

CH modular, IP20 finger-safe DIN-Rail holders for Class CC, midget and PV fuses

Bussmann series CH DIN-Rail fuse holders are for UL Class CC and midget fuses, and IEC 10x38mm fuses. They are available with and without indication in 1-, 2- and 3-pole IP20 finger-safe versions. A variety of accessories extends their application flexibility and they may be ganged together to meet specific application requirements.



Ratings

- Volts
 - 600 V (or less) UL
 - 690 V (or less) IEC
 - 1000 Vdc (or less) photovoltaic (PV)
- Amps
 - 30 A UL
 - 32 A IEC
- SCCR
 - 33 kA photovoltaic
 - 200 kA RMS Sym. (CHCC, CHM*)

* CHM SCCR is fuse interrupting rating dependent.

Agency information

- CHCC, CHM; UL Listed Guide IZLT, Recognized Guide IZLT2, File E14853
- CHPV, UL Listed to 4248-19, Guide IZMR, File E348242
- CSA File 47235, CHPV and CHM - Class 6225-30, CHCC - Class 6225-01
- IEC 60269-2 (CHM, CHPV)
- CCC
- RoHS compliant
- CE

Mounting: 35mm DIN-Rail

Wire range

- 75°C and 90°C Cu
- 18-4 AWG (0.8-21.1mm²)
- Solid, stranded and fine stranded*

* See data sheet 10430 for application details.

Terminals

- Single or dual conductors
- Comb busbar
- Terminal screws
 - Standard phil-slot
 - Optional hex head (order by adding “-H” suffix to the catalog number, e.g., CHM1DU-H)

Torque

- 30 lb-in (3.4 N•m) maximum

Data sheet no. 10430

Flammability

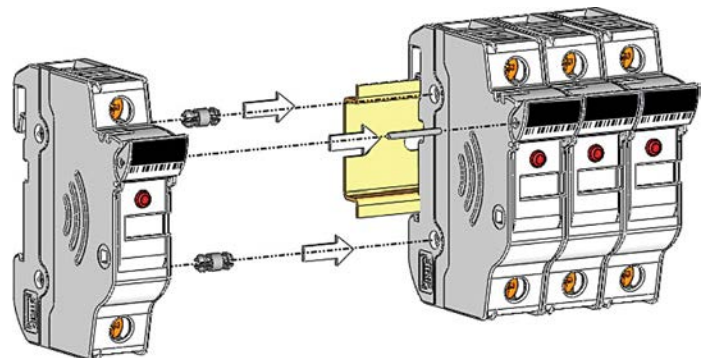
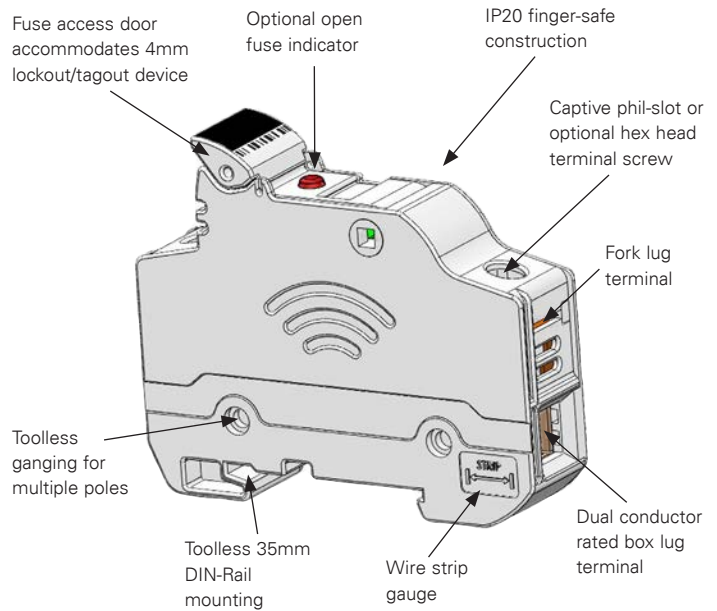
- UL 94V0, self-extinguishing

Storage and operating temperature

- -4°F (-20°C) to +194°F (90°C) indicating
- -4°F (-20°C) to +248°F (120°C) non-indicating

Features

- High SCCR rated, UL Listed Class CC holder with optional open fuse indication for 600 V and 48 Vdc (see catalog number table for details)
- Enhanced safety with IP20 finger-safe construction
- UL Recognized midget and IEC 10x38mm holders with factory assembled neutral pole option
- Agency ratings up to 1000 Vdc for use with PV fuses.
- Available remote PLC fuse indication module
- Wiring flexibility with terminals rated for use with 75°C or 90°C solid, stranded and fine stranded wire, and fork terminals and comb busbars. (Use any higher temperature insulations at the 90°C ampacity with appropriate derating.)
- Complete range of UL Listed and high SCCR rated one- and three-phase finger-safe comb busbars and power feed lugs
- Optional hex head terminal screw makes it easier to achieve necessary torque values



Gang multiple poles to meet application requirements using kit catalog number JV-L (gangs up to four poles).

UL midget and IEC 10x38



Catalog no. †		Volts and amps			Agency marks	Poles	SCCR	Recommended Bussmann series fuses
With indication*	Without indication	UL	IEC					
CHM1DIU	CHM1DU					1		
CHM2DIU	CHM2DU				UR, CSA, IEC 60269-2, CCC	2		
CHM3DIU	CHM3DU	600 V/30 A	690 V/32 A			3		
CHM4DIU	CHM4DU					4	200 kA RMS Sym.††	BAF, BAN, FNM, FNQ, FWA, FWC, KLM, KTK, AGU, C10G_, C10M_
CHM1DNIU	CHM1DNU				IEC 60269-2	1 + neutral		
CHM3DNIU	CHM3DNU					3 + neutral		
CHM1DI-48U	—	48 Vdc/30 A	48 Vdc/32 A		UR, CSA, IEC 60269-2, CCC	1		
—	CHM1DNXU	—	690 V/32 A		IEC 60269-2		N/A	N/A
CHM1DCIU	CHM1DCU					1		600/690 V
CHM2DCIU	CHM2DCU					2		BAF, BAN, FNM, FNQ, FWA, FWC, KLM, KTK, AGU, C10G_, C10M_, 1000 Vdc
CHM3DCIU	CHM3DCU	600 Vac, 1000 Vdc, 30 A	690 V, 32 A		UR, CSA, IEC 60269-2	3	200 kA RMS Sym.†† 33 kA DC	PV-(amp)A10F, PV10M-(amp)
CHM4DCIU	CHM4DCU					4		

UL Class CC



Catalog no. †		Volts / amps	Agency marks	Poles	SCCR	Recommended Bussmann series fuses
With indication*	Without indication					
CHCC1DIU	CHCC1DU			1		
CHCC2DIU	CHCC2DU	600 V/30 A		2	200 kA	LP-CC, FNQ-R, KTK-R
CHCC3DIU	CHCC3DU		UL, CSA, CCC	3	RMS Sym.	
CHCC1DI-48U	—	48 Vdc/30 A		1	33 kA DC	

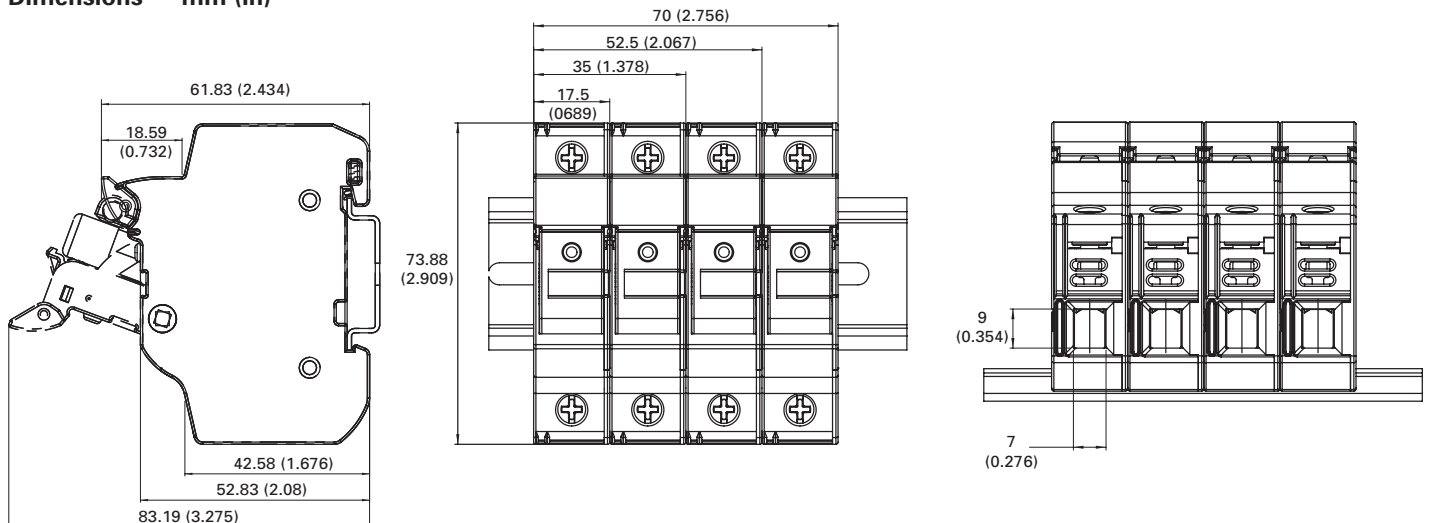
UL and IEC photovoltaic



Catalog no. †		Volts / amps	Agency marks	Poles	SCCR	Recommended Bussmann series fuses
With indication*	Without indication					
CHPV1IU	CHPV1U	1000 Vdc/30 A	UL, CSA, , UL 4248-18, IEC 60269-1, CCC	1	33 kA DC	PV-(amp)A10F, PV10M-(amp)
CHPV2IU	CHPV2U			2		

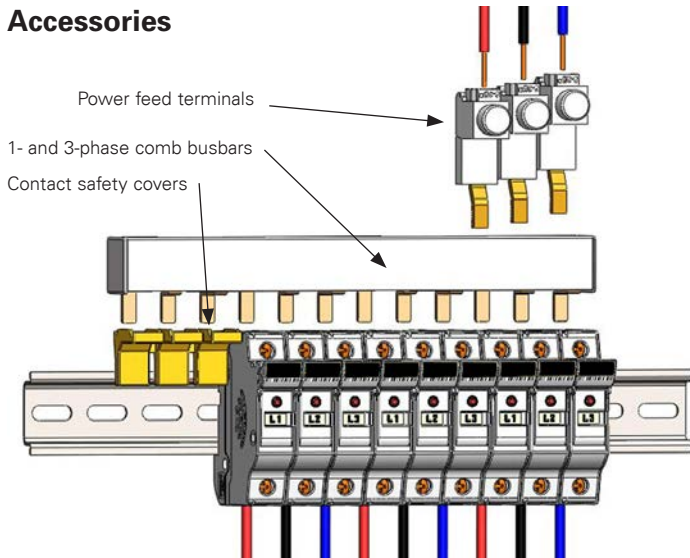
† Available with optional hex head terminal screws. To order, add “-H” suffix to the desired catalog number.
 ††SCCR is limited to the interrupting rating of the installed fuse or 200 kA, which ever is less.
 * All models require 90 V minimum for illumination, except CHM1DI-48U that requires 15 V minimum.

Dimensions — mm (in)



Data sheet no. 10430

Accessories



Comb busbars

- Easily distribute power in single- or three-phase systems
- Flexible cut-to-length busbars do not compromise the finger-safe protection (requires using endcaps)
- 100 kA SCCR when protected by a max 200 A Class J fuse
- Single-phase busbars rated to 1000 Vdc and 100 A
- Three-phase busbars rated to 600 V and 100 A
- Power feed terminals for single- and three-phase systems

Agency information

- UL 508, File E195399

Pitch 17.8mm

Ratings

- Volts
 - 600 V max. (three-phase)
 - 1000 Vdc/600 Vac max. (single-phase)
- Amps 100 A max.
- SCCR
 - 10 kA (default)
 - 100 kA (with upstream Class J max 200 A fuses)

Catalog no.	Phase	No. of pins	Endcaps*
BB1P100M3	Single	3	Yes*
BB1P100M6		6	
BB1P100M9		9	
BB1P100M12		12	
BB1P100M15		15	
BB1P100M57		57 pin cuttable	No**
BB3P100M6	Three	6	Yes*
BB3P100M9		9	
BB3P100M12		12	
BB3P100M15		15	
BB3P100M57			

* With endcaps assembled. If cut to length, order additional endcaps separately.
 ** Order end caps separately, ECAP1P for single-phase busbars and ECAPMP for three-phase busbars.

Data sheet no. 10430

Power feed terminals

PWR1PLP — Single-phase, low profile power feed terminal

Ratings

- Volts 1000 V
- Amps 115 A
- Wire range 1/0-10 AWG Cu, max torque 50 lb-in (5.6 N•m)
- Wire rating 60°C†



PWR35MM — 35mm² three-phase power feed terminal for three-phase busbars

Ratings

- Volts 1000 V
- Amps 115 A
- Wire range 1/0-10 AWG Cu, max torque 50 lb-in (5.6 N•m)
- Wire rating 60°C†



PWR50MM — 50mm² direct feed power terminal

Ratings

- Volts 1000 V
- Amps 115 A
- Wire range 1-14 AWG Cu, max torque 35 lb-in (3.9 N•m)
- Wire rating 75°C†



† Higher temperature rated wire may be used with appropriate derating.

Comb busbar safety covers and end caps

FSCVR

Spare comb busbar pin safety protection covers (used to cover exposed pins on comb busbars). Sold in quantity of ten strips of five covers each. (FSCVR comes with five covers on a strip. Minimum order is 10 strips or 50 safety covers total.)



ECAP1P

End cap for single-phase comb busbars. Sold in quantity of fifty.



ECAPMP

End cap for three-phase comb busbars. Sold in quantity of fifty.



Accessory catalog numbers

Catalog no.	Description	Carton quantity
PWR1PLP	Single-phase low-profile power feed terminal (115 A, 1000 V)	10
PWR35MM	35mm ² power feed terminal for three-phase busbar (115 A, 1000 V)	10
PWR50MM	50mm ² direct power feed terminal (1000 V)	10
ECAP1P	Single-phase busbar endcap	50
ECAPMP	Three-phase comb busbar end cap	50
FSCVR	Spare comb busbar pin safety protection covers	10 strips of five covers each, total 50 individual covers

PLC fuse monitor

Catalog no. CH-PLC2

The Bussmann series resettable PLC fuse monitor permits easy integration with a Programmable Logic Controller (PLC) or other monitoring and control equipment. Signals up to three-phases. Includes 0.11" (2.8mm) quick-connects for power, signal and ground connections.

Ratings

- Signal output to PLC*
 - +24 Vdc, 10 mA max
- Output signals
 - Digital 0 Vdc (low), 24 Vdc max (high)
 - 0 Vdc Low – fuse is good
 - 24 Vdc High – fuse has opened

* When the fuse opens, the output signal is sent high and will remain high until the unit is reset.

Agency information

- UL 508 Listed, Guide NKCR, File E170168
- cULus, Guide NKCR7, File E170168 to Canadian Standard 22.2, No. 14-13

Emissions and immunity testing

- IEC 60947-1: Voltage Switchgear and Control Gear
- IEC 61000-6-2: Electromagnetic Compatibility (EMC)
 - IEC 61000-4-2: Electrostatic Discharge Immunity - Test at level 3 (6 kV-Contact Discharge) and level 2 (4 kV-Air Discharge)
 - IEC 61000-4-3: Electromagnetic Compatibility - Radiated, Radio-frequency, Electromagnetic Field Immunity test at level x (20 V/m)
 - IEC 61000-4-4: Electromagnetic Compatibility - Testing and Measurement Techniques at level 3 (± 2 kV - Power Port and ± 1 kV - I/O Ports)
 - IEC 61000-4-5: Electromagnetic Compatibility - Surge Immunity test at level 4 (± 4 kV)
 - IEC 61000-4-6: Immunity to Conducted Disturbances at level 3 (10 V)



Flammability rating UL 94V0

Local indication

- Two distinct LEDs indicate unit power (green) and open fuse (red). Open fuse LED is resettable upon fuse replacement and the actuating the reset switch

Wiring

- For power, signal and ground connections use shielded twisted pair 22-24 AWG (0.34-0.25mm²) 300 V rated wire.

Minimum circuit voltage

- Minimum circuit voltage required across the CH holder is 100 Vac for the remote indication device to operate

Installation

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

Degree of protection IP20 finger-safe

Storage and operating temperature

- -4°F (-20°C) to +167°F (+75°C)

PLC programming

- The CH-PLC2 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

To order

- Specify catalog number CH-PLC2 (one unit)

Data sheet no. 10430

NDNF1-WH single-pole DIN-Rail mount fuse holding terminal block for 13/32" x 1-1/2" (10x38mm) fuses

Ratings: 600 volts / 30 amps

Wire range 8-22 AWG Cu

Torque rating 2.03 N•m (18 lb-in)

Mounting 35mm DIN-Rail or C-rail

Fuse pullers

- PF1-WH (white)
- PF1-BK (black)

Max operating temperature 105°C

Circuit jumper catalog no. JF1 for 2 circuits

