

Features

- Type A protection
- Leakage current measurement through core balance transformer
- Operating on 1-phase or 3-phase systems
- Adjustable current level and delay time
- Local Reset and Test pushbutton
- Input for remote Reset or Test
- 2 SPDT relay outputs
- 24 to 240 VAC auxiliary power supply
- Two module DIN rail mounting
- LED indication for warning and alarm status
- Anti tampering thanks to sealable front cover

RS PRO Earth Leakage Relays

RS Stock No.: 0848637, 0848638



RS PRO is the own brand of RS. The RS PRO Seal of Approval is your assurance of professional quality, a guarantee that every part is rigorously tested, inspected, and audited against demanding standards. Making RS PRO the Smart Choice for our customers.

Product Description

DEB are modular residual current relays which, in conjunction with the core balance transformer and circuit breaker, provide protection against possible risks arising from insulation or grounding faults.

Thanks to the adjustable leakage current setpoint ($I\Delta n$) and alarm ON delay time (Δt), DEB provide local protection interrupting the power supply only at the point where the fault occurs, through specific settings for each level into which the system is divided.

DEB are equipped with two changeover relay outputs. One output triggers at 60% $I\Delta n$ providing a warning signal, the other output triggers at 80% $I\Delta n$ providing an alarm signal. These devices provide, on all type of residential, commercial and industrial installations, protection to people against the electric shock risk and buildings against the risk of fire.

General Specifications

Electrical Phase	1-phase or 3-phase mains
Terminals	C1, C2 (Input from core balance transformer) Y1 (Input for remote test or reset) A1, A2 (Auxiliary power supply) 11, 12, 14 (Relay output 1 for alarm signal) 21, 22, 24 (Relay output 2 for warning signal)
Terminals type	Screw, cable size up to 3.3mm ² , stranded or solid
Tightening torque	0.4 → 0.8Nm
Test Function	Local (press the frontal pushbutton T) or Remote (press the external push button for more than 2s)
Reset function	Local (press the frontal pushbutton R) or Remote (press the external push button for less than 2s)
Information LEDs	Green (ON) for power supply status Yellow (20%) for 20% $I\Delta n$ warning status Yellow (40%) for 40% $I\Delta n$ warning status Yellow (60%) for 60% $I\Delta n$ warning status Yellow (PRE) for output relay 2 status Red (AL) for 80% $I\Delta n$ alarm and output relay 1 status

Electrical Specifications

Power supply voltage range	24 → 240VAC (±10%)		
Frequency Range	50 → 60Hz (±10%)		
Overvoltage category	III		
Consumption	< 2.5VA		
Measuring input	Leakage current measuring from core balance transformer		
Core balance transformer type	CTGs are the only core balance transformers approved for use with DEB, according to EN 60947-2 (Annex M). Select the model according to mains cable diameter.		
Leakage current range	0848638: 30mA → 5A 0848637: 300mA → 30A		
Leakage current setpoint (I _{Δn})	Part number	I _{Δn} (adjustable)	Current overloads (continuous)
	0848638	0.03A	0.15A
		0.1A	0.5A
		0.3A	1.5A
		0.5A	2.5A
		1A	5A
		2A	10A
		5A	10A
	0848637	0.3A	1.5A
		0.5A	2.5A
		1A	5A
		2A	10A
		5A	25A
		10A	30A
		30A	40A
Delay time on alarm activation range	0 → 5s		
Delay time on alarm activation setting (Δt)	0s, 0.1s, 0.3s, 0.5s, 1s, 3s, 5s, adjustable		
Reaction time	215 ms		
Output	2 SPDT electromechanical relays, Normally energized		
Output contact rating	AC1: 5A @ 250VAC DC12: 5A @ 24VDC AC15: 2.5A @ 250VAC DC13: 2.5A @ 24VDC		
Electrical lifetime	≥ 50 x 10 ³ operations		
Mechanical lifetime	≥ 30 x 10 ⁶ operations		
Insulation	Basic, 2.5 kVrms, 4 kV impulse 1.2/50 μs		

Mechanical Specifications

Depth	70.5mm
Length	35.5mm
Height	81mm
Unit Weight	150g
Mounting Type	DIN-rail
Housing material	Polyamide (Nylon) (PA66/6) or Phenylene ether + Polystyrene (PPE-PS)
Flammability rating	V0 according to UL 94
Front cover material	Transparent polycarbonate

Operation Environment Specifications

Operating Temperature Range	-25°C → 60°C
Relative Humidity	5 → 95%, non-condensing
Protection degree	IP20
Pollution degree	2
Operating max altitude	2000m AMSL

Protection Category

Protection Class	Type A
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Classification

eCl@ss Version	
UNSPSC Version	
ETIM 8.0	EC001445

Approvals

Compliance/Certifications	CE and RoHS Compliant
Standards	EN 60947-2:2017/A1:2020 (annex M) EN 60947-2:2006/A2:2013 (annex M) EN 63000: 2018
Directives	2014/35/EU (LVD - Low voltage) 2014/30/EU (EMC - Electromagnetic compatibility) 2011/65/EU, 2015/863/EU (RoHS)

Similar Products

Parameters	Stock#	Stock#	Stock#	Stock#
Brand	RS PRO	RS PRO	RS PRO	RS PRO
Frequency Range				
Leakage Range				
Output				
Trip Time				
Protection Class				
Test Function				
Electrical Phase				
Mounting Type				
Series				
Interface				
Dimensions				
Weight				
Approvals				

