

# ADVANCED PAYMENT INDIRECT THREE PHASE METER EM341-4 Smart G

Commercial Applications (Low Voltage)





Load Profile



**Active Reactive** 



Cut-Off Relay



**Tampers** 

# **Upgradeable to support**





GSM/GPRS

Λ-Rus

**STANDARDS** 

consumption.

IEC 60060

INTRODUCTION

with a Customer Interface Unit (CIU).

- IEC 60387
- IEC 61036
- IEC 62053
- IEC 62056-51

• IEC 60068

The EM341-4 Smart G is a highly efficient electric energy metering system upgradeable to support the latest wireless M-Bus technology, to communicate

The EM341-4 Smart G benefits from the RFID technology which allows a two-way communication path between the utility company and the consumer. Various forms of information and data can be transferred securely via the RFID card(s) including but not limited to customer data, meter configuration and monthly

Furthermore the meter is upgradeable to support a direct communication

path between the consumer and the utility company without the use of meter readers, money collectors or vending stations via an AMM interface, hence reducing operational expenditure to the utility company and saving time for the

The EM341-4 Smart G is an indirect connection meter, capable of measuring active and reactive energy and meets the requirements of the IEC Standards.

- IEC 60529
- IEC 62052
- IEC 62056-41

METER SPE	METER SPECIFICATIONS		
Electrical Cl	naracteristics		
Accuracy Class	0.5		
Nominal Voltage	230 V		
Supply Variation	±30% Vn		
Spike Voltage Tolerance	8KV		
Starting Current	5mA		
Nominal Current	5A		
Maximum Current	10A		
Nominal Frequency	50Hz		
Frequency Variation	±5%		
Inherent Consumption of Voltage Circuit	<2W,<10VA		
Inherent Consumption of Current Circuit	<0.5VA		
Back-up Battery Lifetime	10 Years		
Ме	mory		
Туре	EEPROM		
Retention Period	40 Years		
Environmen	tal Conditions		
IP Rating	IP54		
Temperature Range	-5°C to +60°C		
Storage Temperature	−25°C to +70°C		
Humidity Range	85%		
Commi	unication		
Optical Interface	Standard Optical Port - IEC 62056-21		
AMM Module	Upgradeable to support GSM/GPRS		
Radio Frequency Link	Upgradeable to support M-Bus		
Serial Communication Port	RS-485		
	0 11 15 10 100 14 11		

## **METER FEATURES**

Feature	Description
Measurements	The EM341-4 Smart G is capable of measuring the active and reactive energy consumed
Load Profile	<ul> <li>Each profile has an integration period of fifteen minutes</li> <li>The profiling period extends over a range of thirty five days</li> </ul>
Events	<ul> <li>The EM341-4 Smart G records a considerable amount of data for extended periods of time</li> <li>In addition the EM341-4 Smart G stores up to one hundred tamper events</li> <li>Events are logged with a date/time stamp</li> </ul>
Tamper Proofing	<ul> <li>The EM341-4 Smart G has the ability to detect the following types of tamper attempts:</li> <li>Terminal Open</li> <li>Reverse Connection</li> <li>Current Bypass Connection</li> <li>Overload</li> <li>Overvoltage</li> <li>Undervoltage</li> <li>Parameter Change</li> <li>Phase Sequence</li> </ul>
Alarms	<ul> <li>The meter supports two alarm methods:</li> <li>LED Indicator</li> <li>Audible Alarm</li> <li>The meter can be configured to give any combination of alarms as required</li> </ul>
Auto-diagnostics	<ul> <li>With each power-up or firmware update, the meter shall diagnose:</li> <li>Meter and memory integrity</li> <li>Display, alarms &amp; battery status</li> <li>External communication module status</li> </ul>
RFID Operation	<ul> <li>The meter is fully configurable via the RFID cards</li> <li>Various data can be retrieved from the meter including but not limited to data relating to consumption, remaining credit, tamper attempts</li> <li>The meter can be recharged via the RFID cards</li> </ul>

# **MECHANICAL SPECIFICATIONS**

- $\rightarrow$  **Dimensions:** (L × W × D) = 277.3 mm x 177.4 mm x 88.5 mm
- → **Weight:** Approximately 1.3Kg

**Data Transmission Rate** 

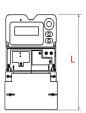
→ **Meter Housing:** Flame Retardant Polycarbonate

Optical Port: 2400 Kbit/s

GPRS: 56-114 Kbit/s

M-Bus: 16.384 Kbit/s

RS-485: 2400 Kbit/s







Extremely secure as it includes a MIFARE CLASSIC

encryption/decryption module to verify and validate the authenticity of the card used