ZIPABOX
Smart Home Controller

Control your home
from anywhere in the world

ZIPABOX
Connect everything

Makes every home safe, comfortable and energy efficient

→ MAKES EVERY HOME SMART

Everyone likes the idea to control their home from anywhere and automate routine home activities. Home protection, conserving energy and making life easier are clear benefits, but the real challenge is how to do it easily and cost effective.
Zipabox Gateway uses advanced technology to hide the complexity of home networking - delivering a simple smart home. It plugs into any outlet in the home and automatically talks to all the connected devices in the

house, connecting them to the cloud so that consumers can control them using tablets, smart phones, computers or TVs— at home or on the go. Simple to install and easy to use, Zipabox is far more cost-effective and feature-rich than traditional custom-install alternatives. Zipabox is the new brains of the smart and connected home.
The Zipabox brings real value to consumers and service providers. It represents a platform to connected services and service support. Consumers use it to manage

their homes, and service providers use it to activate new services and capabilities on demand. Moreover, it allows service providers to remotely diagnose and troubleshoot issues—meaning faster, better support and less hassle for all.

→ HOW IT WORKS?

The Zipabox Gateway has the capability to communicate through a variety of standards including Z-WAVE, ZIGBEE, KNX, ONVIF, and UPnP, DLNA. Additionally, the Zipabox

Gateway's capabilities can easily be expanded through easy "snap-in" extension modules that add support for new interfaces and functionalities, communication standards and protocols, etc.
Once configured the gateway works stand-alone, but also features cloud support for advanced monitoring, messaging and programing services.
Intuitive graphical user interface allows customers to program their own home rules without any previous programing experience.

SECURITY AND SAFETY

- unlimited number of virtual alarms (partitions)
- up to 233 two-way, wireless zones
- trigger alarms in case of:
  - intruder (motion sensors and door/window sensors),
  - fire (smoke sensors),
  - flood (water leakage sensors),
  - gas (CO sensors)
  - panic button,
  - duress (if someone force you to disarm your system)
  - Health care (in case of missing actions during particular time e.g. motion, door opening, laying on bed...)
- remote arm/disarm and status-info with any smartphone
- vandal proof - Zipabox is 24/7 monitored by central station which triggers alarm in case of connection loss
- include arm/disarm commands in automation scenes and rules
- Easy integration with existing alarm systems (DSC, Honeywell...)
- easy online setup and configuration through web based interface

LIGHTING

- easy installation of wireless modules
- Z-Wave and ZigBee lighting modules pre-configured for even easier setup
- support remote dimming and on/off switching with any smartphone
- automatically turn lights on at sunset and off at sunrise
- unlimited number of scenes supported
- turn lights on during emergencies
- advanced event based rules configuration
- auto-pilot lighting programs to discourage intruders while home is empty

CLIMATE

- multiroom heating and cooling control with any smartphone
- advanced programing scheduler online, accessible over web browser

- use of same sensors for security and automation purposes

- easily create unlimited number of custom zones (thermostats)
- multizone humidity control by using standard humidifiers and dehumidifiers
- use Internet weather feeds to program your home climate conditions
- create advanced event based rules to automate home climate based on other environmental and home events
- include climate control in automation scenes together with alarm, lighting, shades, etc
- notification and automated actions in case of over-temperature events, power outages, and other incidents...

SUN SHADING

- control blinds, roller-shutters, curtains and pergolas using any smartphone
- automate motors by using fun and easy programing tool online
- add your sun shading commands into home scenarios together with lights, climate, alarms...
- automate your shades to react to outside weather conditions
- easy installation using pre-configured wireless modules

IRRIGATION

- control unlimited number of irrigation zones
- use advanced programing options online to setup perfect irrigation process
- automate irrigation system based on Internet weather forecast
- integrate your irrigation scheme together with your complete home automation scenarios

ACCESS

- remotely lock/unlock your door with any smartphone
- remotely open/close your garage door or gate over any smartphone
- get video notification when door is open
- use RFID tags to open doors and get detailed statistics about exits/entries
- automate doors/locks using scenarios and event based programing tool
- trigger automation events when door lock

user codes are entered

- automatically unlock doors in the event of an emergency

⊙ VIDEO MONITORING

- access live and recorded video via the web and from any smartphone
- support for most of the available IP cameras – ONVIF support
- get email and SMS notifications with pictures and live video attached
- remotely adjust pan-tilt cameras
- create advanced event based recording and video notification rules

⊙ MULTIMEDIA

- remotely control your audio/video equipment with any smartphone
- automatically turn on favorite shows when they air and get alerts
- automatically turn off A/V equipment at pre-set time or when room is unoccupied

- automatically turn on equipment to discourage intruders

⊙ ENERGY METERING

- real-time monitoring energy consumption and notification right on smartphone
- compare energy usage and cost with others in the area
- automatically turn on/off your appliances in accordance with electricity prices
- see detailed analysis of your energy consumption
- Save energy by automating lights, thermostats, sun shades...

TECHNICAL SPECIFICATION

⊙ POTENTIAL APPLICATIONS

- Home Automation
- Energy Monitoring
- Home remote control
- Video surveillance and more...

⊙ SYSTEM

- ARM9 208MHz CPU
- 64MB RAM
- 128MB Flash

⊙ NETWORK

- Ethernet
- Z-Wave (US or EU)
- ZigBee (802.15.4) (option)

⊙ OPERATING SYSTEM

- Linux 2.6 Kernel

⊙ POWER

- Power input: 9-12VDC
- Power supply input: 100-240VAC, 50/60Hz
- Power usage: Idle: 1.2W, Max: 2.4W

⊙ ENVIRONMENTAL

Temperature Range:
- Operating: 0°C to 40°C (32°F to 104°F)
- Storage: -25°C to 70°C (-13°F to 158°F)
- Humidity: 5% to 95% non-condensing

⊙ ACCESSORIES

- CAT5e UTP patch LAN Cable
- Antenna Z-wave
- Antenna Zigbee (option)

⊙ PHYSICAL DIMENSION

- 86 (L) x 86 (W) x 47 (H) millimeters
- 34 (L) x 34 (W) x 19 (H) inches

⊙ I/O & LEDS

- 2 programmable buttons
- 2 programmable green LEDs
- 1 programmable RGB LEDs
- Power, Status, Ethernet, WLAN & Z-Wave

⊙ REGULATORY COMPLIANCE

- Safety: UL
- EMC: FCC, CE
- RoHS

⊙ AUTOMATION OPTION

- Remote automation software
- Online remote control interface

⊙ WARRANTY

- 1 year standard

NOTE: SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE

Mobile app
for ZIPABOX

Cutting edge mobile apps
for total home control, from
anywhere in the world

Available on the
App Store

Get it on
Google play

ZIPATO
Rule Creator

World's easiest
tool for automation
of things

New rule

Installing smart security and remote control system will allow customers to remotely arm/disarm their system and turn on/off their lights and appliances. Some systems also have schedulers and timers to allow customers some form of automation. Only Zipato rule creator allows customers to unleash the full potential of their connected device. Inspired by MIT "Scratch" project, we developed a graphical tool for easy and fun online automation programing. Using Zipato Rule Cre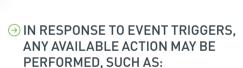ator customers can easily create or change any automation process in their home without any previous programming or automation experience.

- Intuitive graphical programming tool eliminates the need for complex programming or cryptic computer code.
- Online tool so you can add or change something in you configuration whenever you want to and from anywhere in the world.
- No programing skills required.

EVENTS CAN BE TRIGGERED BY:
- Conditions (many)
- Status change of any device
- Absolute time
- Sunrise/sunset (with offset)
- By email received
- Security panel events
- By matched infrared codes
- Recurring at regular second/minute intervals
- Event Actions

IN RESPONSE TO EVENT TRIGGERS, ANY AVAILABLE ACTION MAY BE PERFORMED, SUCH AS:
- Send lighting control signals
- Send email
- Run a script
- Trigger another event
- Media Player functions
- Web Camera functions

Backup
expansion module
for the Zipabox

Convert Zipabox to virtualy undefeatable home security station

Most important benefit of a connected home is increased home security. Main issue with any home security system is power autonomy in case of power outage and backup Internet connection in case main connection is cut off. Security expansion module ensures Zipabox stays powered on in case of power outage and provide customers with convenient way to setup a 3G backup connection by just plugging in 3G USB stick. As most operators offer special discounts for M2M service, this is considered as most cost-effective way to setup security backup connection.

TECHNICAL SPECIFICATION

FEATURES
- uninterruptible power supply / battery backup for Zipabox*
- connect external horn/siren directly to Zipabox
- add GPRS/3G connectivity to Zipabox **
- integrated tamper sensor detects shock and vibration
- integrated temperature sensor

I/O & LEDS
- 2 status LEDs

PHYSICAL DIMENSION
- 86mm (L) x 55mm (W) x 48mm (H)

ACCESSORIES
- USB 3G module (optional)
- USB extension cable (optional)

ENVIRONMENTAL
- Temperature Range:
- Operating: 0°C to 40°C (32°F to 104°F)
- Storage: -25°C to 70°C (-13°F to 158°F)
- Humidity: 5% to 95% non-condensing

REGULATORY COMPLIANCE
- Safety: UL
- EMC: FCC, CE
- RoHS

WARRANTY
- 1 year standard

NOTE: SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE

* PROVIDES UP TO 24H AUTONOMY
** WITH OPTIONAL USB 3G STICK

Security expansion module
for the Zipabox

Connect WIRED security sensors directly to the Zipabox

Connecting wired security sensors to the Security Module makes Zipabox one of the most advanced wired security panels on the market. Robust wired installation combined with advanced Zipabox logic possibilites provides perfectly secure and comfortable enviroment in any building. Low price and high reliability of wired sensors, gives an

excellent opportunity for installing Zipato in the new homes. 6 on-board zone inputs, siren output and input, PGM output and lead acid battery charger, allows you to either replace your existing alarm panel with Zipabox, or use your existing alarm panel alongside Zipabox, sharing sensors or sirens, in any conceivable combination.

TECHNICAL SPECIFICATION

FEATURES

- 6 on-board wire zones (expandable to 24 with additional Security Modules)
- 1 siren input (use Zipabox as a siren in an existing alarm system)
- 1 on-board solid state relay PGM output, negative or positive triggering (user selectable)
- 1 supervised bell/siren output
- 1 supervised auxiliary power output
- 1 general purpose serial port - user selectable between RS-232 and half-duplex RS-485 mode
- 1 lead-acid battery charger (charges external LA battery)

SPECIFICATION
- Power: Powered by Zipabox
- Battery: External 12VDC, 7Ah minimum
- Aux power: 12VDC 600mA
- Bell/siren out: 800 mA
- Siren in: 12VDC, 20mA
- PGM out: 100mA solid state relay with selectable trigger

ENVIRONMENTAL
- Temperature Range:
- Operating: 0°C to 40°C (32°F to 104°F)
- Storage: -25°C to 70°C (-13°F to 158°F)
- Humidity: 5% to 95% non-condensing

PHYSICAL DIMENSION
- 86mm (L) x 55mm (W) x 48mm (H)

REGULATORY COMPLIANCE
- Safety: UL
- EMC: FCC, CE
- RoHS

WARRANTY
- 1 year standard

NOTE: SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE

Power expansion module
for the Zipabox

True smart metering capabilities for up to 20 electricity circuits

Beside being DIN-RAIL mounted power supply for the Zipabox main unit, Power module determines electricity consumption from a current clamp attached to one of the power cables. Up to 4 current clamps can be connected directly to the the Power module, and up to 16 more can be connected by using add-on on modules.

All the measurements are available on the cloud server where customers can visualize and analyze their energy consumtpion when ever they want.
Most important, customers can use real time measurements to create their own energy saving rules by using Zipato Rule Creator, breakthrogh graphical automation interface.

TECHNICAL SPECIFICATION

POWER SUPPLY FEATURES
- Input: 90-265 VAC, 50-60 Hz
- Output: 12VDC, 1.5A (tied to internal Zipabox power bus)
- Efficiency: High active mode efficiency (>85%)
- EMI: Complies with standards

ENERGY METERING FEATURES
- each channel can display instantenaous voltage, current and power values
- each channel measures active and reactive power and records electric energy consumption
- voltage sensing via built in high precision voltage transformer
- current sensing via external split core current transformer
- high accuracy
- measures 4 channels
- expandable with Power Addon modules (not available yet)

PHYSICAL DIMENSION
- 86mm (L) x 55mm (W) x 48mm (H)

ENVIRONMENTAL
- Temperature Range:
- ☐ Operating: 0°C to 40°C (32°F to 104°F)
- ☐ Storage: -25°C to 70°C (-13°F to 158°F)
- Humidity: 5% to 95% non-condensing

REGULATORY COMPLIANCE
- Safety: UL
- EMC: FCC, CE
- RoHS

WARRANTY
- 1 year standard

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Zigbee expansion module
for the Zipabox

Connect automated home with smart meters and other Zigbee enabled devices

ZigBee is a low-cost, low-power, wireless mesh network standard. The low cost allows the technology to be widely deployed in wireless control and monitoring applications. Low power-usage allows longer life with smaller batteries. Mesh networking provides high communication reliability and more extensive range.

ZigBee expansion module allowes Zipabox to communicate with all ZigBee enabled devices and integrate them into one unified home automation network. Since majority of smart energy meters supports ZigBee, Zipabox becomes even more interested for consumers, telcos and utilities to integrate smart metering applications within connected home.

ZigBee®

TECHNICAL SPECIFICATION

→ ENVIRONMENTAL
- Temperature Range:
- ☐ Operating: 0°C to 40°C (32°F to 104°F)
- ☐ Storage: -25°C to 70°C (-13°F to 158°F)
- Humidity: 5% to 95% non-condensing

→ REGULATORY COMPLIANCE
- Safety: UL
- EMC: FCC, CE
- RoHS

→ WARRANTY
- 1 year standard

→ FEATURES
- ZigBee network connectivity
- HA profile

→ PHYSICAL DIMENSION
- 86mm (L) x 30mm (W) x 48mm (H)

→ ACCESSORIES
- Zigbee swivel antenna
- antena extension cable (optional)

NOTE: SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE

433 MHz
expansion module
for the Zipabox

Connect the most popular automation devices based on 433Mhz frequancy together with Z-wave, Zigbee, KNX or other popular automation devices

433Mhz spectrum range is traditionaly being used by many simple and cost effective wireless devices. Those protocols are being implemented in some of the most popular automation and security product ranges in the world.
Long range and high reliability makes those products as the perfect choice for the cost effective security and automation applications where two-way communication is not needed. However, there is a wide vairety of different protocols available on the market and making them work all

together is impossible withou a sofisticated gateway device. By using the 433MHz expansion module, Zipabox allowing you to, not just to connect vast majojrity of the popular protocols based on 433Mhz to work together, but also, to connect them all together to work within a same network with Z-wave, Zigbee and KNX devices. This option allows installers and home owners to optimize the automation installations in order to get best value for money, which seems to be the "holy grail" of the home automation market for while.

TECHNICAL SPECIFICATION

FEATURES
- receives and decodes 433.92Mhz sensor signals of many popular protocols
- encodes and transmites 433.92 Mhz actuator singals for many popular protocols
- Interoperability*:
  X10, CoCo, Chacon, Oregon Scientific, Lightwave...
- Automatic firmware update supported

PHYSICAL DIMENSION
- 86mm (L) x 30mm (W) x 48mm (H)

ENVIRONMENTAL
- Temperature Range:
  Operating: 0°C to 40°C (32°F to 104°F)
  Storage: -25°C to 70°C (-13°F to 158°F)
- Humidity: 5% to 95% non-condensing

ACCESSORIES
- 433Mhz swivel antenna
- antenna extension cable (optional)
- quick start guide

REGULATORY COMPLIANCE
- Safety: UL
- EMC: FCC, CE
- RoHS

WARRANTY
- 1 year standard

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* LIST OF THE PRODUCTS SUPPORTED UNDER THE EACH BRAND COULD BE FOUND ON www.zipato.com

EnOcean expansion module
for the Zipabox

The innovative EnOcean technology uses the principle of energy harvesting and gains energy from the surrounding environment; from motion, light and temperature differences

EnOcean-based products (such as sensors and, switches) perform without batteries and are engineered to operate maintenance-free. The EnOcean radio signals are based on the international standard ISO/IEC 14543-3-10 and can be transmitted wirelessly over a distance of up to 300 meters in the open field and up to 30 meters inside buildings.

Users will benefit from a new level of flexibility when installing or expanding their individual intelligent home system. With Zipabox integrating the EnOcean standard, they can now choose one of the most established wireless standards for building automation – free from the maintenance-effort of changing batteries.

enocean®

TECHNICAL SPECIFICATION

COMMUNICATION PROTOCOL
- ZigBee

COMMUNICATION FREQUENCY
- 868.3 MHz (EU)
- 902.875 MHz (US)

COMMUNICATION RANGE
- Up to 30m indoor or 70m outdoor

PHYSICAL DIMENSION
- 86mm (L) x 30mm (W) x 48mm (H)

ENVIRONMENTAL
- Temperature Range:
  Operating: 0°C to 40°C (32°F to 104°F)
  Storage: -25°C to 70°C (-13°F to 158°F)
- Humidity: 5% to 95% non-condensing

ACCESSORIES
- swivel antenna
- antenna extension cable (optional)
- quick start guide

REGULATORY COMPLIANCE
- Safety: UL
- EMC: FCC, CE
- RoHS

WARRANTY
- 1 year standard

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KNX
expansion module
for the Zipabox

Joins KNX network with Zipato network, adding advanced logic of Rule Creator and remote control to the robust KNX instalation

KNX module allows connecting Zipato network to KNX by the KNX Serial BAOS 820 module. In addition to the KNX transceiver, it contains a microcontroller with a certified KNX stack. It also electrically isolates the device from the bus. Communication with the module takes place via the FT1.2 serial protocol. KNX BAOS Module 820 serves as an interface to KNX/EIB both at

the telegraph and data point levels (KNX Application Layer). BAOS stands for "Bus Access and ObjectServer".
Once after connected to KNX network Zipabox will allow users to remotely manage devices within a KNX network, add logical rules by using Zipato Rule Creator and to control other IP, Z-wave, X10, Zigbee and other devices from within a KNX network.

TECHNICAL SPECIFICATION

ENVIRONMENTAL
- Ambient temperature during operation: - 5 to + 45 °C
- Storage temperature: - 25 to + 70 °C
- Rel. humidity (non-condensing): 5 % to 93 %

REGULATORY COMPLIANCE
- Safety: UL
- EMC: FCC, CE
- RoHS
- Safety extra low voltage SELV DC 24 V

WARRANTY
- 1 year standard

FEATURES
- Interface to KNX/EIB both at the telegraph and data point levels (KNX Application Layer)

PHYSICAL DIMENSION
- 86mm (L) x 30mm (W) x 48mm (H)

ACCESSORIES
- External supply 3.3-5V DC
- Bus current consumption 9 mA

NOTE: SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE

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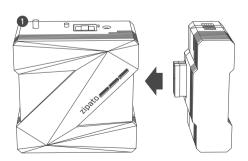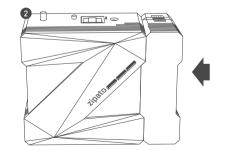
Serial expansion module
for the Zipabox

Allowing connection of external systems by using RS-232/485 interface as well as simple USB interface

By using Serial expansion module, Zipabox can easily interconnect with an existing security alarm system, such as DSC or PARADOX, or any other system which has an RS232 or RS485 communication interface

(e.g. air condition). Number of external systems supported by Zipato is increasing all the time, and Zipato providing an SDK to all the parties interested in supporting various protocols.

TECHNICAL SPECIFICATION

⊙ FEATURES
- Allowing connection of external systems to Zipabox
- Switchable support for both RS232 and RS485
- Additional USB connector

⊙ ACCESSORIES
- Connect the most popular automation devices based on 433Mhz frequancy together with Z-wave, Zigbee, KNX or other popular automation devices
- 433Mhz swivel antenna
- antenna extension cable (optional)
- quick start guide

⊙ PHYSICAL DIMENSION
- 86mm (L) x 30mm (W) x 48mm (H)

⊙ ENVIRONMENTAL
- Temperature Range:
- ☐ Operating: 0°C to 40°C (32°F to 104°F)
- ☐ Storage: -25°C to 70°C (-13°F to 158°F)
- Humidity: 5% to 95% non-condensing

⊙ REGULATORY COMPLIANCE
- Safety: UL
- EMC: FCC, CE
- RoHS

⊙ WARRANTY
- 1 year standard

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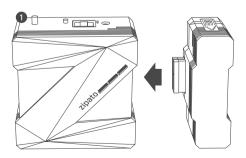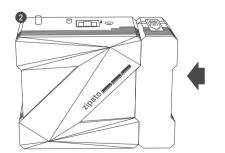
P1
expansion module
for the Zipabox

Allowing connection of external electricity meters
by using P1 interface

By using P1 expansion module, Zipabox
can interconnect with an existing

electricity meter which supports P1
standard.

TECHNICAL SPECIFICATION

- Humidity: 5% to 95% non-condensing

⊕ REGULATORY COMPLIANCE
- Safety: UL
- EMC: FCC, CE
- RoHS

⊕ WARRANTY
1 year standard

⊕ FEATURES
- allowing connection of P1 meters to the Zipabox

⊕ PHYSICAL DIMENSION
- 86mm (L) x 30mm (W) x 48mm (H)

⊕ ENVIRONMENTAL
- Temperature Range:
  - ☐ Operating: 0°C to 40°C (32°F to 104°F)
  - ☐ Storage: -25°C to 70°C (-13°F to 158°F)

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3G
USB Dongle

Plug and play connection to the 24/7 monitoring station, by using fast and reliable 3G network

A 3G USB dongle is a portable device that attaches to a USB port (backup module, security module, serial module) to enable a Zipabox to connect to the central monitoring servers as a primary connection or secundary (backup) IP connection by using 3G networks.

Zipato 3G USB DONGLE can be used with any 2G/ 3G SIM card, wherever Dual Band, Tri Band or Quad Band SIMs are supported. Simply plug into a backup module or seurity module, set your PIN/APN and connect to the Zipato monitoring servers.

TECHNICAL SPECIFICATION

FEATURES
- HSDPA
- GSM/GPRS/EDGE: 900/1800/1900/850MHz
- Chipset: Qualcomm
- USB Stick Micro-SD card slot (up to 32G),
- Linux driver support

PHYSICAL DIMENSION
- 12mm (L) x 27mm (W) x 90mm

ENVIRONMENTAL
- Temperature Range:
  Operating: 0°C to 40°C (32°F to 104°F)
  Storage: -25°C to 70°C (-13°F to 158°F)
- Humidity: 5% to 95% non-condensing

REGULATORY COMPLIANCE
- Safety: UL
- EMC: FCC, CE
- RoHS

WARRANTY
- 1 year standard

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Split core current transformer

JCXXF-XXXmA Series

The split-core current transformer design is used for energy efficiency monitoring and automation applications

This includes sub-metering cost allocation, dynamic energy consumption and peak load analysis. The JC series of current transformer is simple to use, compact split-core design which is easily installed for metering applications.

MODEL	JC10F	JC16F	JC24F
	Ø10	Ø16	Ø24
Current Ratio	5A/1.66mA	120A/40mA	200A/66.6mA
Current Range	0.01~80A (RL=10Ω)	0.01~120A (RL=10Ω)	0.01~200A (RL=10Ω)
Max.Continuous Current	120A	200A	300A
Nominal Phase Angle Error	+1.5±1°	+1.0±1°	+1.0±1°
Nominal Linearity Error	-1±1%	-1±1%	-1±1%
Turns Ratio	3000:1	3000:1	3000:1
DCR	360±25Ω	280±20Ω	171±15Ω
Protection Level	7.5V0-P	7.5V0-P	7.5V0-P
Insullation Category	CATIII		
Operating Condition	-20 °C~+50 °C, ≤85%RH, No condensation, In-house & Any direction installable		
Storage Condition	-30 °C~+90 °C, ≤85%RH, No condensation		

* (F=50/60HZ)

TECHNICAL SPECIFICATION

APPLICATIONS
- Energy sub-meter
- Power meters
- Power quality monitoring HVAC&Pumps, etc
- Distributed measurement system

BENEFITS
- Small-size, light-weight
- Simple Installation
- Over-Voltage protection circuit is installed

NOTICE
- If you impact the core contact surface, internal core material could be damaged.
- Please use only the original output screws. Not recommanded to replace it with anything else.
- Customizing out put lead wire

FEATURES
- Nylon-spring, output-terminal, secure locking hinge, one-touch structure make easy to install to the existent equipments such as a power distribution boards
- Isolated plastic case recognized according to UL94-V0 / UL / EN 61010 - 1 certified
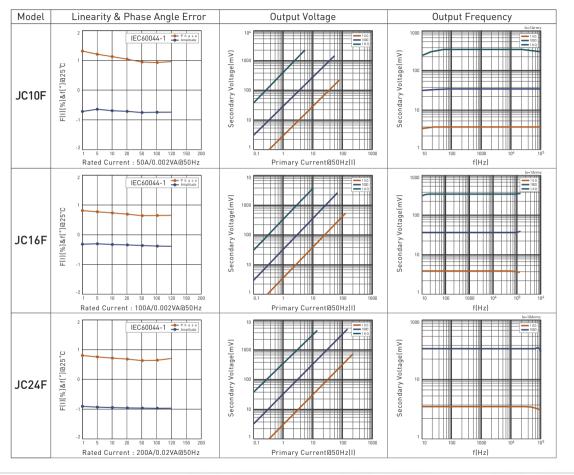
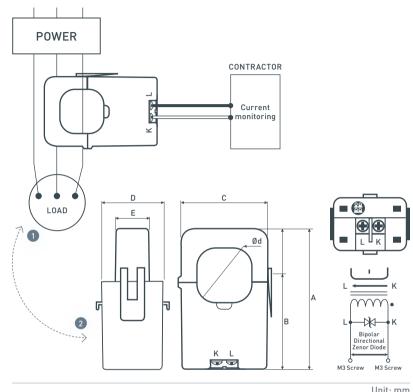### REGULATORY COMPLIANCE
- Safety: UL
- EMC: FCC, CE
- RoHS

WARRANTY
- 1 year standard

NOTE: SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE

Model	Linearity & Phase Angle Error	Output Voltage	Output Frequency
JC10F	IEC60044-1 — Phase / Amplitude. Rated Current : 50A/0.002VA@50Hz	Secondary Voltage(mV) vs Primary Current@50Hz(I)	Secondary Voltage(mV) vs f(Hz), Io=1Arms
JC16F	IEC60044-1 — Phase / Amplitude. Rated Current : 100A/0.002VA@50Hz	Secondary Voltage(mV) vs Primary Current@50Hz(I)	Secondary Voltage(mV) vs f(Hz), Io=1Arms
JC24F	IEC60044-1 — Phase / Amplitude. Rated Current : 200A/0.02VA@50Hz	Secondary Voltage(mV) vs Primary Current@50Hz(I)	Secondary Voltage(mV) vs f(Hz), Io=10Arms

POWER

CONTRACTOR

Current monitoring

LOAD

Bipolar Directional Zenor Diode

M3 Screw   M3 Screw

Unit: mm

MODEL	A	B	C	D	E	Ød
JC10F	50	38	23	26	14.5	10
JC16F	55	41	29.5	31	19	16
JC24F	74.5	52	45	34	22	24

⊕ HOW TO USE SPLIT-CORE CURRENT TRANSFORMER

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thank you.