

SMART DISTRIBUTION BOX

Smart energy platform



The Smart Distribution Box (SDB) is a distribution box that has been specially designed to monitor and manage complex energy distribution. The technology makes it possible to follow the flow of energy from source to end user in detail and provides for a stronger and more reliable energy network. Since the SDB is connected to an online cloud platform, all the energy flows can be translated into visuals, making it possible to fully manage your electrical network.

This enables the administrator to manage the complete network from one central point and receive proactive warnings in the event of deviating values or imminent failure of the energy network.

The measured values are logged systematically and can be consulted in real time as well as after the event. This makes it possible for the administrator and end user to conduct a thorough analysis of energy usage during the event and increase the efficiency of the processes straight away.

In the evaluation of the event, the results can automatically be included in a report and invoiced to end users. This speeds up the completion of projects and increases the economic efficiency of the administrator.

SMART ENERGY - DISTRIBUTION WITH SMART DISTRIBUTION BOX

Combining the conventional distribution box with digitization creates several new applications and possibilities that enable smart management of energy.

This unique distribution box can be used in various sectors in which a temporary supply of energy is required:

- Trade fairs
- Events
- Construction sites and shipyards
- Industry
- Public energy supply
- ...



THE BENEFITS AND OPTIONS OF THE SMART DISTRIBUTION BOX

Centralization

One central point for monitoring the electrical network and processes.

Secure cloud platform

Accessible for the administrator as well as for end users with defined rights and functionalities.

Integrated system

End users can use an online application to request the power needed for a stand in advance as well as the times when electricity is required.

Automatic switching

The SDB can be switched on and off based on time via the configured calendar or remotely via the cloud application.

Adjustable energy rates

The administrator can set an energy rate for the requested power but can also set a second rate if the user exceeds the requested capacities.

Smart procedures

It is quick and easy to commission the SDB and connect the end user to it with the correct payment details and no further action by the administrator is required.

Real-time analysis and visualization

The data produced can be consulted in real time and is automatically analysed and translated into visuals.

Alarms

The service team receives automatically generated messages, for example if power consumption is exceeded or if earth leakage protection is activated.

Automatic invoicing with report

The invoicing of energy consumption can be processed entirely automatically after the event, as can a full report of the consumption period, the number of service messages, the consumption profile, the energy rates applied, and the switching actions, etc.

Complete overview

The administrator always has a complete overview of all distribution boxes involved in the project as well as all the associated parameters.

Bespoke solutions

The Smart Distribution Box is available in various sizes ranging from 16A to 63A but it is also possible to order bespoke solutions for larger power requirements up to 3000A.

Hire

Besides purchasing a smart distribution box, it is also possible to hire one.

Expandability

The platform can be expanded to manage water networks, indoor comfort parameters, building management, and other technologies.

CASING

Material	Black HD-PE (high density polyethylene)
Handling	Countersunken handles
Earthing connection	Yes
Emergency stop	Yes
LED	Yes, indication of voltage presence
Enclosure protection degree	IP44, IEC 60592
Glow wire test	IEC 60695, 650°C and 960°C
Electrical design	According to the IEC 61439-1 and 2 standard
Operating temperature	-20°C ... +65°C
Operational position	Horizontal
Weight SDB - 16A / 32A / 63A	A kg / B kg / C kg
Dimensions - 16A / 32A / 63A	A x B x C mm / A x B x C mm / A x B x C mm

INPUT

Plug - SDB 16A	1x CEE 16A 230V 1P+N+E plug, 6h IEC 60309, IP44
Protection	CB C16A 2P 10kA
Plug - SDB 32A	1x CEE 32A 3x400V 3P+N+E plug, 6h IEC 60309, IP44
Protection	CB C32A 4P 10kA
Plug - SDB 63A	1x CEE 63A 3x400V 3P+N+E plug, 6h IEC 60309, IP44
Protection	CB C63A 4P 10kA

OUTPUT

		SDB 16A	SDB 32A	SDB 63A
Socket 16A monotype F	16A 230V 1P+N+E socket, CEE7/3, Type F (German, Schuko type), IP54	3	9	12
Protection	Combined CB/RCD C16A 1P+N 30mA 10kA undelayed	3	9	12
Plug type E	16A 230V 1P+N+E socket, CEE7/5, Type E (French/Belgian type), IP54	Optional	Optional	Optional
Protection	Combined CB/RCD C16A 1P+N 30mA 10kA undelayed	3	9	12
Socket 16A 5P	1 x RCCB 40A 3P+N 30mA 10kA undelayed, 1 x CB C32A 4P 10kA		•	
Protection	1 x RCCB 40A 3P+N 30mA 10kA undelayed, 1 x CB C16A 4P 10kA			•
Socket 32A 5P	1 x CEE 16A 3x400V 3P+N+E socket, 6h IEC 60309, IP44		•	
Protection	1 x CEE 32A 3x400V 3P+N+E socket, 6h IEC 60309, IP44			•

CLOUD COMMUNICATION CAPABILITIES

		Default	Optional
Ethernet	10/100 Mbit/s, RJ45	•	
WIFI	802.11 b/g/n 2.4GHz (RP-SMA female)	•	
Cellular	2G and 4G		•

REMOTE FUNCTIONALITIES

		Default	Optional
Monitoring input (MID)	Currents, Voltage, P, Q, S, Energy, Power factor	•	
Monitoring all outputs	Currents, Voltage, P, Q, S, Energy, Power factor		•
Remote switching SDB	Yes, on and off	•	
Detection of failure breaker	Yes	•	

SOFTWARE

		Default	Optional
Calculus portal compliant	Yes	•	
Type	Cloud computing	•	
Overall management system SDB hosting	Yes	•	
User interface SDB	Yes, mobile application	•	
Remote switching SDB	Button on mobile application	•	
Remote switching SDB	According to adjustable agenda on mobile application		•
Adjustable energy rates	Yes	•	
Adjustable power limitations	Yes		•
Automated billing applications	Yes		•
Customizable dashboarding functionalities	Yes	•	
Generate adjustable alarms	Yes, mobile application, SMS, E-mail, dashboard	•	
Reporting functionality	Yes	•	
Adjustable floor plans	Yes	•	
User management system	Yes	•	
Service request functionality	Yes, mobile application		•
Monitoring expansions	Building management system		•
Monitoring expansions	Water management		•
Monitoring expansions	Climate data indoor		•
Monitoring expansions	Climate data outdoor		•