Areva P341 model

This relay implements a complete generator protection.
The relay type model contains most of the elements of the actual relay, it has been divided in five sub-relays:
- Frequency elements (F81)
- Overcurrent elements (F50 - F51)
- Power (F32)
- Restricted Earth Fault (F87)
- Voltage elements (F27 - F59)

The Frequency sub relay consists of the following elements:
- 4 Under frequency elements
- 2 Ove rfrequency elements

The Overcurrent sub relay consists of the following elements:
- Thermal image
- 2 Phase Fault inverse characteristic elements with directional feature
- 2 Phase Fault definite time elements with directional feature
- 2 Earth Fault inverse characteristic elements with directional feature
- 2 Earth Fault definite time elements with directional feature
- Earth fault Zero sequence directional element
- Earth fault Negative sequence directional element
- 2 Sensitive Earth Fault inverse characteristic elements with directional feature
- 2 Sensitive Earth Fault definite time elements with directional feature
- Sensitive Earth Fault Zero sequence directional element
- Sensitive Earth Fault wattmetric directional element

The Power sub relay consists of the following elements:
- 2 Over power elements
- 2 Sensitive over power elements
- 2 Under power elements
- 2 Sensitive under power elements
- 2 Reverse power elements
- 2 Sensitive reverse power elements

The Restricted Earth Fault sub relay consists of the following elements:
- Low impedance earth differential block with double bias slope
- High impedance earth differential block

The Voltage sub relay consists of the following elements:
- 2 Phase overvoltage elements
- 2 Phase undervoltage elements
- 2 Zero sequence overvoltage elements
- 1 Vector shift element