

FEATURES

- 120V/240V 15A/20A
- ZigBee Pro
- 128 bit AES Security
- Surge Protected
- RoHS Compliant



DESCRIPTION

The IS-204, IS-205, and IS-206 (see part numbering) smart sockets meter plug load energy usage and provides device on/off capability. They work with other IntelliSockets™ to form a secure wireless mesh network for control and reporting of data. Each network has an IntelliGateway™ base station providing connectivity to the IntelliNetwork™, a cloud-based data collection and analysis application. IntelliSockets can be configured to operate on any of the 15 ZigBee channels. In addition, the hive (PANID) has over 4000 possible settings, preventing nearby systems from interfering with each other.

PERFORMANCE

| Parameter | Symbol | Min | Typ | Max | Units |
|----------------------|-----------|-----------------|---------|--------|--------|
| Input Voltage (RMS) | V_{IN} | 108 | 120/240 | 264 | V |
| Input Frequency | | 47 | 50/60 | 63 | Hz |
| Output Current (RMS) | I_{OUT} | | | 20 | A |
| Output Power | P_{OUT} | | | 4800 | W |
| Power Consumption | | | 1 | | W |
| Reporting Interval | | 1 | 15 | 255 | s |
| Accuracy (Energy) | | | | 0.5 | % |
| Accuracy (Voltage) | | | | 2 | % |
| Accuracy (Interval) | | | | 1 | ms |
| Resolution | | | 1 | | W-s |
| RF Range | | | 50 | | m |
| RF Transmit Power | | 0 | | 20 | dBm |
| Sockets per Network | | | | 120 | |
| ZigBee Channels | | 11 | | 25 | |
| ZigBee Hive | | 0x3000 | | 0x3FFF | |
| Size | | 5.8 x 3.4 x 2.3 | | | inches |
| Cord Length | | 20 | | | inches |

PART NUMBERING

| Type | Voltage | Current | Connector |
|--------|---------|---------|-----------|
| IS-204 | 120 | 20 | 5-20P |
| IS-205 | 240 | 15 | 6-15P |
| IS-206 | 240 | 20 | 6-20P |

COMPLIANCE

| Agency | File |
|-------------------------------------|----------|
| UL916 – Energy Management Equipment | E470522 |
| ZigBee Profile (Plover) | 0x114B |
| FCC | 2AECN200 |

ENVIRONMENTAL

| Parameter | Symbol | Min | Typ | Max | Units |
|-----------------------|----------------|-----|-----|-----|-------|
| Operating Temperature | T _O | 0 | 25 | 40 | C |
| Storage Temperature | T _S | -40 | | 100 | C |
| Relative Humidity | RH | 0 | | 95 | % |

InteliSockets are for indoor use only.

PROTOCOL

InteliSockets use the Ibis custom Plover profile for commands, acknowledgements, and reporting of data.

DATA

InteliSockets report data typically every 15 seconds. Each report packet is comprised of socket type, ZigBee channel, ZigBee hive (PANID), interval (seconds), voltage (RMS), frequency (Hz), energy (watt-seconds), and power factor (fraction). From these data we can calculate instantaneous power (watts) and current (amps).

The IntelliGateway appends additional information (IP, timestamp, location, etc.) before uploading to the IntelliNetwork. This allows any socket in the world to be located and addressed individually.

PUSHBUTTON

The small pushbutton provides additional control features. First and foremost, it is a manual override for turning the outlet on (green) and off (red). If pressed and held for at least three seconds it causes a reboot of the socket. If held in for ten seconds (two reboots) it reverts back into factory mode settings. This is a useful feature for maintenance purposes or when a socket gets moved from one location to another.

LED

The LED on the front indicates the state of the socket. When red the outlet is off; green is outlet is on. If LED is blinking, the socket has not yet associated with a mesh network. During a reboot, the LED will flash yellow for a second.

WIRING

The basic design of the IS-204 IntelliSocket allows for it to be wired for either 120V or 208V/240V operation. Load current is defined by the outlet connector used, and can be up to a maximum of 25 amps.

FCC

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.

- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

The user is cautioned that changes and modifications made to the equipment without the approval of manufacturer could void the user's authority to operate this equipment.

To satisfy RF exposure requirements, this device and its antenna must operate with a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.