

FEMS App Phase-Accurate Peak Shaving

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1. Introduction

1. Introduction

Dear customer,

Thank you for choosing the "FEMS App Phase-Accurate Peak Shaving". You are welcome to send us your suggestions so that we can further improve the quality of our products.

2. Installing the app

When you ordered the "FEMS App Phase-Accurate Peak Shaving", you received a 16-digit license key. You can use this license key to redeem the app independently in the FEMS App Center.

Find instructions on how to proceed here.

3. FEMS App Peak Shaving

The "Classic Peak Shaving" refers to the total output at the grid connection point and reduces this in the 15-minute average in such a way that high output prices are avoided.

The "FEMS App Phase-Accurate Peak Shaving", on the other hand, regulates the actual power at any metering point in real time. This use case is particularly interesting in connection with high single-phase power - such as when charging EVs.

As soon as the measured value above a second threshold value allows charging again ("recharging power"), the battery recharges itself to be ready for the next load peak.

As soon as the "FEMS App Phase-Accurate Peak Shaving" has been activated on your FEMS, you will see this widget in your monitoring:

\sim	Phase-Accurate Peak	Shaving
Most loa	aded phase L1	3.6 kW
Dischar	ging above	6 kW
Chargin	g below	5 kW
-	_	

Figure 1. Widget

The algorithm controls an electrical energy storage system in such a way that both the total power and the phase power at the measuring point do not exceed the limit values ("peak shaving power") and thus effectively prevents a miniature circuit breaker from tripping. In the example above, this value is 6 kW.

As soon as the grid consumption decreases again and falls below a second threshold value ("recharging power"),

the battery recharges itself to be ready for the next peak load. In the example above, this value is 5 kW.

Click on the widget to open the detailed view of the app:

Phase-Accurate Peak Shaving	×
Measured value	10,847 W
Measured value L1	3,635 W
Measured value L2	3,589 W
Measured value L3	3,624 W
Discharging above	6000 O W
Charging below	5000 O W

The power values indicated relate to individual phases. The most-loaded phase is in shaved,

Figure 2. Detailed view

Here you have the option of adjusting the "Peak Shaving Power" and "Recharging Power".



The value of the "peak shaving power" must not be less than the "recharging power"!

The "History" view shows a similar picture to the one below:

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3. FEMS App Peak Shaving



Figure 3. Summarized representation of the entire energy system using the example of an EV charging park:



Figure 4. Phase-accurate display in the detail view.

The two figures above show that the single-phase charging of an EV placed a greater load on phase L1 than on the other phases. Without the electrical energy storage system with the FEMS app, the miniature circuit breaker would have tripped.



4. Contact

For support, please contact:

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5. Directories

5.1. List of illustrations

Figure 1. Widget

- Figure 2. Detailed view
- Figure 3. Summarized representation of the entire energy system using the example of an EV charging park:

Figure 4. Phase-accurate display in the detail view.