

EE568 Project 2: Motor Winding Design & Analysis

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1 Integral-Slot Winding Design

1.1 Winding Diagram

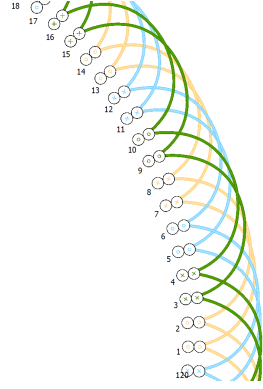


Figure 1: Winding Diagram: 1 pole-pair

2 Fractional-Slot Winding Design

2.1 27-slot/22-pole EM

2.1.1 Phase Angle of Induced Voltage in each Slot

2.1.2 Phasor Diagram

2.1.3 Distribution, Pitch and Winding Factors

2.1.4 Phase Angle of Induced Voltage in each Slot

2.2 24-slot/22-pole EM

3 2-D FEA Modelling

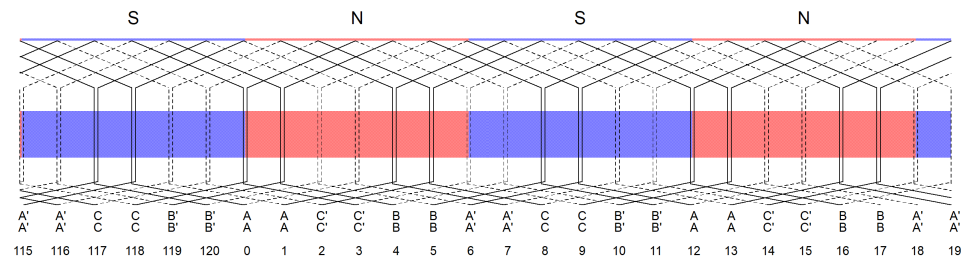


Figure 2: Winding Diagram: 1 pole pair