

Automatic Energy Select Switch

Date datasheet created:
19/04/2013

Intellitec's Automatic Energy Select Switch (AESS) is designed to be used in RVs to share the power available from a single circuit breaker between two large loads. The AESS applies power to both appliances until the primary load is turned on. It then removes power from the secondary load to prevent the circuit breaker from being overloaded. This function is particularly useful for sharing power between the microwave oven and another "shed-dable" or postpone-able appliance, such as the washer/dryer, or water heater. Typically, this function has performed with selector switches, forcing the owner to manually switch between the two appliances.

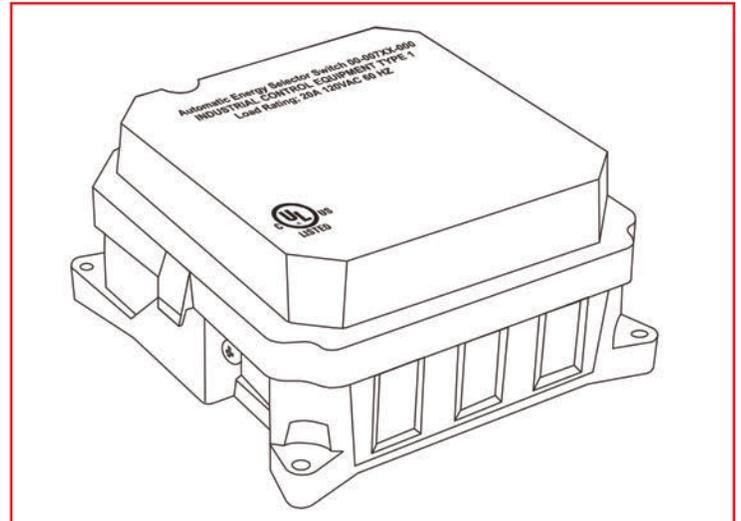
The selecting function is particularly useful when the microwave oven is the principal load. Power is always available to it, assuring that the customer can use the microwave whenever required and it's internal clock remains operating. While the microwave is in use, the function of the secondary load is postponed until the microwave is finished.

Features

- Allows two 20 Amp loads to operate from a single 20 Amp breaker
- Automatically switches between the two loads as the demand requires
- Meets NEC section 551-42(c) for adding breakers over the maximum limit of five and allowing for more than two, thermostatically controlled appliances.
- Minimizes circuit breaker tripping.
- Eliminates manual appliance select switches.

AESS OPERATION

The underlying principle of the AESS is that certain appliances used in an RV, such as the microwave oven, hair dryer, or toaster need to always be available, when the owner wants to use them. These are "on demand" appliances. The use of others, such as the washer/dryer, water heater, or air conditioner can be delayed to a slightly later time with little inconvenience to the owner. These are postpone-able loads. Postponing the use of these



appliances leaves enough power to operate the "on demand" appliances.

Power is supplied to the AESS from a single circuit breaker. An "on demand" load is connected as the primary load and a "shed-able" load is connected as the secondary load. When power is applied to the RV, it is supplied to both loads. When the primary load is turned off and at least 45 seconds has passed, power to the secondary load will be reapplied.

How it works

The Automatic Energy Select Switch controls power to two appliance loads. One appliance on the primary load is connected to the primary output and a shed-able appliance is connected to the secondary output. The output to the secondary load is carried through a relay.

When the shore cord is first plugged in, power flows through the AESS to the primary load and the relay is quickly closed, supplying power to the secondary load. When the primary load is turned off for more than 45 seconds, the power is re-applied to it.

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Specifications

Part Number: 00-00714-000

Controlled Load: One, OEM selectable

Ambient Temperature Range: -40C to +40C

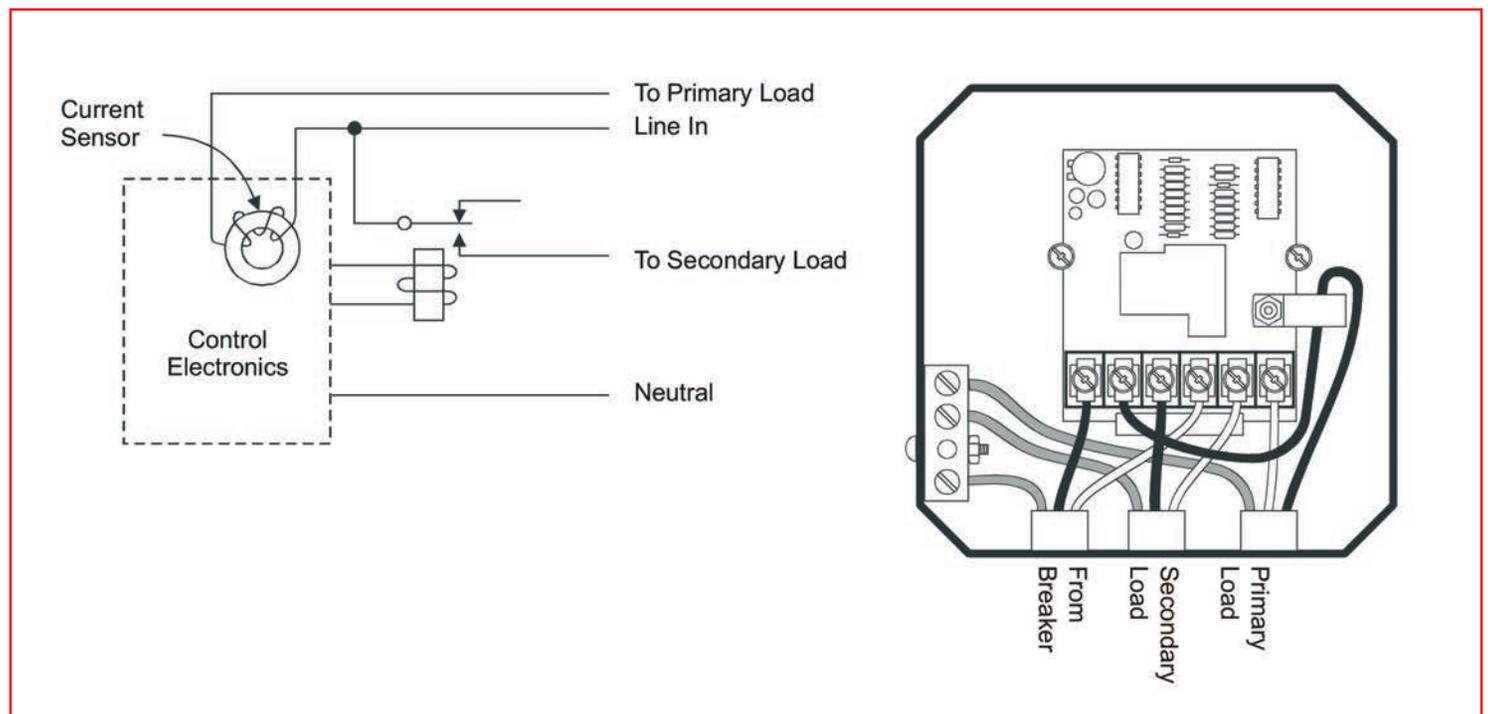
Relay Rating: (1) AC - 1 HP, 20A, 120 VAC 60 HZ

Operating Environment: Out of direct weather

U.S. Patents: 4499385, 4617472

Delay before reapplying power: 45 seconds

Typical Wiring Diagram



For further information on this product,
please contact Intellitec.