#### Electronic circuit breaker with thermomagnetic characteristic

#### PM-0724-400-0



## Advantages

Adjustable tripping current for each output channel via current selector switch accessible from the front

Ability to turn-on high load capacitance at each channel

Sequential and load-dependent switching-on of channels

Comprehensive single-channel-diagnostics and remote switching on/off of each output channel via 2-wire-interface

LED signalization and remote request for each output channel

Group alarm contact for simple diagnosis

# **Applications**

 ${\tt ECONOMY\ SMART\ circuit\ breakers\ with\ a\ thermomagnetic\ characteristic}$ represent an economical alternative to the classic circuit breaker. They also ensure reliable tripping even in the case of high line resistance. This makes the circuit breakers ideal for use in standard machine production. The electronic circuit breaker distributes and monitors the load current over several current circuits. Overloads and short circuits on an output are reliably recognized. The electronics permit brief current peaks and switch longer overloads off. The rated current for each output can be individually set with a current selector switch accessible from the front. The outputs are activated depending on the time delay and load to avoid an overload current. If the rated current is exceeded for a certain amount of time, the output will be switched off automatically and can be reactivated after a waiting time (thermal relaxation) using the pushbutton or the remote signal input S1. The pushbutton can also be used to switch the output manually. It is possible to read out the state of  $% \left\{ 1\right\} =\left\{ 1\right\} =\left\{$ each output using the three signal contacts. The state of each output is also indicated with a multi-colored LED.

### Standards

Safety: EN 60950-1, EN 50178, EN/IEC 60204-1

EMC:

EN 61000-6-2, EN 61000-6-3

Safety extra-low voltage (SELV/PELV): IEC 60364-4-41 (DIN VDE 0100-410)

CE acc. to 2004/108/EG (EMC-Directive)

**Approvals** 







UL 2367, UL 508, GL



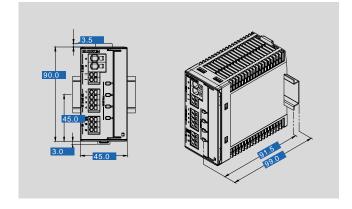


Order Number

# Electronic circuit breaker with thermomagnetic characteristic **PM-0724-400-0**

	Type	PM-0724-400-0
JΓ	Input	
Electrical data	Input rated voltage	24 Vdc
	Input voltage range	18 - 30 Vdc
	Maximal residual ripple of supplied input voltage	3 %
	Required input voltage for turning-on of outputs	19.5 V (Turn-off Threshold 18 V)
	Max. total input current	40 A
	Max. input current for each pole of terminal	40 A
	Over voltage protection	Suppressor diode 33 V
	Stand-by current	35 mA @ 24 V
Щ	Power losses in stand-by mode	0.84 W @ 24 V
	Output	0.0 1 11 @ 2 1 1
	Output rated voltage	24 Vdc
	Output rated current	4 x (2, 3, 6, 8, 10 A)
	Maximum voltage drop between input and output	200 mV @ 4 x 10 A
	Initialization time of module	250 ms
	Turn-on delay of outputs	Load dependent, min. 50 ms / max. 5 s
	Waiting periode after switch-off of an output	500 ms (short circuit) 10 s (overload)
	Efficiency	99 %
	Max. power losses	10 W @ 4 x 10 A
	Internal output fuse	15 A
	Resistance to reverse feed max.	35 Vdc
	Parallel use of outputs	Not allowed
	Serial use of outputs	Not allowed
	Signaling	100 dilowod
	- 0 - 0	IFD (d)
	Status indicator	LED (red, green, orange) DC 24 V (On/Off/Reset)
	Signal input S1	DC 24 V (OII/OII/ Reset)
	Signal output S2	(status output channels)
		DC 24 V, max. 25 mA
	Signal output S3	(Summation message)
	Approvals	
	Approvals	cURus, cULus, GL
	Environment	dorido, docad, de
		000 0 000 0
	Storage temperature	-25° C +85° C -25° C +70° C
	Ambient temperature	
	Derating	The state of the s
	Cooling method	Natural convection
	Required minimum spacing (left/right)	0 mm
	Required minimum spacing (over/under)	40 mm
	Safety and protection	
	Protection index	IP 20
	Safety class	III, without PE connection
	Degree of pollution	2
	Order numbers	

	Type	PM-0724-400-0
	Input	
	Input terminals (2 x "-"), 1) direct plug-in technology Push-in 2) pluggable, WAGO series 721	1) max. 2,5 mm <sup>2</sup>
Cara	Input terminals (2 x "+"), 1) direct plug-in technology Push-in 2) pluggable, WAGO series 831	1) max. 6 mm <sup>2</sup>
	Output	
Mechanical	Output terminals ("+"), 1) direct plug-in technology Push-in 2) pluggable, WAGO series 721	1) max. 2,5 mm <sup>2</sup>
Š	Signaling	
<u>e</u>	Connections signalling, 1) direct plug-in technology Push-In 2) pluggable, WAGO series 721	1) max. 2,5 mm <sup>2</sup>
	Terminal and mounting	
	Mounting position	horizontal for standard rail DIN TH 35
	Measures and weights	
	Weight	0.20 kg



PM-0724-400-0