



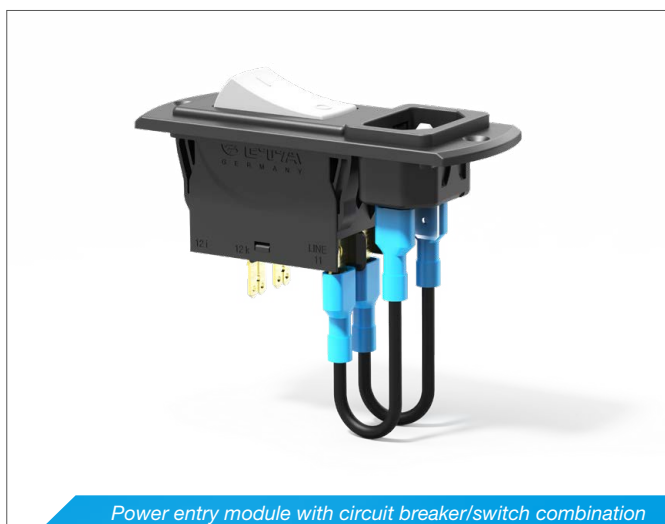
## POWER ENTRY MODULES with integral circuit breakers



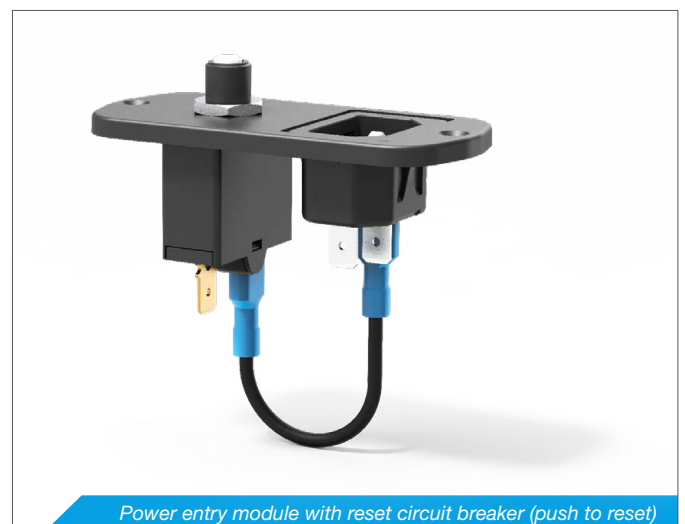
## POWER ENTRY MODULES with integral circuit breakers

Systematically reducing of components is a major reason for a successful cost-saving design. And what is more: Less individual parts increases overall reliability and usually provides additional space. E-T-A's power entry modules combine up to 5 functions in a single component: a C14/C20

appliance inlet, resettable overcurrent protection, an ON/OFF switch, a line filter and add-on modules for under-voltage release, remote trip or auxiliary contacts. Unlike conventional standard modules with fuses, E-T-A's power entry modules are fitted with a conveniently resettable circuit breaker.



*Power entry module with circuit breaker/switch combination*



*Power entry module with reset circuit breaker (push to reset)*



### YOUR BENEFITS

- Reduced mounting and wiring time (up to 90 %)
- Reduced disposition and storage costs
- High availability: Circuit breakers can easily, reliably and quickly be reset after overcurrent trip. Fuse replacement is eliminated.
- Low operational costs: No expenses for procurement, inventory management, disposal and services.
- High reliability: In the event of a failure, multipole circuit breakers always interrupt the circuit across all poles. They protect the user against electrocution.

This eliminates the need to replace blown fuses in the event of a failure and reduces equipment and machinery downtime. Thanks to screw mounting, the modules tightly fit in equipment and machinery and withstand even extreme pull-out forces of power cables.

### Ten-in-one

**Example:** Reducing parts when specifying 2-pole protection



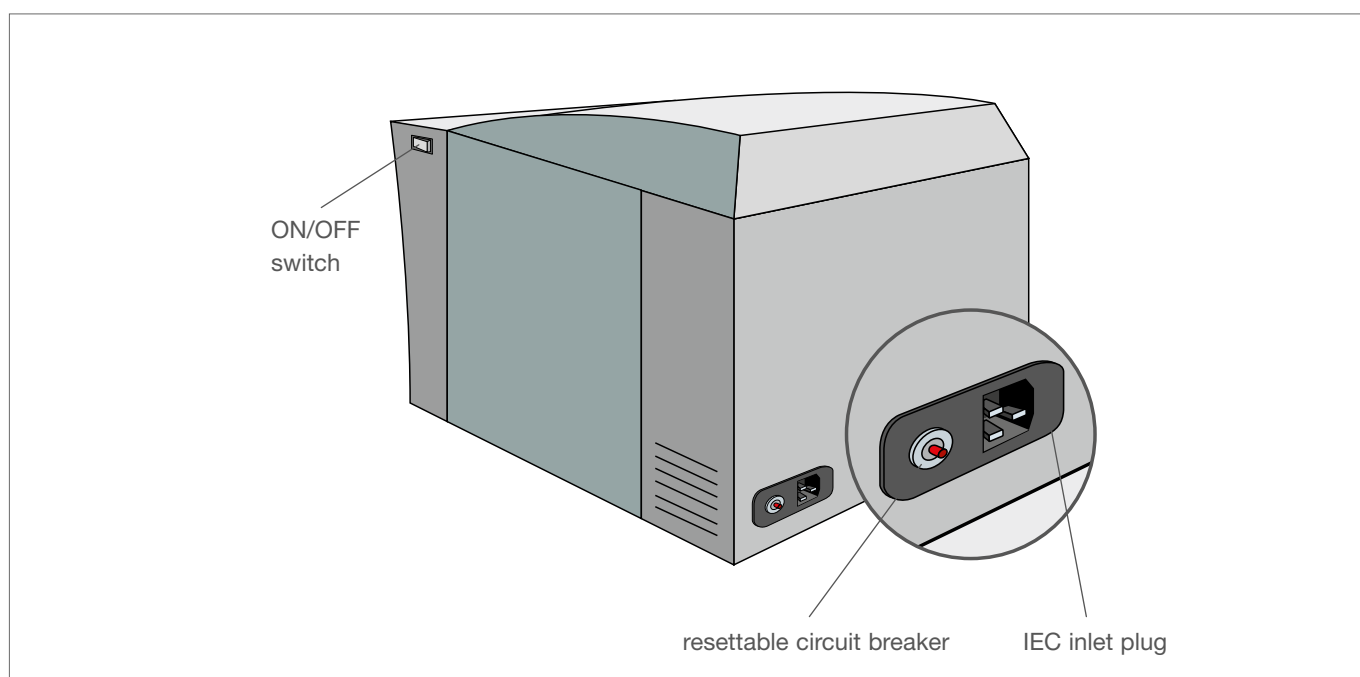


## POWER ENTRY MODULES with resettable circuit breakers

E-T-A's XR38 power entry module combines a C14 appliance inlet and a single pole or double pole resettable E-T-A circuit breaker into a single component. It is ideal for use when the ON/OFF switch cannot be installed in close proximity to the inlet plug.

This can be the case if a device must be switched on and off frequently - making it necessary to design the main switch on the front of the equipment. You can choose from five resettable circuit breakers in the E-T-A range. In many medical applications double

pole protection is mandatory. E-T-A offers the power entry module X3120 containing 3120 double pole with single push-to-reset button.



**Combines 2 functions in a single device:** C14 inlet plug and resettable overcurrent protection (push button)




XR38-C, standard version



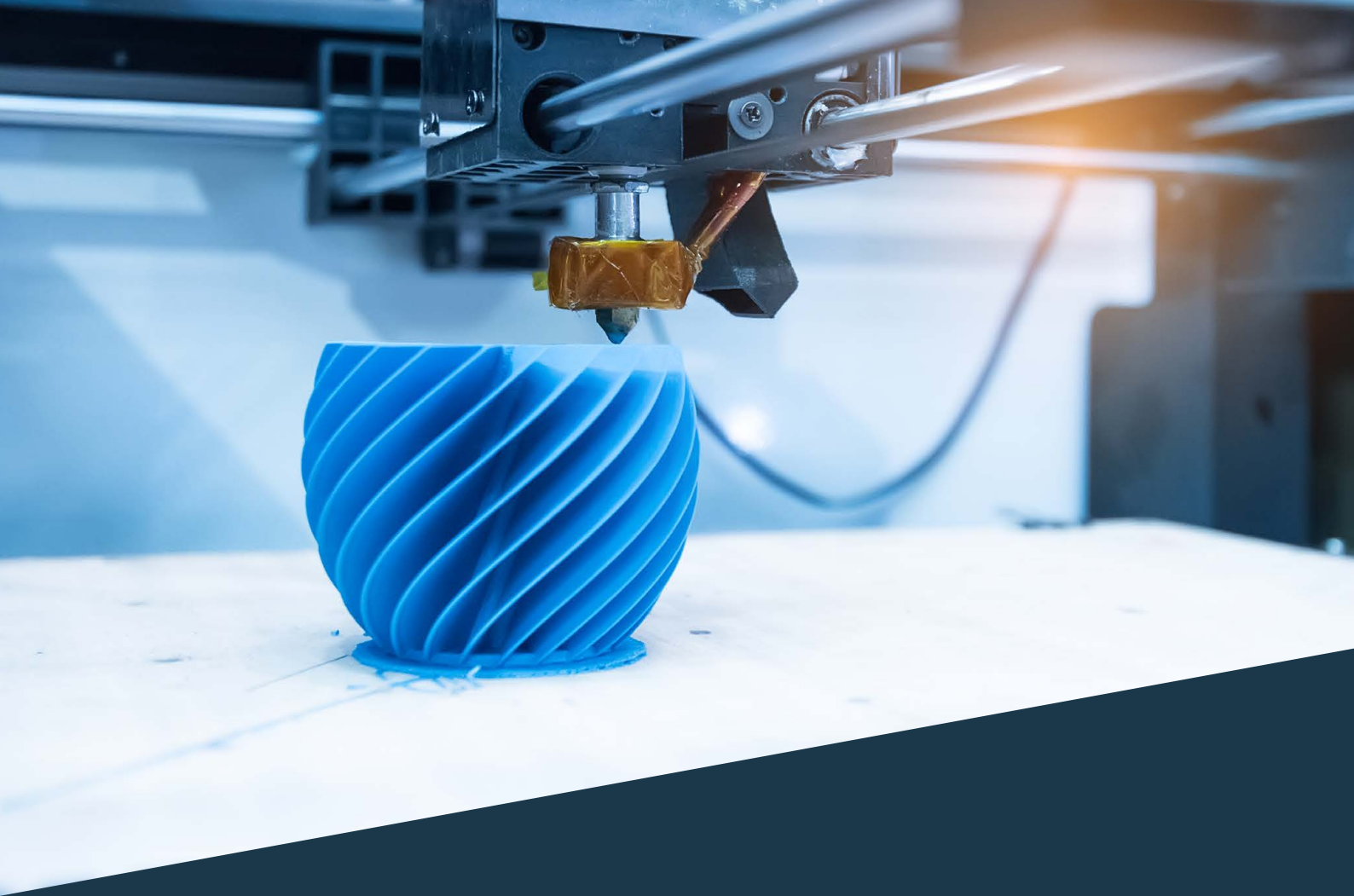
XR38-D, version with recessed circuit breaker, actuator guard



X3120-A0400 with push button

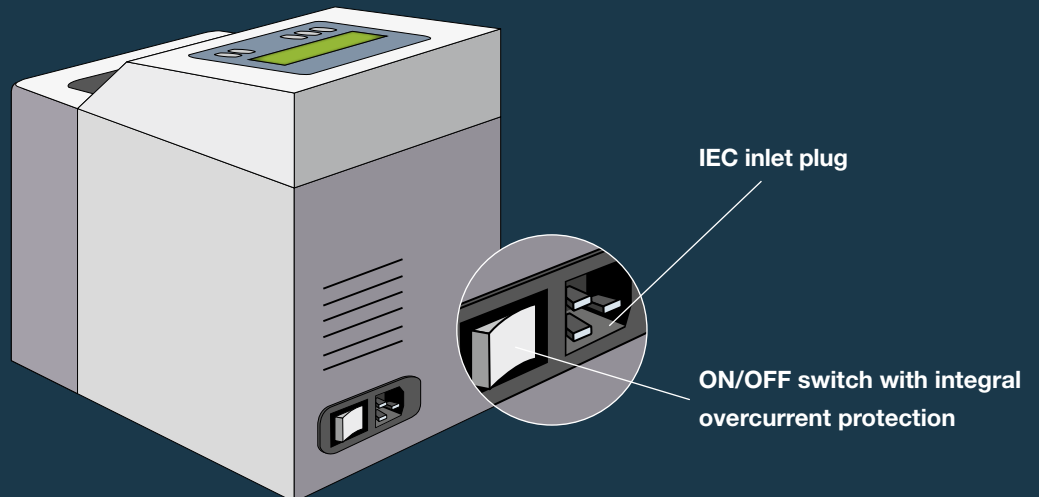
| Type   | 1658   | 106  | 1140-G   | 2-5700   |
|--|--|--|--|--|
| The XR38 module accommodates the following E-T-A circuit breakers: |  |  |  |  |
| number of poles  | 1  | 1  | 1, 2   | 1  |
| working principle  | thermal  | thermal  | thermal  | thermal  |
| current rating range   | 5 ... 15 A   | 0.05 ... 10 A  | 0.05 ... 15 A  | 0.05 ... 15 A  |
| rated voltage  | AC 240 V<br>DC 28 V  | AC 240 V<br>DC 48 V  | AC 240 V<br>DC 48 V  | AC 250 V<br>DC 50 V  |
| Benefit  | reset and auto-reset versions available  | extremely compact design   | double pole, 1-pole protected  | also available with push-push actuator   |





## POWER ENTRY MODULES

with circuit breaker/switch combinations

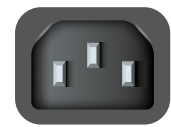




If the mains switch of a device is only actuated occasionally (e.g. with a medical freezer), it can be placed close to the appliance inlet. Power entry with integral circuit breaker/switch combinations are the most economical solution. E-T-A's X3120 and X3130 power entry modules have a C14 or C20 inlet plug and thermal or thermal-magnetic circuit breaker/switch combinations with rocker actuation which serves as a central mains switch of equipment and machines. The rocker actuators are available in a range of colours and with illumination upon request. The circuit breakers for the X3120 modules are also available with factory-mounted add-on modules for undervoltage release, remote trip or auxiliary contacts.

**Combines 3 functions in a single device:**

C14 inlet plug, ON/OFF switch and resettable overcurrent protection



**C14 inlet plug**  
VDE: 10 A  
UL: 15 A

**Combines up to 4 functions in a single device:**

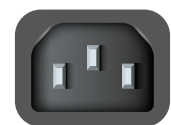
C20 inlet plug, ON/OFF switch and resettable overcurrent protection plus optional undervoltage release/magnetic trip/remote trip modules



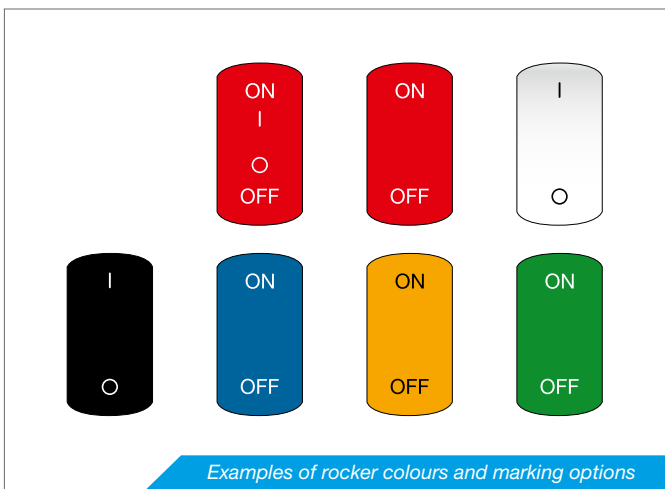
**C20 inlet plug**  
VDE: 16 A  
UL: 20 A

**Combines up to 4 functions in a single device:**

C14 inlet plug, ON/OFF switch and resettable overcurrent protection plus optional undervoltage release/remote trip modules



**C14 inlet plug**  
VDE: 10 A  
UL: 15 A



# POWER ENTRY MODULES

with circuit breakers and line filters

In order to comply with the EMC Directive, these devices must often be fitted with a line filter. This is because electronic components, such as switch mode power supplies and frequency converters, often create undesired radio interference voltages while operating. As an option, E-T-A

offers the XR38 and X3120 power entry modules with IEC compact plug filter (C14). Besides line filters for general industrial equipment, E-T-A offers two versions without Y capacitors particularly for medical equipment: A MED-TECH standard filter and a MED-TECH high performance filter. Both versions

only allow minimal leakage currents of max. 2µA. Patients and operators are protected – because the circuit breakers and line filters used are perfectly matched. This means the circuit breaker also reliably protects the line filter in the event of a failure against overheating.





**COMBINES 3 FUNCTIONS  
IN A SINGLE DEVICE**

- C14 inlet plug
- resettable overcurrent protection
- line filter



XR38-C040x with C14 line filter

**COMBINES 5 FUNCTIONS  
IN A SINGLE DEVICE**

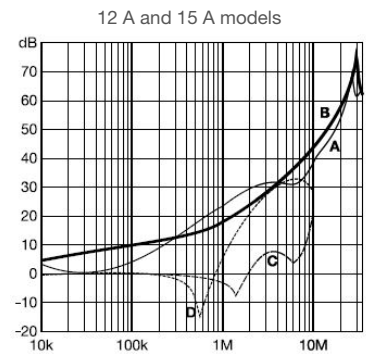
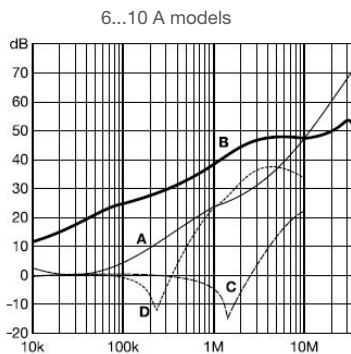
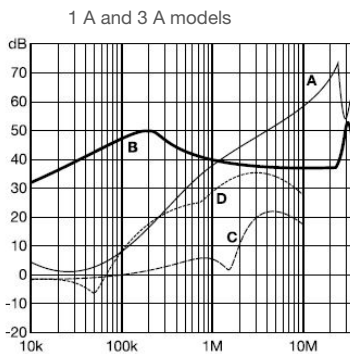
- C14/C20 inlet plug
- ON/OFF switch
- resettable overcurrent protection
- line filter
- undervoltage release/remote trip modules



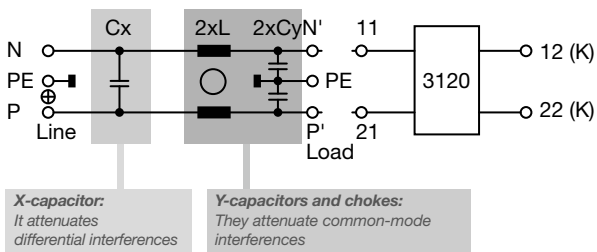
X3120-A040x with C14 line filter and undervoltage release module

X3120-A040X with C14 line filter and 3120 2-pole protected, single push-to reset-button

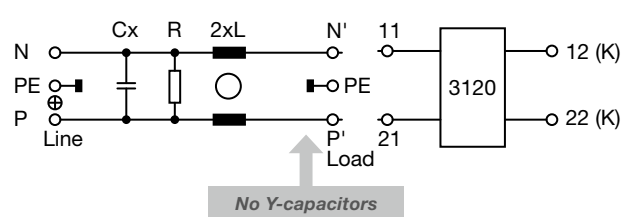
Typical filter attenuation: to CISPR 17, A = 50 Ω / 50 Ω sym; B = 50 Ω / 50 Ω asym; C = 0.1 Ω / 100 Ω sym; D = 100 Ω / 0.1 Ω sym



Example: attenuation curves MED-TECH A0406 high performance filter A0406



Schematic diagram: E-T-A connector filter X3120-A0401 with 3120 circuit breaker/switch combination



Schematic diagram: E-T-A connector filter X3120-A0406 with 3120 circuit breaker/switch combination (for medical applications)

# POWER ENTRY MODULES

## Technical data

| Type                  | XR38-C0400  | XR38-D0400  | XR38-C040x   | XR38-D040x  |
|-----------------------|---|---|--|---|
|                       |  |  |  |  |
| Appliance inlet       | C14   | C14   | C14  | C14   |
| EMC-filter            | -   | -   | •  | •   |
| Trip curve            | thermal or hydraulic-magnetic   | thermal or hydraulic-magnetic   | thermal or hydraulic-magnetic  | thermal or hydraulic-magnetic   |
| Principle type of CBE | push to reset   | push to reset   | push to reset  | push to reset   |
| Actuator guard        | -   | •   | -  | •   |
| Built-in CBE          | 1658, 106, 1140-G, 2-5700   | 1658, 106, 1140-G, 2-5700   | 1658, 106, 1140-G, 2-5700  | 1658, 106, 1140-G, 2-5700   |
| Add-on modules**      | -   | -   | -  | -   |
| Cover for CBE         | •   | •   | •  | •   |
| Dimensions***         | 85 x 39 x A*  | 85 x 39 x A*  | 85 x 39 x A*   | 85 x 39 x A*  |
| Approvals             | VDE, TÜV, UL, CSA, CCC  | VDE, TÜV, UL, CSA, CCC  | VDE, TÜV, UL, CSA, CCC   | VDE, TÜV, UL, CSA, CCC  |

\* Depending on the selected CBE

\*\* Undervoltage release/remote trip modules/auxiliary contact

\*\*\* Without cables

**All appliance inlet modules are available in following versions:**

 **one pole switching, one pole protected**

 **two pole switching, one pole protected**

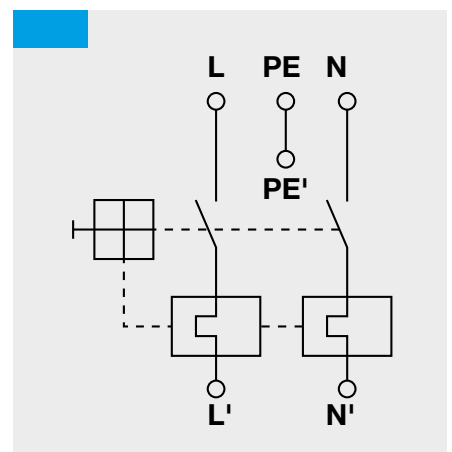
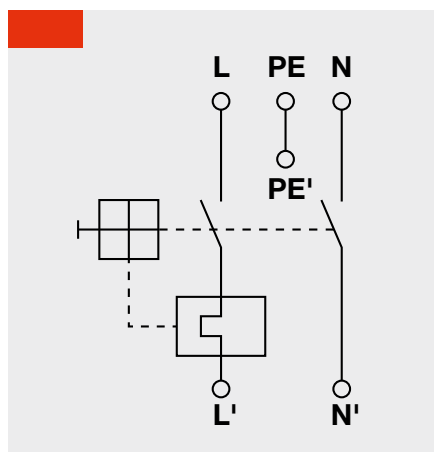
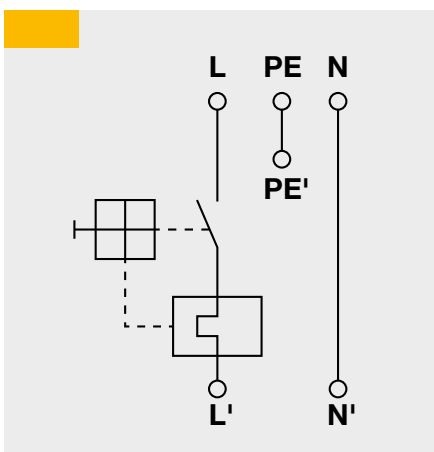
 **two pole switching, two pole protected**

**Module X3120:**

Also available as switch-only  
(without overcurrent protection)



|  | X3130-A0400   | X3120-A0400   | X3120-A040x  | X3120-B0400   |
|--|---|---|--|---|
|  |  |  |  |  |
|  | C14   | C14   | C14  | C20   |
|  | -   | -   | •  | -   |
|  | thermal   | thermal or thermal-magnetic   | thermal or thermal-magnetic  | thermal or thermal-magnetic   |
|  | switch/breaker combination  | switch/breaker combination or push to reset                                       | switch/breaker combination or push to reset  | switch/breaker combination or push to reset   |
|  | -   | -   | -  | •   |
|  | 3130  | 3120  | 3120   | 3120  |
|  | -   | •   | •  | •   |
|  | -   | •   | •  | -   |
|  | 82 x 36,5 x 40,2  | 91,6 x 36 x 40  | 91,5 x 36,2 x 49,3   | 100 x 37 x 47   |
|  | VDE, UL, CSA, CCC   | VDE, UL, CSA, CCC, KC   | VDE, UL, CSA, CCC, KC  | VDE, UL, CSA, CCC, KC   |



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