

LCM Product Description

LCM

GRIDWATCH

LCM is a mains powered, real-time Load Current Monitor that enable low-cost load profiling and level monitoring of the Distribution network.

The LCM supports up to 3 standard Current Transformer (CT) CT with 0-5A ac output and a current measurement range of 0 - 1000A and allows customers use their own preferred CT if required.

The LCM offers a flexible monitoring process by enabling the user select the frequency of sampling (contineous sampling to once every minute) and

data averigang period (1 minute to 60 minutes) so as to minimise data volume if required. Data is stored locally for uploading to the clients network at preselected intervals, where load profiling can be performed.

An upper and lower alarm level on each Phase is also provided that allows the use receive a alarm signal from the unit should the load current fall outside the levels set. A daily Peak value is also recorded and reported. An optional alarm switch input for site secutity monitoring is also provided.

MAC LTD
Lonsdale Road
National Technology Park
Limerick
Ireland

Tel.: +353 61 334699
Fax: +353 61 338500
Email: info@mac.ie
Web: www.mac.ie



Installation & Commissioning

Installing the LCM device on a cable network is as straightforward procedure involving the following steps:

- Fix the LCM unit in place with the mounting screws provided or secure with suitable tie wraps.
- Attach the split-core CT to the cable being monitored
- Insert a SIM Card into the SIM Card holder provided.
- Connect the power cable to a suitable 110V/220V supply.
- Press the TEST button on the Earth Fault Indicator to verify communications with the GridWatch Server Application.

Server Application

Using an approved ,standard based' communications protocols the LCMs communicate directly with a server application running on the utilitie's own network or the dedicated GridWatch Server. The server application facilitates the setting of unit parameters, such as Upper and Lower alarm levels, sampling frequency and averaging period as well as upload rate.

On detecting an alarm condition the LCM immediately report the alarm to the GridWatch server application. The status of each LCM unit is contineously monitored and any failure in communication is reported.

The GridWatch application also supports Plug&Play deployment of the LCMs, as well as parameter setting and enabling of alarm signal input (if available).

Technical Specifications

General		Communication	
Power Source:	85 - 265V AC	Type:	GPRS Network. (Options: CDMA & EDGE)
Network voltage range:	1-24kV AC	Antenna Options:	Internal, Stub or remote mount on 3 meter lead
Sensor		Alarm Switch Input (Optional)	
Type:	Standard Split-core CT Type	Type	Switch, switching 5V@10mA
CT output accepted:	0 - 5V ac 0 - 5V dc	Environment	
Measurement		Operating humidity range:	0 - 100% RH
Frequency:	47Hz to 63Hz	Operating temperature range:	-20°C to 65°C
Units	RMS	Degree of Protection:	IP65
Range:	0 - 1000Amps	Physical	
Accuracy:	1% for .1A to 5A CTs	Dimensions:	160mm x 90mm x 50mm
Sampling Frequency:	Contineous to once per Minute	Weight:	300g
Averaging Period:	1 Minute to 60 Minutes		