ESSENTIAL edition

Phoenix Contact NZ

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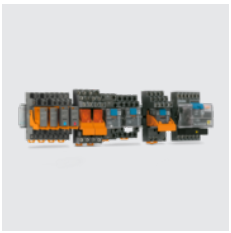


Power supplies

Power supplies

Phoenix Contact offers a broad portfolio of power supplies for various applications. With a wide range of performance classes and functions to choose from, you will find the ideal industrial solution for machine building, the semiconductor industry, or control cabinet building, for example.

Product range overview

Power supplies ESSENTIAL edition **8**

Reliable supply

The power supplies in the ESSENTIAL edition family are the ideal choice for supplying your system reliably using basic functions. They meet essential industry standards and also offer additional features at an attractive price. These include an international approval package, wide temperature range, and flexible wide range input. ESSENTIAL edition is therefore ideally suited for worldwide use.

Your advantages:

- ✓ Worldwide application, thanks to the wide range input and international approval package
- ✓ Immunity to voltage dips at the output with the SEMI-F47 standard
- ✓ Greater availability, thanks to fan-free convention cooling

Vibration and shock resistance

The robust design of the mechanical and electrical components tolerates sustained vibrations of up to 2.3g in resonance and shocks of up to 15g for 15 ms.

Self-protecting

Various protective mechanisms ensure comprehensive device protection at all times. Internal protective circuits take effect in the event of an overvoltage, overcurrent, or excessively high temperature. The device protects itself from any harm.

For universal use

Thanks to the international approval package and wide range input, the power supplies can be used worldwide.

Fanless convection cooling

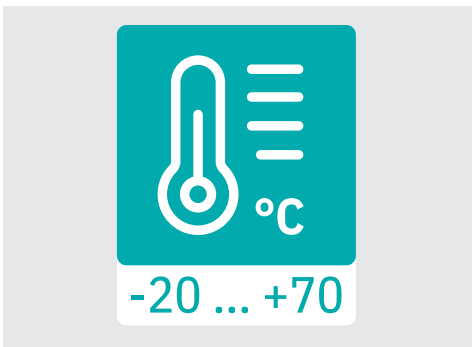
The ESSENTIAL edition power supplies feature a fanless convection cooling system. This provides greater availability for your application.

Fast installation

The preinstalled DIN rail adapter enables quick and easy installation of the device on the DIN rail.

Optimally coordinated

The ESSENTIAL edition power supplies harmonize perfectly with the surge protection from the same family. Their combination further increases device protection, service life, and system availability.



Wide temperature range

The ESSENTIAL edition power supplies have a wide temperature range from -20°C to +70°C. Combined with built-in temperature monitoring, this ensures reliable use even in adverse temperature conditions.

Transformer standard

The installed transformers conform to the safety standard of the IEC 61558-2-16 transformer standard, which eliminates the need for an additional safety transformer.

Power supplies ESSENTIAL edition

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ESSENTIAL POWER, 1-phase, Screw connection, 24 V DC, 3,125 A, 75 W

Technical data	
Approvals	BIS Licence Document
Input voltage range	85 V AC ... 264 V AC
Output voltage range	24 V DC ... 28 V DC (> 24 V DC, constant capacity restricted)
Output voltage	24 V DC
Output current (IN_PMax)	max. 3.125 A (P_N = 75 W)
Nominal power	75 W (240 V AC)
Connection method	Screw connection
Protective coating	no
Degree of protection	IP20
Width	33 mm
Height	90 mm
Depth	100 mm
Number of phases	1

Type	Item No.	Pcs./Pkt.
PS-EE-2G/1AC/24DC/75W/SC	1234301	1

ESSENTIAL POWER, 1-phase, Screw connection, 12 V DC, 6,25 A, 75 W

Technical data	
Approvals	
Input voltage range	85 V AC ... 264 V AC
Output voltage range	12 V DC ... 15 V DC (> 12 V DC, constant capacity restricted)
Output voltage	12 V DC
Output current (IN_PMax)	max. 6.25 A (P_N = 75 W)
Nominal power	75 W (240 V AC)
Connection method	Screw connection
Protective coating	no
Degree of protection	IP20
Width	33 mm
Height	90 mm
Depth	100 mm
Number of phases	1

Type	Item No.	Pcs./Pkt.
PS-EE-2G/1AC/12DC/75W/SC	1585280	1

ESSENTIAL POWER, 1-phase, Screw connection, 48 V DC, 2,5 A, 120 W

Technical data	
Approvals	
Input voltage range	85 V AC ... 264 V AC
Output voltage range	48 V DC ... 57 V DC (> 48 V DC, constant capacity restricted)
Output voltage	48 V DC
Output current (IN_PMax)	max. 2.5 A (P_N = 120 W)
Nominal power	120 W (240 V AC)
Connection method	Screw connection
Degree of protection	IP20
Width	40 mm
Height	124 mm
Depth	125 mm
Number of phases	1

Type	Item No.	Pcs./Pkt.
PS-EE-2G/1AC/48DC/120W/SC	1585285	1

ESSENTIAL POWER, 1-phase, Screw connection, 24 V DC, 5 A, 120 W

Technical data	
Approvals	BIS Licence Document
Input voltage range	85 V AC ... 264 V AC
Output voltage range	24 V DC ... 28 V DC (> 24 V DC, constant capacity restricted)
Output voltage	24 V DC
Output current (IN_PMax)	max. 5 A (P_N = 120 W)
Nominal power	120 W (240 V AC)
Connection method	Screw connection
Protective coating	no
Degree of protection	IP20
Width	40 mm
Height	124 mm
Depth	125 mm
Number of phases	1

Type	Item No.	Pcs./Pkt.
PS-EE-2G/1AC/24DC/120W/SC	1234302	1

ESSENTIAL POWER, 1-phase, Screw connection, 12 V DC, 10 A, 120 W

Technical data	
Approvals	
Input voltage range	85 V AC ... 264 V AC
Output voltage range	12 V DC ... 15 V DC (> 12 V DC, constant capacity restricted)
Output voltage	12 V DC
Output current (IN_PMax)	max. 10 A (P_N = 120 W)
Nominal power	120 W (240 V AC)
Connection method	Screw connection
Degree of protection	IP20
Width	40 mm
Height	124 mm
Depth	125 mm
Number of phases	1

Type	Item No.	Pcs./Pkt.
PS-EE-2G/1AC/12DC/120W/SC	1585283	1

ESSENTIAL POWER, 1-phase, Screw connection, 48 V DC, 5 A, 240 W

Technical data	
Approvals	
Input voltage range	85 V AC ... 264 V AC
Output voltage range	48 V DC ... 57 V DC (> 48 V DC, constant capacity restricted)
Output voltage	48 V DC
Output current (IN_PMax)	max. 5 A (P_N = 240 W)
Nominal power	240 W (240 V AC)
Connection method	Screw connection
Degree of protection	IP20
Width	60 mm
Height	124 mm
Depth	125 mm
Number of phases	1

Type	Item No.	Pcs./Pkt.
PS-EE-2G/1AC/48DC/240W/SC	1585286	1

ESSENTIAL POWER, 1-phase, Screw connection, 24 V DC, 10 A, 240 W

Technical data	
Approvals	BIS Licence Document
Input voltage range	85 V AC ... 264 V AC
Output voltage range	24 V DC ... 28 V DC (> 24 V DC, constant capacity restricted)
Output voltage	24 V DC
Output current (IN_PMax)	max. 10 A (P_N = 240 W)
Nominal power	240 W (240 V AC)
Connection method	Screw connection
Protective coating	no
Degree of protection	IP20
Width	60 mm
Height	124 mm
Depth	125 mm
Number of phases	1

Type	Item No.	Pcs./Pkt.
PS-EE-2G/1AC/24DC/240W/SC	1234304	1

ESSENTIAL POWER, 1-phase, Screw connection, 12 V DC, 20 A, 240 W

Technical data	
Approvals	CB
Input voltage range	85 V AC ... 264 V AC
Output voltage range	12 V DC ... 15 V DC (> 12 V DC, constant capacity restricted)
Output voltage	12 V DC
Output current (IN_PMax)	max. 20 A (P_N = 240 W)
Nominal power	240 W (240 V AC)
Connection method	Screw connection
Degree of protection	IP20
Width	60 mm
Height	124 mm
Depth	125 mm
Number of phases	1

Type	Item No.	Pcs./Pkt.
PS-EE-2G/1AC/12DC/240W/SC	1585284	1

ESSENTIAL POWER, 1-phase, Screw connection, 48 V DC, 10 A, 480 W

Technical data	
Approvals	CB
Input voltage range	85 V AC ... 264 V AC
Output voltage range	48 V DC ... 57 V DC (> 48 V DC, constant capacity restricted)
Output voltage	48 V DC
Output current (IN_PMax)	max. 10 A (P_N = 480 W)
Nominal power	480 W (240 V AC)
Connection method	Screw connection
Protective coating	no
Degree of protection	IP20
Width	86 mm
Height	124 mm
Depth	125 mm
Number of phases	1

Type	Item No.	Pcs./Pkt.
PS-EE-2G/1AC/48DC/480W/SC	1585287	1

ESSENTIAL POWER, 1-phase, Screw connection, 24 V DC, 20 A, 480 W

Technical data	
Approvals	BIS Licence Document CB
Input voltage range	85 V AC ... 264 V AC
Output voltage range	24 V DC ... 28 V DC (> 24 V DC, constant capacity restricted)
Output voltage	24 V DC
Output current (IN_PMax)	max. 20 A (P_N = 480 W)
Nominal power	480 W (240 V AC)
Connection method	Screw connection
Protective coating	no
Degree of protection	IP20
Width	86 mm
Height	124 mm
Depth	125 mm
Number of phases	1

Type	Item No.	Pcs./Pkt.
PS-EE-2G/1AC/24DC/480W/SC	1234308	1

ESSENTIAL POWER, 3-phase, Screw connection, 24 V DC, 10 A, 240 W

Technical data	
Approvals	EAC
Input voltage range	3x 320 V AC ... 575 V AC
Output voltage range	22.5 V DC ... 29.5 V DC (> 24 V DC, constant capacity restricted)
Output voltage	24 V DC ±1 %
Output current	10 A (U_{OUT} = 24 V DC)
Nominal power (P_N)	240 W
Connection method	Screw connection
Protective coating	no
Degree of protection	IP20
Width	60 mm
Height	130 mm
Depth	152.5 mm
Number of phases	3

Type	Item No.	Pcs./Pkt.
ESSENTIAL-PS/3AC/24DC/240W/EE	1018291	1

ESSENTIAL POWER, 3-phase, Screw connection, 24 V DC, 20 A, 480 W

Technical data	
Approvals	EAC
Input voltage range	3x 320 V AC ... 575 V AC
Output voltage range	22.5 V DC ... 29.5 V DC (> 24 V DC, constant capacity restricted)
Output voltage	24 V DC ±1 %
Output current	20 A (U_{OUT} = 24 V DC)
Nominal power (P_N)	480 W
Connection method	Screw connection
Protective coating	no
Degree of protection	IP20
Width	115 mm
Height	130 mm
Depth	152.5 mm
Number of phases	3

Type	Item No.	Pcs./Pkt.
ESSENTIAL-PS/3AC/24DC/480W/EE	1018299	1

ESSENTIAL POWER, 3-phase, Screw connection, 24 V DC, 40 A, 960 W

Technical data	
Approvals	EAC
Input voltage range	3x 320 V AC ... 575 V AC
Output voltage range	22.5 V DC ... 29.5 V DC (> 24 V DC, constant capacity restricted)
Output voltage	24 V DC ±1 %
Output current	40 A (U_{OUT} = 24 V DC)
Nominal power (P_N)	960 W
Connection method	Screw connection
Protective coating	no
Degree of protection	IP20
Width	139 mm
Height	130 mm
Depth	190 mm
Number of phases	3

Type	Item No.	Pcs./Pkt.
ESSENTIAL-PS/3AC/24DC/960W/EE	1018294	1

Surge protection and lightning protection

Surge protection and lightning protection

Lightning currents and surge voltages can cause damage to devices and components. In the worst case, the entire system may even fail. Downtimes and repairs further lead to high costs. Businesses in every industry require a high degree of system availability. With individualized solutions for requirements in a wide variety of applications, reliable surge protection by Phoenix Contact makes a significant contribution.

Product range overview

Surge protection for power supply ESSENTIAL edition **16**

Powerful and durable

The surge protective devices are subjected to a large number of tests and examinations during their development phase in the in-house, certified pulse and high-current laboratory.
A special feature of this laboratory is a powerful power supply system that can be coupled with a surge current generator. Thus, an environment is created in which surge protective devices can be tested intensively under challenging conditions.

Basic research

The foundation for a high-quality product is basic research and technological development. New technologies and materials for surge protection are developed and made usable with specific targets in mind.

Development and production

In a dialog between development and production, components and materials are harmonized to create a robust, reliable and powerful product. It is ensured that the high requirements on a reliable and effective protective device are satisfied at all times.

Quality tests

Standardized quality tests are performed throughout production and thus guarantee products of the highest levels of quality and safety.

Combined protective devices, type 1+2

SP-EE-FLT is suitable for universal use in TN and TT networks and meets the requirements of lightning protection levels III and IV. The encapsulated spark gap, which is free of leakage current and line follow current, limits lightning-related voltage peaks and switching overvoltages to the level of overvoltage category II. It can therefore be used in the unmetered area.

Surge protective devices, type 2

The devices are usually installed in subdistributions or control cabinets. These devices must be able to discharge induced surge voltages from direct lightning strikes or switching operations, but do not have to handle direct lightning currents. In any case, induced surge voltages caused by switching operations are very dynamic and fast response behavior is required.

Device protection, type 3

The surge protective devices are generally installed immediately upstream of the end devices to be protected. PLT-EE provides optimal protection for single-phase industrial power supplies in various nominal voltage ranges.

Availability

Surge protection by Phoenix Contact plays a major role in assuring a high level of system availability in the widest range of applications.

Signal protection for MCR technology

Surge protection for measurement and control technology includes versions that can be used for many fields of application. The benefits of these devices include their proven and cost-optimized functionality as well as their compact and therefore space-saving design with a pitch of just 6 mm.

Surge protection for the power supply ESSENTIAL edition

From feed-in to the end device, we offer you the right surge protection for a multi-level protection concept. The ESSENTIAL edition product family includes combined type 1+2 surge protective devices, type 2 surge protective devices, and type 3 device protection.

Type 3 surge protection device, TN-S, V, Remote indication contact

Technical data	
Arrester class in accordance with IEC	T3
Supply system configuration	TN-S
Nominal voltage	24 V AC
Fault warning	Optical, remote indicator contact
Nominal discharge current I_n	1 kA
Combined surge (without reference direction)	2 kV

	Type	Item No.	Pcs./Pkt.
	PLT-EE-T3-24DC-R	1249054	5

Accessories	Type	Item No.	Pcs./Pkt.
Replacement plug	PLT-EE-T3-24DC-P	1249053	10
Base element	PLT-EE-T3-BE-R	1249061	10

Type 3 surge protection device, TN-S, V, Remote indication contact

Technical data	
Arrester class in accordance with IEC	T3
Supply system configuration	TN-S
Nominal voltage	60 V AC
Fault warning	Optical, remote indicator contact
Nominal discharge current I_n	2 kA
Combined surge (without reference direction)	4 kV

	Type	Item No.	Pcs./Pkt.
	PLT-EE-T3-60AC-R	1249056	5

Accessories	Type	Item No.	Pcs./Pkt.
Replacement plug	PLT-EE-T3-60AC-P	1249055	10
Base element	PLT-EE-T3-BE-R	1249061	10

Type 3 surge protection device, TN-S, TT, V, Remote indication contact

Technical data	
Arrester class in accordance with IEC	T3
Supply system configuration	TN-S TT
Nominal voltage	120 V AC 120 V AC
Fault warning	Optical, remote indicator contact
Nominal discharge current I_n	3 kA
Combined surge (without reference direction)	6 kV

	Type	Item No.	Pcs./Pkt.
	PLT-EE-T3-120AC-R	1249058	5

Accessories	Type	Item No.	Pcs./Pkt.
Replacement plug	PLT-EE-T3-120AC-P	1249057	10
Base element	PLT-EE-T3-BE-R	1249061	10

Type 3 surge protection device, TN-S, TT, V, Remote indication contact

Technical data	
Arrester class in accordance with IEC	T3
Supply system configuration	TN-S TT
Nominal voltage	240 V AC 240 V AC
Fault warning	Optical, remote indicator contact
Nominal discharge current I_n	3 kA
Combined surge (without reference direction)	6 kV

	Type	Item No.	Pcs./Pkt.
	PLT-EE-T3-230AC-R	1249060	5

Accessories	Type	Item No.	Pcs./Pkt.
Replacement plug	PLT-EE-T3-230AC-P	1249059	10
Base element	PLT-EE-T3-BE-R	1249061	10

Marking material

Marking material for industrial identification

Our marking material is suitable for a variety of applications in industrial environments, from control cabinet marking right through to outdoor systems. The durability of the marked materials, even under extreme conditions, satisfies all international standards and requirements. A wide range of versions are available for terminal marking, wire and cable marking, equipment marking, and plant marking.

Product range overview

Conductor and cable marking **20**

Conductor and cable marking

Cable marking provides a better overview of your control cabinets and systems: mark your conductors and cables clearly and permanently. Conductor and cable markings simplify mounting and maintenance and help when repairing faults. We provide the optimum marking solution for every application, with various designs and mounting types.

Shrink and marking sleeve

[ID:6436748], mounting type: slide-on, Print medium: Roll

	Type	Item No.	Pcs./Pkt.
	WMS-OT HF 3,2 (EX5)RL	1044253	1
	WMS-OT HF 3,2 (EX5)RL YE	1044254	1

[ID:6436748], mounting type: slide-on, Print medium: Roll

	Type	Item No.	Pcs./Pkt.
	WMS-OT HF 3,2 (EX5)R	1044236	1
	WMS-OT HF 3,2 (EX5)R YE	1044239	1

[ID:6436748], mounting type: slide-on, Print medium: Roll

	Type	Item No.	Pcs./Pkt.
	WMS-OT HF 4,8 (EX9)R	1044243	1
	WMS-OT HF 4,8 (EX9)R YE	1044245	1

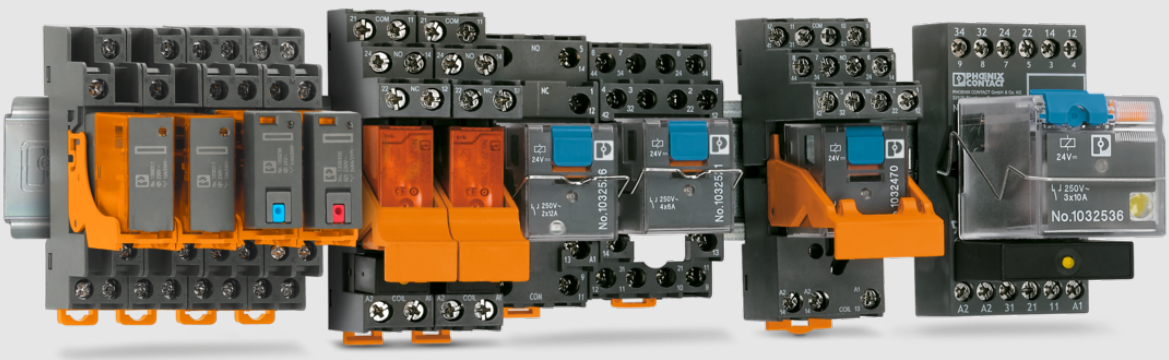
[ID:6436748], mounting type: slide-on, Print medium: Roll

	Type	Item No.	Pcs./Pkt.
	WMS-OT HF 4,8 (EX9)RL	1044256	1
	WMS-OT HF 4,8 (EX9)RL YE	1044259	1

[ID:6436748], mounting type: slide-on, Print medium: Roll

	Type	Item No.	Pcs./Pkt.
	WMS-OT HF 2,4 (EX4)R	1163127	1
	WMS-OT HF 3,2 (EX5)R YE	1044239	1
	WMS-OT HF 3,2 (EX5)R	1044236	1
	WMS-OT HF 4,8 (EX9)R YE	1044245	1
	WMS-OT HF 4,8 (EX9)R	1044243	1

Relays and optocouplers

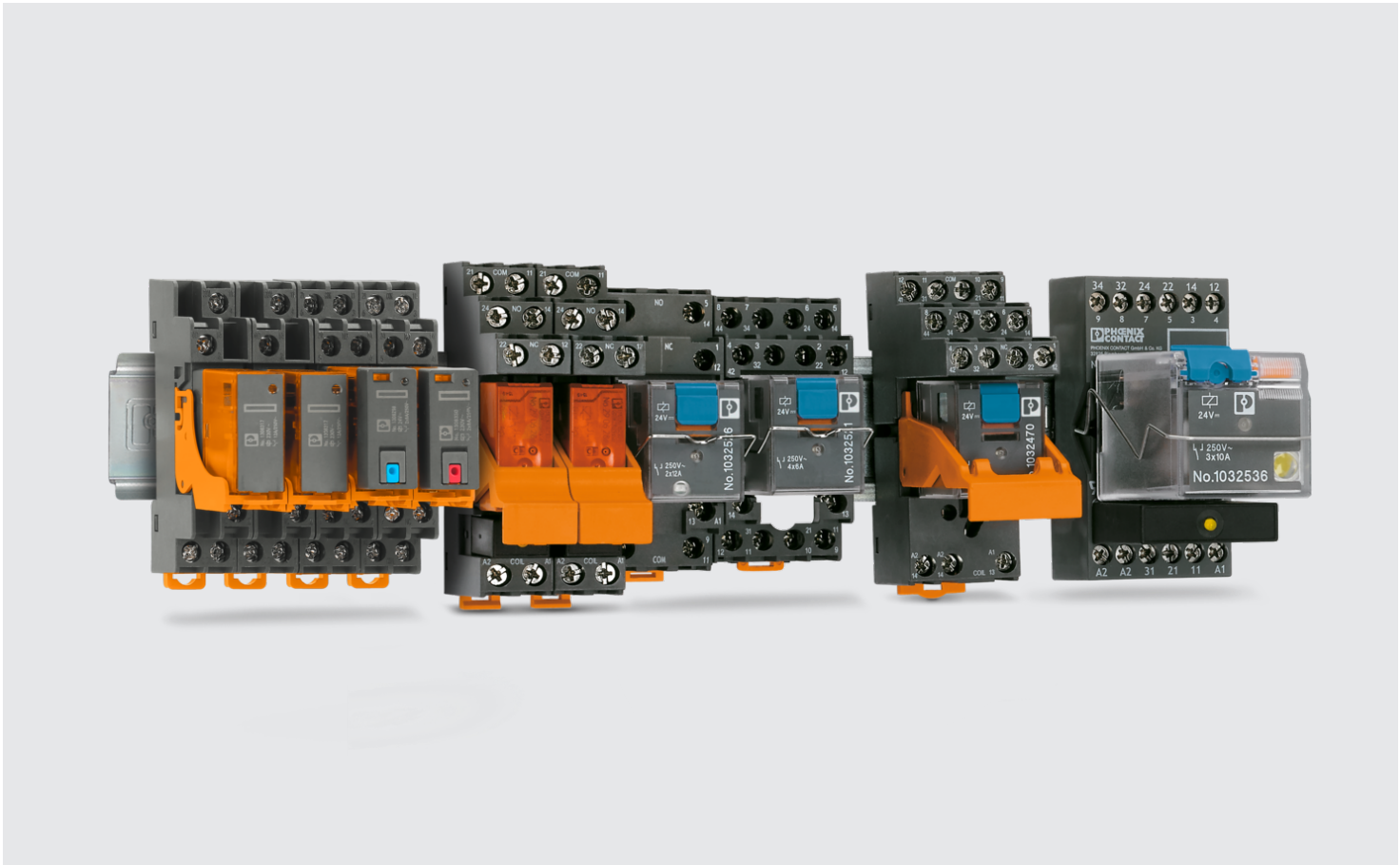


Relays and optocouplers

In industrial applications, electromechanical and solid-state relays perform the important tasks of switching, isolating, amplifying, measuring, and monitoring between the control system and devices in the field.
The ESSENTIAL edition product family from Phoenix Contact includes control relays, timer relays, and monitoring relays for the diagnosis of various electrical variables. This allows you to flexibly construct different relay solutions according to on-site needs.

Product range overview

Timer relays ESSENTIAL edition **28**



ESSENTIAL edition is an efficient, modular industrial relay system with basic functions, consisting of relays, relay bases, retaining brackets, and plug-in function modules. Take advantage of a flexible range with one to four changeover contacts and input voltages of 12 V DC to 230 V AC.
From product development to series production — the high quality of Phoenix Contact products is ensured through consistent testing in accordance with uniform directives and company standards.

ECOR-1

The 16 mm narrow ECOR-1 base series with screw connection is suitable for miniature power relays and miniature switching relays with one or two changeover contacts. Currents up to 12 A can be switched.
Relay bases are available with a bolt connection.

ECOR-2

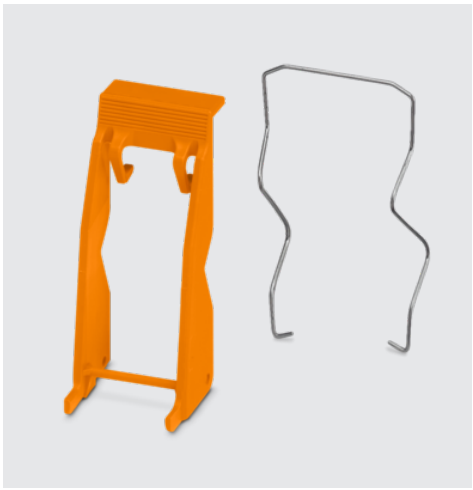
The ECOR-2 base series is suitable for industrial relays with two or four changeover contacts. Currents up to 12 A are no problem for these bases. Relay bases are available either with screw connection or bolt connection. In addition, a width-optimized ECOR-2 base with plugging capabilities for input / interference suppression modules is available for industrial relays with two changeover contacts.

ECOR-4

The 44 mm wide ECOR-4 base series is ideal for power relays with four FASTON contacts. Switching currents up to 10 A can be implemented here. The relay bases are available as a bolt connection with screw connection input/interference suppression modules.

100 % tested

Securing high product quality with 100 % testing of isolation and function.
Additional type tests:
– Dielectric test
– Function test
The following type tests are also performed:
– Conductor pull-out test
– Dielectric test
– Temperature increase test



Reliable system for high machine and system availability

Plastic relay retaining bracket with eject function and metal relay retaining bracket

Plug-in modules

Function plug-in modules for coil suppression and status display.

ECOR-1 FASTON relay

With the ECOR-1 FASTON relay in 1CO & 2CO contact switching type available with or without manual actuation in various voltage versions, Phoenix Contact offers solutions for industrial areas that require robustness and a space-saving design.

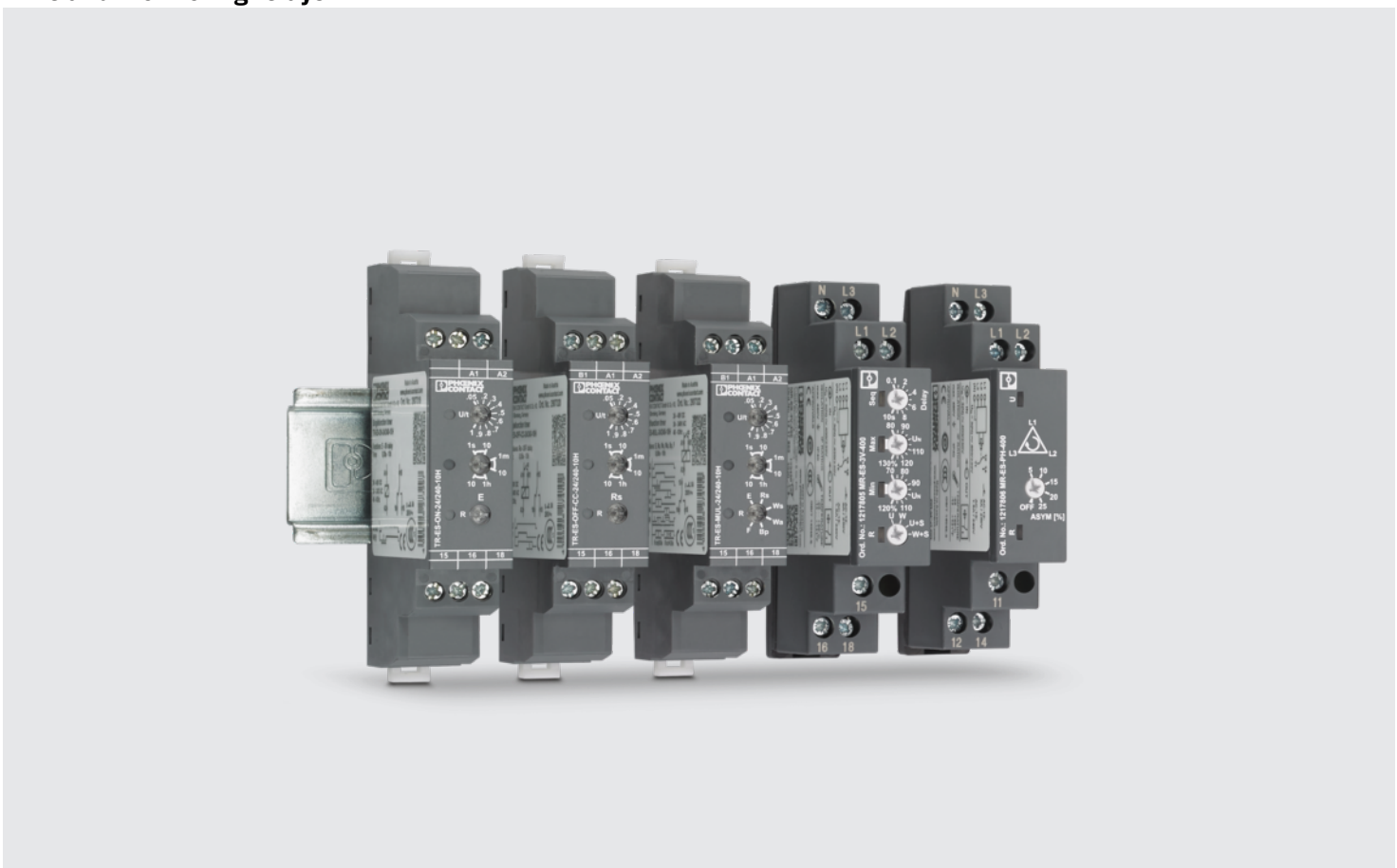
Easy wiring

Easy wiring with screw connection. Also with ferrules or bold connection available.

Your advantages:

- ✓ High cost efficiency
- ✓ Relays from 1 to 4 changeover contacts
- ✓ Robust bolt connection technology
- ✓ UL and CSA approval

Time and monitoring relays



Compact timer relays in a 17.5 mm wide housing for controlling time sequences. Single-function timer relays, multi-functional timer relays, and monitoring relays are suitable for most universal requirements. The ESSENTIAL edition timer relays can be used as an efficient application for many time delay tasks. The ESSENTIAL edition monitoring relays quickly recognize deviations from key system parameters. They report these deviations or shut system parts down selectively.

Your advantages:

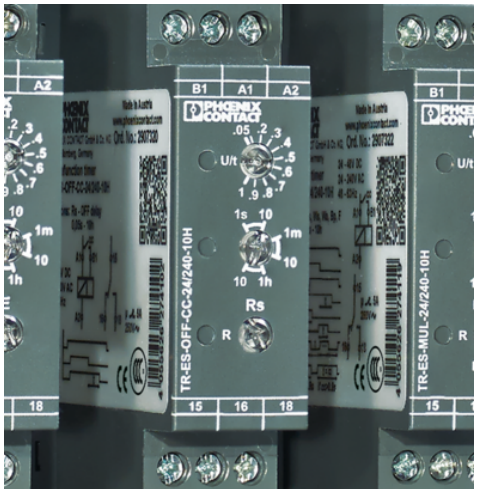
- ✓ Easy to select, thanks to just 3 articles which can satisfy most universal time delay tasks
- ✓ Optimum time control with setting range from milliseconds to 10 hours
- ✓ Monitoring relay ideally suited for simple monitoring tasks
- ✓ Easy handling, as time parameters can be adjusted conveniently on the front of the housing
- ✓ Space saving, thanks to a compact housing
- ✓ CCC approval

Find the right product quickly

With switch-on delay, switch-off delay or multifunctional: available in just three versions, they cover all applications associated with conventional time control.

Space-saving

Thanks to the compact installation housing, they are ideally suited for building installation. As reasonably priced solutions with numerous functions, the products are just as ideally suited for series production.



Simple operation

Parameters can be set conveniently via the rotary switch on the front of the housing. The timer relays feature a precise setting range of milliseconds to up to 10 hours.

Three-phase voltage monitoring relays

The ESSENTIAL edition MR-ES series voltage monitoring relays can detect grid and voltage failures early enough to safeguard the reliable operation of devices and systems. You can select between two device types: Voltage or phase monitoring.

Timer relays ESSENTIAL edition

The ESSENTIAL edition timer relays can be used as an efficient application for many time delay tasks. With switch-on delay, switch-off delay, or multifunctional: available in just three versions, they cover all applications associated with conventional time control.

Timer relay

Technical data	
Nominal input voltage range	24 V DC ... 48 V DC -10 % ... +10 % 24 V AC ... 240 V AC -15 % ... +10 %
Time range	50 ms ... 10 h (6 time end ranges)
Time function	E: With switch-on delay Rs: Delay release Ws: Pulse output (rising edge) and control contact Wa: Pulse output (falling edge) and control contact Bp: Cycle pulse output (initial status is 0) F: Switch Wu: Pulse output (rising edge) and voltage control
Contact switching type	1 floating changeover contact
Maximum switching voltage	250 V AC
Standards/regulations	IEC 61812-1
Ambient temperature (operation)	-25 °C ... 50 °C
Width	17.5 mm
Height	98 mm
Depth	57.9 mm

Type	Item No.	Pcs./Pkt.
TR-ES-1T-MUL-10H	2909777	10

Open communication with customers and partners worldwide

Phoenix Contact is a global market leader based in Germany. We are known for producing forward-thinking products and solutions for the comprehensive electrification, networking, and automation of all sectors of the economy and infrastructure. With a global network, we maintain close relationships with our customers, something we believe is essential for our common success.

You can find your local partner at

phoenixcontact.com