

Compact modular fuse holders

Products for Industrial, PV, IEC and UL applications



Powering Business Worldwide

Eaton is the leading source of fusible circuit protection solutions in the global marketplace. Eaton's Bussmann series products are approved for use around the world and meet agency requirements and international standards: IEC, VDE, DIN, UL, CSA, BS and others.

The headquarters for Eaton's Bussmann series product line is located in Burton-on-the-Wolds, Leicestershire (UK) and is part of Eaton's Industrial Control and Protection EMEA division.

Eaton manufactures over 50,000 Bussmann series part numbers, covering extensive fusible circuit protection solutions for a wide range of applications: residential, industrial, motor protection, power conversion and distribution.

Eaton has been a leading exponent in the design, development and manufacture of fuse links and their associated accessories for more than 100 years and has supplied fuse links to more than 90 countries worldwide.

Eaton's team of specialist Engineers and Field Applications Engineers plays a leading role in international standardisation of fuse links offering comprehensive advice on selection and applications.

With a continual commitment to meet our customers' needs with innovative high quality products with ISO 9001 'approval systems', Eaton is the supplier of choice for circuit protection solutions.

Eaton's Bussmann series CH modular fuse holders offer a set of advantages you can't find anywhere else.

Best ratings

Offering a wide range of industry leading ratings – up to 32 A for both 690 V a.c. with 200 kA interrupting capability and 1000 V d.c. with 33 kA d.c. interrupting capability – the new CH series is suitable for all manner of applications, compliant to:

- IEC 60269-1
- IEC 60269-2
- UL 4248-1
- UL 4248-18

Smallest footprint

Eaton's Bussmann series CH modular fuse holders have been designed with size in mind, dimensions are in accordance to DIN 43 880 specifications. The CH range is up to 10 percent smaller than the competition allowing better utilisation of valuable panel space.

Ease of use

Installation has been made simple thanks to the toolless mounting system along with easy visual identification colour coding (for 10 x 38 mm modular fuse holders only). PV (yellow), IEC (red) and UL (black) holders have individual colours making it easy to recognise at a glance. Other features available are optional factory-installed neutral pole and blown fuse indication.

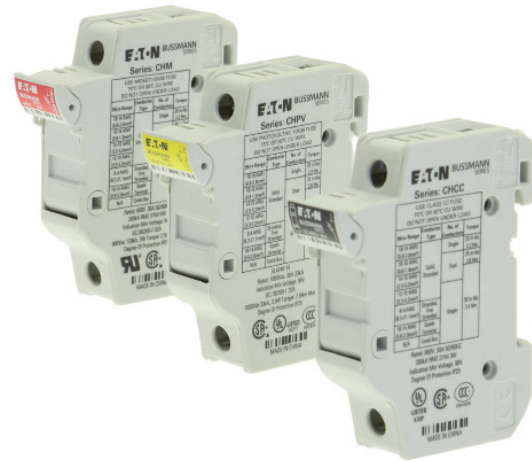
Accessories provide greater flexibility

Save time and money by reducing wiring and components. Advanced comb-bus bar and PLC communication accessories expand design possibilities while delivering superior performance.

10 x 38 mm modular fuse holders

Standard features

- Colour coded for simple visual identification: **yellow** for PV (1000 V d.c.), **red** for IEC (690 V a.c.) and **black** for UL (600 V a.c./d.c.) applications.
- CHPV Models, with 1000 V d.c. rating for use with solar gPV fuse links, are suitable for photovoltaic applications.
- Tested to a wide range of standards: IEC, cULus, CSA, CCC and UR, allowing for use across global applications.
- World class footprint — smaller than any other modular fuse holder, reducing installation space required.
- Toolless DIN-Rail mounting, improves ease of use and reduces installation time and costs.
- Rated for use with 75°C or 90°C wire, fine stranded wire, spade terminals and with comb-bus bars. Can be used with any higher temperature rated wire with appropriate derating.



Technical data

- Rated voltage and rated current: see table below
- Terminal size: 1 to 25mm² (#18 to #4 AWG)
- Torque settings:
 - Recommended torque setting: 2.5 N•m
 - Maximum torque setting: 3.4 N•m (30 Lb-In)
- Flammability ratings: UL 94V0, self-extinguishing
- Storage & operating temperature range

CHM and CHCC range:

- Storage temperature -40°C to +80°C
- Operating temperature -20°C to +70°C

CHPV range - storage and operating temperature:

- -20°C to +90°C (indicating)
- -20°C to +120°C (non indicating)

- Accessories: JV-L Multiple ganging pins (see page 5 for multi-pole ganging options)

Standards/approvals

- IEC 60269-1 and 60269-2,
- UL File E14853, Guide IZLT Listed, IZLT2 Recognised,
- CSA File 47235, CHPV and CHM - Class 6225-30, CHCC - Class 6225-01,
- CCC

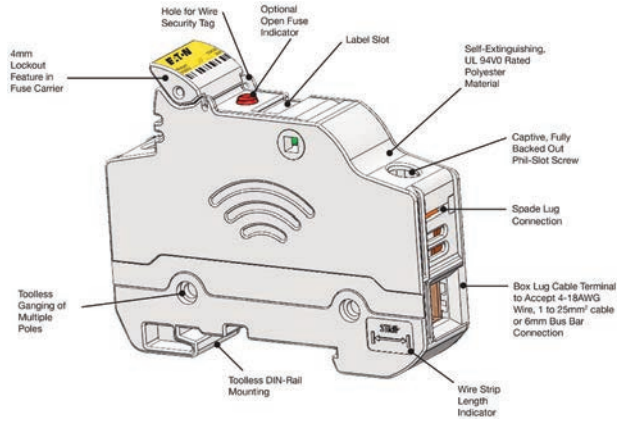
Packaging

- 1-pole: 12 per pack
- 2-pole: 6 per pack
- 3-pole: 4 per pack
- 4-pole: 3 per pack

Range & size	Catalogue number		Rated voltage & rated current	Agency markings	Number of poles	Terminal rating	Rated breaking capacity	Bussmann series fuse links			
	With indicator	Without indicator									
CHM 10x38 and Midjet	CHM1DIU	CHM1DU	IEC 690 V a.c./32 A UL 600 V a.c./30 A;	IEC 60269-2 UR; CSA; CCC	1	IEC: 1 to 25mm ² 70°C PVC/Copper Cable Solid, Stranded, Fine Stranded, Spade Lug, Comb Bus Bar; Single and Dual	IEC 120 kA rms sym UL 200 kA rms sym CCC 100 kA rms sym	IEC: C10G and C10M Series UL: FNQ, KLM, FNM, KTK, BAF, FWA, PVM, AGU, BAN, FWC.			
	CHM2DIU	CHM2DU			2						
	CHM3DIU	CHM3DU			3						
	CHM4DIU	CHM4DU			4						
	CHM1DNIU	CHM1DNU		IEC 60269-2	1-pole + 1 neutral						
	CHM3DNIU	CHM3DNU		IEC 60269-2	3-pole + 1 neutral						
	CHM1DI-48U	N/A	IEC 48 V d.c./32 A UL 48 V d.c./30 A;	IEC 60269-2; UR; CSA; CCC	1					N/A	N/A
	N/A	CHM1DNXU	IEC 690 V a.c./32 A	IEC 60269-2	1 neutral						
CHPV Photovoltaic	CHPV1IU	CHPV1U	IEC 1000 V d.c./32 A UL 1000 V d.c./30 A;	IEC 60269-1 UR; CSA; CCC UL4248-18	1		33 kA	Solar PV series, PVM, PV-xxA10F			
	CHPV2IU	CHPV2U			2						
CHCC Class CC	CHCC1DIU	CHCC1DU	UL 600 V a.c./d.c. 30 A	UL; CSA; CCC	1	Cable 75°C and 90°C Cu cable # 18 to # 4 AWG	200 kA rms sym	LP-CC, FNQ-R, KTK-R			
	CHCC2DIU	CHCC2DU			2						
	CHCC3DIU	CHCC3DU			3						
	N/A	CHCC1DI-48U	UL 48 V d.c./30 A	1							

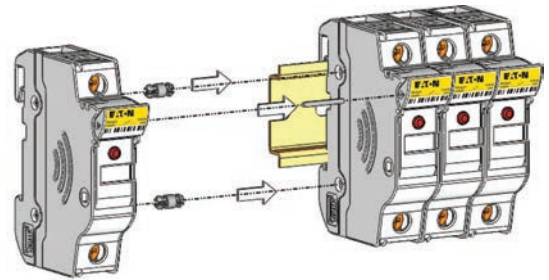
Features and installation guide

Features

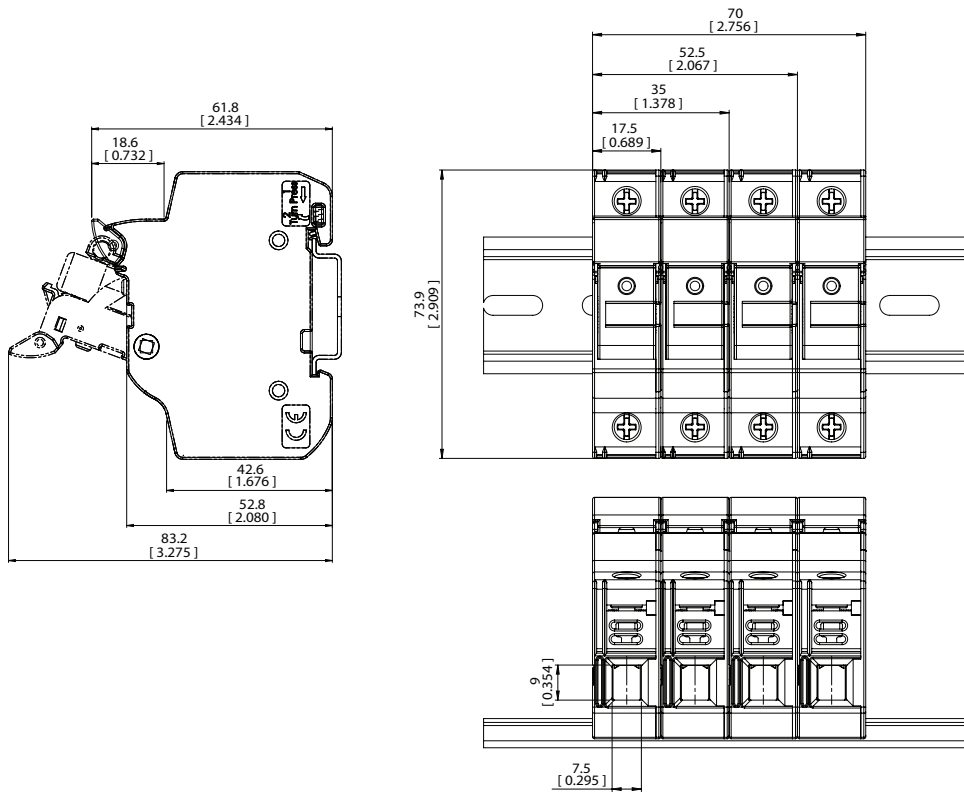


Multi-Pole Ganging

Use multi-pole connection kit part number **JV-L** to gang multiple poles together. One **JV-L** kit is sufficient to gang up to 4 poles.

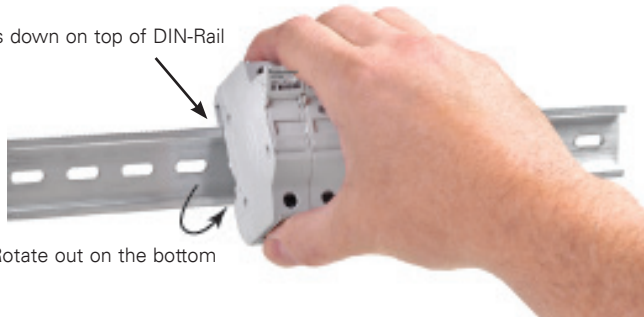


Dimensional data - mm (in)



Removing instructions

1. Press down on top of DIN-Rail



2. Rotate out on the bottom

14 x 51 mm modular fuse holders

Product description

Eaton's Bussmann series 14 x 51 mm modular fuse holders are suitable for use with standard cylindrical fuse links and high speed FW type ferrule fuse links. Their compact dimensions helps reduce space, allows for higher cable bending radius. Low watts loss and wide range of accessories make them ideally suited for most industrial applications.

Standard features

- Compact dimensions
- Ventilation zones optimised for a better heat dissipation
- Inbuilt padlocking facility
- IP20 degree of protection
- Photovoltaic version rated at 1500 V d.c. (IEC only) for use with gPV fuse links
- Flexibility to mount on DIN-Rail and screw mounting
- Toolless DIN-Rail mounting, improves ease of use and reduces installation time and costs

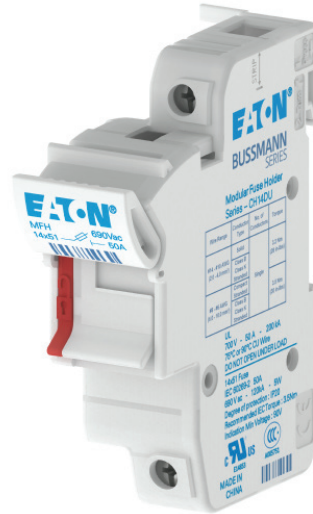
Catalogue symbol

- CH14 (# of poles)DU: standard fuse holder
- CH141DNXU: neutral fuse holder
- CH14(# of poles)DNU: standard fuse holder and neutral
- CH14(# of poles)DIU: fuse holder with neon indicator
- CH14(# of poles)DNIU: fuse holder with neutral and neon indicator
- CH14(# of poles)DMSU-F: fuse holder with microswitch (pre-breaking/fuse operation)
- CH14(# of poles)DNMSU-F: fuse holder with neutral and microswitch (pre-breaking/fuse operation)
- CHPV14(# of poles)U: suitable for photovoltaic fuse links

Compatible fuse links

- C14G and C14M: 14 x 51 mm fuse links
- PV-(amp rating)A14F: Photovoltaic gPV Fuse links
- High speed FW Ferrule fuse links

Catalogue number	Maximum continuous fuse current	Catalogue number	Maximum continuous fuse current
FWH-5A14F	5 A	FWP-5A14F	5 A
FWH-10A14F	10 A	FWP-10A14F	10 A
FWH-15A14F	15 A	FWP-15A14F	15 A
FWH-20A14F	20 A	FWP-20A14F	20 A
FWH-25A14F	25 A	FWP-25A14F	25 A
FWH-30A14F	24 A	FWP-30A14F	30 A
FWX-5A14F	5 A	FWP-32A14F	32 A
FWX-10A14F	10 A	FWP-40A14F	40 A
FWX-15A14F	15 A	FWP-50A14F	49 A
FWX-20A14F	20A		
FWX-25A14F	25 A		
FWX-30A14F	30 A		



Technical data

- Number of poles: 1 to 4
- Rated voltage:

	IEC	UL
CH14DU	690 V a.c. 750 V d.c.	700 V a.c.
CHPV14U	1500 V d.c.	1500 V d.c.

- Rated current:

	IEC	UL
CH14DU	50 A (a.c. and d.c.)	50 A

- Rated power acceptance: 5 W to IEC 60269-2
- Maximum power acceptance: 6.2 W
- Protection index: IP20
- Rated impulse withstand voltage (U_{imp}): 6 kV
- SCCR Rating: 120 kA ac, 10 kA d.c. for CHPV14U
- Cable size: 1.5 - 50 mm²
- Torque settings:
 - Recommended torque setting 3.5 N•m
 - Maximum torque setting: 3.5 N•m

- Mounting 35 mm DIN-Rail or 2 x M4 panel mounting screws

- Storage & operating temperature range

CH14D range:

- Storage temperature -40°C to +80°C
- Operating temperature -20°C to +70°C

CHPV14 range - storage and operating temperature:

- -20°C to +90°C (indicating)
- -20°C to +120°C (non indicating)

- RoHS compliant

Standards / approvals

- IEC 60269-1 and 60269-2
- UL listed, file numbers: E14853 for general purpose fuse holder; E348242 for gPV CHPV14 photovoltaic fuse holders

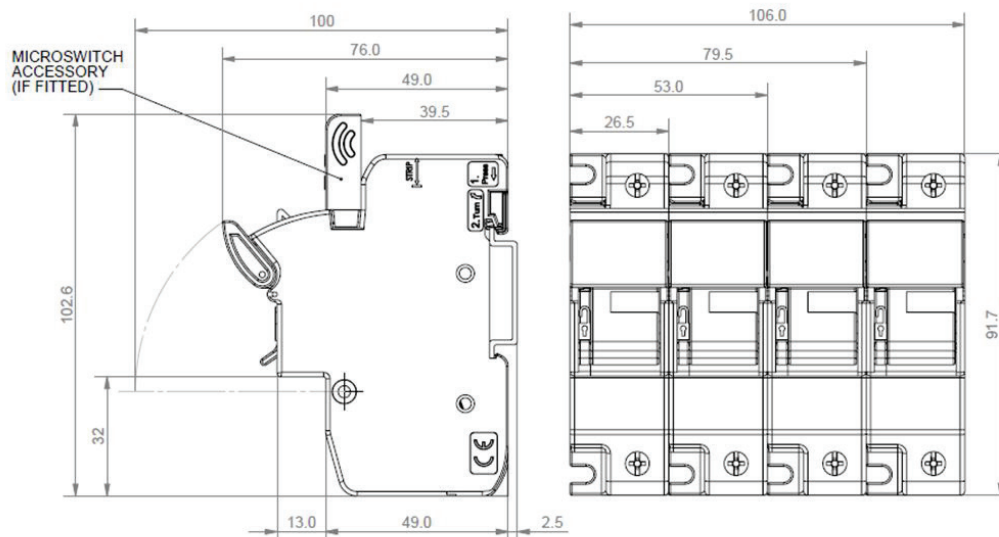
Packaging

- 1-pole: 6 per pack, 2-pole: 3 per pack , 3-pole: 2 per pack, 4-pole: 1 per pack

Technical data

Old catalogue number	New catalogue number	Number of poles	Description
Neutral only			
CH141BNX	CH141DNXU	1	Neutral cylindrical fuse holder
Fuse holder only			
CH141B	CH141DU	1	1-pole cylindrical fuse holder
CH142B	CH142DU	2	2-pole cylindrical fuse holder
CH143B	CH143DU	3	3-pole cylindrical fuse holder
CH144B	CH144DU	4	4-pole cylindrical fuse holder
Fuse holder and neutral			
CH141BN	CH141DNU	2	1-pole + neutral cylindrical fuse holder
CH143BN	CH143DNU	4	2-pole + neutral cylindrical fuse holder
Fuse holder with neon indicator			
CH141BI	CH141DIU	1	1-pole cylindrical fuse holder with neon indicator
CH142BI	CH142DIU	2	2-pole cylindrical fuse holder with neon indicator
CH143BI	CH143DIU	3	3-pole indicator fuse holder with neon indicator
CH144BI	CH144DIU	4	4-pole indicator fuse holder with neon indicator
Fuse holder with neon indicator and neutral			
CH141BNI	CH141DNIU	2	1-pole + neutral cylindrical fuse holder with neon indicator
CH143BNI	CH143DNIU	4	3-pole + neutral cylindrical fuse holder with neon indicator
Fuse holder with microswitch			
CH141BMS & CH141BMS-F	CH141DMSU-F	1	1-pole cylindrical fuse holder with microswitch (pre-breaking/fuse operation)
CH143BMS & CH143BMS-F	CH143DMSU-F	3	3-pole cylindrical fuse holder with microswitch (pre-breaking/fuse operation)
Fuse holder with microswitch and neutral			
CH143BNMS-F & CH143BNMS	CH143DNMSU-F	4	3-pole + neutral cylindrical fuse holder with microswitch (pre-breaking/fuse operation)
Fuse holder for photovoltaic applications			
CH141D-PV	CHPV141U	1	1-pole cylindrical fuse holder
N/A	CHPV141IU	1	1-pole cylindrical fuse holder with neon indicator
	CHPV142U	2	2-pole cylindrical fuse holder
	CHPV142IU	2	2-pole cylindrical fuse holder with neon indicator

Dimensional data - mm



Accessories

Catalogue number	Description	Unit packing
JV-L	Multi-pole connector kit. One kit will gang up to 4-poles together	12
CH14-SPS	Microswitch to work on CH141D(I)U, 1 n/o + 1 n/c changeover type	3
CH14-TPS	Microswitch to work on CH143D(I)U, 1 n/o + 1 n/c changeover type	3
CH14-CTP	IP20 Protection accessory, provides IP20 protection to terminals with 10mm ² or less cable	12

22 x 58 mm modular fuse holders

Product description

Eaton's Bussmann series 22 x 58 mm modular fuse holders is suitable for use with standard cylindrical fuse links and high speed FW type ferrule fuse links. Their compact dimensions helps reduce space, allows for higher cable bending radius. Low watts loss and wide range of accessories make them ideally suited for most industrial applications.

Standard features

- Compact dimensions
- Ventilation zones optimised for a better heat dissipation
- Inbuilt padlocking facility
- IP20 degree of protection
- Flexibility to mount on DIN Rail and screw mounting
- Toolless DIN-Rail mounting, improves ease of use and reduces installation time and costs

Catalogue symbol

- CH221DNXU: neutral fuse holder
- CH22(# of poles)DU: standard fuse holder
- CH22(# of poles)DIU: fuse holder with neon indicator
- CH221(# of poles)DNU: standard fuse holder and neutral
- CH221(# of poles)DNIU: standard fuse holder and neutral and neon indicator
- CH221(# of poles)DMSU-F: fuse holder with microswitch (pre-breaking/fuse operation)
- CH221(# of poles)DNMSU-F: fuse holder with neutral and microswitch (pre-breaking/fuse operation)

Compatible fuse links

- C22G and C22M: 22 x 58 mm gG and gM fuse links
- High speed FW Ferrule fuse links

Catalogue number	Maximum continuous fuse current
FWP-20A22F	20 A
FWP-25A22F	25 A
FWP-32A22F	32 A
FWP-40A22F	38 A
FWP-50A22F	44 A
FWP-63A22F	55 A
FWP-80A22F	73 A
FWP-100A22F	86 A

Standards / approvals

- IEC 60269-1 and 60269-2
- UL listed, file number E14853

Packaging

- 1-pole: 6 per pack, 2-pole: 3 per pack, 3-pole: 2 per pack, 4-pole: 1 per pack



Technical data

- Number of poles: 1 to 4
- Rated voltage:

	IEC	UL
CH22DU	690 V a.c. 1000 V d.c.	700 V a.c.

- Rated current:

	IEC	UL
CH22DU	125 A (a.c. and d.c.)	100 A a.c.

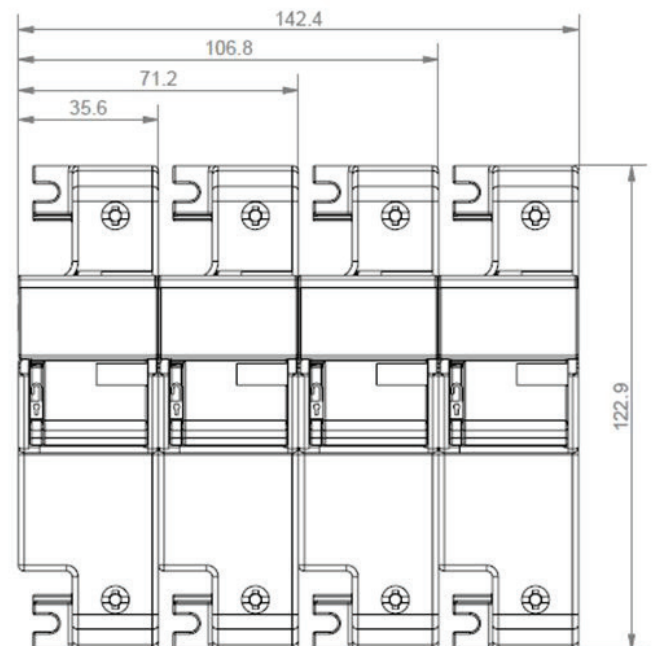
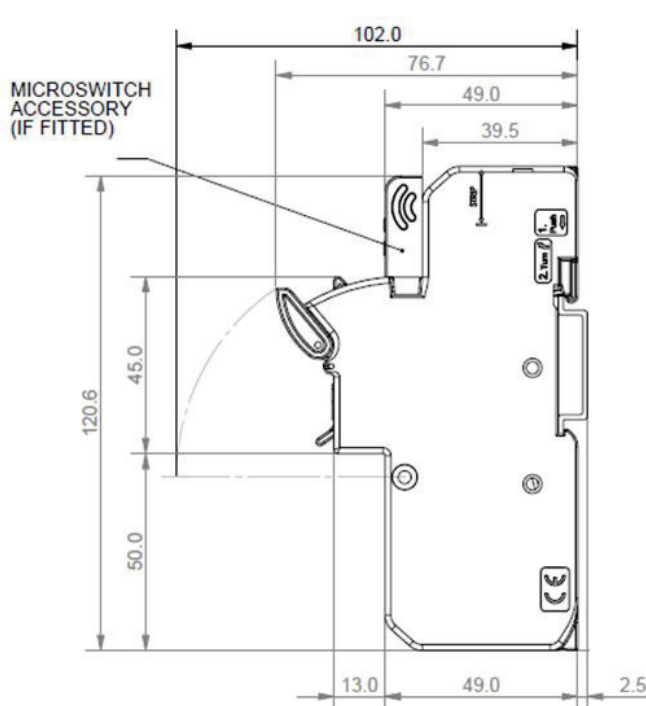
- SCCR: 120 kA (a.c.) / 50 kA (d.c.)
- Microswitch (IEC): 250 V a.c. / 5 A
- Rated power acceptance: 9.5 W to IEC 60269-2
- Protection index: IP20 Finger-safe*
- Rated impulse withstand voltage (Uimp): 6 kV
- Cable size (Copper only): 2.5 mm² - 70 mm²
- Torque settings:
 - Recommended torque setting 4 N•m
 - Maximum torque setting: 5 N•m
- Mounting: 35mm DIN-Rail or 2 x M4 Panel mounting screws
- Storage & operating temperature range
 - Storage temperature -40°C to +80°C
 - Operating temperature -20°C to +70°C
- RoHS compliant

* Available protection accessory CH22-CTP for use with conductors of 10 mm² or less

Technical data

Old part number	New part number	Number of poles	Description
Neutral only			
CH221BNX	CH221DNXU	1	Neutral holder
Fuse holder only			
CH221B	CH221DU	1	1-pole fuse holder
CH222B	CH222DU	2	2-pole fuse holder
CH223B	CH223DU	3	3-pole fuse holder
CH224B	CH224DU	4	4-pole fuse holder
Fuse holder with neon indicator			
N/A	CH221DIU	1	1-pole fuse holder with neon indicator
N/A	CH222DIU	2	2-pole fuse holder with neon indicator
N/A	CH223DIU	3	3-pole fuse holder with neon indicator
N/A	CH224DIU	4	4-pole fuse holder with neon indicator
Fuse holder and neutral			
CH221BN	CH221DNU	2	1-pole + neutral fuse holder
CH223BN	CH223DNU	4	3-pole + neutral fuse holder
Fuse holder and neutral and neon indicator			
N/A	CH221DNIU	2	1-pole + neutral fuse holder + neon indicator
N/A	CH223DNIU	4	3-pole + neutral fuse holder + neon indicator
Fuse holder with microswitch			
CH221BMS	CH221DMSU-F	1	1-pole fuse holder with microswitch (pre-breaking/fuse operation)
CH223BMS	CH223DMSU-F	3	3-pole fuse holder with microswitch (pre-breaking/fuse operation)
Fuse holder with neutral and microswitch			
CH223BNMS	CH223DNMSU-F	3	3-pole cylindrical fuse holder + neutral + microswitch (pre-breaking/fuse operation)

Dimensional data - mm

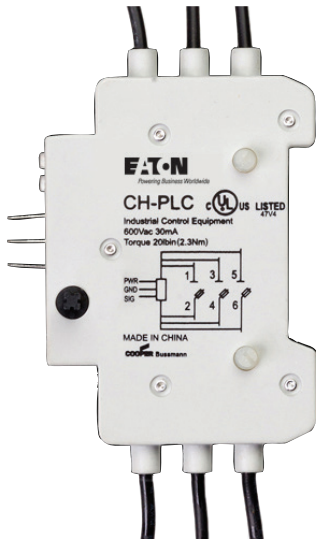


Accessories

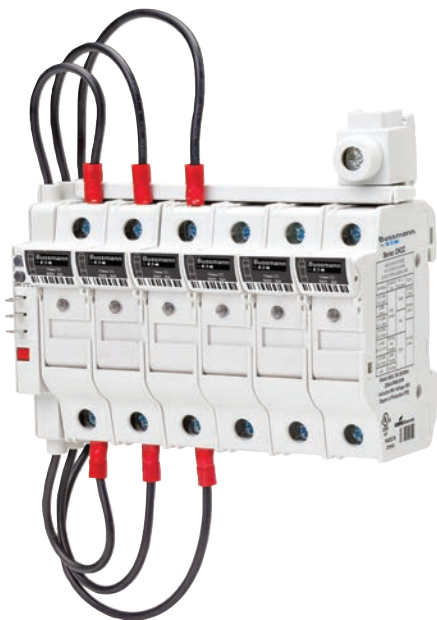
Part number	Description	Unit packing
JV-L	Multi-pole connector kit. One kit will gang up to 4-poles together	12
CH22-CTP	IP20 protection accessory, provides IP20 protection to terminals with 10mm ² or less cable	12
CH22-SPS	Microswitch to work on CH221D(I)U, 1 n/o + 1 n/c changeover type	3
CH22-TPS	Microswitch to work on CH223D(I)U, 1 n/o + 1 n/c changeover type	3

Remote fuse monitoring accessory CH-PLC

Make it simple with Eaton's Bussmann series resettable three-phase remote fuse monitor that integrates with a Programmable Logic Controller (PLC) or other monitoring and control equipment.



RoHS



Specifications

- Power Input: 24 V d.c. / 5mA.
- Sensing Voltage: 600 V/30mA.
- Output Signals: Digital 0 V d.c. (Low), 24 V d.c. (High)
 - - 0 V d.c. Low – Fuse is good
 - - 24 V d.c. High – Fuse has opened
 - When the fuse opens, the output signal is sent high and will remain high until the unit is reset.
- Rated Impulse Voltage: 8kV.
- Local Indication: Two distinct LEDs indicate unit power (green) and open fuse (red). Upon the replacement of the fuse, the actuation of the reset switch will reset the open fuse LED.
- Flammability Rating: UL 94V0.

Wiring

- For power, signal and ground connections use 22-24 AWG (0.25mm²) 300V rated wire.

Electromagnetic compatibility (EMC) testing

- Electrostatic Discharge Immunity IEC 61000-4-2.
- Electrical Fast Transient/Burst Immunity IEC 61000-4-4.
- Surge Immunity IEC 61000-4-5.

Packaging

- The CH-PLC is packaged individually.
- A single unit monitors up to three phases.
- Package includes 0.11" (2.8 mm) quick connects for power, signal and ground connections.

Minimum circuit voltage

- Minimum circuit voltage required across the CH holder is 100 V a.c. for the remote indication device to operate.

Installation technique

- Mounts on the left side of the fuse holder and mechanically interlocks with the fuse holder switch handle with hardware provided.

IP20 rating

- Yes.

Storage and operating temperature

- Storage temperature -40°C to +80°C
- Operating temperature -20°C to +70°C

Agency information

- UL 508.
- cULus to CSA Standard 22.2 No.14.

PLC Programming

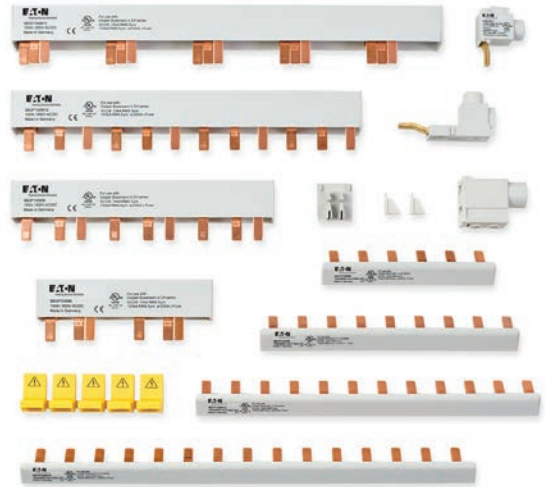
- The CH-PLC signal line is designed to provide a digital input to a PLC I/O card.
- Programmable Logic Control program must be written to properly interpret the input signal to the PLC.
- The PLC program should check for consecutive high signals before taking action on a critical process.

De-energize all circuits before installing or removing any CH-PLC devices and follow all prescribed safety procedures.

Comb-Bus Bar specifications and selection guide

Features and benefits

- Easily distribute power in single-phase or three-phase configurations.
- Flexible cut-to-length solutions without compromising on the product's finger-safe features.
- 100 kA SCCR (Short-Circuit Current Rating) when protected by a 200 A Class J fuse.
- Single-phase bus bars rated to 1000 V d.c. and 100 A in end-fed configuration (200 A for center-fed configuration).
- Three-phase bus bars rated to 600 V a.c./dc and 100 A in end-fed configuration (200 A for center-fed configuration).
- Power feed terminals for single-phase and three-phase service.



Specifications

Agency information

UL508, File E195399.



Pitch

17.8 mm.

SCCR

10 kA (default) 100 kA (with upstream Class J 200A fuses).

Max current

100 A (power feed from end) 200 A (power feed from center).

Max voltage

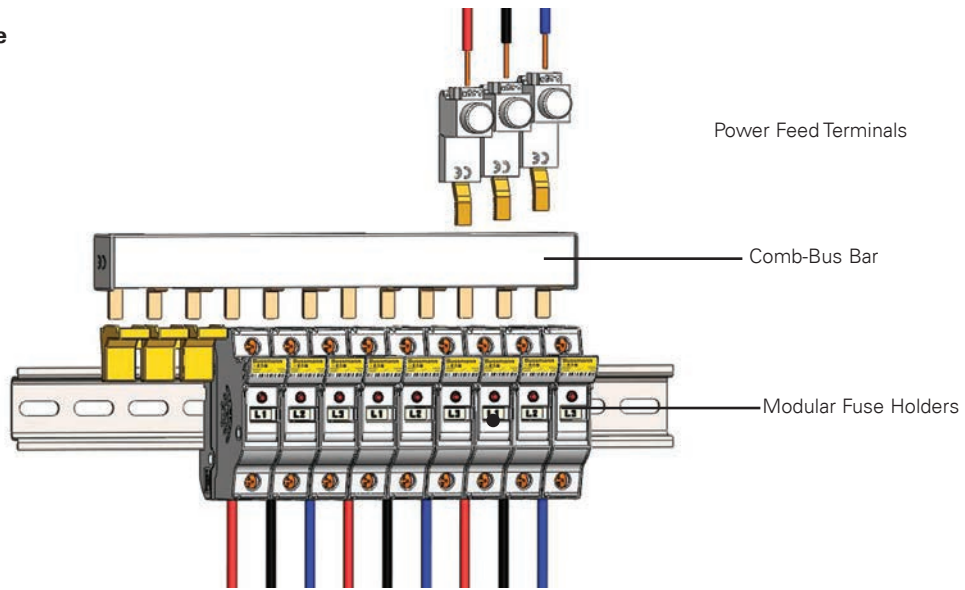
600 V a.c./dc (three phase) 1000 V d.c./600 V a.c. (single phase).



Selection Guide	
Part Number	Description
BB1P100M3	Single-phase 1000 V d.c. busbar, 100A, 3 pins, assembled endcap
BB1P100M6	Single-phase 1000 V d.c. busbar, 100A, 6 pins, assembled endcap
BB1P100M9	Single-phase 1000 V d.c. busbar, 100A, 9 pins, assembled endcap
BB1P100M12	Single-phase 1000 V d.c. busbar, 100A, 12 pins, assembled endcap
BB1P100M15	Single-phase 1000 V d.c. busbar, 100A, 15 pins, assembled endcap
BB1P100M57	Single-phase 1000 V d.c. cuttable busbar, 100A, 57 pins, without endcap
BB3P100M6	Three-phase 600V busbar, 100A, 6 pins, assembled endcap
BB3P100M9	Three-phase 600V busbar, 100A, 9 pins, assembled endcap
BB3P100M12	Three-phase 600V busbar, 100A, 12 pins, assembled endcap
BB3P100M15	Three-phase 600V busbar, 100A, 15 pins, assembled endcap
BB3P100M57	Three-phase 600V cuttable busbar, 100A, 57 pins, without endcap
ECAP1P	Single-phase busbar endcap
ECAPMP	Three-phase busbar endcap
PWR35MM	35mm ² feeder terminal for three-phase busbar (115A, 1000 V a.c./dc)
FSCVR	Spare contact safety protection covers
PWR1PLP	Single-phase low-profile feeder terminal (115A, 1000 V a.c./dc)
PWR50MM	50mm ² direct feed terminal (1000 V a.c./dc)

Comb-bus bar features and installation guide

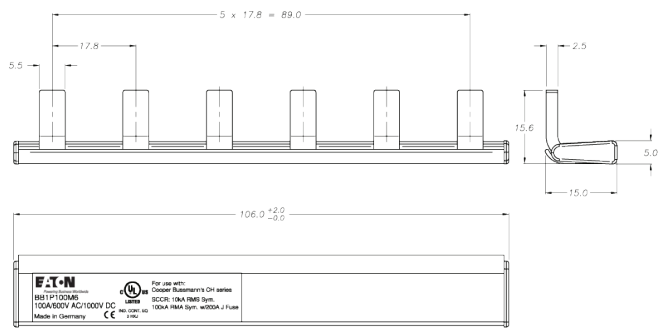
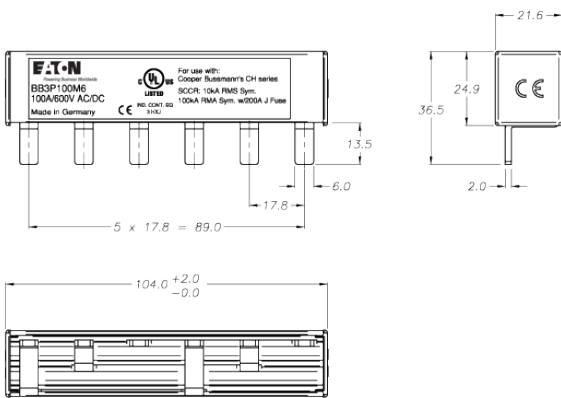
Typical installation example



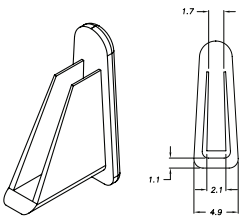
Typical dimensional data

Three-phase

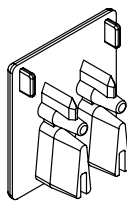
Single-phase



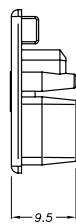
ECAP1P



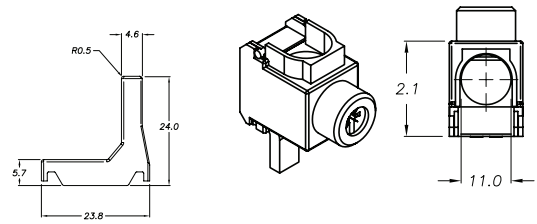
ECAPMP



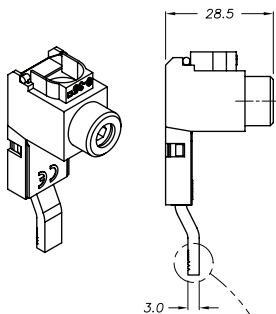
FSCVR



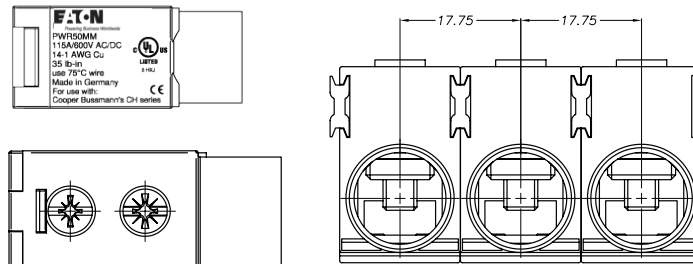
PWR1PLP



PWR35MM



PWR50MM



CH Series modular fuse holder overview

Type	Number of poles	Sizes			
		IEC 10 x 38 mm	UL 10 x 38 mm	IEC 14 x 51 mm	IEC 22 x 58 mm
Neutral fuse holder	1 Neutral	CHM1DNXU		CH141DNXU	CH221DNXU
Modular fuse holder without neon indicator	1 pole	CHM1DU	CHCC1DU	CH141DU	CH221DU
	2 poles	CHM2DU	CHCC2DU	CH142DU	CH222DU
	3 poles	CHM3DU	CHCC3DU	CH143DU	CH223DU
	4 poles	CHM4DU		CH144DU	CH224DU
Modular fuse holder with neon indicator	1 pole	CHM1DIU	CHCC1DIU	CH141DIU	CH221DIU
	2 poles	CHM2DIU	CHCC2DIU	CH142DIU	CH222DIU
	3 poles	CHM3DIU	CHCC3DIU	CH143DIU	CH223DIU
	4 poles	CHM4DIU		CH144DIU	CH224DIU
Modular fuse holder with neutral	2 (1 pole + neutral)	CHM1DNU		CH141DNU	CH221DNU
	4 (3 pole + neutral)	CHM3DNU		CH143DNU	CH223DNU
Modular fuse holder with neutral and neon indicator	2 (1 pole + neutral)	CHM1DNIU		CH141DNIU	CH221DNIU
	4 (3 poles + neutral)	CHM3DNIU		CH143DNIU	CH223DNIU
48 V d.c. modular fuse holder with neon indicator	1 pole	CHM1DI-48U	CHCC1DI-48U		
Modular fuse holder with microswitch	1 pole			CH141DMSU-F	CH221DMSU-F
	3 pole			CH143DMSU-F	CH223DMSU-F
Microswitch fuse holder with microswitch and neon indicator	4 (3 Pole + neutral)			CH143DNMSU-F	CH223DNMSU-F
Modular fuse holder for photovoltaic applications without indicator	1 pole	CHPV1U		CHPV141U	
	2 poles	CHPV2U		CHPV142U	
Modular fuse holder for photovoltaic applications with indicator	1 pole	CHPV1IU		CHPV141IU	
	2 poles	CHPV2IU		CHPV142IU	
Technical data					
Standards		CHM1DNXU: IEC 60269-2 CHM: IEC 60269-2, UR, CSA, CCC CHPV: IEC 60269-1, UR, CSA, CCC, UL 4248-18	UL, CSA, CC	IEC 60269-1 and 60269-2 and UL Listed	IEC 60269-1 and 60269-2 and UL Listed
Rated voltage		CHM1DI-48U: 48 V d.c. (IEC/UL) CHM: 690 V a.c. (IEC) / 600 V a.c. (UL) CHPV: 1000 V d.c. (IEC/UL)	CHCC1DI-48: 48 V d.c. CHCC: 600 V a.c./V d.c.	CH14DU: 690 V a.c./750 V d.c. (IEC) 700 V a.c. (UL) CHPV14U: 1500 V d.c.(IEC and UL)	690 V a.c./1000 V d.c. (IEC) 700 V a.c. (IEC)
Rated current		CHM1DNXU: 32 A CHM and CHPV: 32 A (IEC) / 30 A (UL)	30 A	50 A (IEC and UL)	125 A (IEC) 100 A (UL)
Cable size		1 to 25 mm ²		1.5 - 50 mm ²	2.5 - 70 mm ²
Rated breaking capacity		CHM: IEC 120 kA rms sym/ UL 200 kA rms sym / CCC 100 kA rms sym CHM1DNXU: N/A CHPV: 33 kA	200 kA rms sym	CH14: 120 kA a.c. CH14PV: 10 kA d.c.	120 kA (a.c.) 50 kA (d.c.)
Torque rating		IEC: 2.5 Nm maximum	UL: 3.4 Nm maximum	Recommended: 2.5 Nm Maximum: 3 Nm	Recommended: 3 Nm Maximum: 4 Nm
Flammability ratings		UL94V0, self extinguishing	UL94V0, self extinguishing	UL94V0, self extinguishing	UL94V0, self extinguishing
Storage and operating temperature range		CHM: Storage: -40°C to + 80°C Operating: -20°C to + 70°C CHPV: -20°C to + 90°C (indicating) -20°C to +120°C (non indicating)	Storage: -40°C to + 80°C Operating: -20°C to + 70°C	CH14D: Storage: -40°C to + 80°C Operating: -20°C to + 70°C CHPV14: -20°C to + 90°C (indicating) -20°C to +120°C (non indicating)	Storage: -40°C to + 80°C Operating: -20°C to + 70°C
Mounting		35 mm DIN-Rail	35 mm DIN-Rail	35 mm DIN-Rail or 2 x M4 panel mounting screws	35 mm DIN-Rail or 2 x M4 panel mounting screws
Compatible fuse links		See table page 4	See table page 4	See table page 6	See table page 8

Contact details

Customer satisfaction team

Eaton's customer satisfaction team is available to answer questions regarding Eaton's Bussmann series products.

Europe calls can be made between:

Monday — Thursday	7.30 a.m. - 5.30 p.m. GMT
Friday	7.30 a.m. - 5.00 p.m. GMT

The customer satisfaction team can be reached via:

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C3 customer center

The C3 portal supports the following product lines: B-Line series, Bussmann series, Crouse-Hinds series, Lighting solutions, Cooper Power series and Wiring devices.

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- Simple to Use
- Real-Time Data

Online resources

Visit www.eaton.com/bussmannseries for the following resources:

- Product cross reference
- Product profiles
- Online catalogues for the latest United States and European catalogues.

Application engineering

Application engineering assistance is available to all customers. The application engineering team is staffed by university-qualified electrical engineers who are available with technical and application support.

European calls can be made between:

Monday — Thursday	8.30 a.m. - 4.30 p.m. GMT
Friday	8.30 a.m. - 4.00 p.m. GMT

Application engineering can be reached via:

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