



Besides transient overvoltages, transmission lines can transmit a power frequency overvoltage above 10% of nominal for an indefinite period, caused by network problems, bad connections, damage/theft of the neutral conductor. Electrical distribution systems use the neutral conductor (*usually grounded*) as a reference for phase voltages, the return current through this conductor permits the voltage between each phase and neutral to remain constant, should the neutral conductor break, the line-to-neutral voltage is floating, and depending on the load imbalance, increases voltage causing premature ageing, excessive consumption with a resulting fire risk.

type	surge protection device		POP	MCB		general		
	I <sub>max</sub> L-N (kA)	U <sub>p</sub> L-N (kV)	U <sub>a</sub> (V)	C curve (In)	break capacity	poles	config.	mod. (18mm)

**V-CHECK MR - surge protection + POP + self reclose MCB in a single unit**

- Transient (*surge*) protection
- Power frequency **O**vervoltage **P**rotection (POP)
- Overload and short circuit protection
- Self-reclose MCB (*automatically resets once fault is cleared*)

<b>V-Check 2MR-10</b>	15kA	1.5kV	>275 V	10A	6kA	2	1ph+N	5
<b>V-Check 2MR-25</b>	15kA	1.5kV	>275 V	25A	6kA	2	1ph+N	5
<b>V-Check 2MR-40</b>	15kA	1.5kV	>275 V	40A	6kA	2	1ph+N	5
<b>V-Check 4MR-16</b>	20kA	1.5kV	>275 V	16A	10kA	4	3ph+N	9
<b>V-Check 4MR-32</b>	20kA	1.5kV	>275 V	32A	10kA	4	3ph+N	9
<b>V-Check 4MR-63</b>	20kA	1.5kV	>275 V	63A	10kA	4	3ph+N	9

Above also available without self-reclose facility

**V-Check RPT** offers SPD+POP protection disconnecting the circuit via a circuit breaker shunt trip

<b>V-Check 4RPT</b>	40kA	1.8kV	>275 V	–	–	4	3ph+N	4
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**V-Check RC** offers SPD+POP protection disconnecting the circuit via a contactor

<b>V-Check 4RC</b>	40kA	1.8kV	>275 V	–	–	4	3ph+N	4
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**OVERCHECK line monitoring unit - protection against permanent overvoltages and short circuits**

OVERCHECK is a programmable control unit and motorised circuit breaker which automatically disconnects the supply when voltage, current or earth leakage exceed preset threshold values, and re-connects the supply when these return to within their preset values. The OVERCHECK provides comprehensive protection of people and equipment connected to the grid, and its safe reconnection feature guarantees maximum service continuity.

- Plug & play, supplied pre-wired automatic motorised circuit breaker, quick and simple to install
- Mini USB connection for quick and simple software updates
- Memory with historical fault log / programmable trip and delay thresholds / password protected
- End of cycle of reconnections after overload, short circuit or earth leakage / status indication
- Remote actuation: RST remote reset function / AUX external activation signal contacts

**Permanent under/overvoltage, phase sequence protection (no earth leakage protection)**

<b>OVERCHECK 2N/230-MT16</b>	overcheck protection unit	16A	10kA	2	1ph+N	9
<b>OVERCHECK 2N/230-MT32</b>	overcheck protection unit	32A	10kA	2	1ph+N	9
<b>OVERCHECK 2N/230-MT63</b>	overcheck protection unit	63A	10kA	2	1ph+N	9
<b>OVERCHECK 4N/230-MT16</b>	overcheck protection unit	16A	10kA	4	3ph+N	11
<b>OVERCHECK 4N/230-MT32</b>	overcheck protection unit	32A	10kA	4	3ph+N	11
<b>OVERCHECK 4N/230-MT63</b>	overcheck protection unit	63A	10kA	4	3ph+N	11

**Earth leakage, permanent under/over voltage and phase sequence protection**

<b>OVERCHECK 2ND/230-MT16</b>	overcheck protection unit	16A	10kA	2	1ph+N	9
<b>OVERCHECK 2ND/230-MT32</b>	overcheck protection unit	32A	10kA	2	1ph+N	9
<b>OVERCHECK 2ND/230-MT63</b>	overcheck protection unit	63A	10kA	2	1ph+N	9
<b>OVERCHECK 4ND/230-MT16</b>	overcheck protection unit	16A	10kA	4	3ph+N	11
<b>OVERCHECK 4ND/230-MT32</b>	overcheck protection unit	32A	10kA	4	3ph+N	11
<b>OVERCHECK 4ND/230-MT63</b>	overcheck protection unit	63A	10kA	4	3ph+N	11

**TOCK 30** earth leakage protection transformer for above OVERCHECK...ND

**G-Check earthing installation monitor**

Earthing monitor for continuous status checking, displays measured value of loop resistance in an installation. When a specified value is exceeded the G-Check triggers an alarm output.

- For TT, TNS and TNC-S systems

type	voltage	frequency	alarm activation value	max. measured value
<b>G-CHECK 230</b>	230 V	50/60 Hz	adjustable	500 ohms