

### 7.1 - TRANSFORMERS

#### Mod.6190

#### Single Phase Transformer

Primary and secondary windings are divided in several sections to allow many possibilities of connections.

- 230/115V primary/secondary.
- Primary: 2x115V Ac
- Secondary: 2x57,5V Ac
- Power: 3kVA
- Frequency 50/60 Hz
- also available: other power, other primary/secondary ratio



#### Mod.6195

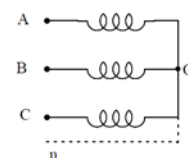
#### Three-phase Transformer

Primary and secondary windings are divided in several sections to allow many possibilities of connection.

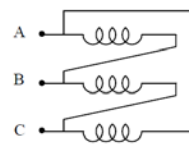
- Primary: 3x400 (3 x 2 x 115V)
- Secondary: 3x230 (3 x 2 x 66,5V)
- Power: 3kVA
- Frequency 50/60Hz
- also available: other power, other primary/secondary ratio

#### Primary/secondary connection

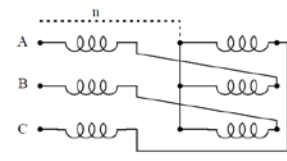
- STAR - STAR Yy
- DELTA - STAR Dy
- DELTA - DELTA Dd
- STAR - Zig-zag Yz
- DELTA - Zig-zag Dz



STAR (Y)



DELTA (D)



ZIG-ZAG (Z)

#### Training topics covered:

- Complete and simplified equivalent circuits
- Measurement of the individual variables
- Transformation of current and voltage
- Measuring the rush current using an oscilloscope
- Measurement and calculation of the no-load values
- Measurement and calculation of the short-circuit values
- Measurements with a variable load R, L & C
- Determining the efficiency
- Evaluating the measured values
- Phase angle between primary and secondary windings and the effect of asymmetric loading in the circuit groups Yy, Yd, Yz, Dy