

ConnectSense® Smart Power Cord

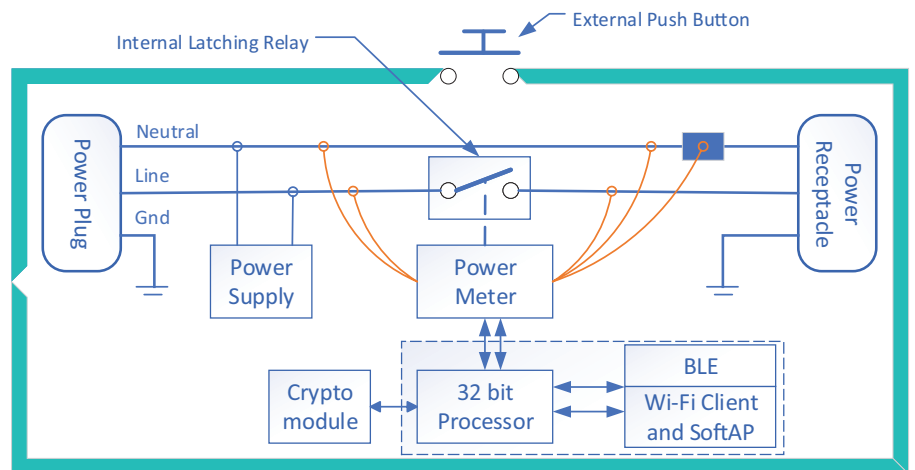
with Power Sense Technology



Cloud enable your device
with no design changes

The Smart Power Cord is the ready to use IoT power solution that cloud enables your product by simply plugging your device into the Smart Cord. The Smart Power Cord can:

- monitor motor and pump applications for failures
- improve energy efficiencies by metering your load
- improve product safety by shutting down loads that exceed safe, user defined operating parameters
- monitor/alerts if it senses abnormal or unsafe operating conditions



ConnectSense Smart Power Cord — Block Diagram

Target Applications

- Motors
- Pumps
- Commercial Appliances
- Load Shedding
- Electric Vehicle Charging
- IT Equipment

Caption here for the
waveform in app?



Features

On/Off—Control locally or remotely

Cloud Managed—Provides power monitoring and remote management

Data Storage and graphing using AWS Cloud

Precision Voltage, Current, and Power Monitoring

Optional—Data Analytics to provide predictive maintenance and machine learning

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Category

- Machine learning
- Power management and control
- Predictive maintenance
- Warranty verification of use or misuse

Target Market

OEMs that want to monitor or manage equipment that is not currently connected to the internet or network

Hardware Specs

Input Voltage	100-240VAC
Input / Output Current	Up to 20A
Enclosure	IP65
Color	Black
Temperature Rating	0 to 45°C Button, -40 to +85°C Electronics
Humidity	0 to 90% non-condensing
Power Consumption	1.5 watts
Dimensions	L x W x H
No cord	127.71 mm x 42.90 mm x 16.23 mm
No cord	5.028" x 1.689" x 0.639"
Weight	62.4g, 2.2oz

Connectors and Cord

Each end (plug, connector) of the cord can be customized per requirements.

Cord is 3 conductor 12 AWG wire.

There are 3 standard models listed above, others are available:

1. 15/20 AMP 6 foot 120 VAC extension cord
2. 15/20 AMP 6 foot 120 VAC computer cord
3. 15/20 AMP 6 foot 120 VAC 3 bare wire cord

Button

Manual on/off control

Also used for configuration
Button can be locked out

LEDs

Power
Network Status

Enclosure

Plastic, black

Mounting

None—Electronics integrated into the cord

Internal Power Supply

Built-in with World-wide approvals

Network Interfaces

- Wi-Fi (802.11bg)
- BLE (optional: as a secondary wireless channel)
- 4G M1 Cellular (2020 planned)

Certifications

UL, cUL, FCC, IC, CE, RoHS
UL Certification UL60730-1 Part 1

Software Features

- Cloud monitoring and management
- Webpage interface to Data
- Easy connection to Internet Soft AP
- Over the Air Updates (OTA)

Hardware features

Encryption using Microchip ATECC608A

- Cryptographic coprocessor with secure hardware-based key storage

32 bit processor

- Main processor with integrated Wi-Fi, BLE
- Soft AP and client station Wi-Fi

High precision power monitoring

- Voltage, Current measurement within 1%

Local storage of total runtime usage

- Flash storage for local configuration

Cord lengths can be custom

- Standard cord length is 6 feet (custom length available)
- 120 VAC plugs, 15/20 Amp
- 240 VAC plugs, 15/20 Amp
- IEC, NEMA standards
- Different cords and wire gauges are available



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