

Request from: Public Utilities Commission

Request:

Exhibit 29

The utilities' physical implementation plans for all EV meters. Include a picture, description, cost, spec sheet, and capabilities for utility meter implementations in this docket. For implementations that use a customer installed meter provide physical the implementation with diagrams, descriptions, cost, and capability summaries. Include Public Service Company of New Hampshire d/b/a Eversource Energy (Eversource) 2 period meters.

Response:

Technical specifications for revenue grade interval recording meters the Company anticipates would be installed for residential customers enrolled in a separately-metered, 3-period EV TOU rate are provided as Exhibit 29 (Eversource) Attachment 1 and Exhibit 29 (Eversource) Attachment 2.

A diagram for a separately-metered EV service is provided as Exhibit 29 (Eversource) Attachment 3.

Technical specifications for networked level 2 EV chargers currently eligible for enrollment in Eversource Energy load management programs are provided as Exhibit 29 (Eversource) Attachment 4.

A3 ALPHA[®] meter

Honeywell's A3 ALPHA meter builds on the strengths of the ALPHA meter design. The patented digital measurement techniques offer high accuracy, repeatability, and low ownership costs.

Revenue metering

The A3 ALPHA meter is a very accurate revenue meter (0.2 accuracy Class). The meter provides advanced four-quadrant revenue functions, transformer and line loss compensation, and increased data profiling without adding hardware option boards.

Meter type	Measured quantities
A3D	1 (watthours only)
A3T	1 (watthours only)
A3K, A3R, A3Q	2 (user selectable)
A3KA, A3RA, A3QA	6 (user selectable)

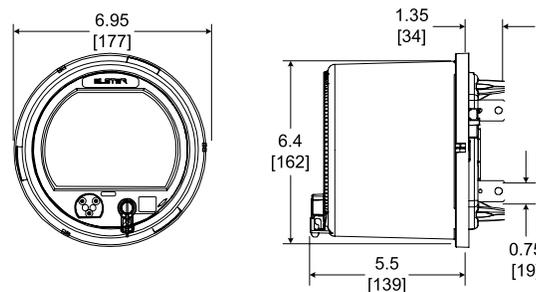
Each measured quantity is stored in nonvolatile memory and includes energy, demand, and TOU data. Note: TOU data is not available for A3D.

Power quality monitoring

PQM provides continuous service condition monitoring 24 hours a day. PQM looks for exceptions to user-defined thresholds for items such as voltage, current, and total harmonic distortion. Each of the 12 PQM tests can be configured to control relay activation, LCD warning, date/time stamp log entry, and even an automatic telephone call to report the condition.

AnyPhase™ power supply

With the optional AnyPhase power supply installed, the A3 ALPHA meter is powered from all wires of the electrical service. If one or more service wires are disconnected, the meter is automatically powered from any two service wires including line-to-line or line-to-neutral.



Approximate dimensions in inches [millimeters]
Contact Honeywell for A-base dimensions

A communication platform

Data can be retrieved using the standard optical communications port. Additional Honeywell communications interfaces are available for A3 ALPHA meters as a simple add-on option board

Honeywell communication modules

- E-WIC (Ethernet)
- W-WIC (CDMA and GSM)
- ITM3 internal telephone modem (outage reporting optional)
- RS-232
- RS-485

Honeywell-installed partner modules

- Aclara TWACS UMT-C-A3 (32 registers, 4 channel load profiling)
 - Sensus FlexNet Smartpoint NIC
 - Silver Spring Networks NIC
 - Itron Cellular Solutions 3G SmartMeter module
- There are also other third party communications boards that are installed at their facilities.

Interval data recording and self reads

The main circuit board has nonvolatile memory for storing profile, data logs, and self read data. Recording options include interval profiles of instrumentation data and up to 15 self reads. If extensive profile recording is required, an extended memory option board can be easily added to increase total memory by 1 MB.

Instrumentation profiling

When optional instrumentation profiling is enabled, the meter stores 2 separate sets of instrumentation data. Each data set has an independent interval length and up to 16 channels. With instrumentation profiling, each meter becomes a powerful data collection tool to monitor data and diagnose problems without installing expensive temporary monitoring equipment.

One of over 50 instrumentation quantities can be assigned to each channel, and the storage algorithm for each channel can be independently selected. For storage algorithms, most quantities support the following options:

- Minimum value per interval
- Maximum value per interval
- Average value per interval
- End of interval snapshot

Maximum voltage	Continuous 528 VAC (AnyPhase option: L-L or L-N)	
Maximum current	Continuous at Class amperes; temporary (1 second) at 200 % of meter maximum current	
Surge voltage withstand	ANSI C37.90 Oscillatory	2.5 kV, 2500 strikes
	Fast transient	5 kV, 2500 strikes
	ANSI C62.41	6 kV at 1.2/50 μ s, 10 strikes
	IEC 61000-4-4	4 kV, 2.5 Hz repetitive burst for 1 minute
	ANSI C12.1 Insulation	2.5 kV, 60 Hz for 1 minute
Voltage range	Nameplate nominal range	120 V to 480 V
	Operating range	96 V to 528 V
Current range	0 to Class amperes	
Frequency range	Nominal 50 Hz or 60 Hz \pm 5 %	
Temperature range	-40 °C to +85 °C inside the meter cover	
Humidity range	0 % to 100 % noncondensing	
Power supply burden	Less than 4 W	
Per phase current burden	0.1 milliohms typical at 25 °C	
Per phase voltage burden	0.008 W at 120 V; 0.03 W at 240 V; 0.04 W at 480 V	
Accuracy	Meets ANSI 12.20 accuracy for accuracy Class 0.2 %	
Starting current	Forms 1S and 3S	10 mA for Class 20 100 mA for Class 200 160 mA for Class 320
	All other forms	5 mA for Class 20 50 mA for Class 200 80 mA for Class 320
Primary time base	Power line frequency (50 Hz or 60 Hz) with selectable crystal oscillator	
Secondary time base	Meets the ANSI limit of 0.02 % using the 32.768 kHz crystal. Initial performance is expected to be equal to or better than \pm 55 seconds per month at room temperature.	
Communication rates	Optical port: 300 bps to 28,800 bps	
	Remote port: 1200 bps to 19,200 bps	
ANSI standards	C12.1; C12.10; C12.18; C12.19; C12.20; C12.21	

Find Out More

SmartEnergy@Honeywell.com
800-786-2215 (Honeywell Smart Energy sales information)
866-554-9007 (Product support)

Honeywell Smart Energy

208 S. Rogers Lane
Raleigh, NC 27610
www.HoneywellSmartEnergy.com

ALPHA and EnergyAxis are trademarks and/or registered trademarks of Honeywell. Other product names may be trademarks and/or registered trademarks of their respective owners. Protected by U.S. Patents 6,363,057, 6,374,188, 6,396,839, 6,507,794, 6,650,249, 6,628,207, 6,747,981, 7,126,494, 7,860,672, 8,739,148, and their foreign counterparts.

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Honeywell

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Aclara kV2c™ Electric Smart Meter Commercial and Industrial

Aclara metering products have over 100 years' heritage of providing reliable and robust metering solutions to utility companies and their customers. That tradition of excellence continues with the fifth generation of kV2c.



Aclara kV2c™ Electric Smart Meter

Commercial and Industrial

EXHIBIT 29
DE 20-170

Aclara's fifth generation kV2c™ meter is designed for revenue class metering in commercial and industrial applications. This new generation of meter moves beyond revenue metering to real time instrumentation, true power quality monitoring and real cost of service measurements. Whether you are metering the simplest energy rate or collecting critical quality of service and load analysis information on a polyphase or a singlephase circuit, there is a kV2c meter configuration to meet your needs.

ELECTRICITY METER FOR ALL YOUR FUTURE NEEDS

The Aclara kV2c meter family is one of the most widely accepted ANSI® commercial and industrial meters with over 2 million units deployed in the field since its introduction. The robust revenue-grade meter design is based on Aclara's cutting edge technology that provides high accuracy and reliability. This fifth generation kV2c has eight times the processing power and three times the memory of previous models. This allows for future upgrades and new applications without having to replace the meter.

KEY BENEFITS

- Reliable and accurate cash register for utilities
- Revenue assurance using diagnostic and event tools
- Low maintenance and high accuracy over the life of the meter
- Strong overvoltage capabilities – Twice the operating voltage to absorb the system events of the grid
- Adaptive and versatile meter with bidirectional and four quadrant measurements
- Smart metering functions such as Time of Use, demand metering and reactive measurement
- Advanced power quality monitoring
- Robust meter security and standards compliance
- Polyphase Remote Disconnect is available for unique utility applications

RELIABILITY

- Over 130 years of experience designing and building electricity meters
- Robust revenue-grade watt-hour and demand meter with advanced recording options
- Based on Aclara's high-quality technology, providing 0.2% accuracy and reliability
- Highly Accelerated Life Testing assures the reliability of the meter over the life of the meter
- Provide utilities with tools to lower operational cost and provide accurate metering solutions

SMART CONFIGURATION

- Customize advanced metering options to suit customer needs and complex rate requirements.
- Versatile programming softswitches allowing the selection of advanced functionality such as expanded recording features, harmonic analysis, time of use, load profile, and power quality measures.
- Options available to provide totalization capability and pulse outputs.
- Tamper detection tools and installation verification capabilities to automatically catch errors, wiring changes, tampering, and billing issues.

SOLUTIONS FOR THE MOST DEMANDING APPLICATIONS

Aclara's most advanced electricity metering product, the kV2c, delivers world class capability for revenue metering and protection, power quality and cost of service measurements..

RELIABLE METERING

In this dynamic time of regulatory scrutiny and customer engagement, you can rest assured by the product and the company behind the product. We have ANSI and ISO certified labs to ensure that our product design and manufacturing processes yield a robust and reliable product.

Our testing procedures go well beyond the ANSI and IEC requirements for which we design to, including some of the most aggressive internal standards. We include world-class Radio Frequency (RF) communications expertise to ensure that our meter products are hardened to withstand even the harshest of RF environments without sacrificing the quality or integrity of the metrology or the communications technology

ACCURATE & DEPENDABLE

With an accuracy class of 0.2%, the Aclara kV2c meter provides outstanding capabilities for accuracy. With Aclara's Highly Accelerated Life Testing we are replicating the normal wear and tear that would normally be experienced over the usable lifetime of the product in a shorter amount of time.

INTEGRITY OF SUPPLY

Having a partner that can provide assurance in supply is critical when a utility begins a mass deployment of meters. Aclara's process focus and rigor around supply chain excellence minimizes the risk to the utility, giving them confidence to manage installation crews and provide accurate scheduling to customers. Aclara dual sources all components and in many instances from different countries. This reduces our risk of parts obsolescence impacting our meters as well it helps us in the case of a catastrophic event.



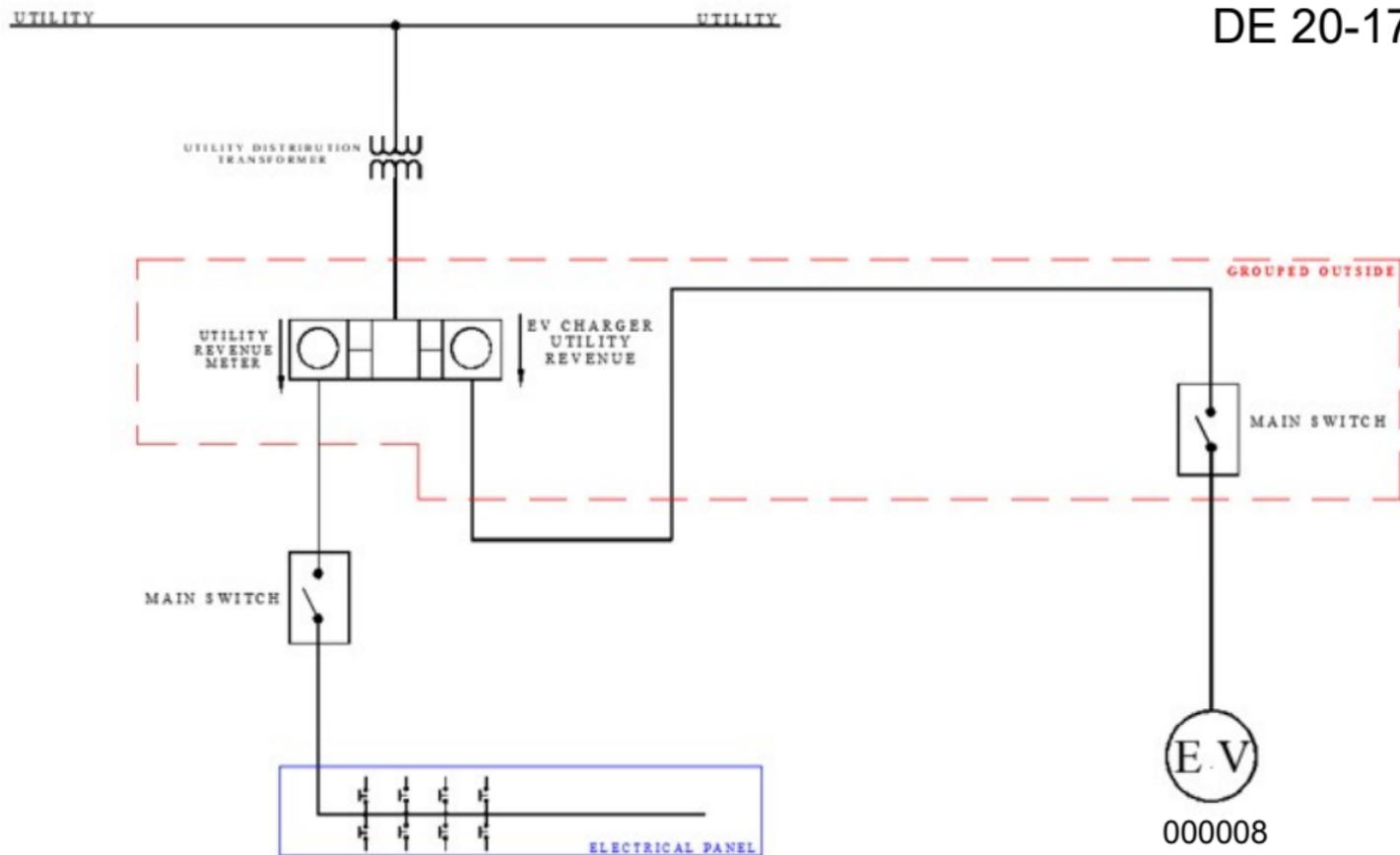
TECHNICAL SPECIFICATIONS

Available Forms	CL20: 3S, 4S, 9S, 36S, 45S CL100: 16S (w/ or w/o Remote Disconnect) CL200: 1S, 2S, 12S, 16S, 25S CL320: 2S, 12S, 16S
Accuracy	Exceeds +/- 0.2% Certified Class Accuracy Typical Watt Loss: 0.8W @ 120V / 1.7W @ 480V
Voltage	120 to 480 Volts Auto-ranging
Current	Class 20, 200 and 320
Frequency	50 or 60 Hz
Temperature	-40°C to 85°C
Relative Humidity	<_95%
Weight	2.5 to 3.9 lbs.
Dimensions	6 ½" Wide by 8 ¼" Deep
Display	Supports 6 Characters Up to 75 displayed items with over 1,000 items to choose from Modes: Normal, Alternate, Test and Site Genie (Diagnostics) 3 Character Display Label Phase Voltage Indicators
KYZ Option Boards	Simple I/O – 2 form C outputs, 1 form A output & 1 RTP Multiple I/O – 2 form C outputs, 6 form A outputs, 4 pulse inputs & 1 RTP
Standards	ANSI C12.1, C12.10, C12.16, C12.18, C12.19, C12.20 FCC Class B emissions UL2735

METROLOGY AND DATA CAPACITY

- 5 Accumulators
- 10 Coincident Demands
- Demand (Block, Rolling or Thermal)
- 20 Channels of Load Profile Data (1,5,15,30 or 60-minute intervals)
- 384kB of Load Profile Storage (Days recorded depends on number of channels, i.e. 5 channels of 15 minutes = 306 Days)
- Energy Data (Wh, VArh & VAh)
- Instrumentation Data (Voltage, Current, Temperature and Frequency)
- Time of Use (4 periods & 4 seasons, 3 daily rates plus holiday, 5 billing and demand measures per period)
- Comprehensive Event Logging
- Remote Configuration and Firmware updates over the air

EXHIBIT 29
DE 20-170



Level 2 Electric Vehicle Charger Qualified Product Specifications for Eversource Connected Solutions at Residential Locations

1. ChargePoint Home Flex (CPH50)
2. Juice Box 32 (JBC 1-32)
3. Juice Box 40 (JBC 1-40)
4. Juice Box 48 (JBC 1-48)
5. SemmaConnect Series 4
6. Wallbox Pulsar Plus



ChargePoint Home Flex

Specifications and Ordering Information

Ordering Information

Description		Model Number
Station and Cable Model	16A-50A, NEMA 6-50 plug, 7010.4 mm (23') Charging Cable	CPH50-NEMA6-50-L23
	16A-50A, NEMA 14-50 plug, 7010.4 mm (23') Charging Cable	CPH50-NEMA14-50-L23
Replacement Cable	7010.4 mm (23') Charging Cable	CPH50Cable-T1-50A-L23-F

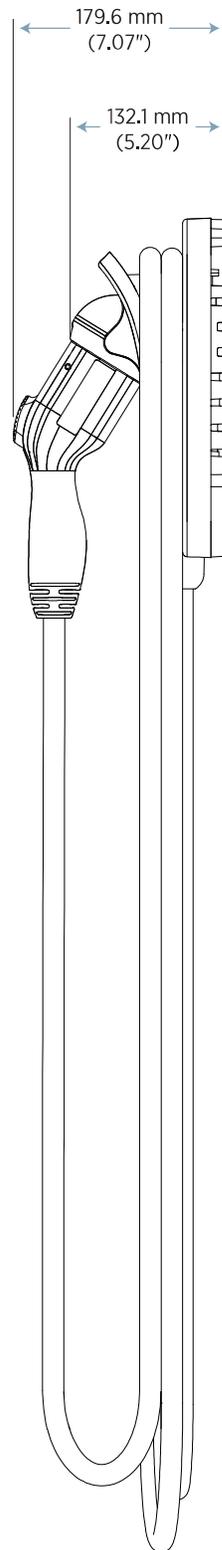
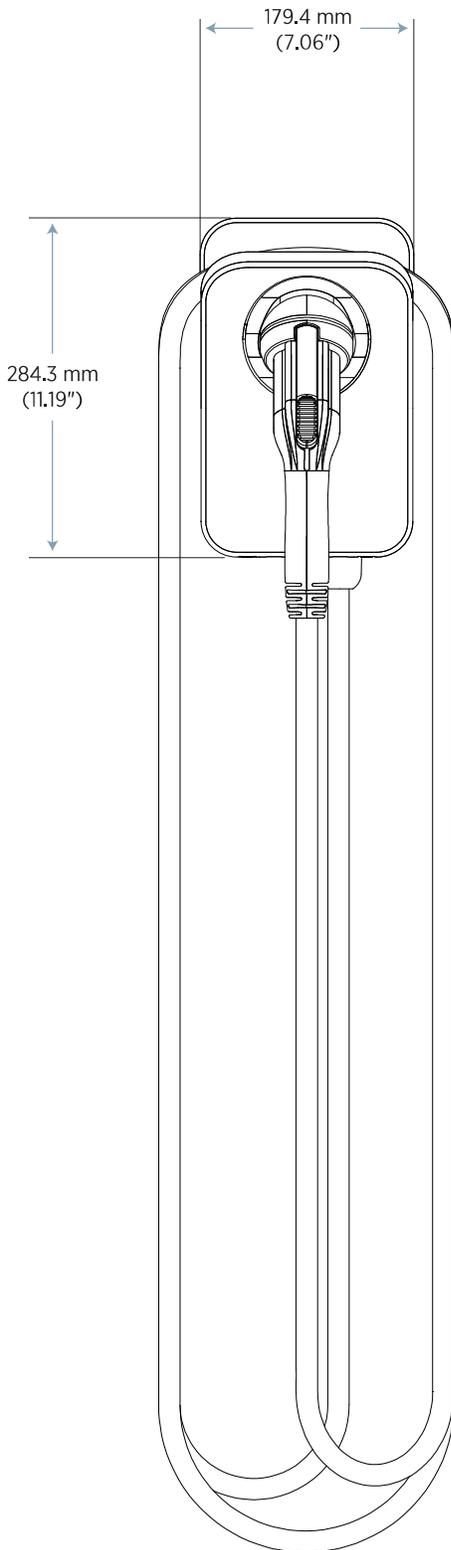


ChargePoint® Home Flex



Dimensions

Weight: 6.26kg (13.8lbs)



Specifications

Connector and Electrical

Input Cord	NEMA 6-50 or NEMA 14-50
AC Power Output Rating	Maximum 12 kW (240V AC * 50A). Output amperage adjustable via mobile app to 16A, 24A, 32A, 40A, 48A, 50A.
AC Power Input Rating	208/240V AC 60Hz single phase @ 16A, 24A, 32A, 40A, 48A, 50A
Required Service Panel Breaker	Dedicated Dual Pole rated for 125% of maximum load (ex: 50A breaker for 40A output)
Service Panel GFCI	External GFCI may conflict with internal GFCI (CCID). For hardwired installations, use a non-GFCI circuit breaker.
Power Wiring	3 Wire - L1, L2 plus Earth (no neutral)
Charging Cable Length	7010.4 mm (23')
Connector Type	SAE J1772™
Power Measurement Accuracy	+/- 2.0% from 2% to full scale
Power Report/Store Interval	15 minute aligned to hour

Safety and Connectivity Features

Ground Fault Detection	20 mA CCID with auto retry
Open Safety Ground Detection	Continuously monitors presence of safety (green wire) ground connection
Plug-Out Detection	Power terminated per SAE J1772 specifications
Local Area Network	2.4/5 GHz Wi-Fi (802.11 a/b/g/n)
Device storage	Local data storage with capacity of up to 90 days of charging session data (100 sessions) in case of interrupted network connection
Software Updates	Firmware updated over-the-air (OTA)

Safety and Operational Ratings

Enclosure Ratings	Type 3R per UL 50E
Safety and Compliance	UL and cUL listed product per UL2594, UL2231-1, UL2231-2. NEC Article 625 compliant For Canada CSA C22.2, No. 280, 281.1, 281.2, CEC
EMI Compliance	FCC Part 15 Class B
Storage Temperature	-40°C to 60°C (-40°F to 140°F) ambient
Operating Temperature	-30°C to 50°C (-22°F to 122°F) ambient
Operating Humidity	Up to 95% at 50°C (122°F) non-condensing
Non-Operating Humidity	Up to 95% at 50°C (122°F) non-condensing
ENERGY STAR® Certification	Yes

Indicators

WiFi LED	Yes
Fault Indicator per UL	Yes
Status LED	Yes

Installation

Install Software	Mobile App (iOS & Android)
Outdoor Installation	Hardwired installation or weatherproof NEMA receptacle Note: Required by code to install an outdoor rated GFCI breaker upstream for outdoor plug-in installation

ChargePoint, Inc. reserves the right to alter product offerings and specifications at any time without notice, and is not responsible for typographical or graphical errors that may appear in this document.

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Listed by Underwriters
Laboratories Inc.





JUICEBOX[®] 32

Residential Charging Stations



Get going with the JuiceBox 32, your essential smart home charging station

JuiceBox 32 is a Level 2 smart home charging station with the essential features and power you need to charge your EV. It is ideally suited for older homes, condominiums, and residences with electrical systems limited to 40 amps.

JuiceBox is the only line of charging stations that affords both direct user control and smart grid optimization, accessible through our software platform, JuiceNet[®].

- Control charging anywhere, anytime via our mobile app and web portal
- Reduce your energy costs by scheduling charging when rates are low
- Select a cleaner electricity mix to reduce your emissions
- Participate in smart grid programs to further lower the cost of owning and driving your EV

Why JuiceBox?

Up to 6x Faster Charging

Spend less time waiting for your EV to charge and more time enjoying the drive

Powered by JuiceNet

Monitor and schedule charging with intuitive mobile app & web portal to save time and money

Easy to Use and Install

Small, lightweight enclosure; lockable, quick-release mount; weatherproof for indoor/outdoor installation.

Universal Compatibility

SAE-J1772[™] plug ensures compatibility with all EVs*

Cleaner Driving

Optimize charging times and participate in smart grid programs to reduce emissions; ENERGY STAR[®]-certified†

See Charger Status

Dynamic LED lights display WiFi connectivity and charging behavior

*Tesla requires adapter

JuiceBox® 32 Specifications

Electrical Characteristics	<ul style="list-style-type: none"> › Power: 32A, 7.7 kW maximum (adjustable) › Single phase input: nominal voltage 208/240 VAC, voltage range 177 – 264 VAC
Input Cable & Plug	<ul style="list-style-type: none"> › 2.3 ft (0.7m) with NEMA 14-50 plug › 2.3 ft (0.7m) UL-rated hardwire conduit & wiring
Output Cable & Connector	<ul style="list-style-type: none"> › 25 ft cable › J1772 standard compliant
JuiceNet® App	<ul style="list-style-type: none"> › Precision measurement of power, energy, voltage & current › Automated notifications: time-of-use in effect, start of charge, end of charge, unit offline, unit back online, car needs to be plugged in to charge › Web-based portal for desktop access › See JuiceNet app data sheet for more on convenient features
Smart Grid Connectivity	<ul style="list-style-type: none"> › Built-in WiFi connectivity (802.11 b/g/n 2.4 GHz)
Firmware	<ul style="list-style-type: none"> › End-to-end AES-256-based encrypted protocols › 90-day, 15-minute interval data storage › Over-the-air (OTA) upgradeable firmware › Persistent data storage upon power interruption
Emissions Reduction	<ul style="list-style-type: none"> › Available via optional JuiceNet Green software upgrade
Enclosure	<ul style="list-style-type: none"> › Dynamic LED lights show charging status: network connectivity, charging in progress, delaying charging, standby › Weatherproof, dust-tight, polycarbonate enclosure: NEMA 4X › Quick-release wall mounting bracket included › Built-in security lock and integrated cable management
Weight & Dimensions	<ul style="list-style-type: none"> › Main enclosure: H: 18.5 in (469 mm) x W: 6.8 in (173 mm) x D: 5.8 in (147 mm) › 15 lbs (6.8 kg)
Codes and Standards	<ul style="list-style-type: none"> › FCC Part 15 Class B, NEC 625 compliant, ENERGY STAR[†] › OpenADR 2.0b compliant
Safety	<ul style="list-style-type: none"> › UL and cUL Listed
Warranty	<ul style="list-style-type: none"> › 3-year limited product warranty (parts only) for use under normal residential operating conditions
Made in USA	<ul style="list-style-type: none"> › From domestic & imported parts



JUICEBOX and JUICENET are registered trademarks of Enel X, an Enel Group company. Other product and company names mentioned herein may be trademarks or trade names of their respective owners.

2020.01.03

[†]Certification pending



JUICEBOX[®] 40

Residential Charging Stations



Charge forward with the best-selling smart home charging station

JuiceBox 40, the best-selling smart home charging station, combines speed, performance and value. Enjoyed by thousands of satisfied EV drivers, it delivers all the safety and smart charging features you need to make home charging easy, reliable and cost-effective.

JuiceBox is the only line of charging stations that affords both direct user control and smart grid optimization, accessible through our software platform, JuiceNet[®].

- Control charging anywhere, anytime via our mobile app and web portal
- Reduce your energy costs by scheduling charging when rates are low
- Select a cleaner electricity mix to reduce your emissions (in applicable geographies)
- Participate in smart grid programs to further lower the cost of owning and driving your EV (in applicable geographies)

Why JuiceBox?

<p>Up to 7x Faster Charging</p> <p>Spend less time waiting for your EV to charge and more time enjoying the drive</p>	<p>Powered by JuiceNet</p> <p>Monitor and schedule charging with intuitive mobile app & web portal to save time and money</p>	<p>Easy to Use and Install</p> <p>Small, lightweight enclosure; lockable, quick-release mount; weatherproof for indoor/outdoor installation.</p>
<p>Universal Compatibility</p> <p>SAE-J1772[™] plug ensures compatibility with all EVs*</p>	<p>Cleaner Driving</p> <p>Optimize charging times and participate in smart grid programs to reduce emissions; ENERGY STAR[®]-certified†</p>	<p>See Charger Status</p> <p>Dynamic LED lights display WiFi connectivity and charging behavior</p>

*Tesla requires adapter

JuiceBox® 40 Specifications

Electrical Characteristics	<ul style="list-style-type: none"> › Power: 40A, 9.6 kW maximum (adjustable) › Single phase input: nominal voltage 208/240 VAC, voltage range 177 – 264 VAC
Input Cable & Plug	<ul style="list-style-type: none"> › 2.3 ft (0.7 m) with NEMA 14-50 plug › 2.3 ft (0.7 m) UL-rated hardwire conduit & wiring
Output Cable & Connector	<ul style="list-style-type: none"> › 25 ft cable › J1772 standard compliant
JuiceNet® App	<ul style="list-style-type: none"> › Precision measurement of power, energy, voltage & current › Automatic notifications: time-of-use in effect, start of charge, end of charge, unit offline, unit back online, car needs to be plugged in to charge › Web-based portal for desktop access › See JuiceNet app data sheet for more on convenient features
Smart Grid Connectivity	<ul style="list-style-type: none"> › Built-in WiFi Connectivity (802.11 b/g/n 2.4 GHz)
Firmware	<ul style="list-style-type: none"> › End-to-end AES-256-based encrypted protocols › 90-day, 15-minute interval data storage › Over-the-air (OTA) upgradeable firmware › Persistent data storage upon power interruption
Emissions Reduction	<ul style="list-style-type: none"> › Available via optional JuiceNet Green software upgrade
Enclosure	<ul style="list-style-type: none"> › Dynamic LED lights show charging status: network connectivity, charging in progress, delaying charging, standby › Weatherproof, dust-tight, polycarbonate enclosure: NEMA 4X › Quick-release wall mounting bracket included › Built-in security lock and integrated cable management › Operating Temperature: -40°F to 140°F (-40°C to 60°C)
Weight & Dimensions	<ul style="list-style-type: none"> › Main enclosure: H: 18.5 in (469 mm) x W: 6.8 in (173 mm) x D: 5.8 in (147 mm) › 15 lbs (6.8 kg)
Codes & Standards	<ul style="list-style-type: none"> › FCC Part 15 Class B, NEC 625 compliant, ENERGY STAR®† › OpenADR 2.0b compliant
Safety	<ul style="list-style-type: none"> › UL and cUL Listed
Warranty	<ul style="list-style-type: none"> › 3-year limited product warranty (parts only) for use under normal residential operating conditions
Made in USA	<ul style="list-style-type: none"> › From domestic & imported parts



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2020.01.16

†Certification pending



JUICEBOX[®] 48

Residential Charging Stations



Charge faster at home with the high-power JuiceBox 48

JuiceBox 48 is a smart home charging station with a high maximum power output for drivers whose cars accept higher power levels, such as many Tesla models.* The JuiceBox 48 packs 11.5 kilowatts, and automatically adjusts to an EV's accepted power level for safe, convenient home charging. JuiceBox provides easy, reliable and cost-effective charging to thousands of satisfied EV drivers and is the only line of charging stations that affords both direct user control and smart grid optimization through our software platform, JuiceNet[®].

- Charge your vehicle faster with 11.5 kW maximum power output
- Control charging anywhere, anytime via our mobile app and web portal
- Reduce your energy costs by scheduling charging when rates are low
- Select a cleaner electricity mix to reduce your emissions (in applicable geographies)
- Participate in smart grid programs to further lower the cost of owning and driving your EV (in applicable geographies)

Why JuiceBox?

<p>Up to 8x Faster Charging</p> <p>Spend less time waiting for your EV to charge and more time enjoying the drive</p>	<p>Powered by JuiceNet</p> <p>Monitor and schedule charging with intuitive mobile app and web portal to save time and money</p>	<p>Easy to Use and Install</p> <p>Small, lightweight enclosure; lockable, quick-release mount; weatherproof for indoor/outdoor installation</p>
<p>Universal Compatibility</p> <p>SAE-J1772[™] plug ensures compatibility with all EVs*</p>	<p>Cleaner Driving</p> <p>Optimize charging times and participate in smart grid programs to reduce emissions; ENERGY STAR[®]-certified†</p>	<p>See Charger Status</p> <p>Dynamic LED lights display WiFi connectivity and charging behavior</p>

*Tesla requires adapter

JuiceBox 48 Specifications

Electrical Characteristics	<ul style="list-style-type: none"> > Safety Rated: 48A Max > Single phase input: nominal voltage 208-240 VAC ~60 Hz > Power: 10.0 kW at 208 VAC, 11.5 kW at 240 VAC 	
Input Cable	<ul style="list-style-type: none"> > 2.5 ft/0.8 m hardwire pigtail 	
Output Cable & Connector	<ul style="list-style-type: none"> > 25 ft/7.6 m cable > J1772 standard compliant 	
EV JuiceNet® App	<ul style="list-style-type: none"> > Precision measurement of power, energy, voltage & current > Automated notifications: time-of-use in effect, start of charge, end of charge, unit offline, unit back online, car not plugged in by a set time > Web-based portal for desktop access > See EV JuiceNet app data sheet for more on convenient features 	
Smart Grid Connectivity	<ul style="list-style-type: none"> > Built-in WiFi connectivity (802.11 b/g/n 2.4 GHz) 	
Firmware	<ul style="list-style-type: none"> > End-to-end AES-256-based encrypted protocols > 90-day, 15-minute interval data storage > Over-the-air (OTA) upgradeable firmware > Persistent data storage upon power interruption 	
Emissions Reduction	<ul style="list-style-type: none"> > Available via optional JuiceNet Green software upgrade 	
Enclosure	<ul style="list-style-type: none"> > Dynamic LED lights show charging status: network connectivity, charging in progress, delayed charging, standby, charge complete/EV not drawing power > IP66: Weatherproof, dust-tight, polycarbonate enclosure > IK10: Resistant polycarbonate case > Quick-release wall mounting bracket included > Built-in security lock and integrated cable management > Operating Temperature: -40°F to 140°F (-40°C to 60°C) 	
Weight & Dimensions	<ul style="list-style-type: none"> > Main enclosure: H: 18.5 in/469 mm x W: 6.8 in/173 mm x D: 5.8 in/147 mm > 17 lbs/7.7 kg 	
Codes & Standards	<ul style="list-style-type: none"> > FCC Part 15 Class B, NEC 625 compliant, ENERGY STAR® > OpenADR 2.0b compliant 	
Safety	<ul style="list-style-type: none"> > UL and cUL Listed 	
Warranty	<ul style="list-style-type: none"> > 3-year limited product warranty (parts only) for use under normal residential operating conditions 	
Made in North America	<ul style="list-style-type: none"> > From domestic & imported parts 	

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Series 4 EV Charging Station Technical Specification

Power Specs

AC Power Output, maximum	Level II: 12kW (240VAC@50A)
AC Power Input	Level II: 50A; Line 1, Line 2 and GND (no neutral)
Ports Per Charging Station	One
Vehicle to Charger Connection	SAE J1772 EV Connector, 25ft Cable
Energy Metering Accuracy	+/-1%
Standby Power	3.9W typical
Service Panel Breaker	2-pole, common trip 20-80A circuit breaker

Safety Specs

Safety, Ground Fault Circuit Interrupt	20mA CCID with auto retry (every 15 seconds)
Automatic Plug-Out Detection	Pwr terminated per SAE J1772 spec
General Safety Compliance	UL 2231-1, 2231-2, UL2594 and NEC Article 625

Network Specs

Data Communication	WiFi
Network Communication Protocol	OCPP
Network Security	HTTPS-WSS; 128 bit AES Encryption

Communication Device Specs

LED Array	High visibility, multi-color visual status indication
LED Display	Graphical OLED

Environmental Specs

Outdoor Rated	NEMA 3R
Operating Humidity	Up to 95% non-condensing
Operating Temperature	-30 degree C to +50 degree C ambient

Other Specs

Surge Protection	6kV@3,000A
EMI Compliance	FCC Part 15 Class B
Dimensions	15" H (21" with cable holder) x 6.25" W x 6" D
Approximate Shipping Weights	15 lbs
Installation / Use	Wall Mount / Indoor and Outdoor
Wall and Cable Mount	Integrated

TECHNICAL DATASHEET

Pulsar Plus North America

Wallbox Pulsar Plus offers the best of both small size and powerful performance for faster electric vehicle charging at home. Designed for easy installation, Pulsar Plus can charge any electric car on the market today and is future-ready to handle tomorrow's more powerful EV batteries. Home charging is simple and efficient with the integrated myWallbox app, which allows you to control your charger from your smart devices via WiFi or Bluetooth. With Pulsar Plus, you are in control of your energy use. Schedule and manage your charging sessions to maximize efficiency and save money when electrical demand and rates are low.

Key Features

- **Compact design, powerful performance:** Adjustable capacity from 16A up to 40A or 48A.
- **Connected and Smart:** Connect Pulsar Plus to your smart devices using the MyWallbox app to wirelessly control and monitor your charger via Wifi or Bluetooth.
- **Voice-control enabled:** Works with Amazon Alexa and Google Home voice assistants.
- **Onboard Intelligence:** Charge and manage your schedules even when internet connection is not available.
- **Power Sharing:** Allows connection of more than one Pulsar Plus chargers to the same electrical circuit to safely charge multiple EVs at a time.

General Specifications

Model	Pulsar Plus
Cable length	25ft
Color	Matte Black
Charging protocol	SAE J1772
Dimensions	7.8" x 7.9" x 3.9" (without cable)
Weight	4.4lbs (without cable)
Operating temperature	-22°F to 104°F
Storage temperature	-40°F to 158°F
Electrical safety	UL 2594, UL 2231
EMC compliance	FCC Part 15 Class B

Electrical Specifications

	40A Model	48A Model
Charging Power	9.6kW	11.5kW
Rated Current	40A	48A
Connection Type	NEMA 14-50 or Hardwired	Hardwired
Rated voltage AC \pm 10%	240/208 V (Level 2), 60Hz	
Connector type	SEA J1772 Type 1	
Configurable current	from 6A to rated current	
Environmental Rating	Indoor and Outdoor Installations NEMA Type 4 per UL 50E	

User Interface and Communications

Connectivity	Wi-Fi / Bluetooth
User Identification	Wallbox App / myWallbox Portal
User Interface	Wallbox App / myWallbox Portal
Charger Status Information	Halo RGB LED / Wallbox App / myWallbox Portal
Included Features	Smart Power Sharing

Dimensions

