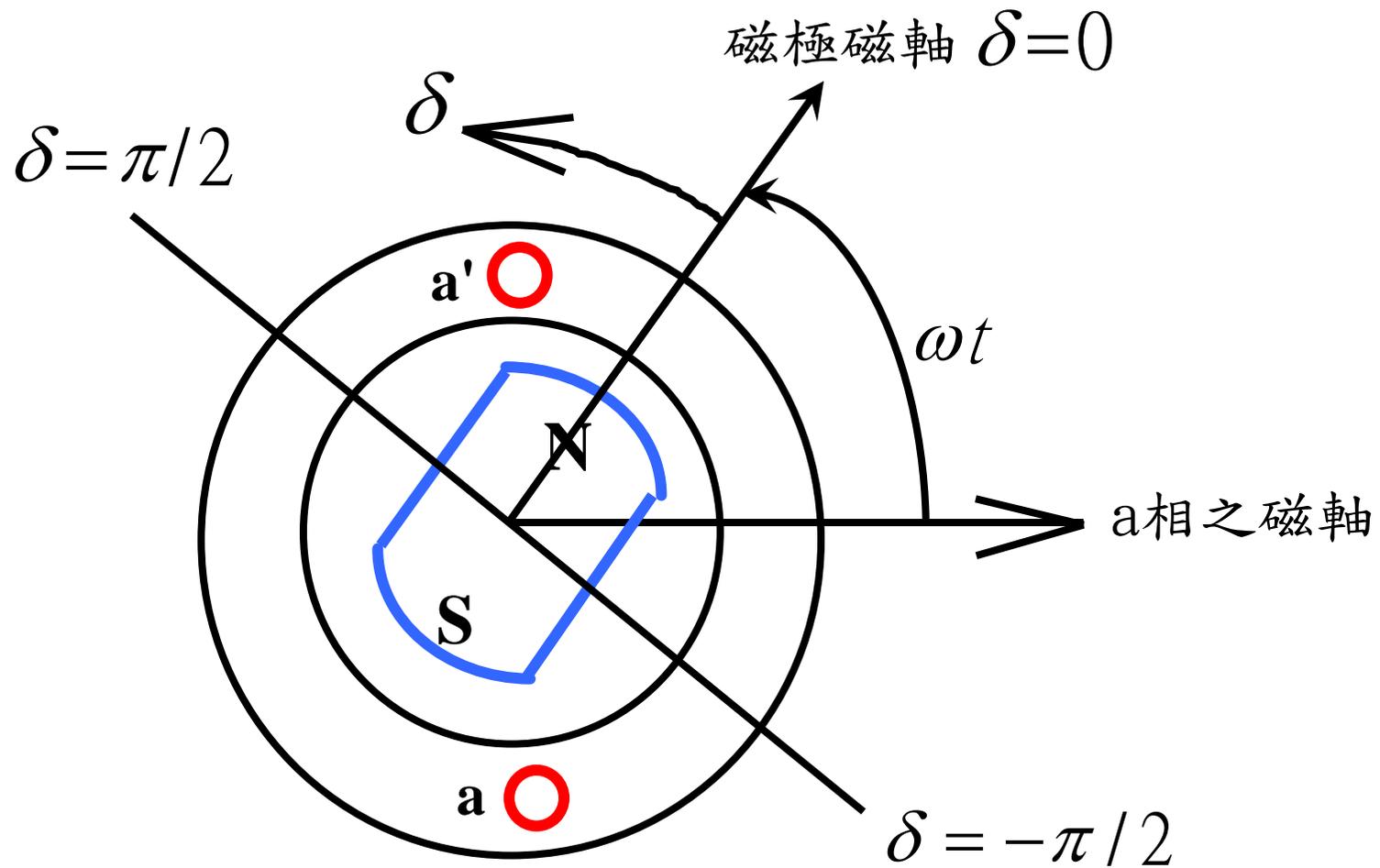


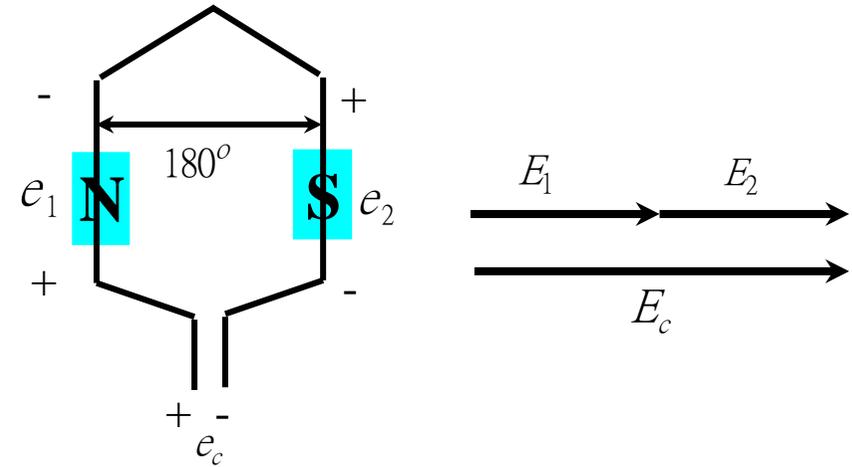
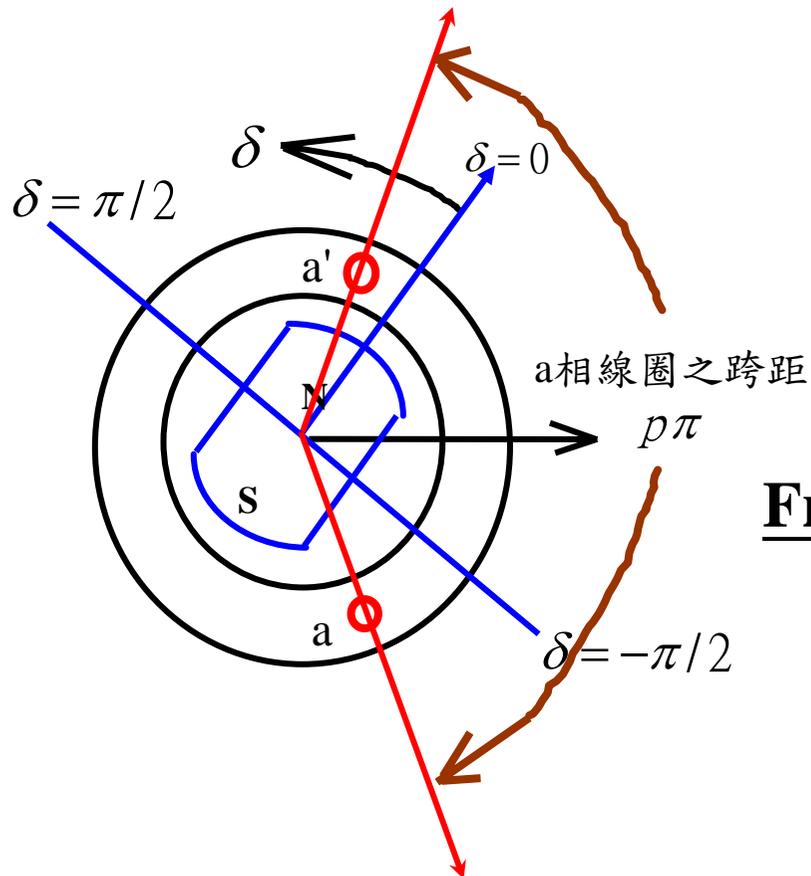
5. 同步機電樞之感應電壓 (*Induced Voltages*)



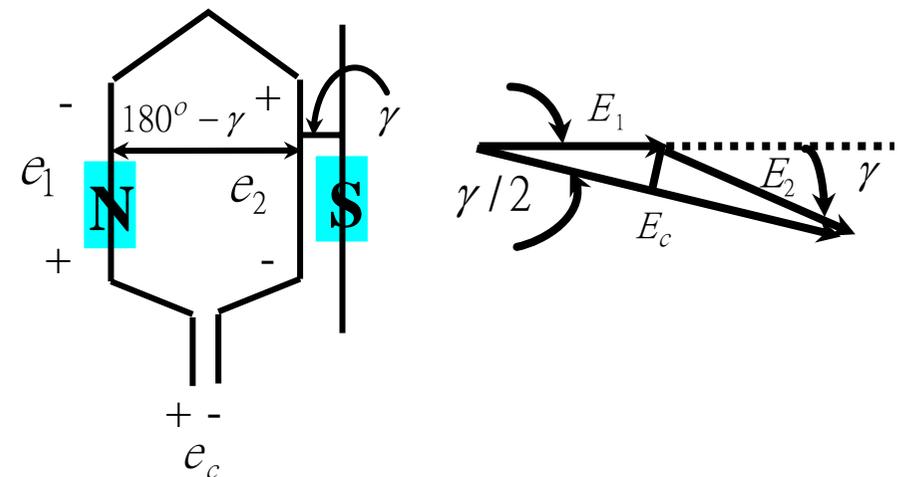
$$\text{Flux / pole : } \Phi_p = \int_{-\pi/2}^{\pi/2} B_{max} \cos\delta l r d\delta = 2B_{max} l r$$

Full-pitch and Fractional-pitch coils

Full-pitch coil

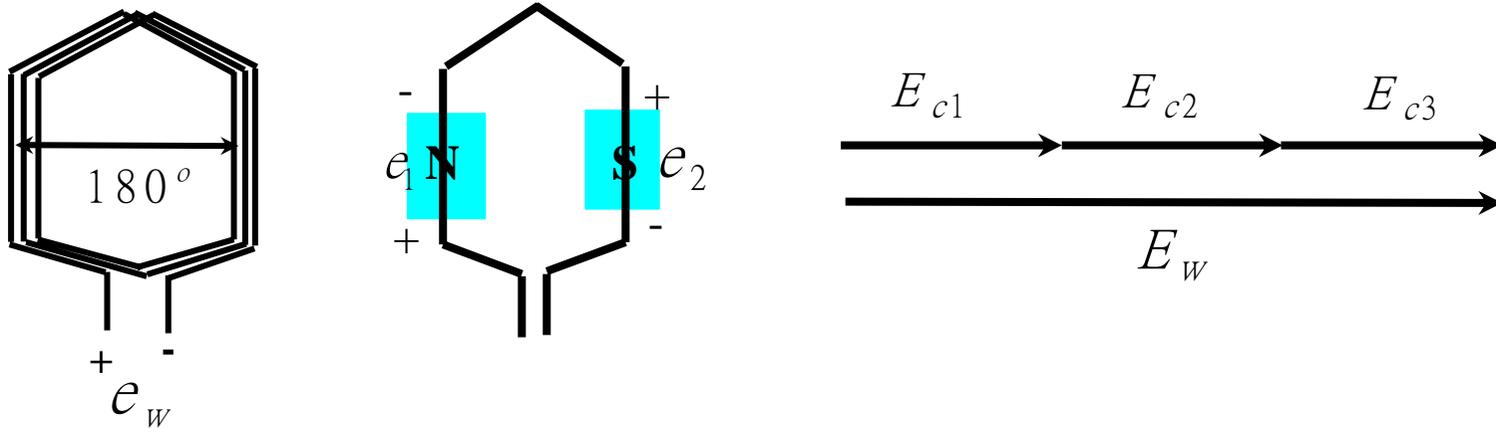


Fractional-pitch coil

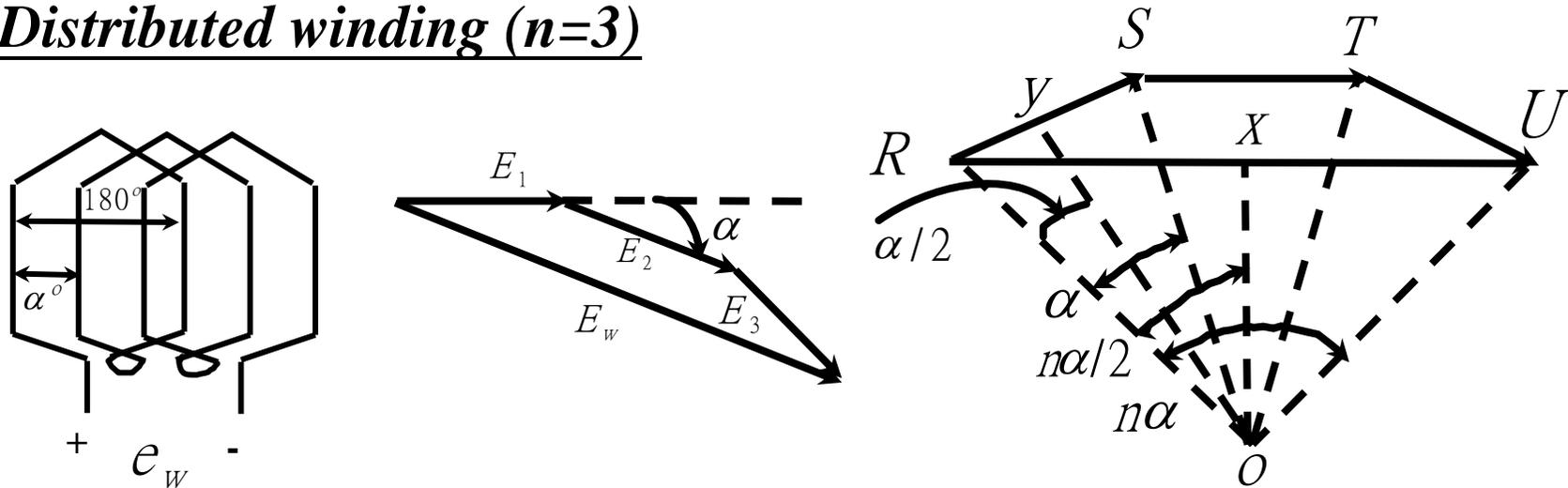


Concentrated and Distributed Windings (n=3)

- Concentrated winding (n=3)

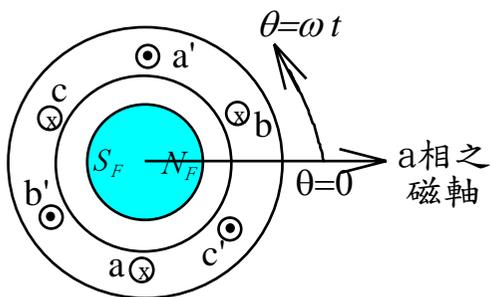


- Distributed winding (n=3)

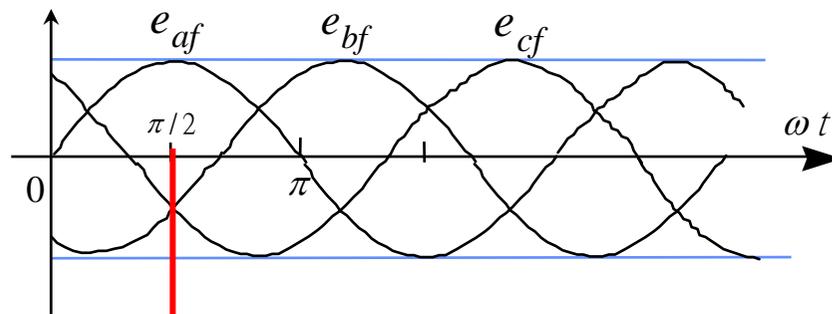


同步發電機之電樞反應

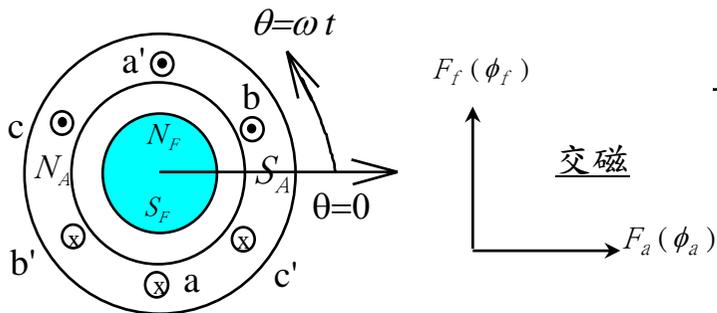
線圈電流之參考方向



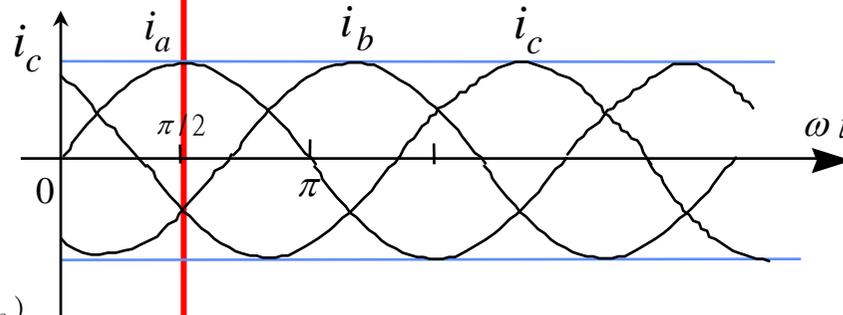
電樞之感應激磁電壓



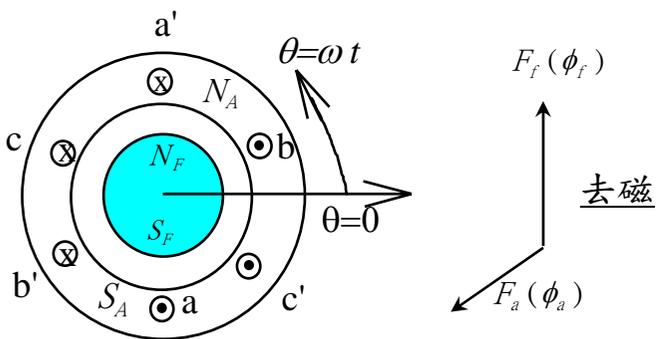
電樞電流與激磁電壓同相 ($\omega t = \pi/2$)



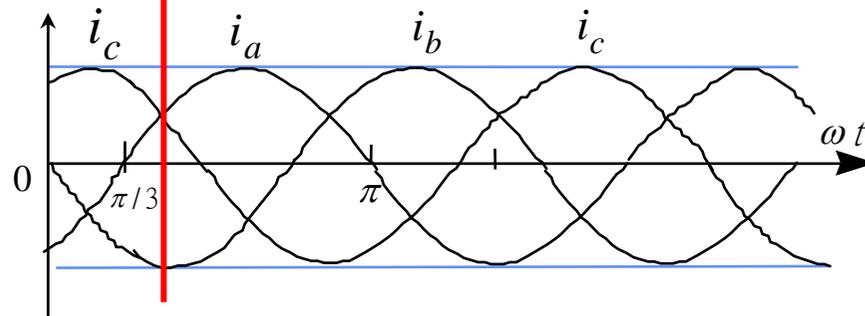
電樞之電流



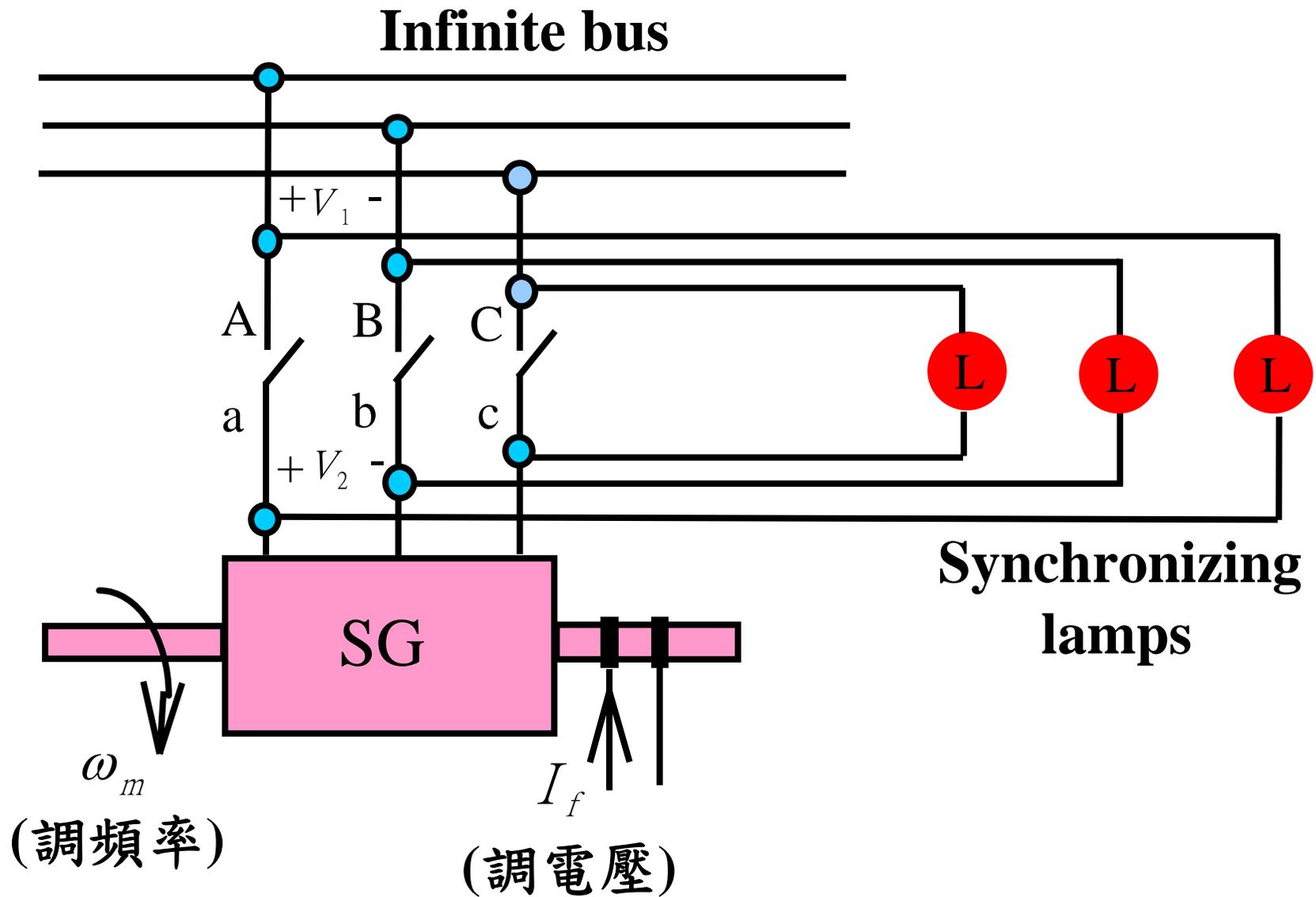
電樞電流落後激磁電壓同相 ($\omega t = \pi/2$)



電樞之電流



Parallel Operation of Synchronous Generators



Capability Curves of Synchronous Machines

