Circuit Breaker Overcurrent by Finn Home Inspectors

OVERCURRENT: Refers to an electrical circuit breaker that is rated higher than the wire attached to it. A circuit breaker is supposed to stop the wire from being overloaded. An overloaded wire will heat up and could start a fire.

The home inspector will be looking in the main electrical panel & sub panel for the sizes of the wire that is attached to each breaker. If the wire is too small, they will call it out as a safety concern and recommend an electrician evaluate and correct, as needed. The photo below shows a 20AMP breaker, note 20 on breaker.

In many cases this will require a smaller breaker BUT may involve replacing the wire, depending on what the circuit powers. There are special situations which may allow a breaker to be larger than the wires standard rating, the electrician will determine this. One example are electrical motors, which have a higher start up load and the manufacturer of the unit may specify a larger breaker, for instance some air conditioners.

The diagram below shows wire sizes, what size is generally used for what purpose and the maximum size breaker that can be used to protect the wire from overload. A prolong overload of a wire will cause it to heat and depending on how overloaded and time the heat could build up and cause a fire.

Diagram by Carson/Dunlop