# MAXICHARGER DYNAMIC LOAD BALANCING EXPLAINED

SEVADIS
POWERING ELECTRIC VEHICLES

# DYNAMIC LOAD BALANCING BENEFITS

Dynamic load balancing (known as DLB) is a smart method of ensuring a property's primary electrical load is not disrupted.

In the context of EV charging, DLB enables electric vehicles to recharge whilst simultaneously powering common electrical goods at the property. By balancing the primary electrical load in real-time, electric vehicles can be charged without causing disruption and power cuts at the property.

Integrating DLB into EV charge point installations allows constant monitoring of changes to energy usage and allocates available energy capacity to different electrical appliances at the property, including EV charging points. By doing this, everyday use of electricity is not disrupted, ensuring safer and efficient recharging of vehicles.

**Eliminates risk of overloading electrical load, therefore protecting the grid.**

**Saves costs with no requirement for infrastructure/ construction works.**

**Charge at any time with confidence, even during high demand.**

**Scalable solution, allowing you to add more EV chargers in future.**

# HOW THE MAXICHARGER'S DLB WORKS

**Connect the energy meter to the MaxiCharger**

The energy meter is connected to the MaxiCharger via a Modbus connection, RS485. This uses a data cable.

**Energy meter measures total consumption**

The energy meter measures total consumption of the supply, which is usually the primary electrical supply to the property.

As total consumption increases, the MaxiCharger will reduce energy output to ensure maximum power capacity is not reached. This prevents the electrical load from experiencing overload.

**Safe consumption of energy commences**

The primary electrical load (used for common electrical appliances) of the property are always prioritised over the EV charging point/s.
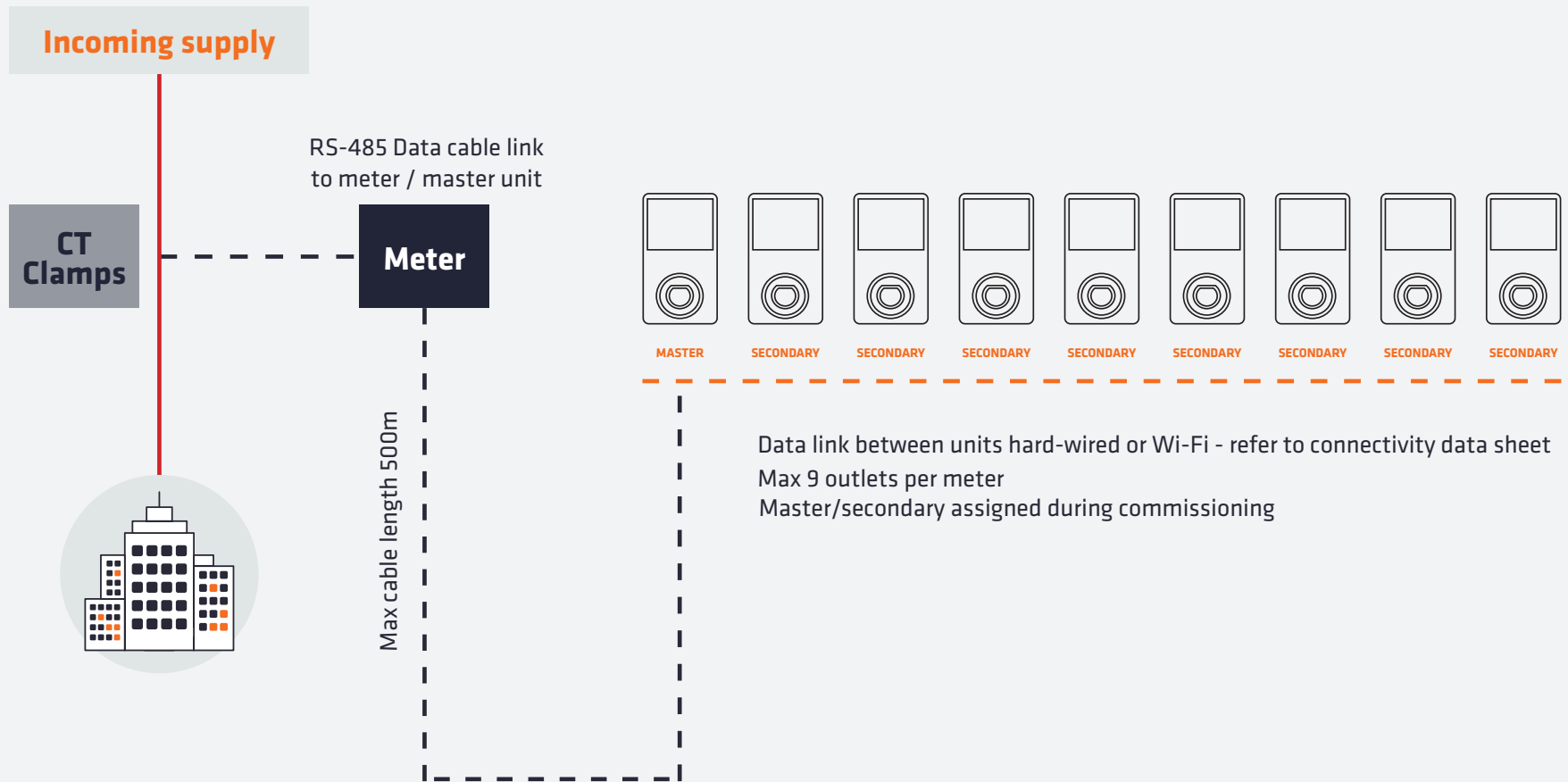
When multiple MaxiChargers are load balanced using the same supply, the connection to one charge point makes this unit the Master charger. The Master charger will then communicate with the other charge points, known as Secondary units, using the property's dedicated internet connection. In this scenario, all charge points must be connected to the property's dedicated internet connection. All charge points then respond to demand by reducing the output of the electrical load.

## WHAT YOU'LL NEED

MaxiCharger

Energy Metre

CT Clamps

**See an example of a typical Sevadis Dynamic Load Balancing set up on the next page >**

# A TYPICAL SEVADIS DYNAMIC LOAD BALANCING EXAMPLE

**Incoming supply**

RS-485 Data cable link
to meter / master unit

**CT Clamps**

**Meter**

Max cable length 500m

MASTER  SECONDARY  SECONDARY  SECONDARY  SECONDARY  SECONDARY  SECONDARY  SECONDARY  SECONDARY

Data link between units hard-wired or Wi-Fi - refer to connectivity data sheet
Max 9 outlets per meter
Master/secondary assigned during commissioning

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# LEARN MORE ABOUT THE MAXICHARGER RANGE

**VISIT SEVADIS.COM/MAXICHARGER**

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