



Technical Commercial Information

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Division: Power Products

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Title: New shunt releases for VD4 circuit breaker

Index:

1. Introduction
2. Product
3. Price lists
4. Availability and delivery times
5. Sales support tools

1. Introduction

The aim of the following Technical Information is to notify the sales network and customers that as of June 1, 2015, orders for vacuum circuit breakers for primary distribution VD4 (all versions up to 24 kV) will be processed and delivered with new shunt releases for the following functions:

- opening,
- supplementary opening,
- closing,
- undervoltage (except application on VD4 50 kA),
- locking electromagnet on the operating mechanism.

The new series of shunt releases will replace the current ones for all series of vacuum circuit breakers provided with the EL mechanical actuator. Other Technical Information will follow with the introduction dates for other vacuum circuit breaker series.

2. Product

This Technical Commercial Information applies to the VD4 series of vacuum circuit breakers for primary distribution up to 24 kV.

The new shunt releases are composed of an enhanced electronic control device which carries out the functions of both launching and holding, thanks to electronic control of current consumption.

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The new series of shunt releases is available at the same power supply voltages as for the current series:

- 24 Vdc;
- 30 Vdc;
- 48 Vdc/ac 50-60 Hz;
- 60 Vdc/ac 50-60 Hz;
- 110...127 Vdc/ac 50-60 Hz (valid for previous coil switch voltages: 110 Vdc/ac; 120 Vdc/ac; 127 Vdc/ac);
- 132 Vdc;
- 220...250 Vdc/ac 50-60 Hz (valid for previous coil switch voltages: 220 Vdc/ac; 230 Vdc/ac; 240 Vdc/ac; 250 Vdc/ac).

The new shunt releases are fully interchangeable with current ones.

Their main technical characteristics are:

	Power supply voltage range	
Power supply voltage	24...60 Vcc; 48...60 Vac	110...250 Vcc; 110...240 Vac
Temperature range	-40°C ... +70°C	-40°C ... 65°C
Inrush power consumption (1)	60 ... 100 W	
Continuous service power (1)	1.5 W	
Consumption of the electronic controller (no coil powered; the value is independent of the voltage applied)	1.5 mA	

(1) indicative value that may vary based on the ambient temperature, but is independent of power supply voltage

The advantages of the new shunt releases are:

- improved construction of the coil and the electronic controller,
- improved EMC,
- enlarged temperature range,
- electronic controller with protection against overcurrent and temperature rises,
- minimal variations in operation times in response to fluctuations in power supply voltage,
- trip thresholds and operation times differentiated for IEC and ANSI circuit breakers (for ANSI circuit breakers setting for 3 cycle or 5 cycle opening time),
- reduced power consumption,
- traceability of the individual electronic components through to the finished control circuit,
- compatibility with CCC (Control Coil Continuity) and TCS (Trip Circuit Supervision) devices.

Specifically, it has been verified that the new shunt releases are compatible with the following devices:

- REF615
- REF630
- REF601
- REF542 Plus
- THYTRONIC NA016
- CNDMX ST2_48DC

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Please note that compatibility with CCC and TCS devices means that supply of special "instantaneous" shunt opening releases as an alternative to the current standard version is stopped. Therefore, as of June 1, 2015, special "instantaneous" shunt opening releases for the VD4 series can no longer be provided (except for as spare parts by Service Department).

3. Price lists

Please refer to the VD4 series price list.

4. Availability

Mass production of new shunt releases have been started since July 2012 and since that time they have been successfully introduced on the VD4 circuit breaker series with lateral side actuator and Vmax circuit breaker series.

5. Sales support tools

Detailed information will be available in the VD4 catalog and instruction manual, which are currently being updated.

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