



A B S T R A C T

A PROTECTION SYSTEM FOR PROTECTING A POLY-PHASE
DISTRIBUTION TRANSFORMER INSULATED IN A LIQUID
DIELECTRIC, THE SYSTEM INCLUDING AT LEAST ONE PHASE
DISCONNECTOR SWITCH

5 The protection system for protecting a three-phase
distribution transformer immersed in a liquid dielectric
contained in a tank (6) comprises, on two (3, 4) of the
three phases on the high-voltage side of the transformer,
10 respective current-limiting fuses (19, 20) and respective
protection micro-fuses (21, 22) disposed in series with
the corresponding current-limiting fuse. The micro-fuses
are faster than the current-limiting fuses, and each
micro-fuse is associated with a striker (23, 24). The
15 system further comprises firstly at least one fault
detector (32, 33) for detecting faults concerning at
least one of the following points: pressure in the tank
and level of the dielectric; and secondly a three-phase
short-circuiter (29, 30, 31) situated on the high voltage
20 side between said current-limiting fuses and the high-
voltage windings (1). The short-circuiter is triggered
by said fault detector and by the striker associated with
each micro-fuse. On the high-voltage side of the
transformer and upstream from the short-circuiter, the
25 third phase is equipped with a disconnector switch (39)
which is normally closed in the absence of any fault, and
opening of which is triggered by the short-circuiter in
the event of a fault, but with a certain delay so that
the third phase is isolated only after the fuses have
30 been blown by the short-circuiter.

FIG. 1