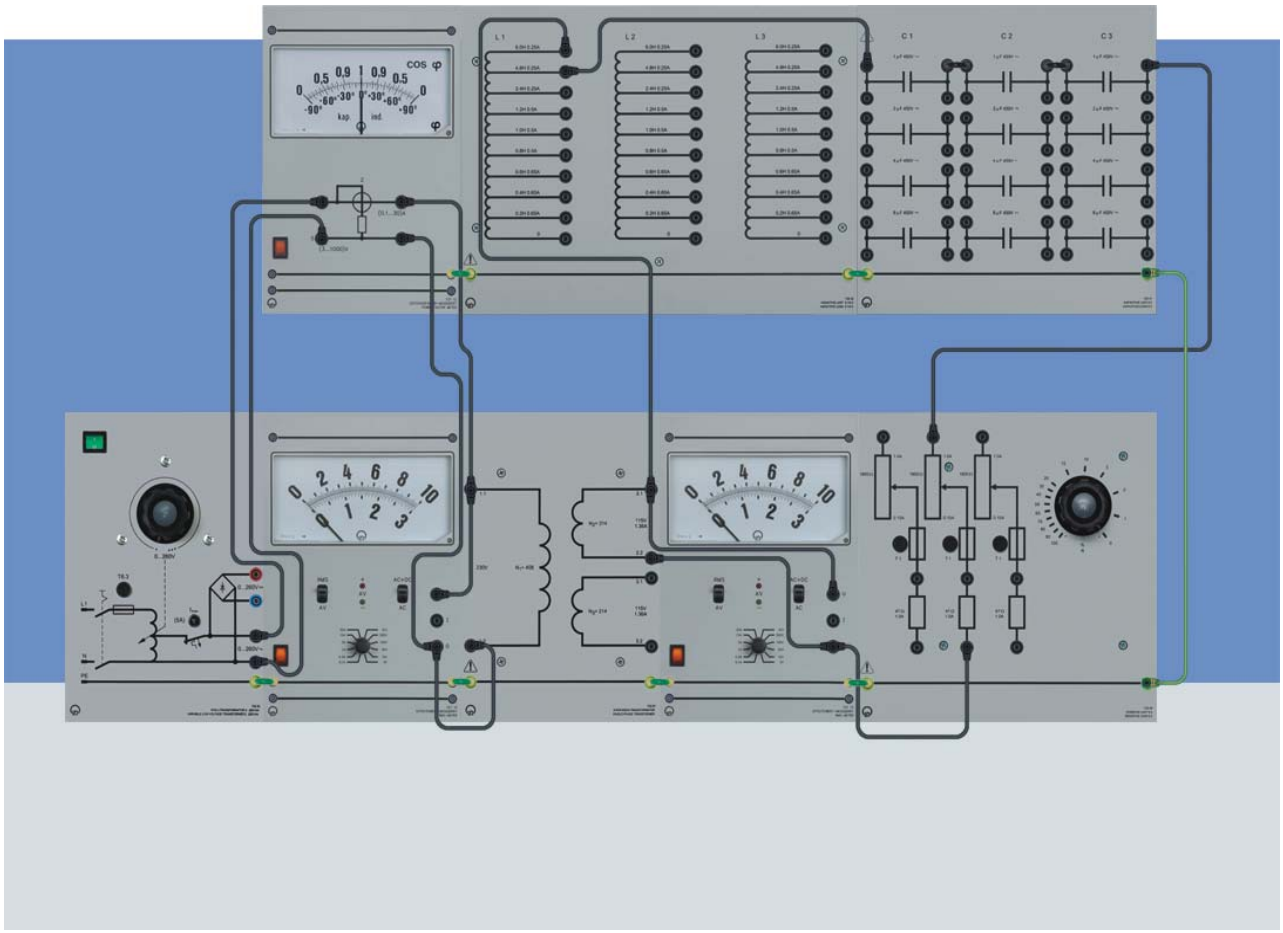
T 10.1 Single- and Three-phase Transformers



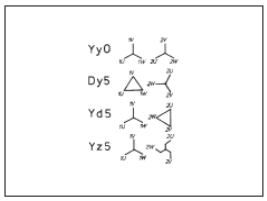
Topics

➔ Single-phase transformer
- No-load, short-circuit and load
- power dissipation, voltage change
- mutual inductance
- magnetic coupling and control
- efficiency

➔ Three-phase transformer
- Circuits and connection symbols
- parallel operation
- voltage equations and equivalent circuit
- no-load, short-circuit and load

T 10.1 Single- and Three-phase Transformers

The physics of the transformer make it an electrical machine albeit one that does notrotate. Transformers convert low electrical voltages low and extra-low voltages into medium and high voltages and vice versa. They are used anywhere from the mVA rangeright up to several MVA. LD DIDACTIC offers a broad product range for both AC as well as three-phase transformers in the extra-low voltage range. Diverse special models – autotransformers, Scott transformers or toroidal transformers -round off our offer. Starting with the physical fundamentals of the law of induction, the experiment literature investigates in depth on and- off switching as well as operating responses in normal and special operating states (no-load and short-circuit). There are transformers in the power classes 0.3 kW and 1.0 kW available to perform the experiments. Don't be left out when LD DIDACTIC gives a didactic presentation of the most unusual of all the electrical machines.



Standard circuits of three-phase transformers.

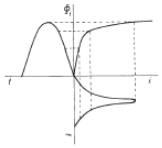
A selection from German VDE 0532

T10.1.1

Transformers 0,3 kW

	Kat.-Nr.	
1	733 90	3-Phase-Transformer 0,3
1	733 93	Scott Transformer
1	733 97	1-Phase- Transformer 0,3
1	733 98	1-Phase- toroidal core Transformer 0,3
1	733 99	1-Phase- auto - Transformer 0,3
1	569 2002L	Book: T 10.1 Transformers, Teacher Edition (in English)
1	569 2002S	Buch: T 10.1 Transformers, Student Edition (in English)

For getting the complete equipment list please look at a actual offer.



Distortion in the magnetisation current resulting from the saturation of iron

T10.1.2

Transformers 1,0 kW

	Kat.-Nr.	
1	733 91	3-Phase- Transformer 1,0
1	733 93	Scott Transformer
1	733 97	1-Phasen- Transformer 0,3
1	733 98	1-Phasen- toroidal core Transformer 0,3
1	733 99	1-Phasen- auto - Transformer 0,3
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