KEMPOWER

Technical Datasheet

Kempower Load Manager Kit

The Kempower Load Manager Kit provides a smart load balancing solution to fully utilize the available grid connection.

In cases where the Kempower charging system shares the grid connection with other varying electrical loads, the Load Manager Kit hardware combined with the Kempower ChargEye cloud solution introduces advanced tools for managing the electrical load of the site to dynamically utilize all available power for EV charging.

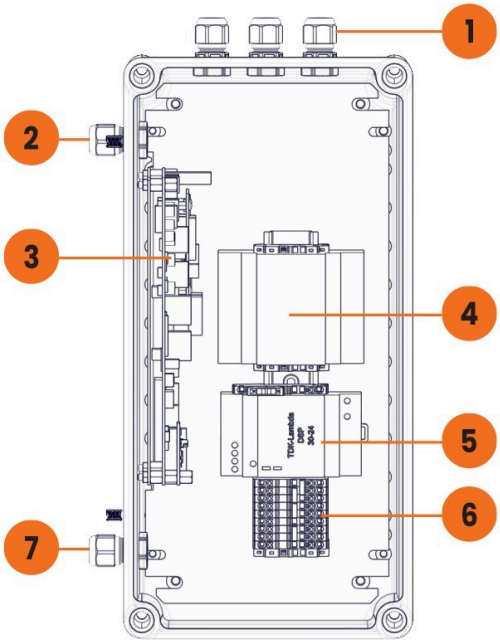
The Load Manager Kit measures the power consumption from the grid connection point in real time and sends the data to the ChargEye system.

Based on the available power, ChargEye adjusts the charging power of all the Kempower Power Units connected to the Load Manager Kit power group.

Configured specifically for your site and its dynamic loads, the Load Manager Kit adjusts the power levels of all the charging points to match the available capacity. Select the type of Load Manager Kit based on the size of the overcurrent protection device and the diameter of the cable to be monitored.

Reference rated current

1000 A • 3000 A • 5000 A



1 Inlet for current coils
2 Inlet for Ethernet connection
3 IoT gateway
4 Power analyzer
5 Power supply
6 Terminal blocks
7 Inlet for power supply cables

Charging power adjusted dynamically to available grid capacity

Measuring sensor operates at safe mV level

Charger display screen shows a clear reason for charging power reduction

Reduced investments into grid connection upgrades

Compatible with Kempower ChargEye Advanced licenses

Available for new and existing charging sites

Product code interpretation

Item	Code	Description
Load Manager Kit	LOADM1000	Load Manager Kit for overcurrent protection device rating max. 1000 A max. cable diameter 100 mm
	LOADM3000	Load Manager Kit for overcurrent protection device rating max. 3000 A max. cable diameter 150 mm
	LOADM5000	Load Manager Kit for overcurrent protection device rating max. 5000 A max. cable diameter 200 mm

General electrical specifications

Supply	Input voltage	184…264 VAC
	Input frequency	47…63 Hz
Measurement	Voltage between phases	173…500 VAC
	Detection method	Flexible Rogowski coil
	Coil inner diameter	100/150/200 mm
	Accuracy	±1% at a range of 5–120% of rated current
	Connection cable type	2 x 0.15 mm + shield
	Connection cable length	10 m
	Reference rated current	1000 A/3000 A/5000 A
	Frequency range	50/60 Hz ±2%

Environmental specifications

Operating temperature	-25…+40 °C
Storage temperature	-25…+70 °C
Enclosure rating and material	IP66, IK08, PC

Scope of delivery

Included	Excluded
• Enclosure including DIN rail–based components with an installed wire set • Set of current measurement coils with 10 m long low voltage measurement cables	• ChargEye for Depot Advanced or ChargEye for CPO Advanced license • Installation materials • Voltage metering conductors • Local active Ethernet switch with internet connectivity • Setting up Load Manager Kit and parameters for power groups • Updating the electrical documentation for the site • Installation permits as required by local laws and regulations

Communication

Minimum CAT6 Ethernet connection. Internet access is the customer's responsibility.
Internet protocol: IPV4/DHCP
Load adjustment latency: 30 seconds
Load management is based on continuous connectivity with a minimum latency of 1.5 seconds, without packet loss. If communication between Load Manager Kit and ChargEye is lost, the configured safe-level maximum power is applied, or charging is stopped until the connection is restored.

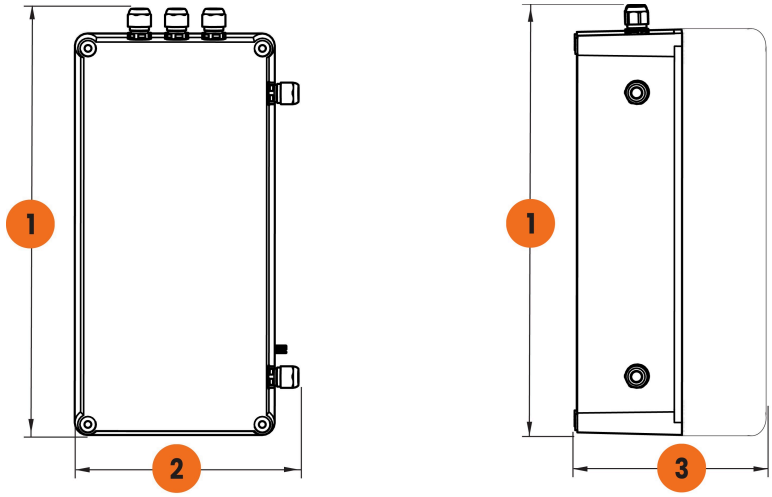
Compliance to standards

EMC Directive EU 2014/30/EU - IEC 61851-21-2:2018, class A
LV Directive 2014/35/EU - EN 61439-1/2:2021
RoHS Directive

Mechanical dimensions

Size (W x H x D)
205 x 400 x 180 mm

Weight
Ca. 3.2 kg



1 400 mm
2 205 mm
3 180 mm