



POWER ENTRY MODULES

with integral circuit breakers



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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 undervoltage 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)



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.

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.

Ten-in-one

Example: Reducing parts when specifying 2-pole protection



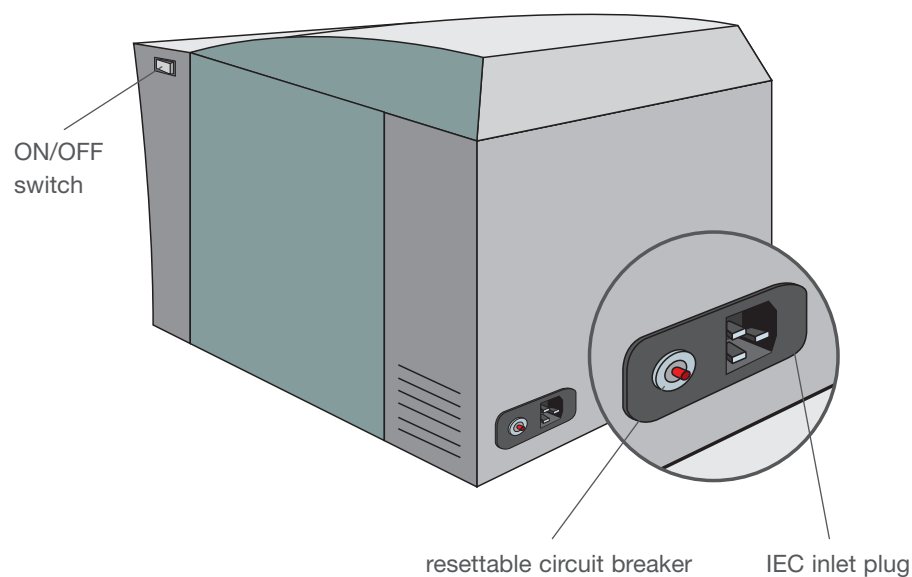
POWER ENTRY MODULES

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. Besides four thermally tripping circuit breakers, E-T-A offers the 8330 double pole hydraulic-magnetic circuit breaker specifically for medical applications.



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

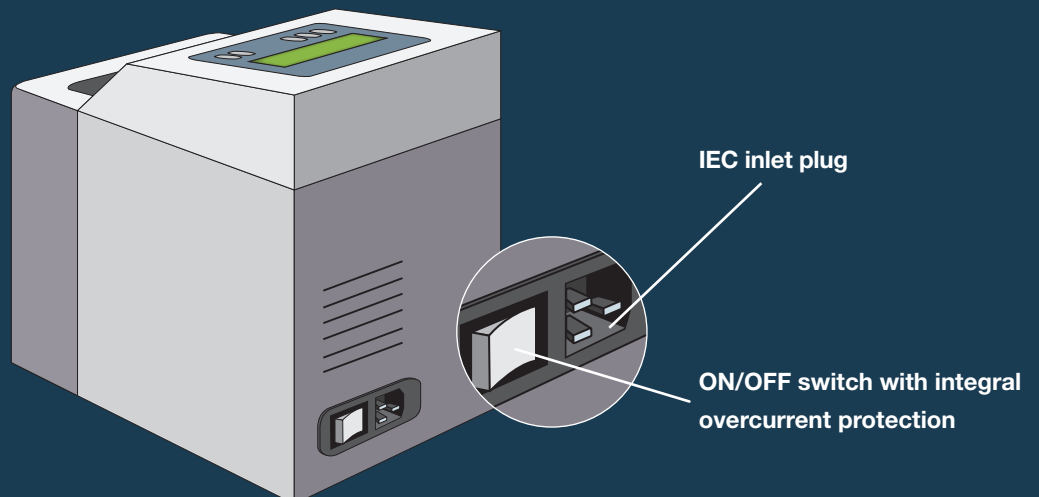
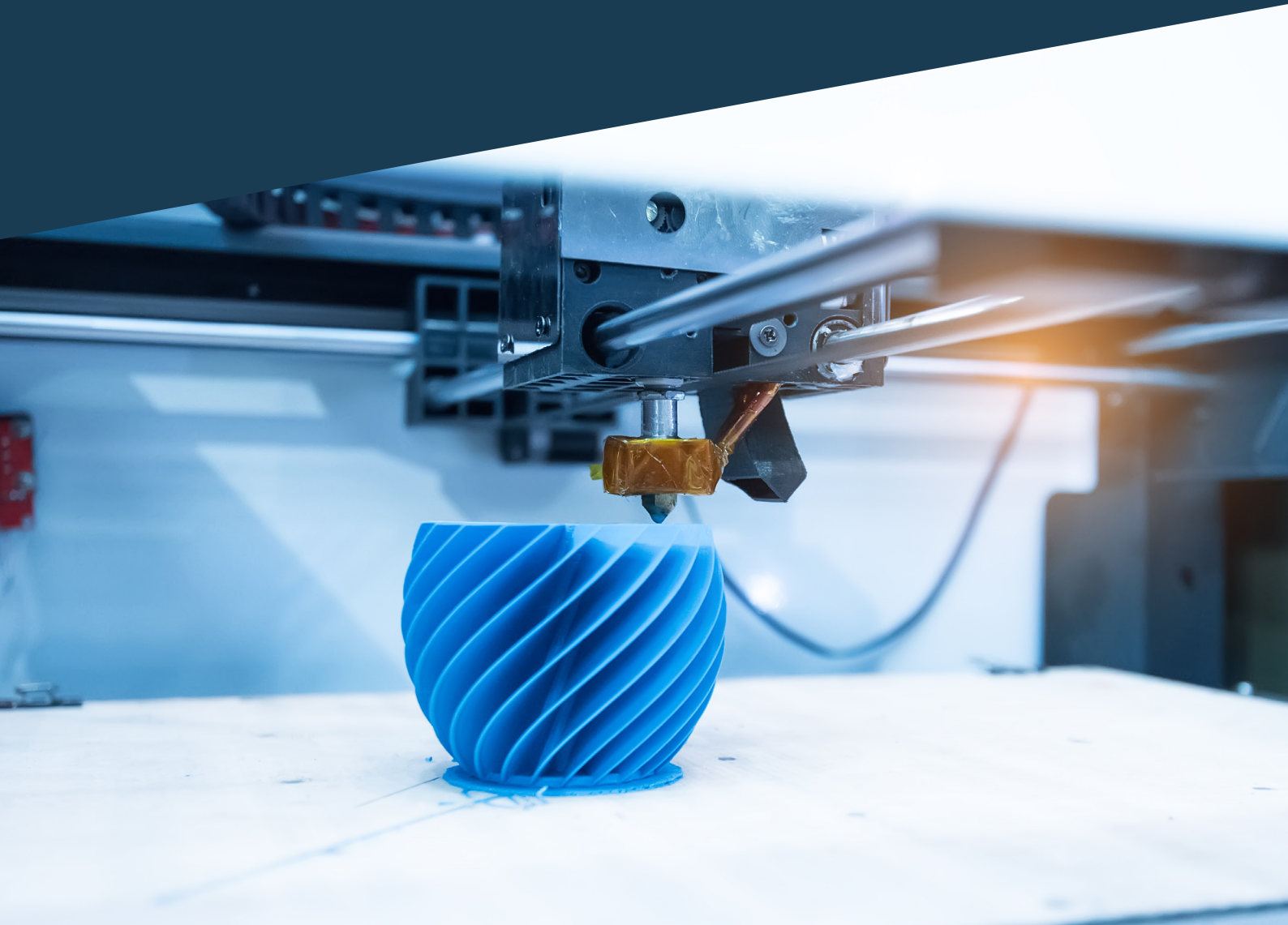


Type	1658	106	1140-G	2-5700	8330	
The XR38 module accommodates the following E-T-A circuit breakers:						
	number of poles	1	1	1, 2	1	1, 2
	working principle	thermal	thermal	thermal	thermal	hydraulic-magnetic
	current rating range	5 ... 15 A	0.05 ... 10 A	0.05 ... 15 A	0.05 ... 15 A	0.02 ... 15 A
	rated voltage	AC 240 V DC 28 V	AC 240 V DC 48 V	AC 240 V DC 48 V	AC 250 V DC 50 V	AC 250 V DC 80 V
Benefit	reset and auto-reset versions available	extremely compact design	double pole, 1-pole protected	also available with push-push actuator	double pole, 2-pole protected	

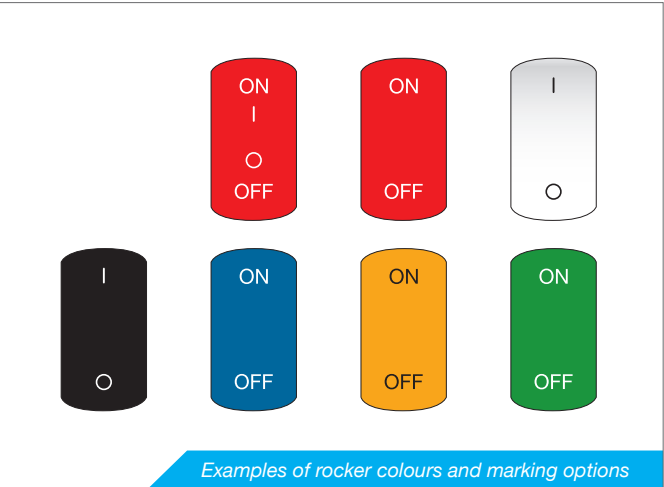


POWER ENTRY MODULES

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:

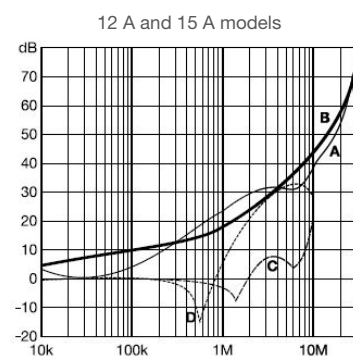
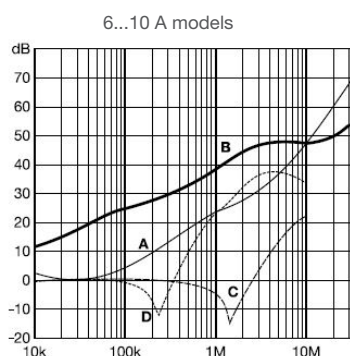
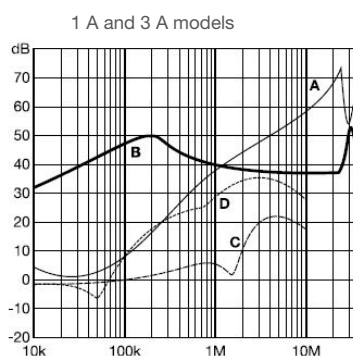
- C14 inlet plug
- resettable overcurrent protection
- line filter

Combines up to 5 functions in a single device:

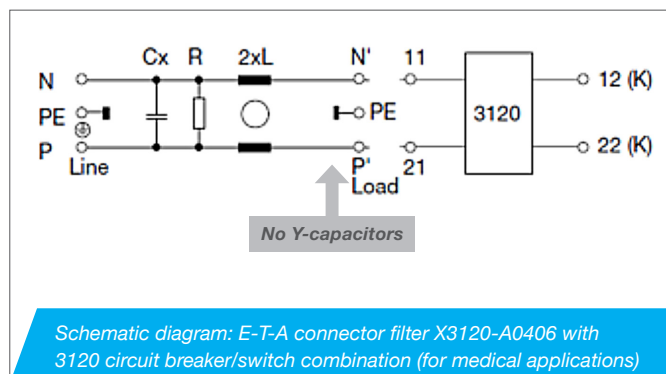
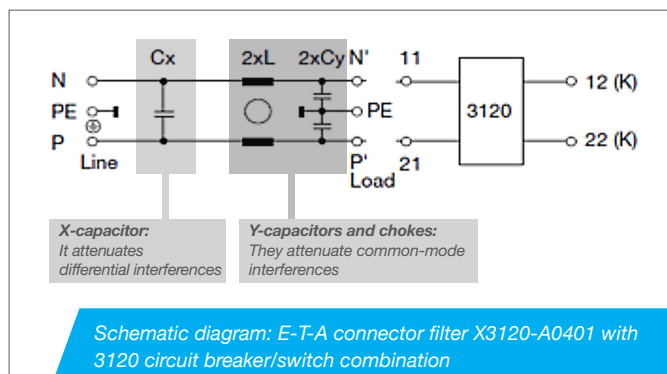
- C14/C20 inlet plug
- ON/OFF switch
- resettable overcurrent protection
- line filter
- undervoltage release/remote trip modules



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



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, 8330	1658, 106, 1140-G, 2-5700, 8330	1658, 106, 1140-G, 2-5700, 8330	1658, 106, 1140-G, 2-5700, 8330
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

*** Without cables

All appliance inlet modules are available in following versions:



• **one** pole switching, **one** pole protected



• **two** pole switching, **one** pole protected

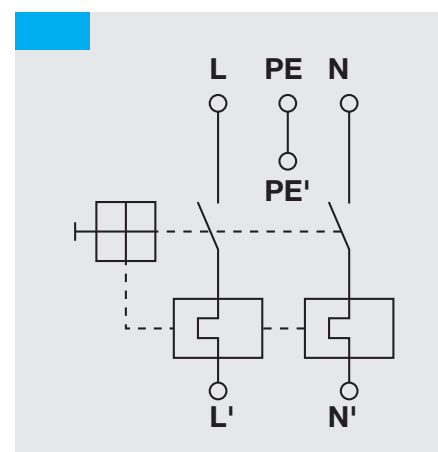
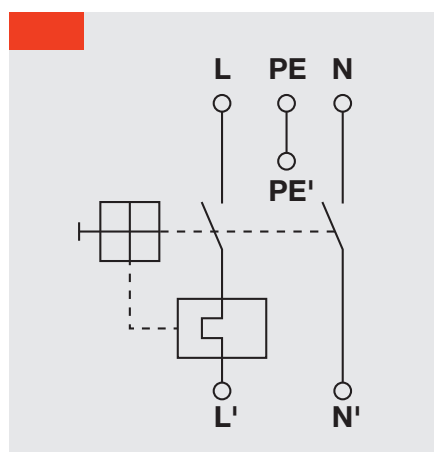
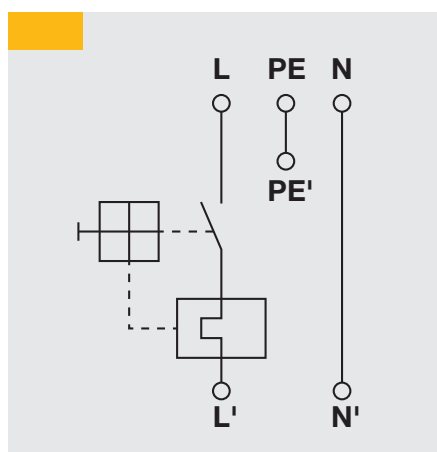


• **two** pole switching, **two** pole protected

Module X3120:

Also available as switch-only
(without overcurrent protection)

X3130-A0400	X3120-A0400	X3120-A040x	X3120-B0400	X3120-B040x
				 Coming soon
C14	C14	C14	C20	C20
–	–	•	–	•
thermal	thermal or thermal-magnetic	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	switch/breaker combination or push to reset
–	–	–	•	•
3130	3120	3120	3120	3120
–	•	•	•	•
–	•	•	–	–
82 x 36,5 x A*	91,6 x 36 x 40	91,5 x 36,2 x 49,3	100 x 37 x 47	101 x 46 x 79,5
VDE, UL, CSA, CCC	VDE, UL, CSA, CCC, KC	VDE, UL, CSA, CCC, KC	VDE, UL, CSA, CCC, KC	VDE, UL, CSA, CCC, KC



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