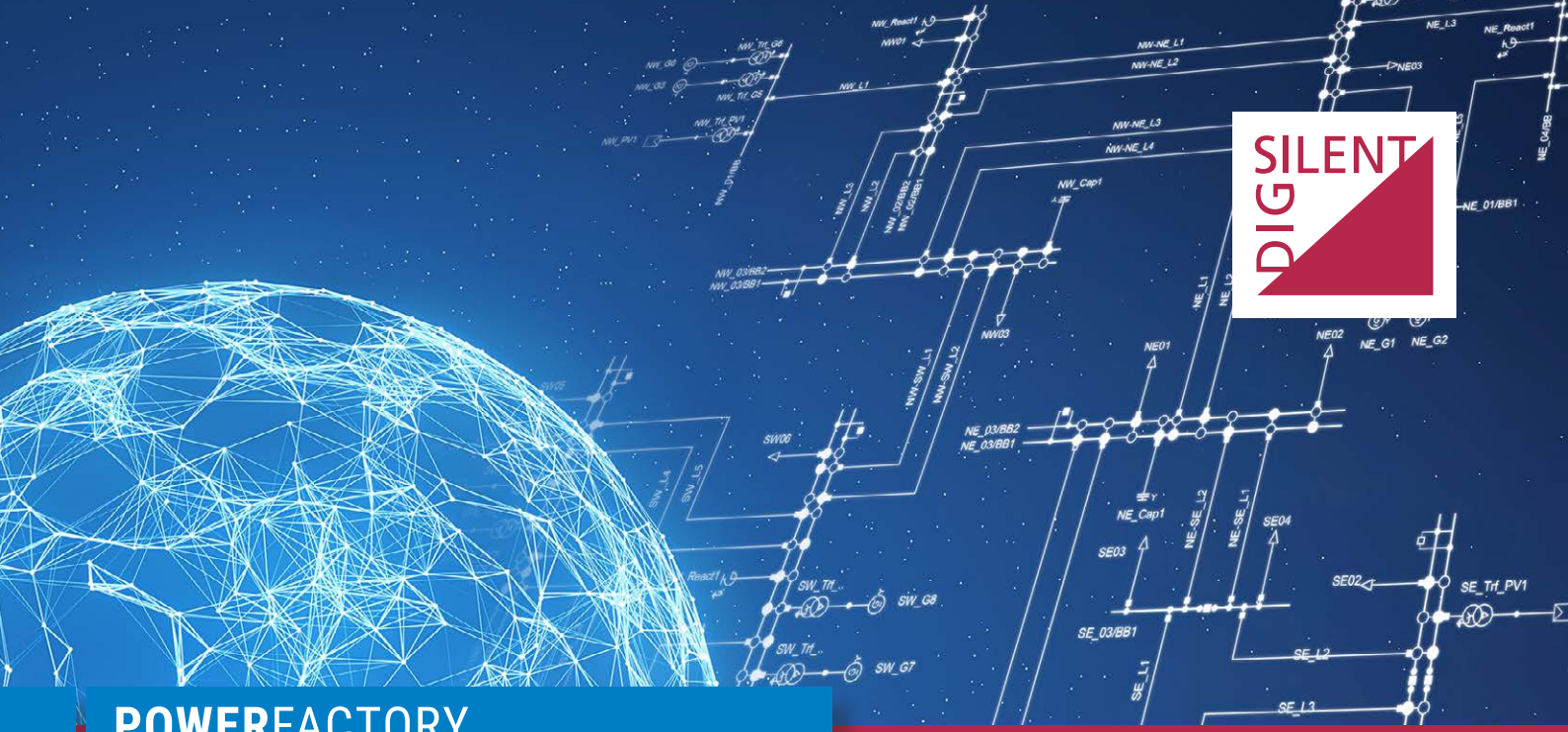

POWERFACTORY

PowerFactory 2021

Technical Reference

DIgSILENT F59N Neutral overvoltage Generic Relay

PF2021

POWER SYSTEM SOLUTIONS

MADE IN GERMANY

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Contents

1 F59N Neutral overvoltage

1.1 Intent

To simulate a set of zero sequence over voltage protective elements.

1.2 Functionality

The *F59N Neutral overvoltage* generic relay model simulates a set of zero sequence over voltage elements. The set consists of one inverse/definite time and 3 definite time elements. The zero sequence overvoltage elements can be configured to get the zero sequence voltage calculated by the phase voltages or the zero sequence voltage measured by the open delta VT.

1.3 Inputs

- One 3 phase VT (”Phase Vt” block, *StaVt* class).

1.4 Available Units

Measurement

- One 3phase sequence measurement element (”Measurement seq” block, *RMS Calculation* enabled, *Filter* disabled [RelMeasure class]).

Protective elements

- One inverse/definite time neutral overvoltage element (”U0>” block, *RelChar* class).
- Three definite time neutral overvoltage elements (”U0>>”, ”U0>>>” and ”U0>>>>” block, *RelUlim* class).

Output logic

- One relay trip element (”Output logic” block, *RelLogdip* class).

1.5 Outputs

- *yout* associated by default to any protective element trip.
- *inv_trip* associated by default to the inverse/definite time zero sequence overvoltage element trip (”U0>” block).
- *def_trip* associated by default to the definite time zero sequence overvoltage element trip(”U0>>”, ”U0>>>” and ”U0>>>>” block).

The output logic can be configured in the ”Logic” tab page of the ”Output Logic” block.