

1. Title	Repair and rewind three-phase motors
2. Code	EMCUIN304A
3. Range	Understand the construction and types of three-phase motors, and repair and rewind them in servicing stations or work sites.
4. Level	3
5. Credits	9
6. Competency	<p style="text-align: center;"><u>Performance Requirements</u></p> <p>6.1 Structure, type, working principles and examination method of three-phase motor</p> <ul style="list-style-type: none"> <li>◆ Understand the structure, types, working principles and range of application of three-phase motor, including: <ul style="list-style-type: none"> <li>• General induction motor</li> <li>• Multipolar three-phase motor</li> <li>• Two-speed three-phase motor</li> </ul> </li> <li>◆ Understand the winding design of three-phase motor, including number of slots for each pole, number of winds, method of winding connection, etc.</li> <li>◆ Understand the methods to examine the faults of three-phase motor, including: <ul style="list-style-type: none"> <li>• testing of short circuit</li> <li>• testing of circuit break</li> <li>• testing of earth fault</li> <li>• testing of wiring fault</li> <li>• testing of bearing fault</li> </ul> </li> <li>◆ Methods of dismantling and assembling three-phase motor</li> <li>◆ Methods of replacing bearing</li> </ul> <p>6.2 Repair three-phase motor faults</p> <ul style="list-style-type: none"> <li>◆ Identify the faults of a three-phase motor and repair them according to procedures</li> <li>◆ Rewind a three-phase motor</li> </ul>
7. Assessment Criteria	<p>The integrated outcome requirement of this unit of competency is:</p> <p>(i) Capable to understand the structure, types and working principles of three-phase motor;</p> <p>(ii) Capable to identify the faults of a three-phase motor and repair them according to procedures; and</p> <p>(iii) Capable to rewind a three-phase motor.</p>
8. Remarks	The credit value of this unit of competency is set on the presumption that the person already possesses basic electrical and mechanical knowledge.