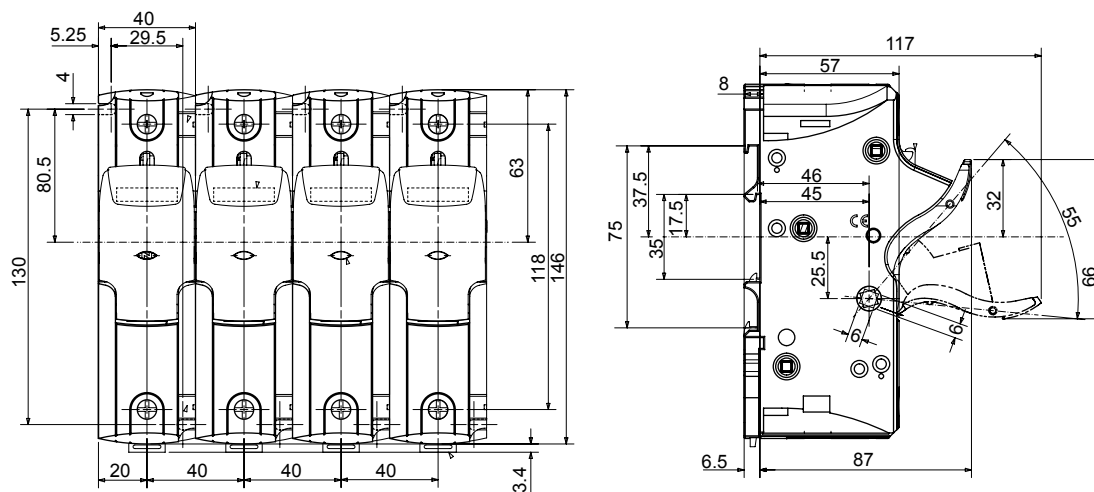
Nominal current of fuse-link gR	100 A	110 A
Max. operational current in fuse-holder	96 A	102 A
Cable wire section	25 mm <sup>2</sup>	35 mm <sup>2</sup>

### DIMENSIONS

**Modulostar<sup>®</sup> CMS27 Ultrasafe<sup>™</sup> US27 fuse-holders for cylindrical fuse-links class 27x60mm**

**Terminal connection: screw, U bolt or connector**

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Dimensions in mm

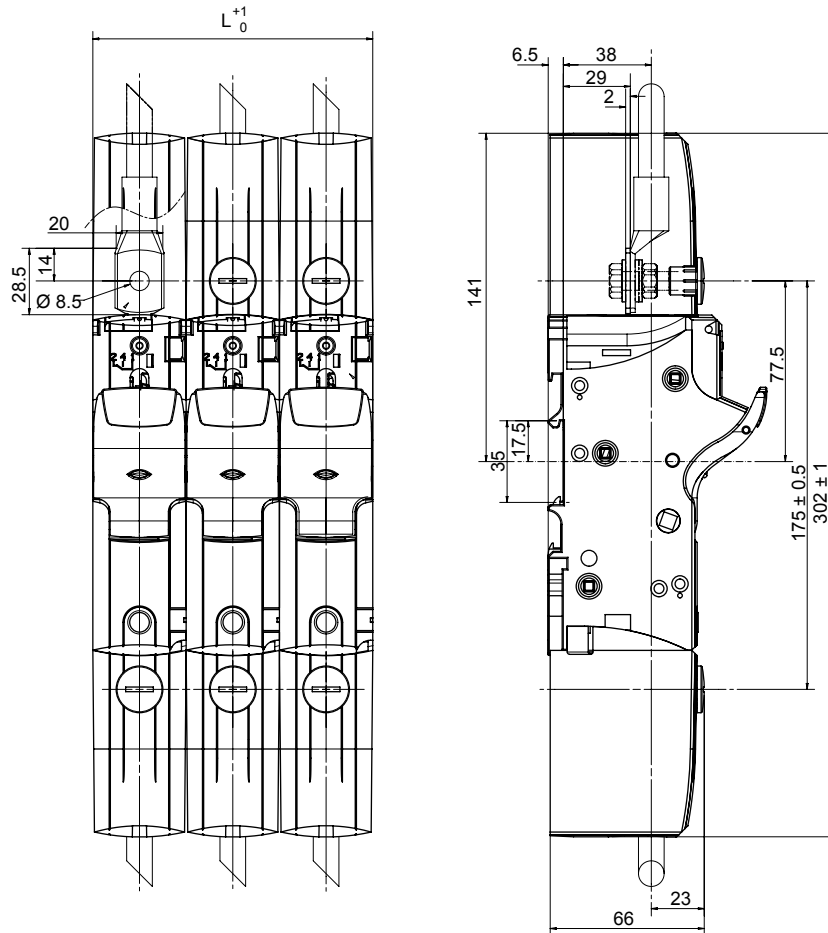
# Modulostar® CMS27 - Ultrasafe™ US27

Modular fuse-holders

## DIMENSIONS

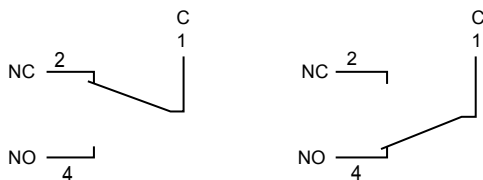
**Modulostar® CMS27 Ultrasafe™ US27 fuse-holders for cylindrical fuse-links class 27x60mm**  
**terminal connection: ring lug**

(C118276)



Dimensions in mm

### Auxiliary Microswitch



## ACCESSORIES

### Kit for multi phase connection

Catalog number	Item number	Design	Package	Weight
US27PAK	US27PAK	links for connection of multipole units	10	3 g

### ACCESSORIES

#### Auxiliary Switches

Catalog number	Item number	Design	Package	Weight
US27W1	US27W1	Microswitch kit	1	20 g

#### Wiring bars / Insulated bus bars

Catalog number	Item number	Design	Package	Weight
RAILDINSY	J213172	35mm Mounting rail symmetric perçage symétrique	40	0.36 kg
RAILDINSYPERF	C213672	35mm Mounting rail symmetric drilled 1 pôle	40	0.33 kg
RAILDINSYRENFZ	R215203	35mm Mounting rail symmetric reinforced montage rail symétrique	40	0.67 kg