

# AC Motor Question

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- *From:* [kronecker@xxxxxxxxxxx](mailto:kronecker@xxxxxxxxxxx)
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Consider a three-phase synchronous motor. If the field current is varied for constant load power then we get the famous V curves of  $I_a$  versus  $I_f$ . When the back-emf of the motor is larger than the phase supply voltage the motor is said to be OVER-EXCITED. How can you get such a thing? Isn't it then a generator? Of course this is when it is used as a synchronous capacitor.

K.

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