ELECTRICAL MEASURES AND PROTECTIONS

Megacon, founded in 1974 in Norway, was born from a group of international companies, each offering their experience and knowledge in the design and manufacture of innovative electronic products.

Megacon has been ISO 9001 certified since 1991. Its quality approach from product design enables many of them to obtain Lloyd's Register of Shipping or Det Norske Veritas certification.

Protection relays

Relay with display, DIN rail-mounted relay

Megacon relays are dedicated to the protection of generators or busbars or to network monitoring. These relays are available with pointer indicator and fault LED, or in a version without display for DIN rail mounting. The power supplies can be auxiliary (24, 48 $V_{\rm nc}$) or the modules can be self powered. The thresholds and timers are adjustable.



Active power relay

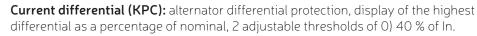
10°. 2 . Vector jump and df/d

Voltage relay (KCV, MCV): protection against voltage fluctuations, single-phase or threephase, maximum and minimum voltage, AC or DC.

Frequency relay: adjustable to ±10% of nominal. Combined voltage and frequency relay (KCVF).

Current relay (KCC, KEC): overcurrent protection (0-150% In, 1 to 60s) and short-circuit (150 to 400% In, 0.1 to 1s), AC or DC.

Active and/or reactive power relay and power feedback (KPW...): threshold from 0 to 100 % and from 0 to -20 %, delay from 0 to 30 s. Fully programmable digital relay (KCW) with isolated outputs, display option...



Protection of groups coupled to the network (vector jump and/or df/dt), adjustable between 2 and 16°, delay from 1 to 10 s. Response time from 20 to 50 ms.

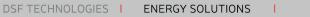
Control Unit



ISOPAC K 24

ISOPAK: multi-channel homopolar relay: measurement of 24 single or three-phase feeders. Permanent indication of the highest track on the pointer indicator. Programming of separate alarm and fault thresholds for each channel. Available in 8, 16 or 24 channels, Modbus RTU output for information restitution.

KPM 163 and KPM 165: used for medium voltage insulation monitoring in marine, off-shore and submarine applications, up to 5 kV for the KPM 163 and up to 21 kV for the KPM 165.





megaco



Control unit

Paralleling gensets

Megacon also has a range of single function modules for paralleling gensets.



False paralleling relay:

Checks the paralleling conditions of two sources by measuring voltage, frequency and phase differences. Adjustable window: 0 to 0.5 Hz, +/-15% Un, $+/-30^\circ$, 0 to 500 ms. Versions with and without visualization.

Synchronizers:

Dynamic synchronization of two sources via contact outputs (faster - slower). The pulses are adjustable in frequency and duration. (References KCQ, KSQ...)

Load controller (MCE105D):

Allows the control of the load of a generator set according to the application (generator heel or variable power, islanded or coupled mains mode, generator load shedding ramp). Contact outputs for control and analog input for group power measurement. Analog distribution bus.

Electronic potentiometers (MXR):

Allows conversion of signals from KCQ, KSQ and MCE105D modules or any +/- contacts to a signal compatible with an analog speed controller input or auxiliary input. Possibility of reset and precision maintained over time are two advantages of these modules that motorized potentiometers do not offer.

Converters

Custom catalogue products

Power converters

Active or reactive power, single or three-phase measurement on balanced or unbalanced systems. Measures up to 120% In, one or two analog outputs available (4-20 or 0-30 mA, 0-10V, etc.), pulse output for energy metering, needle indicator versions and DIN rail mount versions.



Various converters:

AC or DC current, AC or DC voltage, frequency, temperature, cosine phi, speed... Analog outputs 4-20 mA or 0-30 mA, 0-10 V_{DC}, 1-5 V_{DC}, etc. 24, 48 V_{DC} or 100, 400 V_{AC} power supply, etc. Versions with needle gauge and DIN rail mounting versions.

Temperature monitoring (KPM):

PT100 probes with 2 or 3 wires, potentiometric input, relay outputs for 2 limit comparators. Versions with needle gauge and DIN rail mounting versions. Analog or digital indicator. Analog outputs, relay extension modules...