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TECHNICAL SUBMITTAL – No15

EV Chargers

Document Ref: FS0998-ABE-XX-XX-T-E-0015

Project:	**Dixons Academy**			**Status**
A&B Contract No:		**Date:**	**26.10.2024**	**S3**
Engineers:	**Jordan Thompson**		**Rev.P01**	

The proposed charger below is based on the Stage 4 Hore Lea Information and requirements as set out on drawings below ref - FS0998-HLEA-MEP06-XX-D-ME-0001 - REV P03.

The proposal is based on the Rolec basic charge Intelligent EV charging pedestal. The current requirement is for 5no Twin & 2no Single Pedestal outlets as highlighted below in yellow box.

(S3) Status A - No Comments (DT Review)

(A4) Status A - No Comments (DT Review)

This drawing shall not be scaled.
Work from the dimensions shown in the drawing or given in relevant specifications



CDM Regulations:

In addition to any information included in this drawing or the model from which it is derived, refer also to the project CDM Risk Register for information on residual risks.

General Notes:

- The drawing does not necessarily show all the information needed to interpret the design intent or the construction details.
- The drawing contains information from more than one source and must be read in conjunction with all relevant specifications.
- Any apparent drafting errors and differences between other drawings and specifications shall be brought to our attention.

Project Notes:

1. This drawing shows the design layout only and is subject to development by the Contractor into fully notified as coordinated installation drawings. Cable routes and locations shown are indicative.
2. Please refer to the Luminaire Schedule for more information on the luminaire and lighting control proposed. External lamp posts are to be as manufactured by Holophane or approved equal who have also provided the existing external luminaires for compatibility reasons.
3. All external lighting circuits to be contactor controlled from the appropriate distribution board. Provide photocell control with time switch and manual over-ride facilities underthe overall lighting management system.
4. Underground cabling and underground ducting may be re-used, extended or relocated subject to testing and refurbishment by taking live coloured tail wire conditions. Where cable is re-used or extended, use may be made of the same type of existing or existing circuits that the protective device provided in the distribution board is also of the same size.
5. Please refer to Hoare Building commitment drawings to understand external shutter door recess and door openers within the building.
6. Please refer to the refurbished external lighting drawing No. MS_HLE_DR_MEP_A2_M3_0003 for details of the existing external lighting installation. All information to be verified on site by way of site survey.
7. Please refer to American Surveys Ltd Underground Utility Survey (191128_1) information for details of existing underground services. All information to be verified on site.
8. The information on this drawing for the EV charge point installation is based upon a Podpoint 7.4kW system. Cable from the feeder panel feeding the EV car charging system to individual charge points shall be a minimum of 16sqmm 6x 6491X cables. All equipment within the feeder panel and EV charging points to be provided by specialists. Appropriate earthing arrangements to be implemented as per the specialist's recommendations.
9. The use of existing ducts for new cabling shall be subject to site surveys and if found unsuitable, new ducts to be provided.
10. Location of the existing on site supply/distribution is not known. Subject to confirmation of location, direction may be modified to coordinate with building layouts.
11. Location of below ground gas distribution is not known. Subject to confirmation of location, direction may be modified to coordinate with building layouts.

Index	Description	Designed	Reviewed	Authorised	Date
P03	Stage 4 Issue - Updated In line with client Instruction	SK	AM	EJG	10/23
P02	Stage 4 Issue - Updated In line with client Instruction	SK	AM	EJG	10/23
P01	Stage 4 Issue - Preliminary Issue	SK	AM	EJG	06/23

REVISIONS:

HOARE LEA

ARCHITECT:
IBI Group

CLIENT:
Morgan Sindall Construction

PROJECT TITLE:
Dixons Academy

DRAWING TITLE:
COMBINED SERVICES
SITEWIDE SERVICES LAYOUT

STAGE 4 ISSUE

PERSON RESPONSIBLE FOR:		
Design: SK	Review: AM	Authorising Issue: EJG
Project No: 04/06169	Date: 09/06/2023	Scale @ A1: 1:500
DRAWING NUMBER: FS0998-HLEA-MEP06-XX-D-ME-0001	Status: S5	Revision: P03

(A4) Status A - No Comments (DT Review)
(A4) Status A - No Comments (DT Review)
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DATA SHEET



(A4) Status A - No Comments (DT Review)

ROLECEV

BASICCHARGE

Intelligent EV charging pedestal

Manufactured in the UK

(A4) Status A - No Comments (DT Review)

BASICCHARGE

Intelligent EV charging pedestal



The BASICCHARGE is a simplistic and affordable EV charging pedestal. This versatile charger's integrated LED amenity lighting also provides greater visibility of the charging bays and surrounding areas.

This future-proof OCPP compliant pedestal can offer a simple plug & charge or pay-to-charge solution via the EV driver's smartphone and/or RFID card/fob through any chosen OCPP back-office management system.

Feature-rich, this EV charger supports dynamic load balancing and is equipped with PME fault detection, so there is no requirement for an earth rod, reducing installation costs.

Available in 1way or 2way versions, providing up to 22kW superfast charging.



(c) Rolec 2020 Comments (DT Review)

(A4) Status A - No Comments (DT Review)

Product features

- Plug & charge, mobile app or RFID controlled charging
- Choose from 1x or 2x universal charging socket(s)
- Up to 7.4kW or 22kW charging output(s)
- PME fault detection (no earth rod required)
- Supports dynamic load balancing & static load management
- OCPP 1.6 compliant (can integrate with any back-office)
- Over-the-air firmware / software updates
- Built-in AC overload & fault current protection (RCBO)
- Built-in 6mA DC leakage protection
- Dual tamper and breach security notifications
- Cable lock security feature (can be permanently locked by user)
- Integrated RFID reader
- LED amenity lighting head (Photocell controlled)
- MID-approved energy metering
- 4G / Wi-Fi / Ethernet connectivity
- IK10 impact resistant design
- Surface or root mountable
- OZEV grant fundable
- Designed & manufactured in the UK

Powered by MONTA

Other preferred back-office and mobile app partners:

Fuuse

wattif

ChargePlace Scotland electric vehicle charging

ev.energy





OCPP 1.6 compliant

Ability to integrate with any OCPP compliant back-office management system and app.

Easy to operate

Three quick and easy ways to operate: mobile app, RFID cards and fobs or plug & charge.

Office for Zero Emission Vehicles

Eligible for grant funding

This range is approved for grant funding via the OZEV Workplace Charging Scheme (WCS).

4G / Wi-Fi / Ethernet enabled

Complete with secure 4G, Wi-Fi and Ethernet connectivity, ensuring chargers are always online 24/7.

Branding & colour options available

Rolec offers a bespoke chargepoint branding service; from logos & brand colours, to vinyl wraps.

No earth rod required

Equipped with built-in PME fault detection, saving installation time and costs.

(S3) Status A - No Comments (DT Review)

(A4) Status A - No Comments (DT Review)

(A4) Status A - No Comments (DT Review)

The details

UP TO 22KW

Available in both single phase and three phase models, providing up to 22kW superfast charging.

BASICCHARGE is compatible with all EVs & PHEVs, charging at the fastest speed possible, ensuring vehicles are ready to go in no time.



2 WAY CHARGING

The BASICCHARGE is available in 1way and 2way versions, allowing up to two vehicles to charge simultaneously, using just one EV charging pedestal.

The perfect EV charging pedestal solution for fleet, workplace and private car park requirements.

ACCURATE BILLING

Built-in MID-approved energy metering ensures accurate consumption reporting, which is essential for businesses and residential car parks, wishing to bill for their usage. Use our back-office management platform to generate revenue by setting your own tariffs.

SAFE AND SECURE

Rest assured, Rolec's entire EV chargepoint range is fully UK Smart Charge Point Regulation compliant.

Over-the-air updates allow the chargers to receive the very latest features, ensuring a safe and future-proof product 24/7.

3 YEAR WARRANTY

Rolec EV chargepoints are designed, developed and manufactured in the UK and come with a 3 year warranty included as standard, for added peace of mind on your investment.

(S3) Status A - No Comments (DT Review)

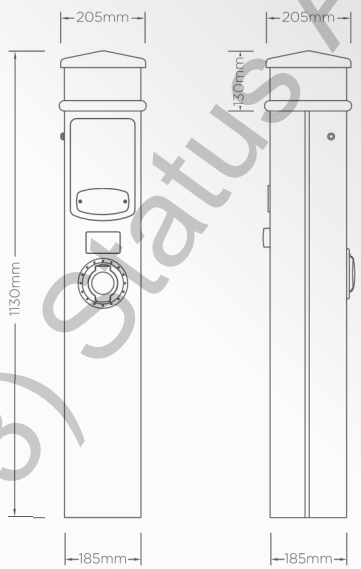
(A4) Status A - No Comments (DT Review)

Specifications

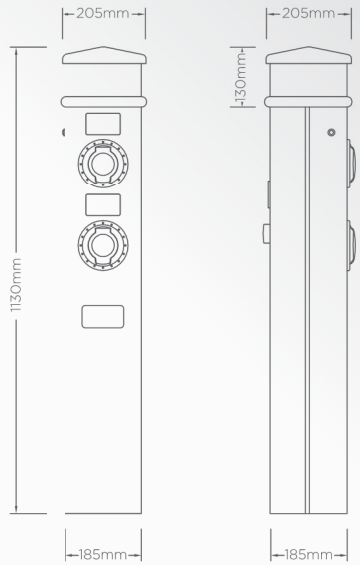
Product Overview:

	Connection Type	Charging Output	Input Supply	Unit Colour	Product Code
Single Phase Units	1x Type 2 (IEC 62196) charging socket	Up to 7.4kW (32A)	1x 32A Single Phase 230V AC (±10 %) 50/60Hz	Black	ROLEC0211B
				Grey	ROLEC0211G
				White	ROLEC0211W
	2x Type 2 (IEC 62196) charging sockets	Up to 7.4kW (32A) per socket	1x 63A Single Phase 230V AC (±10 %) 50/60Hz	Black	ROLEC0221B
				Grey	ROLEC0221G
				White	ROLEC0221W
Three Phase Units	1x Type 2 (IEC 62196) charging socket	Up to 22kW (32A)	1x 32A Three Phase 400V AC (±10 %) 50/60Hz	Black	ROLEC0213B
				Grey	ROLEC0213G
				White	ROLEC0213W
	2x Type 2 (IEC 62196) charging sockets	Up to 22kW (32A) per socket	1x 63A Three Phase 400V AC (±10 %) 50/60Hz	Black	ROLEC0223B
				Grey	ROLEC0223G
				White	ROLEC0223W

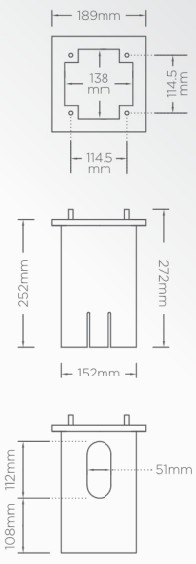
BasicCharge 1way unit:



BasicCharge 2way unit:



Ground mounting base:



(S3) Status A - No Comments (DT Review)

(A4) Status A - No Comments (DT Review)

Specifications

Technical Data:

User Interface	• Mobile app • RFID reader (MIFARE ISO/IEC 14443 A) • Plug & charge • RGB LED status indicator halo(s) – configurable
Charge Protocol	Mode 3 (IEC 61851-1)
Protection	• AC overload & fault current protection – 40A 30mA Type A RCBO (per socket) • DC fault protection – 6mA • Lightning surge, over temperature protection • PME fault detection – No earth electrode/rod required • Supports automatic dynamic load balancing (may require additional hardware) • Supports static load management (software configurable)
Cable Terminals	• Single Phase – 3x 50mm 1P + N + E • Three Phase – 5x 50mm 3P + N + E

Communications	• 4G LTE Cat-1 (built-in nano SIM, subscription required)
	  • LTE FDD: B1/B3/B5/B7/B8/B20/B28
	  • GSM: B2/B3/B5/B8
	• Wi-Fi 802.11 b/g/n 2.4 GHz (2412-2472 MHz / 2422-2462 MHz)
	• NFC 13.56 MHz
	• RJ45 Ethernet connection
	• Bluetooth Low Energy (BLE 4.1) 2402-2480 MHz (for installer configuration purposes)
	• OCPP 1.6J
	• Cyber security – Data encryption level TLS 1.2

Energy Metering	Integrated Class 1 MID compliant metering
Amenity Lighting	360° Low energy LED • Rating – 2 x G9 2.3W LED, 230-240V AC • Colour temperature – 5000k • Protection – 6A 30mA Type A RCBO
Standby Power Consumption	• Charging circuits – < 7.5W (per socket) • Panel heater – 8W • Lighting – 4.6W
Dimensions	205mm x 1130mm x 205mm (W x H x D)
Weight	< 15kg (model dependant)
Environmental	• Ingress protection – Enclosure IP65, Socket IP54 • Impact protection – IK10 • Security – Dual tamper and breach notifications • Operating temperature – -30°C to +50°C • Operating humidity – 5% to 95%
Materials	• Substructure – Hot-dipped Galvanised Steel • Panel – 3.2mm Aluminium composite • Lens – High impact resistant 3mm Polycarbonate • Lid/collar – ABS Granulate Natural Polyethylene
Unit Colour	Black Grey White Other colours available upon request
Certifications & Compliances	• EV Charging Compliance – EN 61851-1:2019, EN 61851-22:2002 • Smart Charge Points – (SI 2021/1467) • Wiring Regulations – BS 7671:2018+A2:2022 • EMC Compliance – EN 61000-6-3:2007+A1:2011, EN 61000-6-2:2005, 2014/30/EU, SI 2016/1091 • Safety Compliance (LVD) – EN 62368-1:2014, 2014/35/EU, SI 2016/1101 • Communications / RED – EN 62311:2008, 2014/53/EU, SI 2017/1206, EN 300 330 V2.1.1 (2017-02), EN 301 908-1 V15.1.1 (2021-09), EN 301 908-13 V13.2.1 (2022-02), EN 301 511 V12.5.1 (2017-03), EN 300 328 V2.2.2 (2019-07), EN 300 440 V2.2.1 (2018-07) • Environmental Protection – BS EN 60529:1992+A2:2013 • Impact Rating – BS EN 62262:2002+A1:2021 • Metering – 2014/32/EU, SI 2016/1153 • RoHS – 2011/65/EU, SI 2012/3032 • REACH – 1907/2006, REACH etc. (Amendment) Regulations 2021 • Certification Markings – CE & UKCA
Warranty	3 years

(S3) Status A - No Comments (DT Review)

(A4) Status A - No Comments (DT Review)

Chargepoint management



Monta's chargepoint management platform provides businesses and organisations with the ability to deploy and self-manage their very own electric vehicle charging network. Ideal for workplace, fleet, commercial and residential locations.

Other preferred back-office partners:

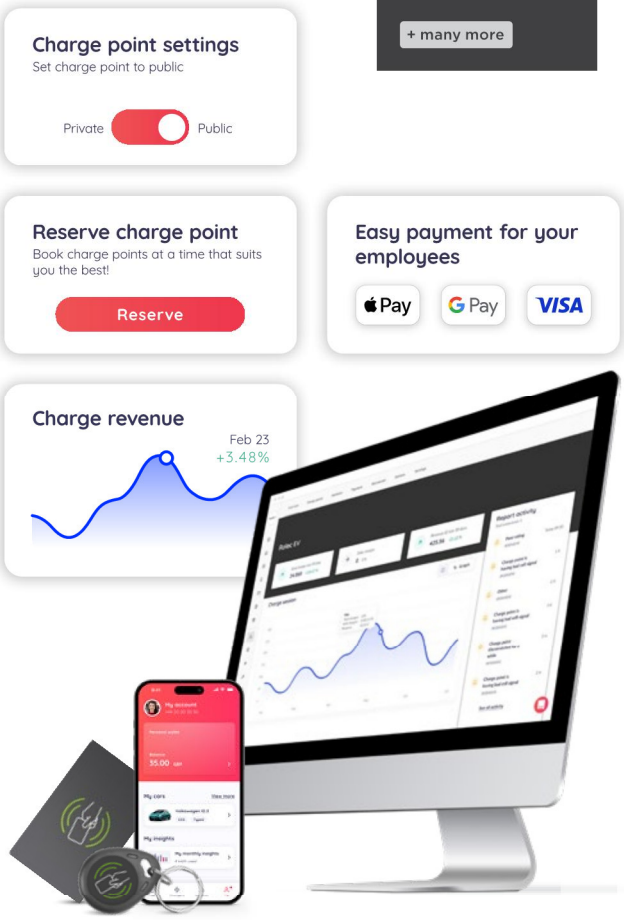
Fuuse

wattif

ChargePlace Scotland
electric vehicle charging

+ many more

- Full & automated control of your chargepoints
- Unlock additional revenue streams
- Set chargepoints for public and/or private use
- Set different pricing for individual chargepoints & groups
- Dynamic pricing allows operators to set pricing in line with their hour-by-hour energy cost
- Fully scalable solution; add or remove chargepoints & users
- Complete fleet management solutions with analytical feedback & reporting
- Reduce charging costs and CO_2 with Smart Charge feature
- Vehicle integration provides visibility of battery size, SOC, percentage & location etc.
- Automatically reimburse employees' home charging
- Smart queuing system that sends notifications to drivers when they become available
- Over-the-air updates and self-healing algorithms ensure charger stability & availability
- Static, Dynamic or True Dynamic load balancing options
- EV Roaming feature, allowing chargepoints to be available on other apps



For more information about Monta's chargepoint management solutions and pricing, see the Powered by Monta Overview Sheet

(S3) Status A - No Comments (DT Review)

(A4) Status A - No Comments (DT Review)

Chargepoint operation



Charge your EV on your terms. With Monta you have full control over your charging experience, at home or on the road.

- Easily locate and navigate using the chargepoint map
- Remotely control your home EV charging
- Choose your ready time and choose to prioritise lower costs, lower CO_2 or only using renewable energy
- Schedule charges so your car is ready when you are
- Integrate with most EV manufacturer apps and cars
- Real-time information on your car and battery levels to maximize your charging experience
- Share and give charging access to friends, family and guests
- Set your home charger for public use with custom pricing
- Access to over 300,000 public chargepoints across Europe
- Easily initiate charging and complete payments via credit card, Apple Pay, Google Pay or Monta Wallet
- Online chat or support line for help when you need it most

The Monta app is 100% free with no subscription cost when charging at home

Other preferred mobile app partners:

Fuuse

wattif

ChargePlace Scotland
electric vehicle charging

ev.energy



RFID activation

Great for quick activation, RFID cards or key fobs are easily accessible and add for a much simpler charging experience, which can also be used alongside the mobile app.



DOWNLOAD THE APP

GET IT ON Google Play

Download on the App Store

For more details about the Monta solution for EV drivers and the Monta app, please visit **www.monta.com/uk/home-charging**

(S3) Status A - No Comments (DT Review)

(A4) Status A - No Comments (DT Review)



THIS DOCUMENT CONTAINS INFORMATION THAT IS SUBJECT TO CHANGE WITHOUT NOTICE.

The latest version of this publication can be downloaded at https://www.rolecserv.com/downloads-ev-charging

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EVBD-V02-R8 BasicCharge Data Sheet

Manufactured in the UK

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(S3) Status A - No Comments (DT Review)