

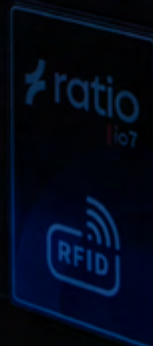


io7

Brighter EV Charging

Ratio io7

Innovative dual EV charging pillar with built-in professional, high performance lighting.





About FW Thorpe

FW Thorpe Plc was founded in Birmingham in 1936 by Frederick William Thorpe and his son, Ernest. Based in a factory in Small Heath, Birmingham, the company initially designed and manufactured vitreous enamelled steel reflector luminaires.

Today FW Thorpe Plc specialises in professional lighting and control systems which are sold throughout the world, and currently employs over 900 people. The Group management team is passionate about developing the business for the benefit of the shareholders, employees and customers. It's aim is to create stakeholder value through market leadership in the design, manufacture and supply of lighting systems, with the additional EV charging division complementing the skillsets and customer base of the lighting businesses.



About Ratio

Ratio EV Charging aims to create a sustainable future through innovation, and provide accessible and no nonsense products that enable people to move towards a world powered by renewable energy.

Established in 1960, Ratio specialises in the development, manufacture and supply of electrical power connection and distribution systems in four core areas: **e-mobility** (electrical vehicle chargers and cables), **marine**, **data centres** and **industry**. Today Ratio continues to supply high-quality, functional and affordable products to OEMs, installers and specialised wholesalers.

ratio
FW THORPE PLC

Ratio EV Charging is a joint investment between FW Thorpe Plc and Ratio Electric.

Ratio EV Charging designs and manufactures EV charging products at its factory in Redditch specifically to suit and serve the UK market.

Over 60 years of experience, combined with the FW Thorpe Plc skills and expertise, enable Ratio EV Charging to develop smart solutions for current and upcoming customer needs, such as connected charging stations and market-leading charging pillars. Ratio EV Charging products are functional, reliable and easy to use, allowing users and businesses to take control of their own energy consumption wherever they are.

io7 Charging

The io7 has been specifically designed to enable EV charging in a multitude of environments.

The io7 can be configured to suit the user's power availability and charging needs, internet connectivity, lighting requirements and budget.



Retail



Hotels



Apartments



Carparks



Workplace



Features

- ⚡ Extruded aluminium body for long life and high durability
- ⚡ Designed for speed of installation and maintenance
- ⚡ Maximised power capacity - intelligent software ensures the optimum amount of charge to each vehicle
- ⚡ Flexible payment/usage methods including plug & charge, mobile app or RFID controlled charging
- ⚡ OZEV (Office for Zero Emission Vehicles) grant approved
- ⚡ Partnership with any OCPP compliant EV software providers to deliver turnkey EV charging solutions
- ⚡ OCPP 1.6 compliant (Can integrate with any back-office)
- ⚡ Over-the-air firmware/software updates



io7 Lighting

The io7 has a high performance built-in illuminated head for general area lighting. The sophisticated LED optic provides excellent ground illumination and high light uniformity ensuring users are able to correctly and safely connect to the charger. The high performance nature of the illuminated head means that it can be incorporated into the overall exterior lighting solution of the site.

Emergency lighting

The io7 is available with integral emergency lighting allowing for illumination of walkways in the event of an emergency. Where io7s are placed along emergency routes, the emergency lighting facility will illuminate the way to fire assembly points highlighting any cables (trip hazards) on the way.

DESIGNED FOR TOUGH ENVIRONMENTS

The lighting unit is sealed to IP66.

Illuminate the car

The additional lighting aids location of the charging sockets, and provides illumination in the bonnet storage or boot area when finding the charging cable.

DIE-CAST ALUMINIUM HEAD UNIT

Excellent thermal management of LEDs for long 100,000 hour life.

HIGH PERFORMANCE OPTICS

Superior luminaire spacing with high uniformity

COMPLETE WITH PHOTOCELL CONTROL

The io7 comes with a photocell as standard to switch lighting on and off when required.

HIDDEN OPTICAL COMPARTMENT

Low glare and less than 2% upward light, a requirement for preventing light pollution in many inner city and rural applications.

Wireless controls

The io7 has been designed to work seamlessly with the Thorlux Lighting SmartScan platform ([read more](#))

The io7 will offer superior lighting controls, emergency status reporting and energy management on the same platform as the building luminaire installation.

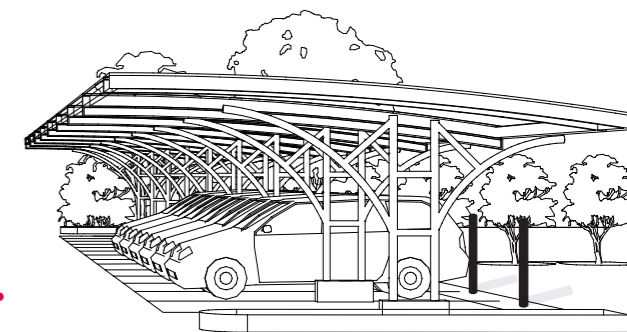
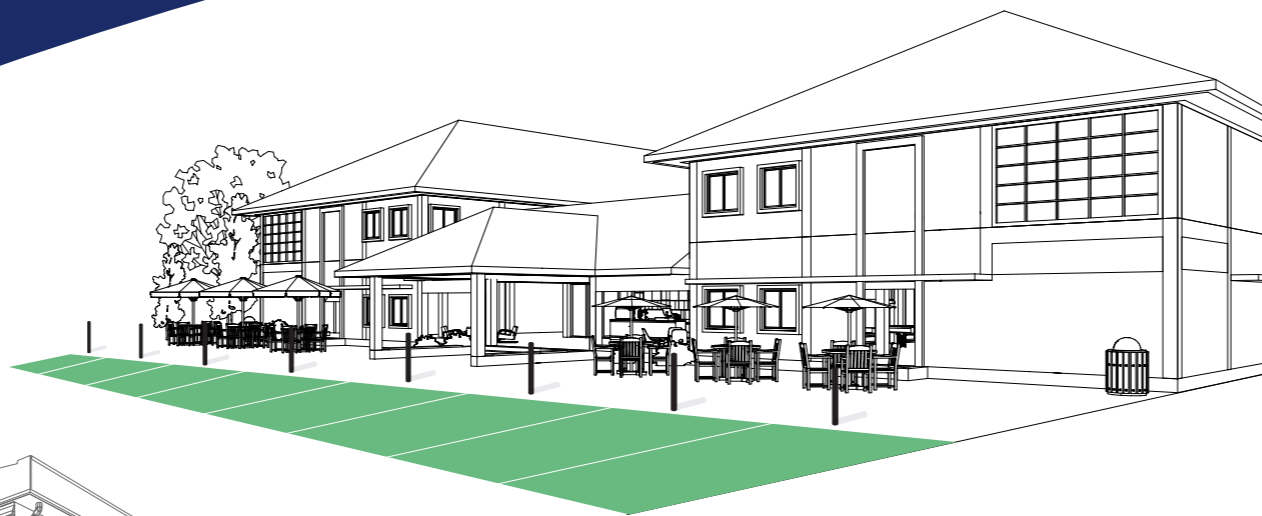
EXTRUDED ALUMINIUM BODY

Long life and high durability


Complete Charge Point Management Solution





Ratio has partnered with Monta, the leading EV Charger Management Software provider, to provide the complete EV charging solution, ensuring data and payments can be easily customised and managed via a single software platform.





Payment made simple...

- 


Manage multiple locations Control all your charge points with a single back-office & decide who has access.
- 


Optimise your charge points Optimise the use of each charge point by letting your customers enter a Smart Queue or reserve a charge point (for a fee).
- 


End-customer support Chat support is available 24/7 to your customers. Add Monta's phone support as an extra service.
- 


Self-healing Your charge points will always be up and running. Our self-healing algorithm fixes bugs & errors automatically.
- 


Fleet management A complete overview of consumption on user/ car level. Integrate your fleet with Monta to have battery status and car location.


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Payment options Google Pay, Apple Pay, credit card, team wallet, or charge key.
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End-to-end payment system End-to-end payment system - monthly subscriptions, electricity reimbursements & public charging.
- 

QR-stickers Connect a QR sticker to your charge points to let customers charge & pay without downloading an app.
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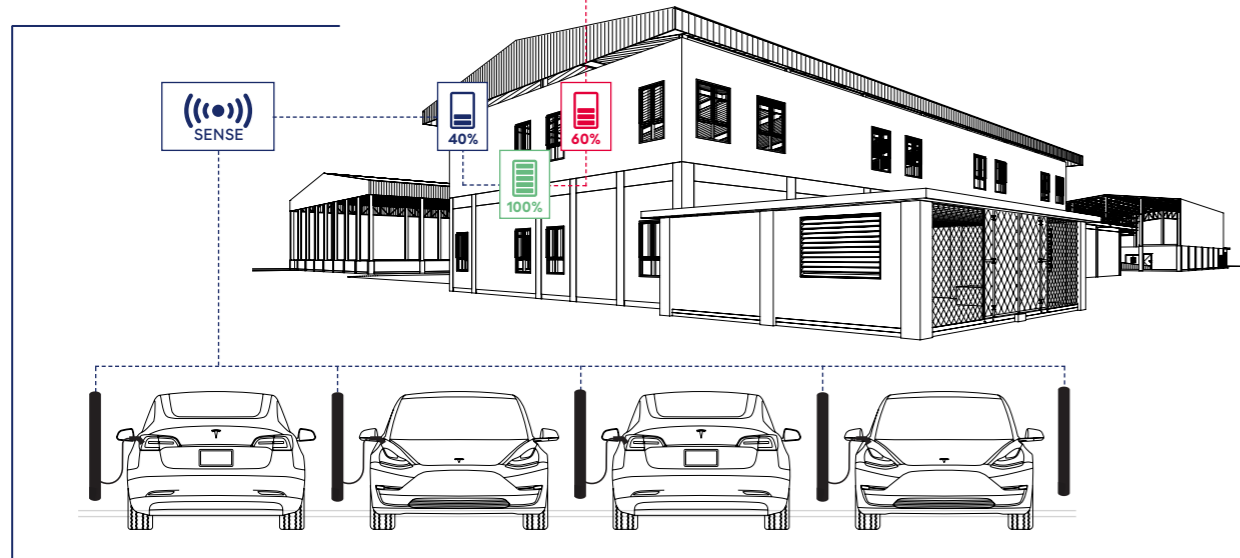
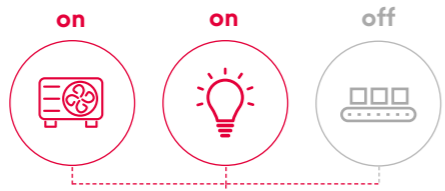
Flexible customer pricing Charge users per kWh or minute & set idle fees. Differentiate pricing for different segments. You have complete control.
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Offer promo codes Offer redeemable credits or discounts; Either one-time or timebased discounts on specific charge points.
- 

Charge point customisation Customise your charge point settings to suit your needs; choosing who can access the charge points and at what price.

Load Management and Connection

The io7 is available with both static and dynamic load management systems. Load management of EV charging equipment is designed to maximise charging speeds whilst protecting the electrical installation and building infrastructure.



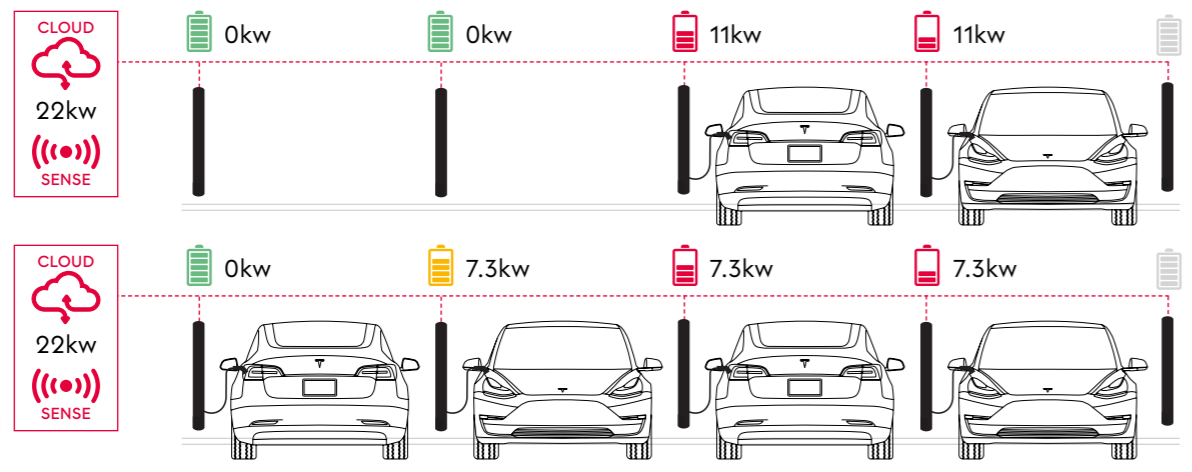
Dynamic Load Management

Monitors the building supply and usage, calculating the power available and distributing it equally to the EV charger installation. As the building power consumption increases (heavy machinery being switched on or off for example), the additional dynamic load management hardware will increase or decrease the power available to the EV charger installation.

MONTA

Static Load Management

Is where the EV charging equipment is installed on a dedicated supply with a known fixed power availability. The EV chargers will manage the supply, splitting the load between them equally as more sockets are in use. This can be done at Cloud level (using back-office software) or locally to the chargers using additional hardware.



io6 Coming Soon!

Benefits

- Single and three-phase versions, up to 22kW
- Socket, tethered and coiled options
- OCPP compliant
- Single and three-phase PEN fault detection
- Wi-Fi, ethernet and 4G communication
- RFID access
- OZEV approved

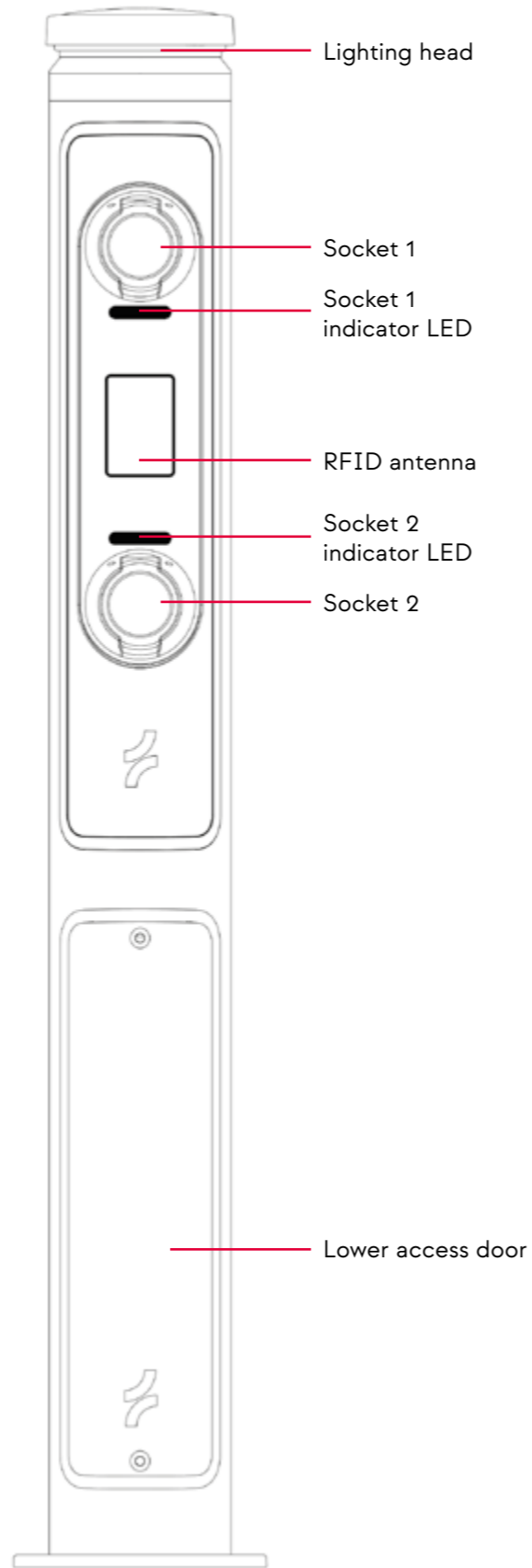


Socketed.
Tethered.
Coiled.

io7 Specifications

Benefits

- ⚡ **Robust** mainly aluminum construction
- ⚡ **High quality lighting head** provides safety illumination of surrounding area
- ⚡ **Lighting controlled versions** - photocell for dawn and dusk switching or connected to the sophisticated Thorlux SmartScan system for automated control and monitoring
- ⚡ **High power charging** capability up to twin 22kW
- ⚡ **Simple RFID antenna** to control user access as standard (tags supplied optional extra)
- ⚡ Can be **connected to the internet** using the integrated **Ethernet port, WiFi** or **4G connectivity** to provide optional back office control (SIM card supplied optional extra)
- ⚡ **Stylish and contemporary** in appearance
- ⚡ **Large cable termination area**, and easy access for servicing and maintenance
- ⚡ **Emergency lighting version for safety egress** from building to muster points even in the event of a power failure



Product	Twin/Single	kW	CT/MID	Height	Controls	Standard / Emergency / SmartScan
io7	T - Twin	74 - 7.4kW	C - CT Clamp	15 - 1.5m	PC - Photocell	ST - Standard
	S - Single	22 - 22kW	M - MID	15 - 1.5m	RA - Radar	EM - Emergency SS - SmartScan Emergency

Part Number	Description
io7T74C15PPCST	io7 Twin 7.4kW CT clamp metering Photocell Control no emergency option
io7T22M25ARASS	io7 Twin 22kW MID metering Radar Controls SmartScan emergency lighting

Dimensions & Specifications	
Charging System	IEC 61851 Mode 3
Supply Voltage	Single phase / three phase, 230 / 400V, 16A / 32A
Charging Power	7.4kW & 22kW
Protections	AC 30mA, DC 6mA
Housing	Polyester powder coated aluminium
Dimensions	Dia. 165mm x 1500mm
Weight	17Kg
Enclosure Rating	IP54 (lighting head IP66)
Operating Temperature	-25c to +40c
Marking	UKCA
O-PEN	PME fault detection on single and three phase versions
Metering	CT clamp or MID meter versions
Standards	BS EN IEC 61851-1:2019 / BS EN IEC 61851-21-2:2021 / BS EN IEC 61000-6-1:2019 / BS EN IEC 61000-6-3:2021 / BS 7671:2018+A2:2022
EV Connections	OCPPI.6J
Internet Connections	Internet, Ethernet, WiFi and 4G

Radar and SmartScan versions to be used in conjunction with Thorlux Lighting control systems.

Visit ratioev.uk for more info

E-Line T2-T2
straight charging cable

Premium T2-T2
straight charging cable

Premium T2-T2
coiled charging cable

Mobibox portable charger
T2 to CEE plug 16A

Mobibox portable charger
T2 to 3pin plug 10A

Sustainability

The FW Thorpe Group of companies has been officially recognised as being carbon neutral, with systems of reduction, measurement and certified offsetting in place since 2012.

In 2009 FW Thorpe designed an ambitious carbon offsetting scheme. 179,412 trees have been planted on 215 acres in Wales sequestering over 44,385 tonnes of CO₂e over a period of 100 years.

The Group has also installed solar PV units on the roofs of most of its manufacturing facilities, reducing consumption from traditional electricity sources, enabling it to generate 40–50% of its own electricity with the remainder derived from renewable sources.

FW THORPE PLC



Group companies acquired since 2012 have been assessed only since their date of acquisition.



179,412
trees planted
on 215 acres



Circularity

The principles of circularity aim to eliminate waste by keeping as much of the original product material in use for as long as possible. All Ratio products are designed with circularity in mind using recycled materials, the minimum number of components, longevity and reparability.

The body of the io7 is primarily constructed from recycled aluminium, often reclaimed from old engine blocks and other automotive components.

The io7 has been designed to achieve a long and reliable lifetime which is extended further by its simple serviceability. However once end of life is reached, the io7 can easily be disassembled and recycled, minimising the impact on the environment.



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