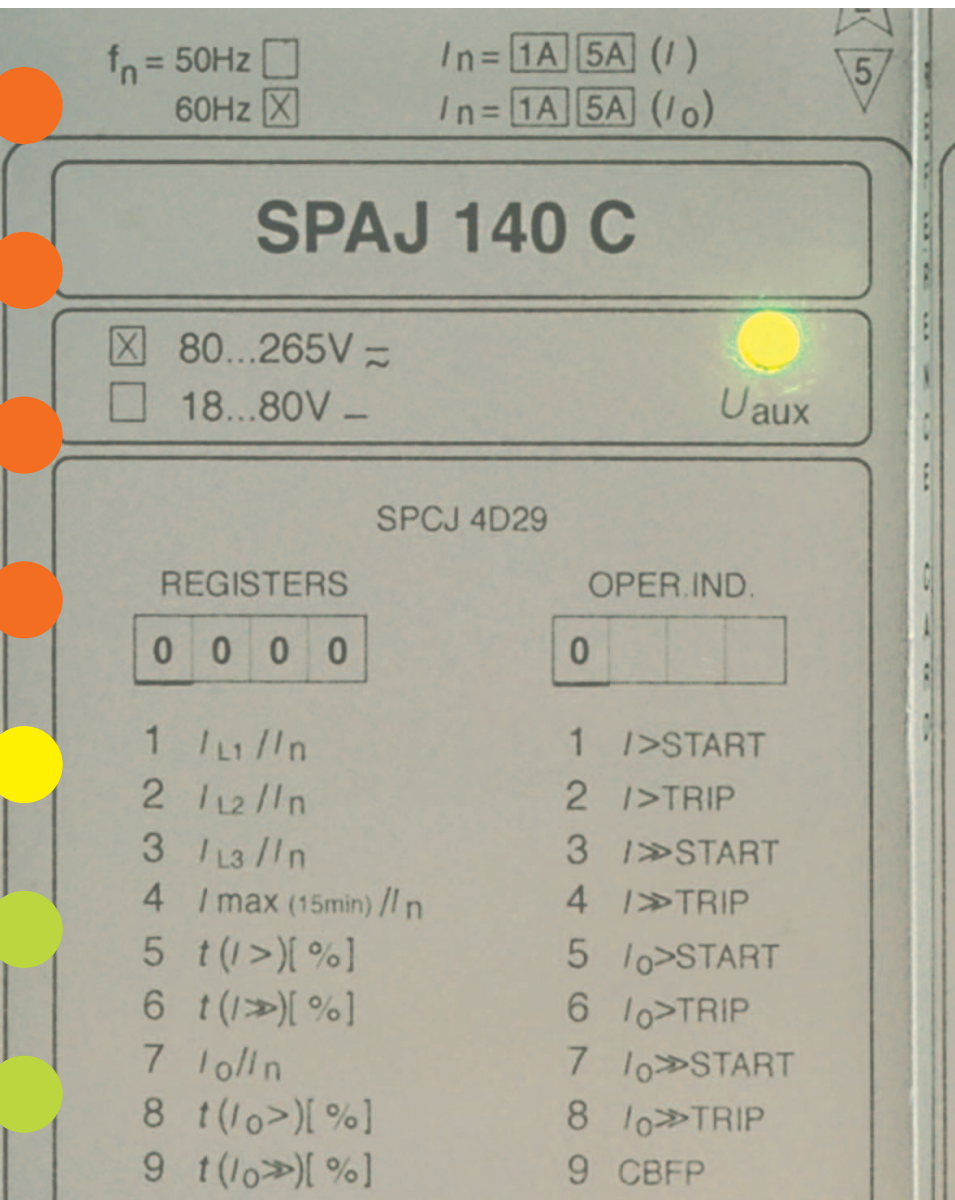


# SPAJ 140 C Series

## Combined Overcurrent and Earth-fault Relays



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 world-wide

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 RI and RXIDG.

### 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.



© Copyright 2010 ABB. All rights reserved / TMRS 751745-MDS



## ABB Oy, Distribution Automation

P.O. Box 699  
FIN-65101 VAASA  
Finland

Phone: +358 10 22 11  
Fax: +358 10 22 41094

[www.abb.com/substationautomation](http://www.abb.com/substationautomation)

## ABB Limited, Distribution Automation

Maneja, Vadodara - 390013, India  
Phone: +91 265 260 4386  
Fax: +91 265 263 8922

[www.abb.com/substationautomation](http://www.abb.com/substationautomation)