



Auxiliary supply

Rated auxiliary supply voltage U_s
AC

| | | | |
|----------------------------------|-----|-----|-----------------|
| | min | VAC | 100 |
| | Max | VAC | 440 |
| Auxiliary operating range | | | 90...484VAC |
| Auxiliary rated frequency | | Hz | 50/60 \pm 10% |
| Power consumption Max | | VA | 8.5 |
| Power dissipation Max | | W | 3 |
| Immunity time for microbreakings | | ms | <25 |

Voltage inputs

| | | | |
|-----------------------------|--|------------|--|
| Rated voltage (U_e) | | VAC | 600VAC L-L (rated max) |
| Operating range | | | 50...720VAC L-L (415VAC L-N) |
| Frequency range | | Hz | 45...65 |
| Type of measure | | | True RMS value |
| No-voltage release | | ms | \geq 8 |
| Measurement input impedance | | k Ω | >15M Ω |
| Type of connection | | | Single phase, two phase, three phase with or without neutral or balanced three phase system |

Current inputs

| | | | |
|-------------------------|--|-------|--|
| Number of current input | | Nr. | 1 |
| Type of input | | | Shunt supplied by external current transformer (low voltage). Max 5A |
| Measurement range | | | 0.025...6A~ for 5A scale; 0.025...1.2A~ for 1A scale |
| Measurement method | | | True RMS value |
| Constant overload | | I_e | 1.2 I_e |
| Overload peak | | A | 50A for 1s |
| Burden per phase | | W | <0.6VA |

Measurement data

| | | | |
|---|--|--------------|------------------|
| Type of voltage and current measurement | | | True RMS value |
| Power factor adjustment | | | 0.5ind...0.5cap. |
| Type of temperature sensor | | | Internal |
| Temperature measurement range | | $^{\circ}$ C | 0...+212 |

Relay outputs

| | | |
|---|--------|---------------------------------------|
| Number of relay output | Nr. | 8 (up to 14 with EXP10 06 - EXP10 07) |
| Contact arrangement | | 7 NO-SPST + 1 C/O-SPDT |
| Rated current | | 5A 250V AC1 |
| UL/CSA and IEC/EN 60947-5-1 designation | | B300 |
| Maximum current at common contact terminal | A | 10 |
| Maximum switching voltage | VAC | 415 |
| Electrical life (with rated load) | cycles | 10 ⁵ |
| Mechanical life | cycles | 10 ⁷ |
| Insulations | | |
| Rated insulation voltage Ui IEC/EN | V | 600 |
| Rated impulse withstand voltage Uimp | kV | 9.5 |
| Operating frequency withstand voltage | kV | 5.2 |
| Functions | | |
| Automatic recognition of current flow direction | | Yes |
| 4-quadrant operation | | Yes |
| Master-Slave function | | No |
| Independent auxiliary supply input | | Yes |
| Three-phase voltage control | | No |
| Current inputs | | 1 |
| Dynamic (FAST) power factor correction | | No |
| Power factor correction by single phase | | No |
| Possibility of connecting inductive steps | | No |
| Possibility of use in medium voltage | | Yes |
| Possibility of phase-neutral insertion on a three-phase system | | Yes |
| Analog outputs | | No |
| Input programmable as function or external temperature sensor | | No |
| USB communication interface | | No |
| RS232 communication interface | | Yes |
| Opto-isolated RS485 communication interface | | Yes |
| Ethernet communication interface | | Yes |
| Opto-isolated Profibus-DP interface | | Yes |
| GPRS/GSM modem | | No |
| Optical port on front for the connection of USB devices | | Yes |
| Optical port on front for the connection of Wi-Fi devices | | Yes |
| Fast setting of current transformer | | Yes |
| Compatible with Xpress configuration and remote control software | | Yes |
| Compatible with Synergy and Synergy Cloud, supervision and energy management software | | Yes |
| Compatible with Sam1 App | | Yes |
| Calendar-clock with backup reserve power | | No |
| Data logging memory | | No |
| Event logging: alarms, setup changes, etc. | | No |
| Customisable internal counters | | No |
| Connections | | |
| Type of terminal | | Plug-in, removable |
| Conductor cross section | min | mm ² 0.2 |
| | Max | mm ² 2.5 |

| | | | |
|-------------------------|-----|------|-----------------------------------|
| | min | AWG | 24AWG (18AWG according to UL/CSA) |
| | Max | AWG | 12 |
| Tightening torque (Max) | | Nm | 0.56 |
| | | lbin | 5 |

Ambient conditions

Temperature

Operating temperature

| | | |
|-----|----|-----|
| min | °C | -20 |
| max | °C | +60 |

Storage temperature

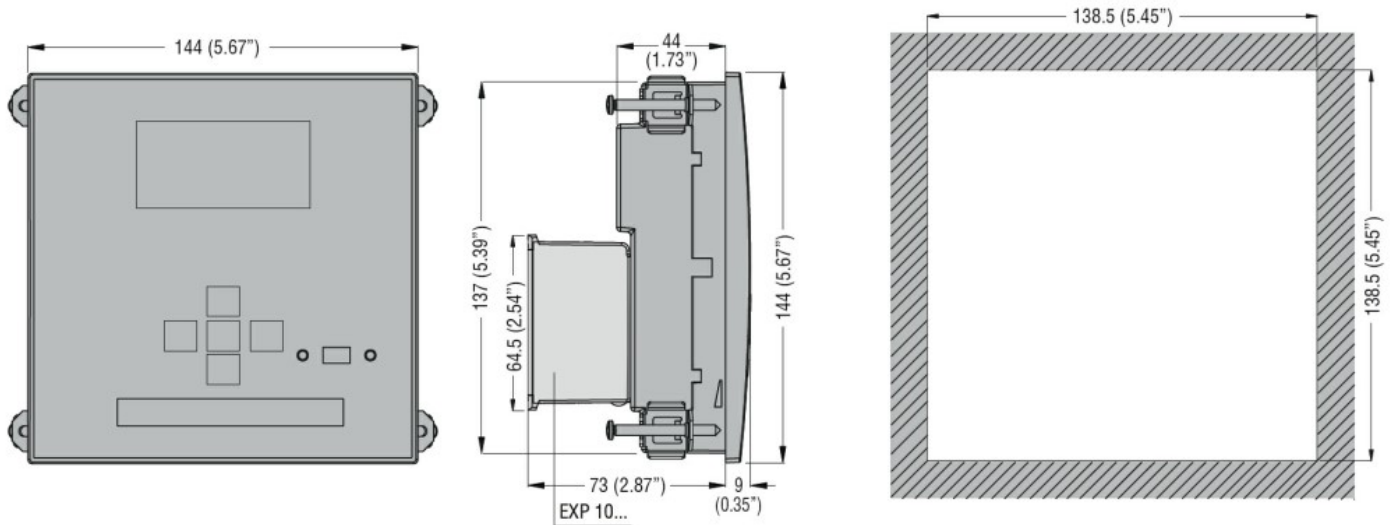
| | | |
|-----|----|-----|
| min | °C | -30 |
| max | °C | +80 |

| | | | |
|--------------------------|--|---|----------------------------|
| Relative humidity | | % | <80% |
| Maximum Pollution degree | | | 2 |
| Overvoltage category | | | 3 |
| Measurement category | | | III |
| Climatic sequence | | | Z/ABDM (IEC/EN 60068-2-61) |
| Shock resistance | | | 15g (IEC/EN 60068-2-27) |
| Vibration resistance | | | 0.7g (IEC/EN 60068-2-6) |

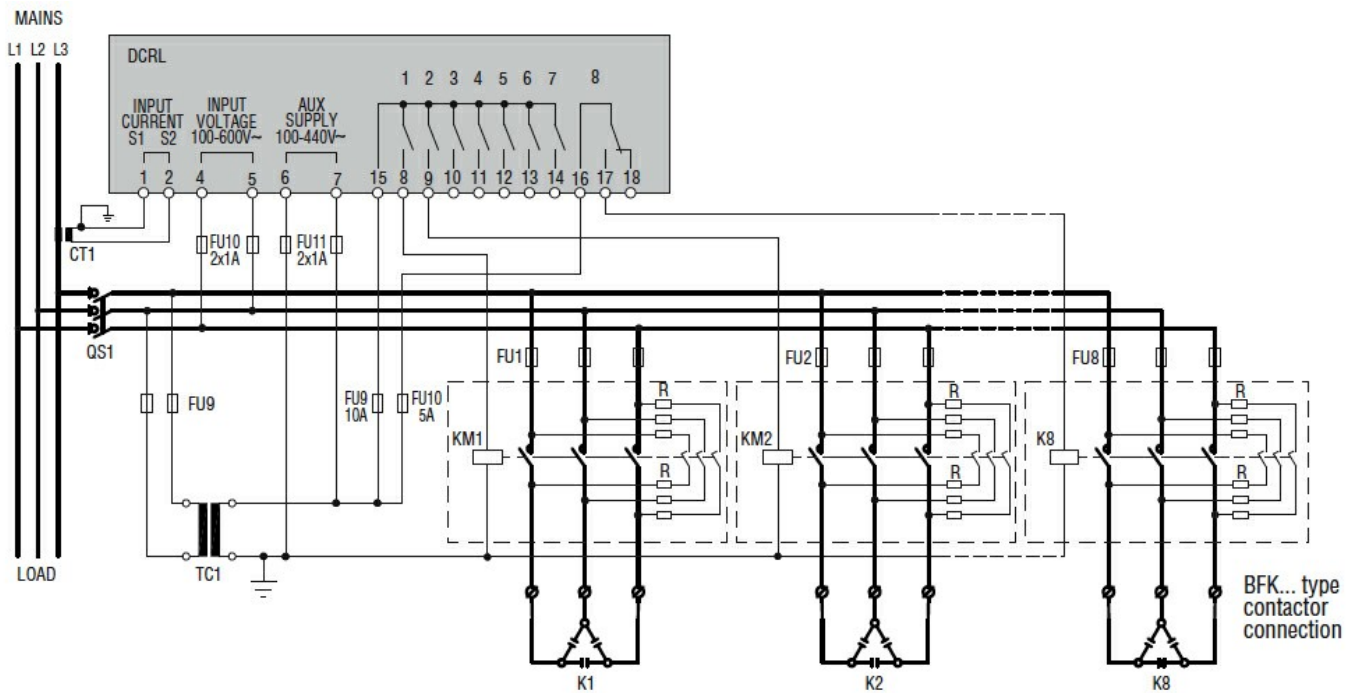
Housing

| | | | |
|------------------------|--|----|---|
| Execution | | | Flush mount |
| Material | | | Polycarbonate |
| Mounting | | | Flush-mount 144x144mm (5.67x5.67") |
| Degree of protection | | | IP65 on front with gasket, if mounted in class IP65 panel or better. IP20 terminals |
| Dimensions (W x H x D) | | mm | 144 x 144 x 53.2 |
| Weight | | g | 640 |

Dimensions



Wiring diagrams



Certifications and compliance

Compliance

- CSA C22.2-N°14
- IEC/EN 61000-6-2
- IEC/EN 61000-6-3
- IEC/EN 61010-1
- IEC/EN 61010-2-030
- UL508

Certificates

- cULus
- EAC
- RCM

ETIM classification

ETIM 8.0

EC001443 -
Effective power
(cos phi)
monitoring relay