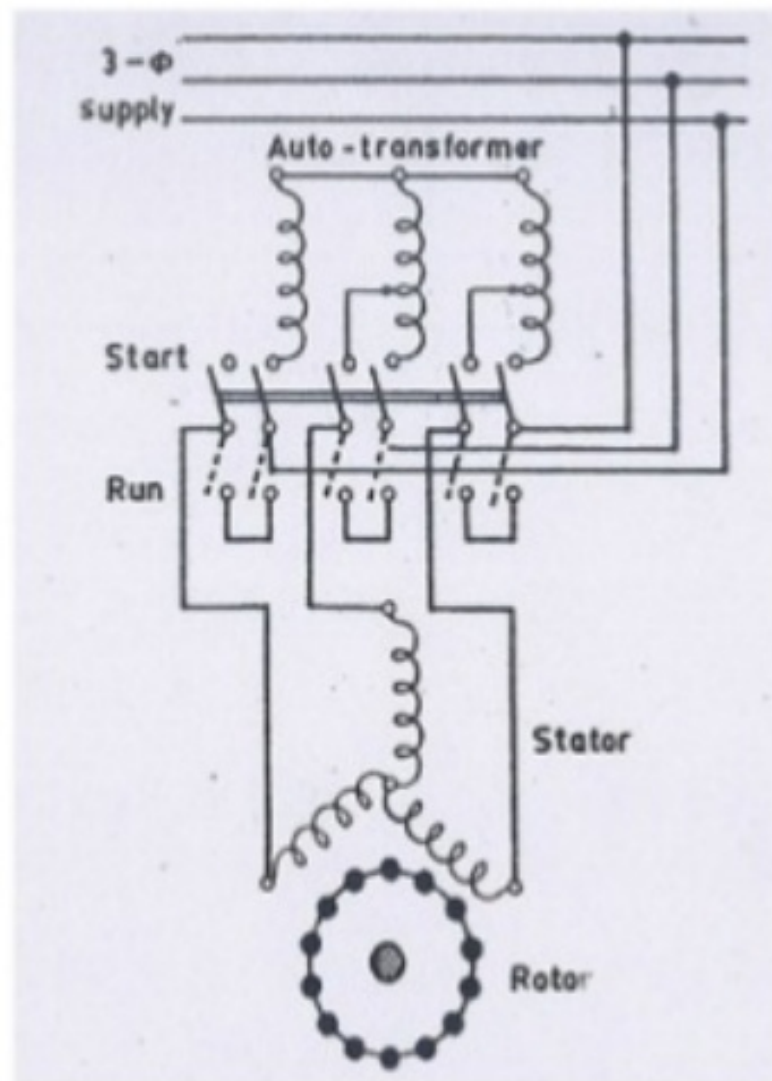


AUTO TRANSFORMER STARTER



1

AUTO TRANSFORMER STARTER



2

CIRCUIT AND FUNCTION

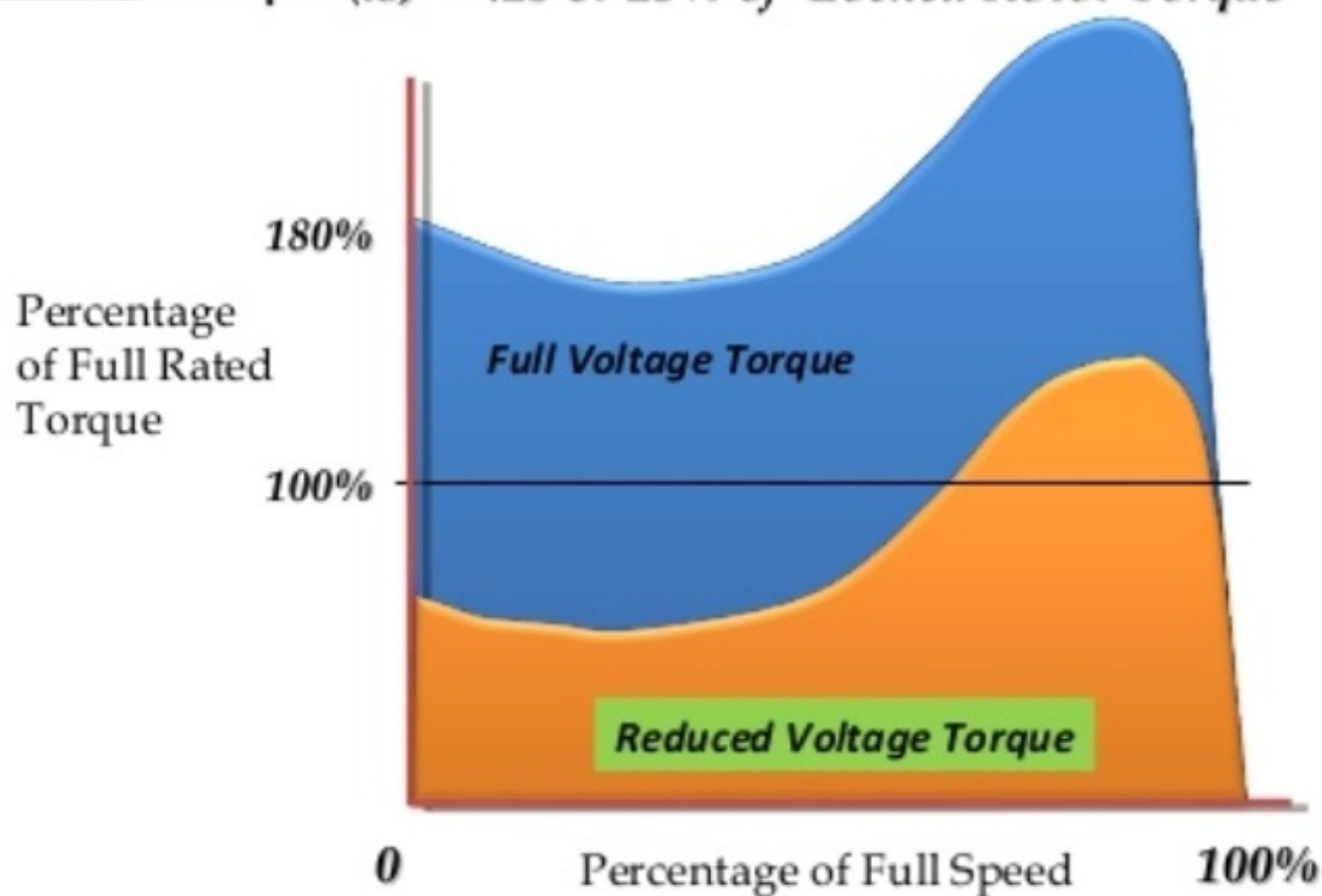
- ❑ An auto-transformer starter makes it possible to start squirrel-cage induction motors with reduced starting current, as the voltage across the motor is reduced during starting.
- ❑ In contrast to the star-delta connection, only three motor leads and terminals are required. On starting, the motor is connected to the tapping of the auto-transformer.

3

SOFT MOTOR STARTING BASICS

Physics of Reduced Voltage and Motor Torque

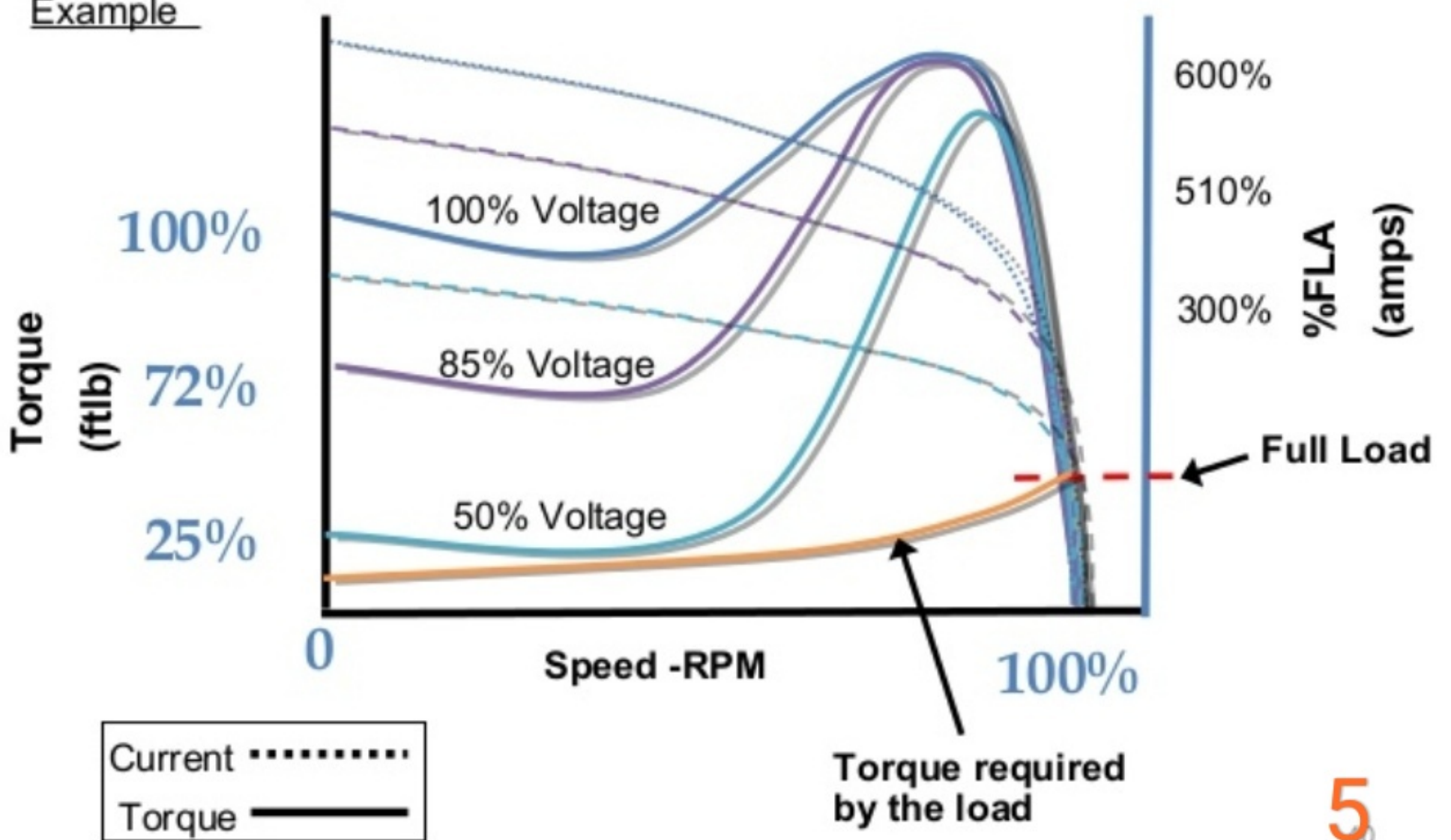
If you reduce voltage by 50%, the result is a 75% reduction in motor torque $(.5)^2 = .25$ or 25% of *Locked Rotor Torque*



4

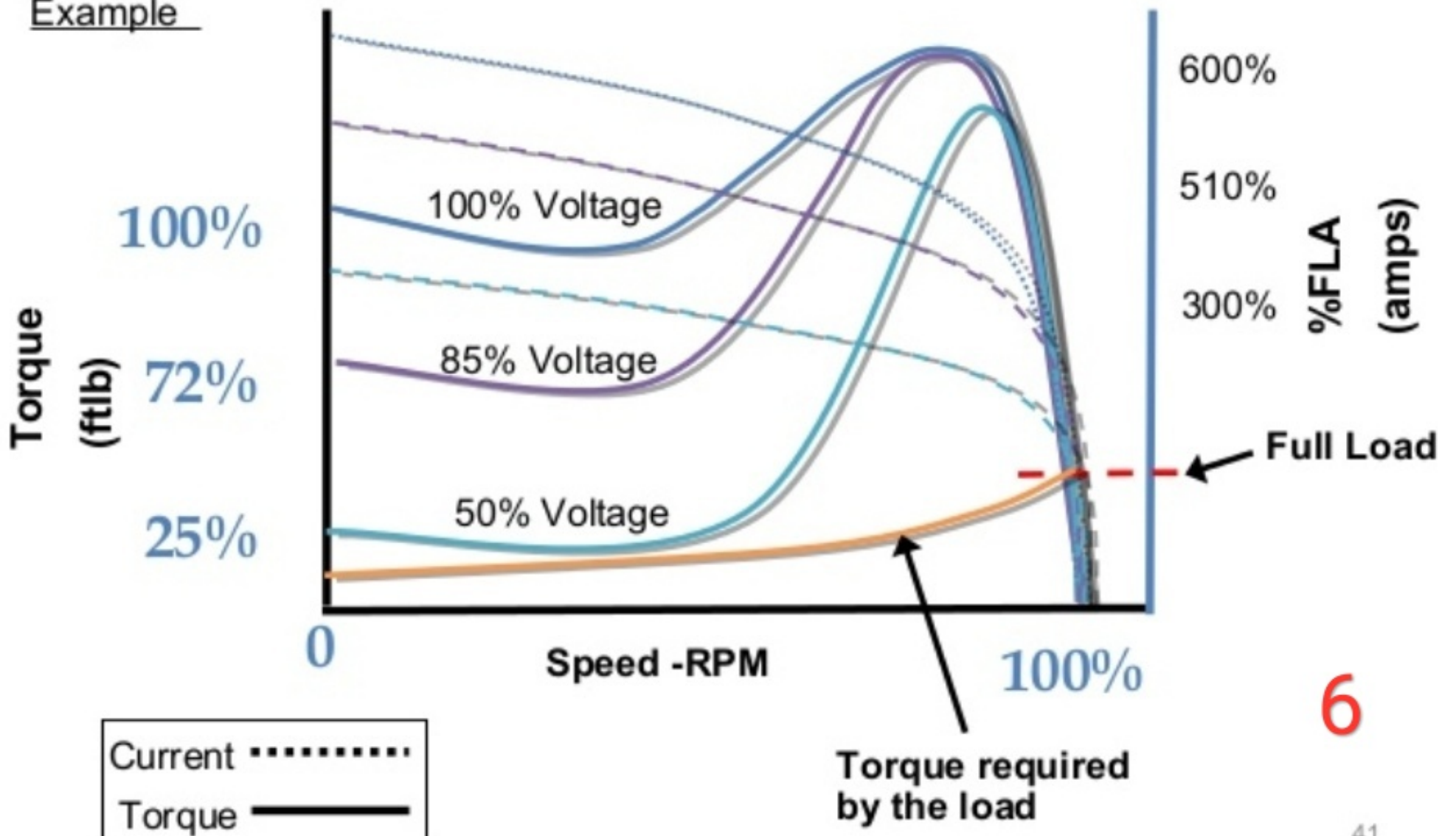
SOFT MOTOR STARTING BASICS

Example



SOFT MOTOR STARTING BASICS

Example



6