Enduring protection
...technology...
The SPAJ 140 Series of Combined Overcurrent and Earth-fault Relays provides your medium-voltage network with an optimised composition of protection functions within one relay. This compact package facilitates combined phase and neutral current relay functions for use with selective short-circuit and time-overcurrent protection of distribution feeders. It can also be applied to feeder earth-fault protection in solidly earthed, resistance earthed and isolated neutral networks.

Completely
...field-proven...
As multi-function solutions, these relays can be flexibly adapted to different kinds of incoming and outgoing feeders in varying substation environments. You can also use the SPAJ 140 Series relays for protection of transformers, motors and generators, and as back-up protection.

Reliable
...through the years...
With numerous years of service in different applications world-wide, the SPAJ 140 Series Relays serve you with a proven track record of reliability.
A world-class relay collection for optimised protection functions

The SPAJ 140 C Series relays serve your network with reliable and versatile technical features:
- The SPAJ 140 C relay comprises a reliable basic relay solution for non-directional overcurrent and earth-fault protection.
- The SPAJ 141 C relay includes a very sensitive earth-fault input circuit.
- The SPAJ 142 C is a version of SPAJ 140 C with more sensitive earth-fault protection.
- The SPAJ 144 C is the newest member of SPAJ 140 C Series with enhanced protection functionality and even more protective stages.

The external control input in SPAJ 140 C Series relays enables you to build busbar protection and other special applications based on blocked overcurrent relays.

The legendary SPACOM family: More than 300,000 relays in use worldwide

The SPAJ 140 Series relays belong to the SPACOM product family – already a legend in its field. These products were the first in the world in introducing a substation automation concept based on a genuine communicating microprocessor-controlled relay solution. Today, these products still keep pace with the same enduring protection power.

SPAJ 140 C Series
Technology summary

Integrated solution
Three-phase overcurrent unit and sensitive non-directional earth-fault unit with flexible tripping and signalling facilities and an integrated circuit-breaker failure protection.

Standard or specific
Four standard inverse definite minimum time (IDMT) time-current curves as per IEC and BS. Two specific inverse-time characteristics called BI and BMDG.

Recorded memory
for measured fault parameters.

Local and/or remote
access to parameters, fault register, events and diagnostic data through local man-machine interface or remote serial port.

Two or three operation stages
in each protection relay module.

Freely configurable
output relays for tripping and signalling.

Direct numerical readout display
for a full set of measured and recorded values, indications and status information.

Data communication capabilities
Serial interface to connect the relay with the data collection, recording and analysis functions of local or remote monitoring and control systems or other host.

High Immunity
to electrical and electromagnetic interface.

Also for off-shore applications
IP54 class water- and dustproof aluminium case endures mechanical stress.

All in one
No external auxiliary relays for tripping are needed.

Wide auxiliary voltage ranges
18-80 V DC and 80-265 V AC/DC.

Improved reliability and availability
supported by built-in self-supervision system with auto-diagnosis.

Long life-time
MTBF higher than 200 years based on delivery and fault statistics.
CE marking according to the EC directive for EMC.

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