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| --- | --- |
| **Magnetic Circuits & Linear DC Machine** | **Transformers** |
|  |  |
|  |  |
|  | Referred to primary\* |
|  | No load voltage: referred to secondary\* |
|  |  |
| **Autotransformers** | **Three-phase Transformers** |
|  |  |
|  |  |
| When ‘transforming’ (hehe) a simple transformer to a step up/down autotransformer, use the rated power of the original transformer as , i.e., the power in the windings |  |
| The effective per-unit impedance of autotransformers is decreased by the power advantage factor, i.e., |  |
|  |  |

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| **AC Machinery** |
|  |
| To reverse direction of rotating magnetic field, swap any two of the three phases\* |
|  |
|  |
| Generator power flow\* |
|  |
|  |
| **Synchronous Generator** |
|  |
|  |
|  |
| Identifying synchronous generator’s parameters\* |
|  |
| Adjusting governor set points adjusts , and hence control the real power supplied by the generator |
| Adjusting field current adjusts , and hence controls the reactive power supplied by the generator |
|  |
| **Induction Motors** |
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|  |
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|  |
|  |
| Maximum torque occurs at a point () independent of change in \*  Maximum torque value is independent of change in rotor resistance \* |
| DC Test: is \* |
|  |

|  |
| --- |
| **DC Machines** |
|  |
| See characteristic curves from book\* |
| See characteristic curves from book\* |

**You made it this far! Good luck with your exams! ❤️**

* Arctic Monkeys makes banger songs
* KitKat >> any chocolate
* Made by me! I should go sleep …