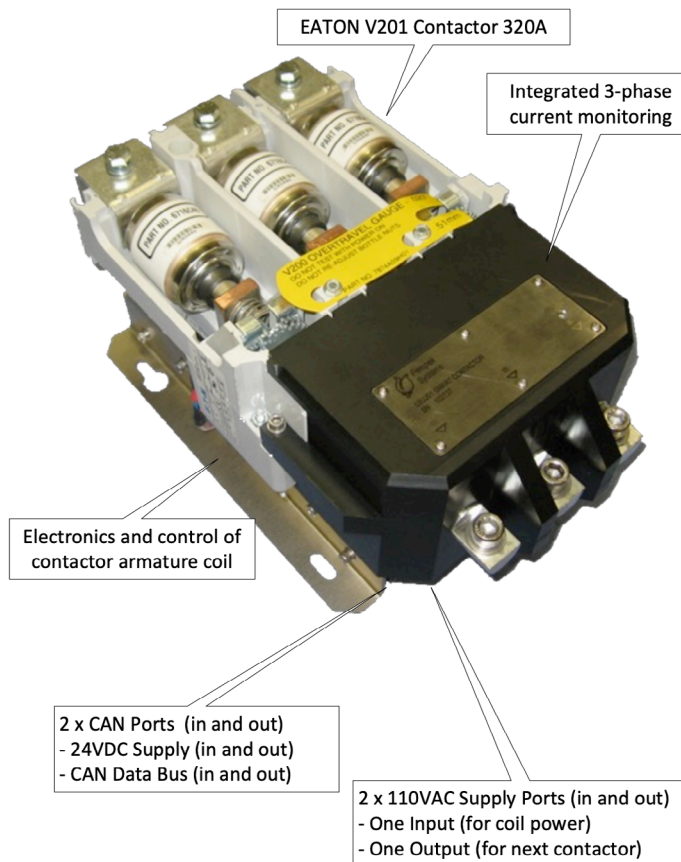
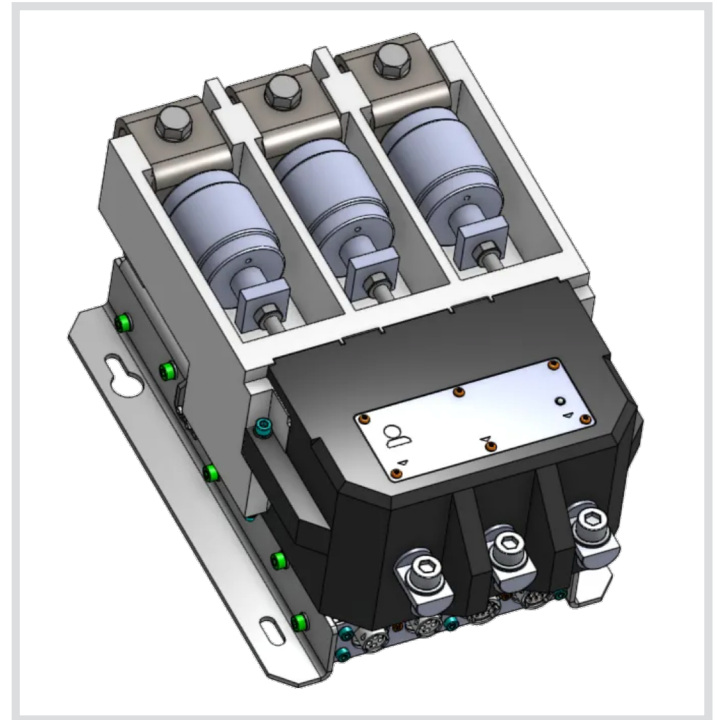


L0UJ0101 Smart Contactor 320A NEMA5

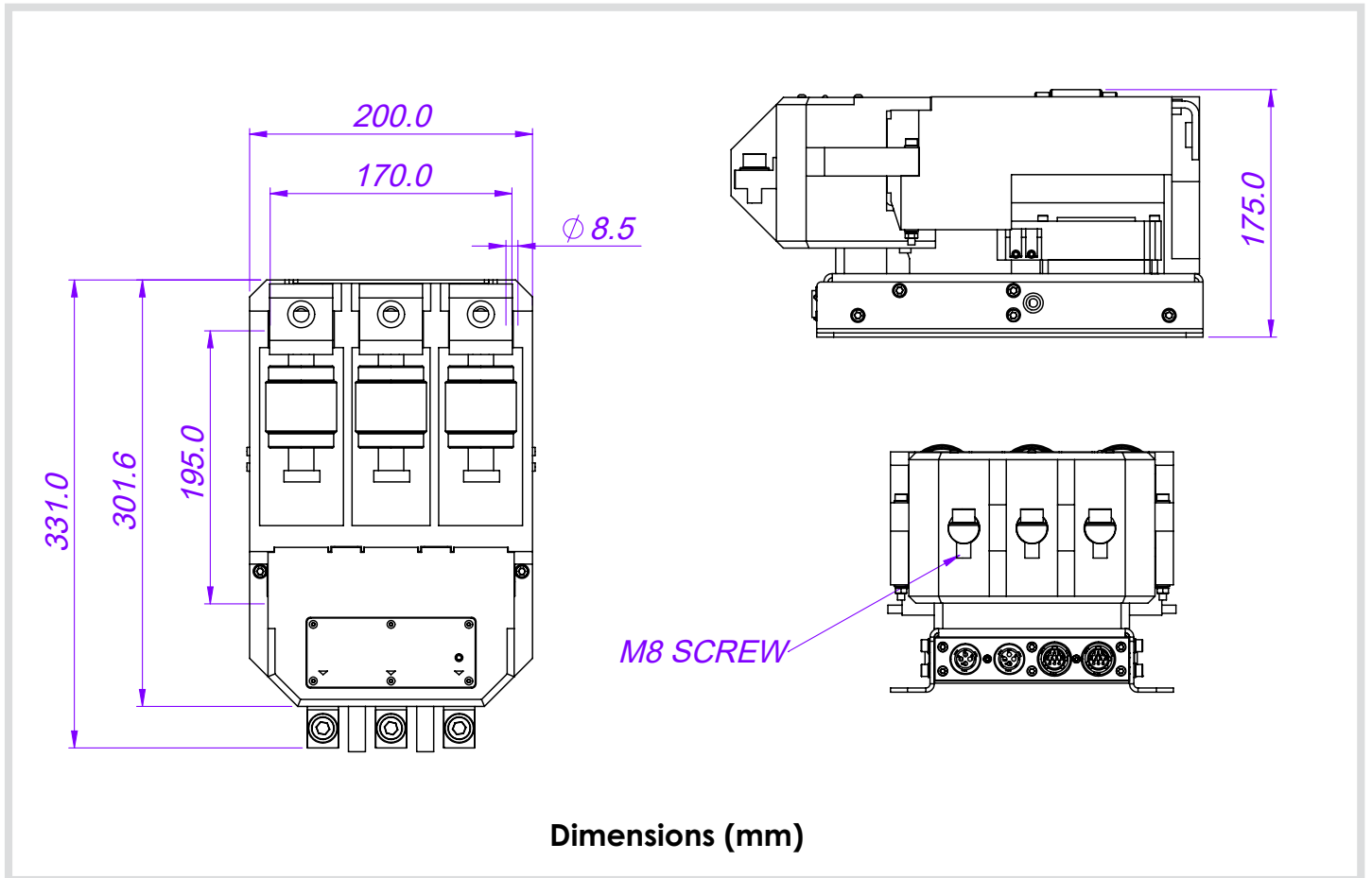
Pempek Smart Contactors are a line of 3-phase vacuum motor starter contactors with integrated control and protection electronics. The contactor is controlled and monitored by a host PLC via CAN field bus connection. The PLC uses coded CAN bus messages to turn on and off the contactor contacts (to turn on and off the electric motor). The PLC can also monitor motor current and contactor status via the CAN bus connection.

Motor overload protection is provided by the on-board electronics in the contactor. The host PLC configures the motor protection settings via a CAN configuration message (motor full load current, motor jam trip current etc). The contactor then opens the vacuum contacts when motor current exceeds the PLC-configured settings.

The product is designed to switch more powerful loads. The L0UJ model uses a larger switching chassis supporting vacuum bottles rated to 320 Amperes continuous current.



LOUJ0101 Smart Contactor 320A NEMA5



L0UJ0101 Smart Contactor 320A NEMA5

Typical Application

Smart contactors can be used for control and monitoring of 3-phase motors (and other loads) up to 1,500 volts. The L0SU0101 model supports loads up to 160 amperes, while the L0UJ0101 device can drive loads up to 320 amperes. The L0X10101 is suitable for continuous loads up to 540 amperes. A host control system is required to switch and monitor the contactor. The communication between the smart contactor and the host control system is via CAN fieldbus protocol.

A host control system is connected to the contactor using a CAN/24VDC cable. This cable contains 24VDC supply as well as CAN fieldbus wiring.

The control system supplies 110 VAC to the contactor using a separate cable. This supplies the 110VAC source power required to switch the armature coil of the contactor.

The host control system can turn the contactor on and off by sending the correct commands over the CAN fieldbus. When the contactor is turned on (the contactor armature coil is energized with 110VAC) the armature closes and connects the incoming 3-phase power busses to the output terminals of the contactor. The load (typically a 3-phase electric motor) is then supplied with 3-phase power.

Whilst the load is energized in this way, the contactor continuously monitors the electrical current in each phase. The measured values of current are used to protect the motor against several overload and fault conditions, such as instantaneous over-current, thermal overload, phase imbalance, and phase loss. If the contactor detects any failure of this kind, it immediately turns off the 3-phase supply to the load and notifies the host control system.

In the case of a thermal overload condition (motor current was above full-load rating for too long), the contactor will not permit the host control system to re-start the motor until a cool-down period of four (4) minutes has been observed. The cool-down timer is maintained in non-volatile memory within the contactor and cannot be cleared by removing 24VDC power.

