

Modular Residual Current Device (MRCD)

MRCDs provide variable earth leakage protection in accordance with BS EN 60947-2 (annex M), as required by BS7671:2018 the IET Wiring Regulations, 18th Edition.

Protection is provided by an MRCD-R monitoring relay working in conjunction with a current transformer (CT), which are available in the sizes detailed in the table below. To comply with BS EN 60947-2 annex M, the MRCD relay and CT must be used in conjunction with a suitable circuit breaking device. MRCDs incorporated within Blakley distribution assemblies typically work in conjunction with an MCB or MCCB fitted with either a shunt trip or under voltage release.

MRCDs can be purchased as loose items by Original Equipment Manufacturers (OEMs), for incorporation within their own assemblies.

MRCD-R (Modular RCD Relay)

The MRCD-R earth leakage monitoring relay incorporates the following features:

- Operating Characteristics: Type A
- Supply: 115V or 230V 50/60/400Hz
- Adjustable sensitivity ($I_{\Delta n}$): 0.03, 0.1, 0.3, 0.5, 1, 3, 5, 10, 20 and 30A
- Adjustable time delay (Δt): 0.06, 0.15, 0.25, 0.5, 0.8, 1, 2.5, 5 & 10 seconds
- 'Test' and 'Reset' push buttons
- 'Power On', 'Tripped' and 'Leakage Current' LED indication
- CT monitoring (MRCD-R trips if MRCD-CT is not connected)
- No time delay available for 30mA sensitivity ($I_{\Delta n}$) instantaneous operation only
- 1 SPDT standard relay output – AC1 250V 8A
- 1 SPNO safety relay output – AC1 250V 6A
- DIN rail mounting
- Standards: BS EN / IEC 60947-2

MRCD-CT (Modular RCD CT)

The MRCD-CT core balanced CT sensing coils are offered in a range of sizes. Circular MRCD-CTs are intended for use on circuits rated up to 800A and are available with internal diameters from 35mm to 160mm. Cable locators are included at 120mm and 160mm to ensure correct positioning of load cables within the CT. A rectangular MRCD-CT is also available, which is suitable for circuits rated up to 2500A and incorporates an internal aperture of 470 x 160mm.



MRCD-R



MRCD-R with Full Range of Circular MRCD-CTs

Blakley MRCD Part Numbers and Operating Range

Part No.	Type	Sensitivity Range ($I_{\Delta n}$) A	Max Circuit Rating Amps	Max Cable Size mm ²
S201299S	MRCD-R 115-230V modular RCD relay	see below	see below	see below
S201300S	MRCD-CT35 35mm ID 125A modular RCD CT	0.03 to 30A	125	4 x 25
S201301S	MRCD-CT50 50mm ID 200A modular RCD CT	0.1 to 30A	200	4 x 50
S201302S	MRCD-CT70 70mm ID 250A modular RCD CT	0.1 to 30A	250	4 x 70
S201303S	MRCD-CT120 120mm ID 630A modular RCD CT*	0.1 to 30A	630	8 x 95
S201304S	MRCD-CT160 160mm ID 800A modular RCD CT**	0.1 to 30A	800	8 x 120
S201306S	MRCD-CT470 470 x 160mm 2500A modular RCD CT	0.3 to 30A	2500	Bus Bars

* Usable aperture is 73mm. ** Usable aperture is 90mm.

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