## Eastrun Europe

Innovation, Quality and Competitive edge



A fast, easy and reliable solution for installing power metering systems.



Designed and certified in the United Kingdom.







**EasyClick** is a proven solution for making the installation process of power metering systems reliable, fast and error free.





Engineered and designed around a "plug and play" concept, consisting of a full range in plug in RJ12 Three phase current transformers and DIN rail and panel mounted Panel meters. This replaces the need to hardwire 6 individual secondary cables from the current transformer to the power meter. We also use a plug-in terminal for the voltage references (L1, L2, L3 and N). This not only reduces installation time by up to 85%, but also removes any potential wiring errors. Making the overall installation faster and error free.

It is also possible to have up to 32 devices powered from one voltage reference fused supply, as the meters have a voltage output plug in terminal, allowing you to daisy chain from one meter

to the next. We provide a full range of Current transformer, Voltage in and Voltage out looms. If you prefer to manufacture you own voltage looms, then this is also possible as we supply the terminal kits free of Charge with each meter.

Due to the demand of most applications requiring the power meters to be read remotely using the RS485 modbus output, we also provide free commissioning and configuration software. This allows the modbus network to be checked prior to installation of the panel / switchboard. It also allows you to set the programmable parameters from one central point and read each meter individually.

We have a full range from 96x96mm Panel mounted, DIN rail mounting (Single Load, Dual Load, Tri-Load and Quad Load. If you also require a full end to end solution, we have the Eastron ConneX sub metering system which is integrated with our data logging, remote monitoring and HMI platform.



Smart X96-1/ Smart X96-1E

Panel Mounted

- CE and MID Certified in the UK
- Overall System Accuracy Class B (1%)
- Phase sequence indication
- Programmable Pulsed output
- Built in RS485 RTU Modbus output
- individual phase summary display (Amps, Volts, Watts and kWh)
- Individual Harmonic Levels up to 61st Tested to 1% accuracy (SMART X96-1 only)
- Min and Max Voltage levels (SMART X96-1 Only)
- Lower specification option for further cost saving (SMART X96-1E)



#### Three-phase current transformer The CTS can be mounted on the RJ12 Cable right or left side of the breaker; you can correct the current flow in the Eastro meter or configuration software. FUROR RJ12 Cable RS485 Modbus h Commisioning & configuration software INN DCEC DCEC CEC 12345678 $\bigcirc$ Voltage output Fuse to voltage loom Meter Type **Description of Meter** SMART X96-1 Active Import/Export (kWh) 3x230/400V, 100mA/5(6)A, Transformer operated, Multifunction, RS485 Modbus RTU

SMART X96-1E Active Import/Export (kWh) 3x230/400V, 100mA/5(6)A, Transformer operated, Multifunction, RS485 Modbus RTU, No THD, No Voltage Output and 1P2W and 3P4W only

For more information on these products, please contact our sales team on 0203 758 3494 or email sales@eastroneurope.com

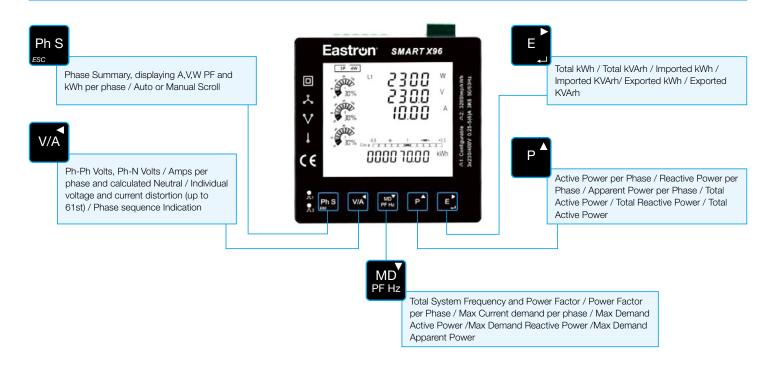
**Example of installation** 



## Smart X96-1/ Smart X96-1E

Panel Mounted

## **Features**



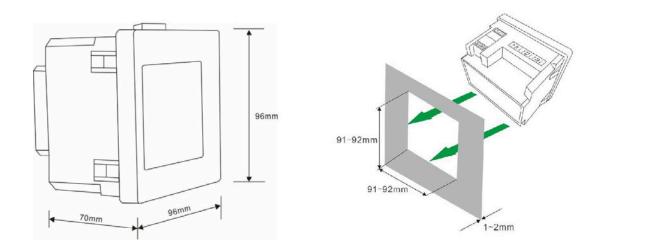
### **Conformity references:**

 Electromagnetic Compatibility:
 IEC/EN61326-1, IEC/EN55011 Class A, IEC/EN61000-4-2, -3-4-5-6-8-11 IEC/EN50470-1/3

 Accuracy:
 IEC/EN50470-1/3, IEC/EN62053-21, IEC/EN62053-23, DIRECTIVE 2014/32/EU

 Safety:
 EC/EN61010, IEC/EN50470-1

## **Dimension drawing**



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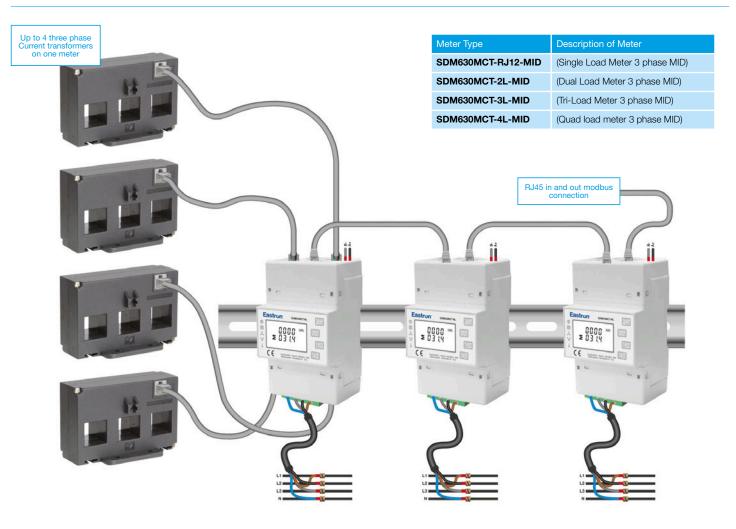
## SDM630MCT-ML

Din Rail Mounted Multi-function / Multi-circuit

- CE and MID Certified in the UK (SGS 0534)
- Overall System Accuracy Class B (1%)
- Phase sequence indication
- Built in RS485 RTU Modbus output
- Total Harmonic Distortion up to 31st Level
- Single Load option 3 phase 4 wire or 3 x 1 phase circuits (SDM630MCT-RJ12)
- Dual load option 2 x 3 phase 4 wire or 6 x 1 phase circuits (SDM630MCT-2L)
- Tri load option 3 x 3 phase 4 wire or 9 x 1 phase circuits (SDM630MCT-3L)
- Quad load option 4 x 3 phase 4 wire or 12 x 1 phase circuits (SDM630MCT-4L)
- Up to 124 x 3 phase 4 wire channels or 372 x 1 phase channels on one Modbus network (32 SDM630MCT)



## **Example of 3 phase installation**

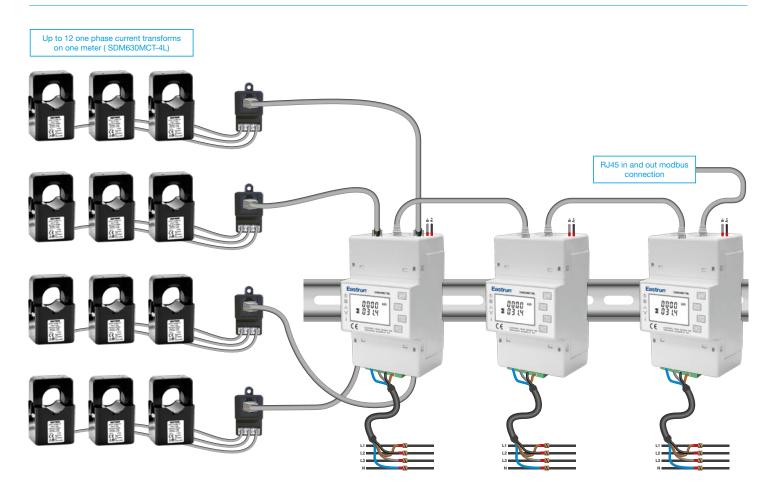




## SDM630MCT-ML

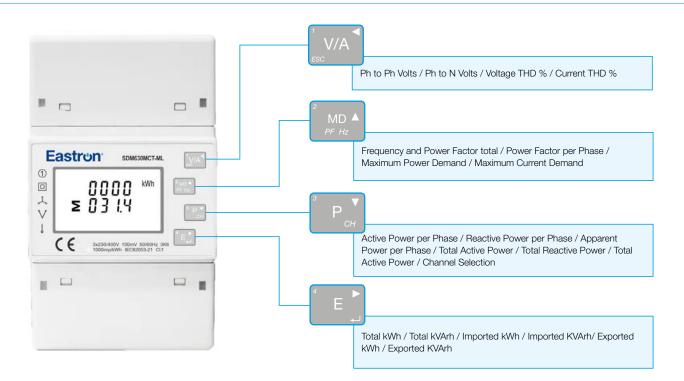
Din Rail Mounted Multi-function / Multi-circuit

## **Example of 1 phase installation**





## **Features**



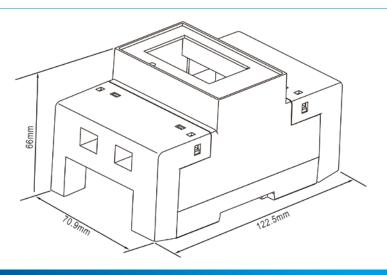
## **Conformity references:**

 Electromagnetic Compatibility:
 IEC/EN61326-1, IEC/EN55011 Class A, IEC/EN61000-4-2, -3-4-5-6-8-11 IEC/EN50470-1/3

 Accuracy:
 IEC/EN50470-1/3, IEC/EN62053-21, IEC/EN62053-23, DIRECTIVE 2014/32/EU

 Safety:
 IEC/EN61010, IEC/EN50470-1

## **Dimension drawing**



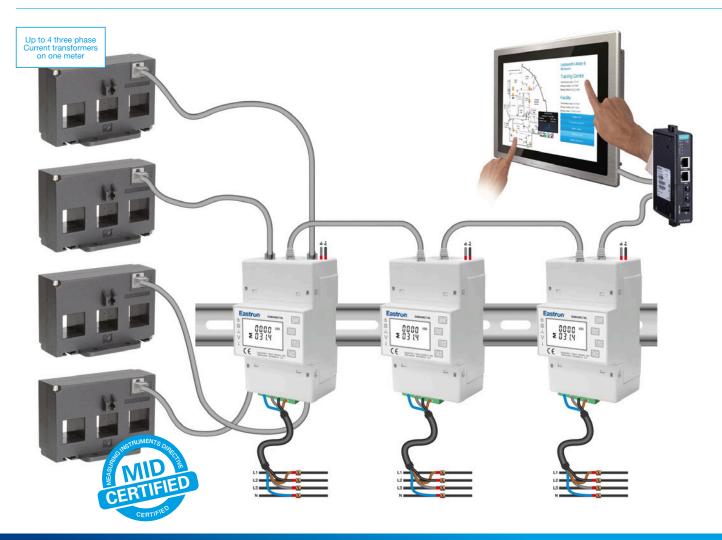
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# Eastron®

- Remote Monitoring or Central Data Point access within the building (Or both)
- Prewired and commissioned solution
- No ongoing software license costs
- Auto-Detect function re meter id's
- Upload floor plan and drag and drop metering points for easy to use navigation
- Graphs and reporting function
- Optional HMI web-based touchscreen
- MOXA UC-8112-LX Industrial PC and fully integrated into all Eastron products



## **Example of installation**



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## **EASTRON ConneX Sub-Metering - Software Platform**

## Sub-Meter Data Logging & HMI Hardware - MOXA UC-8112-LX Industrial PC

The Eastron ConneX Sub-Metering software platform runs on a dedicated Industrial PC, the MOXA UC-8112-LX. This device runs a Linux operating system (Debian) to provide a stable and versatile platform on which the ConneX "GoConfigure" software can run. The Connex "GoConfigure" software system is developed in-house by PAD Technology Ltd, Eastron Europe's software and hardware integration partner.

This device is able to store data locally on an Industrial SD card using robust SLC NAND Flash, suitable for long term storage of data under harsh environments.

Data logging frequency can be configured to the application, typically 1 minute or 5 minute reads being suitable for most applications. Where higher read frequencies are required, e.g. sub-minute reads, this can also be accommodated by the platform.



#### **Simplified Commissioning**

The ConneX "GoConfigure" software automatically detects new meters added to the sub-metering network, streamlining initial commissioning, extension and repair of metering networks.

#### **Datalogging Cloud Storage**

The ConneX "GoConfigure" software may also be configured to push data reads to the PAD Technology "eMIG" cloud based service to allow on-line access to your sub-metering data. eMIG provides secure access to graphical and reporting views of your data.

Automatically paging views of your sub-meters allow you to keep an eye on the state of your plant's energy consumption in detail, without the need to manually search through for individual meters.

#### **Local-only Data Storage**

Occasionally the internal security arrangements of an organisation make it impossible to push data to the cloud for long term storage. We are able to offer "local-only" long term data storage, using a local server and optional network attached storage solution. This provides robust storage and backup of your data on RAID 1 redundant hard drives. Where the metering system is on a totally isolated LAN, the server workstation can also be used for interrogating the metering data, generating CSV reports and saving data to memory sticks for processing elsewhere.



## Human Machine Interface - HMI

The Connex "GoConfigure" software runs a Web-HMI. This may be displayed on a dedicated HMI touch screen, for example the IP65 ARCHMI-815P 15" HMI touchscreen, or the HMI may be accessed from any PC or laptop on the same local area network, using an Internet Browser.

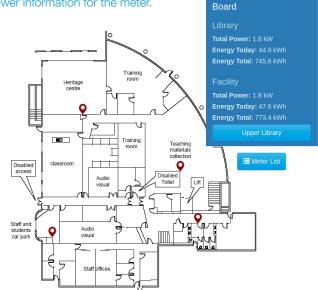
The HMI provides an auto-paging view of all meters on the system, providing instantaneous power and energy readings for each individual meter. This view may be accessed from (for example) a separate smart TV or display PC, to allow continuous monitoring of your sub-metering system in your office.

Where required, we are able to integrate your logo or text into the display.

The HMI allows you to set up any number of plant-specific views of your meters, using e.g. a floor plan, or a plant schematic that you create. Floor plans or schematics can be uploaded to the HMI as JPG, PNG or GIF files. The administrator of the system can then position meters on to the floor plan or schematic.

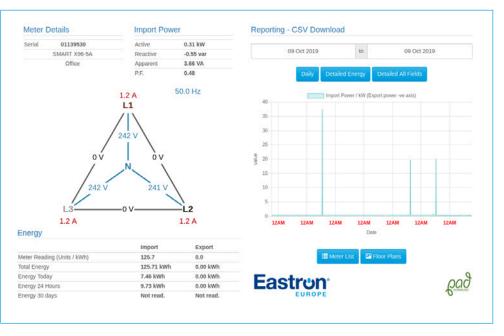
This example shows a library with a number of sub-meters annotated on it.

Here the user has clicked on one of the meters to see a quick 'pop-up' view of the current reading and power information for the meter.



Eastron gad

Eastron Demonstration



In this view the user is able to interrogate information such as line to line voltages, reactive power, power factor and mains frequency, to allow them to diagnose issues with individual power supplies in the network.

The user can view energy usage over time.

Additionally, this page provides meter specific graphical plots and reading downloads in a variety of forms, for opening in spreadsheet software such as Microsoft Excel.

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Double clicking on the meter then takes the user to the detailed meter view:



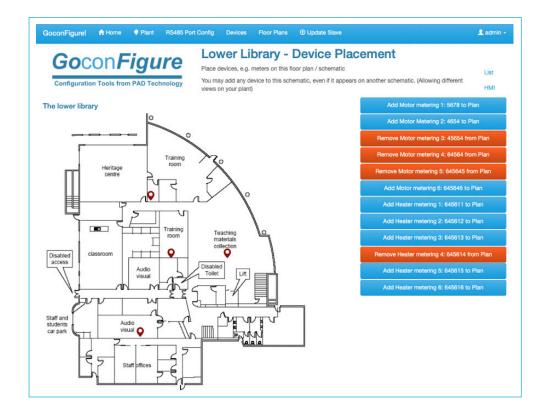
## **Easy Configuration**

Adding new view on the data, by uploading bespoke images and positioning meter on to them is very easy. This is secured by an administrator login username / password.

The user may upload an image file from their local computer by clicking on "Add Floor Plan" and adding basic information about the view (for example the view name, description and the order in which it should appear in a list).

	n Figure		Add Floor Plan	าร		
Show 10 +	entries			Search	ו:	
Plant ID	Floor Plan ID	11 Name	1 Description	1 Order Index	11	lî
ITP:00001	Library1	Lower Library	The lower library	1	×   •	Ô
ITP:00001	Library	Library Upper	Upper Library	2	×191	Ô
ITP:00001	Shopfloor	Shop Floor	Workshop floor	4	<b>Z</b>   <b>9</b>	<b>a</b>

The user may then add or remove any of the meters in the network to overlay the graphic, ready for them to view in the HMI.





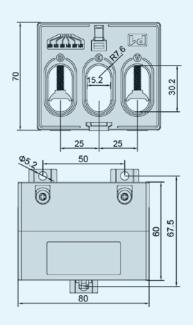
## **RJ325/ RJ335** Three phase current transformers

## **RJ325**



- Class 0.5 Accuracy
- 100mA Secondary
- RJ12 Connector Output
- 25mm Centres
- 60-200A Primary current options
- Tamper proof clip for RJ12 connection

Model	Rated Amp	Output	Burden	
			Class 0.5	Class 1.0
ESCT-RJ325	60A	100mA	0.25	1
ESCT-RJ325	100A	100mA	0.25	1
ESCT-RJ325	120A	100mA	0.25	1.5
ESCT-RJ325	125A	100mA	0.25	1.5
ESCT-RJ325	150A	100mA	0.25	2.5
ESCT-RJ325	160A	100mA	0.25	2.5
ESCT-RJ325	200A	100mA	0.25	2.5



## **RJ335**



- Class 0.5 Accuracy
- 100mA Secondary
- RJ12 Connector Output
- 35mm Centres
- 60-250A Primary current options
   Tamper proof clip for RJ12 connection
- Model Rated Amp Output Burden Class 0.5 Class 1.0 ESCT-RJ335 63A 100mA 0.25 0.25 ESCT-RJ335 125A 100mA 0.25 0.5 100mA ESCT-RJ335 150A 0.25 0.5 ESCT-RJ335 200A 100mA 0.25 0.5 ESCT-RJ335 250A 100mA 0.25 0.5

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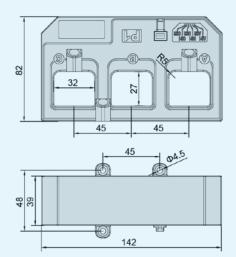


## **RJ345**



- Class 0.5 Accuracy
- 100mA Secondary
- RJ12 Connector Output
- 45mm Centres
- 250-630A Primary current options
- Tamper proof clip for RJ12 connection

Model	Rated Amp	Output	Bun	den
			Class 0.5	Class 1.0
ESCT-RJ345	250A	100mA	0.25	0.5
ESCT-RJ345	300A	100mA	0.25	0.5
ESCT-RJ345	400A	100mA	0.25	0.5
ESCT-RJ345	500A	100mA	0.25	0.5
ESCT-RJ345	600A	100mA	0.25	0.5
ESCT-RJ345	630A	100mA	0.25	0.5

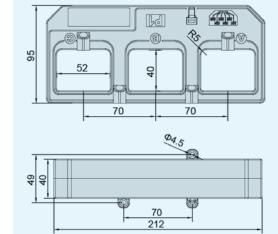


## **RJ370**



- Class 0.5 Accuracy
- 100mA Secondary
- RJ12 Connector Output
- 70mm Centres
- 600-1600A Primary current
   options
- Tamper proof clip for RJ12 connection

Model	Rated Amp	Output	Burden	
			Class 0.5	Class 1.0
ESCT-RJ370	600A	100mA	0.25	3.75
ESCT-RJ370	630A	100mA	0.25	3.75
ESCT-RJ370	800A	100mA	0.25	5
ESCT-RJ370	1000A	100mA	0.25	5
ESCT-RJ370	1200A	100mA	0.25	7.5
ESCT-RJ370	1600A	100mA	0.25	7.5



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## X96-C2

Voltage Input Cable. 4\*1mm2 cables,one end with male terminal.

	0.3 Metre
	0.5 Metre
	1.0 Metre
	1.5 Metre
112011 (1/2011)	2.0 Metre

## X96-C3

Cable between meter voltage output to the voltage input of next meter. 4\*1mm2 cables, one end with male terminal and another end with female terminal.



0.3 Metre
0.5 Metre
1.0 Metre
1.5 Metre
2.0 Metre

## **RJ12CABLE-\*CW**

Grey / White RJ12 cable from meter to CT (SET-UP 1).



1.0 Metre	6.0 Metre
2.0 Metre	7.0 Metre
3.0 Metre	8.0 Metre
4.0 Metre	9.0 Metre
5.0 Metre	10.0 Metre

## **RJ12CABLE-\*CB**

Black Reversed RJ12 cable from meter to CT (SET-UP 2).



1.0 Metre	6.0 Metre
2.0 Metre	7.0 Metre
3.0 Metre	8.0 Metre
4.0 Metre	9.0 Metre
5.0 Metre	10.0 Metre*

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