

# Country Fact Sheet Motors

## Canada



Regional Characteristics	
Voltage	1 ~ 120V ± 10% 3 ~ 575V ± 10%
Frequency	60 Hz
<b>Approval Mark</b>	<b>UL recognized or UL listed</b>
Standard	CSA-C390-10 (and UL 1004)
Scope	Not mandatory but strict market requirement due to insurance and employer safety reasons. Proofs the accordance with UL standards and verifies product testing regarding safety aspects like flammability.
Marking	(for components) or  (for devices)
<b>Energy Efficiency</b>	<b>UL energy verified</b>
Regional Standard	CSA-C390-10
Regulation	Energy Efficiency Act (EEA) 2016
Mandatory Efficiency Class	Premium (equates to IE3)
Scope	<ul style="list-style-type: none"> <li>- Rated output power from 1HP (0.75 kW) up to 500 HP (375 kW)</li> <li>- Rated voltage up to 600 V</li> <li>- Rated frequency 50 and 60 Hz</li> <li>- 2-, 4-, 6- and 8-pole</li> <li>- For continuous duty operation</li> </ul>
Exemptions	<ul style="list-style-type: none"> <li>- Intermittent duty like S3 or S6 (duty factor &lt;80%)</li> <li>- Exclusively suitable for inverter operation</li> <li>- Motors for heavy environmental conditions like ambient temperature above +60°C or below -30°C, installation altitude above 4000m</li> <li>- Pole-changeable motors</li> </ul>
Marking	- IE3 Energy Efficiency Level
Solutions from Lenze	
Three-phase AC motors	0.12 ... 0.55 kW      m550-H IE2-high efficiency motors 0.75 ... 22.0 kW      m550-P IE3-premium efficiency motors 30.0 ... 55.0 kW      m540-P IE3-premium efficiency motors 0.55 ... 22.0 kW      MF inverter-optimized AC motors 0.47 ... 1.36 kW      m300 Lenze Smart Motors
Asynchronous servo motors	0.075 ... 0.6 kW      SDSGA asynchronous servo motors 0.80 ... 53.8 kW      MCA asynchronous servo motors 10.6 ... 60.2 kW      MQA asynchronous servo motors
Synchronous servo motor	2.00 ... 9.20 kW      m850 synchronous servo motors 0.25 ... 15.8 kW      MCS synchronous servo motors

