# Device overview measuring and monitoring relays LINETRAXX®

**3.1**

| | LINETRAXX® VME420 | LINETRAXX® VME421H | LINETRAXX® VMD258 | LINETRAXX® VMD420 | LINETRAXX® VMD421H | LINETRAXX® VMD423/VMD423H | LINETRAXX® VMD460-NA | LINETRAXX® CME420 | LINETRAXX® CMD420/CMD421 | LINETRAXX® CMS460 | LINETRAXX® GM420 | RM475 RM475LY | SB146 | LINETRAXX® ES258 * |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
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| **Voltage monitoring** AC with $U_s$ | $<U, >U$ | | | | | | $<U, <<U, >U, >>U, >U_{10min}$ | | | | | | | |
| **Voltage monitoring** AC without $U_s$ | | $<U, >U$ | | | | | | | | | | | | |
| **Voltage monitoring** 3AC with $U_s$ | | | | | | | | | | | | | | |
| **Voltage monitoring** 3AC without $U_s$ | | | $<U, >U$ | | | | | | | | | | | |
| **Voltage monitoring** 3(N)AC with $U_s$ | | | | $<U, >U$ | | $<U, >U, >U_{10min}$ (423) | $<U, <<U, >U, >>U, >U_{10min}$ | | | | | | | |
| **Voltage monitoring** 3(N)AC without $U_s$ | | | | | $<U, >U$ | $<U, >U, >U_{10min}$ (423H) | | | | | | | | |
| **Voltage monitoring** DC with $U_s$ | $<U, >U$ | | | | | | | | | | | | | |
| **Voltage monitoring** DC without $U_s$ | | $<U, >U$ | | | | | | | | | | | | |
| **Measuring range/ nominal system voltage $U_n$** | AC/DC systems 0…300 V | AC/DC systems 9.6…150 V (VME421H-D-1), 70…300 V (VMD421H-D-2) | 3AC 690/500/480/440/400/230/110/100 V | (L-N) 0…288 V (L-L) 0…500 V | (L-N) 0…288 V (L-L) 0…500 V | (L-N) 0…288 V (L-L) 0…500 V | (L-N) 0…300 V (L-L) 0…520 V | | | | | | | |
| **Frequency** | $<f, >f$ | $<f, >f$ | | $<f, >f$ | $<f, >f$ | $<f, >f$ | $<f, <<f, >f, >>f$ | | | | | | | |
| **Asymmetry/phase failure** | | | | ■ | ■ | ■ | ■ | | | | | | | |
| **Phase sequence** | | | | ■ | ■ | ■ | ■ | | | | | | | |
| **Current monitoring** 1 AC with $U_s$ | | | | | | | | $<I, >I$ | | $<I, >I$ | | | | |
| **Current monitoring** 3 AC with $U_s$ | | | | | | | | | $<I, >I$ | $<I, >I$ | | | | |
| **Special function** | | | | | | | RS-485 interface, Islanding detection: - ROCOF (df/dt) - Vector shift | | | RS-485 interface | | | | |
| **Special applications** | | | Pure analogue technique | | | Interface Protection System/Decoupling protection relay | Interface Protection System/Decoupling protection relay | | | | Loop monitoring | Loop monitoring | Fault voltage relay | Energy backup for device series VMD258 |
| **Installation** DIN rail | ■ | ■ | ■ | ■ | ■ | ■ | | ■ | ■ | ■ | ■ | ■ | | |
| **Installation** Screw mounting | ■ | ■ | ■ | ■ | ■ | ■ | | ■ | ■ | ■ | ■ | | | |

\* Delivery time on request