



# Remote EMS

The Remote Energy Management and Control System provides a comprehensive solution for on-line monitoring, control and analysis of large-scale ComEC and SmartLEC installations over mobile networks and the Internet

## Online Data Access

All access to real-time and historical data on PowerSines server is easily available to authorized users through a secure Web interface. Users can monitor remote ComEC and SmartLEC devices, analyse historical data, generate charts and Excel reports, as well as change program parameters and device configurations.

## Smart Data Analysis

The Remote EMS system provides high precision samples and measurements of all electric parameters, diagnostics and saving performance. Through the Remote EMS the user can monitor electricity consumptions and view savings data by days, weeks, months and years. Since the system continuously aggregates data from remote sites, the user is able to analyse electricity consumption patterns, compare electricity allocation between sites to detect anomalies and maximise energy savings.

## Alarms & Events

In the case of any abnormal behavior the Remote EMS will automatically send alarms directly to pre-designated mobile devices or email accounts to assure immediate attention and service.

## Scalable Solution

With PowerSines scalable solution there is no need to invest in the installation of a complex communications network, database or server platform at the onset. The Remote EMS system is offered under Software as a Service (SaaS) model enabling customers to start deployment with a few ComEC or SmartLEC systems and grow with time into a large-scale, distributed network with a minimal investment.

## Plug & Control

Communication with the PowerSines server is enabled via SIM card, provided by local mobile operators. To activate, simply insert the SIM card and start controlling the ComEC or SmartLEC devices online.

## Data Security

The remote EMS data communication system is protected by the highest level of security enabled by GSM networks. Each authorized user can see and control only the devices assigned to them and only through a secure login to the system.

## Features

- Secure Web Access**  
to online and historical data
- Remote Configuration**  
for all system parameters
- Plug & Control**  
with a local SIM card
- Send Alarms and Events**  
by SMS and Email
- Scalable Solution**  
based on the central server

## Benefits

- Maximised electric savings**  
through online control
- Fully protected**  
by GSM and VPN network security
- Software as a Service**  
enables deployment with minimum initial investment
- Export data to Excel**  
for customized reports' generation

## Applications

- ComEC & Remote EMS**  
best suited for deployment at hotels, petrol stations, fast food and restaurant chains, coffee shops, supermarkets and stores
- SmartLEC & Remote EMS**  
provide control and monitoring for street & road lighting

## GSM Gateway

**The GSM Gateway is an intelligent controller that connects to ComEC or SmartLEC through the RS232 to a mobile network.**

The gateway reads and writes data over the Modbus protocol, continuously monitoring the ComEC/SmartLEC data and status, dynamically optimising data streaming over mobile networks. The GSM Gateway has digital and analog IO terminals for connecting and integrating additional devices such as meters and sensors into a global remote control solution.

The communication between the GSM Gateway and the central server takes advantage of the GSM/GPRS networks, IP protocols and VPN infrastructure over mobile networks ensuring a high level of reliability, security and quality of service.

## PowerSines Web Server

**The PowerSines Web Server is a central management platform that enables simultaneous communications with thousands of remote ComEC and SmartLEC units.**

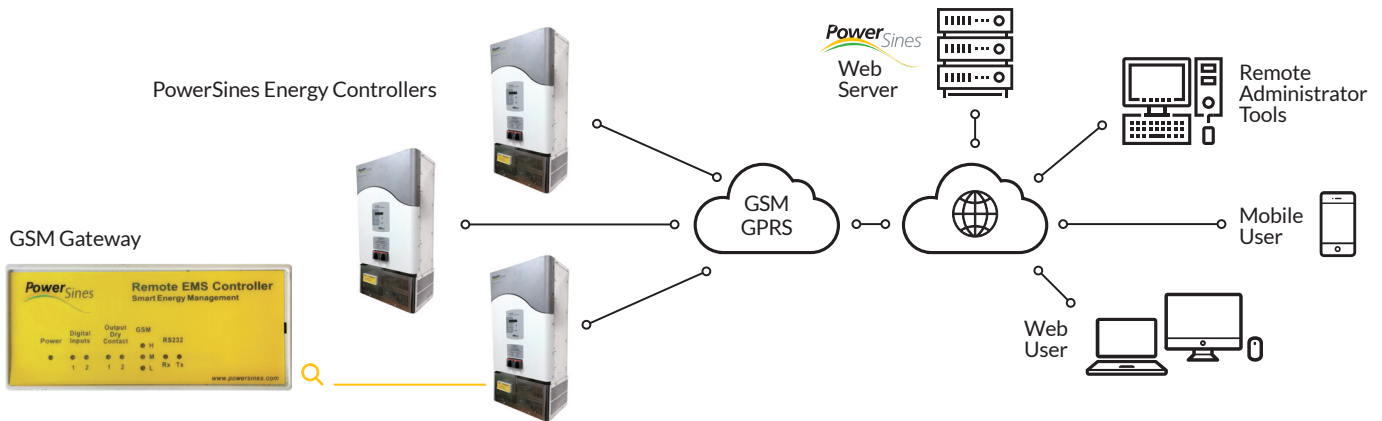
The Web server system provides a central repository for all online and historical data and offers advanced system administration tools. It is built around standard Internet platforms, Google GIS and Microsoft SQL database. The system is scalable, interoperable and can be installed at the customer's premises or at an ISP server farm.

PowerSines offers a SaaS (Software as a Service) model whereby customers can connect their controllers via GSM Gateways to PowerSines central server without the initial investment of establishing a networking and server infrastructure.

## Web-enabled GUI

**The access to on-line and historical data is provided via a secure Internet connection to the PowerSines Web Server.**

Simply browse through your Web browser and start monitoring ComEC and SmartLEC units, carry out set up configurations, generate reports, manage alarms and more. The system is fully protected and enables each authorized user access to their devices only.



Product Models	Product	Catalog No.	Description
	PowerSines EMS KIT	0C2A-EMS1-KIT	PowerSines EMS KIT gateway for ComEC / SmartLEC series: GSM/GPRS communication module, GSM antenna and cables. (SIM not included)
		0C2A-EMS2-KIT	
PowerSines Annual Application License	1COM-SRVLNK-EMS	PowerSines EMS Annual Software License per system and GSM connection to PowerSines server.	

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