



PFMD – Power Factor Monitoring Device

Power-factor correction equipment is used by major electricity consumers to lower their electricity bill. The main aim of the correction is to ensure that your maximum kVA demand is measured at unity power-factor. Power-factor correction systems are subject to various problems arising from capacitor, contactor or any other component failure and can go undetected for months. These conditions can contribute to a major increase in maximum demand, which inevitably leads to financial losses. **The solution to this situation is 24 hour online monitoring ensuring correct system functionality and enabling quick response to system component failure minimizing financial losses.**

Monitoring System

The PFMD measures the supply independently from the PF Controller and reacts whenever an alarm condition arises. The alarms are monitored by a server, are logged and forwarded to the relevant personal on standby. Reaction can vary from a simple inscription in the database to immediate response from personnel on standby. The personnel on standby will receive the alarm SMS containing all relevant information to notify them of emergency call-outs.

- | P F M D | |
|---------|-----------------------|
| | 24/7 Monitoring |
| | Monthly Status Report |
| | Quick Alarm Response |
| | Alarm Forwarding |
| | Ensuring savings |

Monthly System Reports

Monthly system reports are issued and contain critical information concerning the functionality of the power-factor control system. The report includes billing information concerning the Maximum demand in kVA and the estimated savings. The statistical component of the report covers important information about step counters alarm conditions and fault counters.

Information available in the monthly report:

Monitoring Period: C17/12/15 00:30:00 - 18/01/15 00:30:00
 Estimated Saving: R17938.90

Maximum Demand Values

Date	MaxDem KVA	PF	kVAr	Max Temperature	
18/01/12 10:00:00	321.1	0.99	250	39	
Desc	Step 1	Step 2	Step 3	Step 4	Step 5
Size	25 kVAr	50 kVAr	50 kVAr	50 kVAr	75 kVAr
Count	235	247	32	38	127
Cap Err	0	0	0	0	0

Alarm Count	Alarm Description
0	Start-up from power fail.
0	Preset Compensation Error.
0	Start-up from device reset.
0	PFMD Date Reset.
3	Maximum Capacitor Switch/Day Exceeded.
0	Maximum Demand Exceeded.

Technical Information

General Specifications	
Dimensions	150x80x200mm
Voltage input Range	85V ac - 260V ac (Phase to Neutral)
Current Input	0 - 5A Input
Communication Interface	1 x USB Port
Communication Protocol	Modbus RTU
Accuracy	Class 1
Clock Accuracy	Accurate to ± 1 Minute/Year (0°C to +40°C)
Voltage input Burden	Less than 3.5 VA
Current Burden	Less than 0.5VA
Current Input Type	Feed Through Conductor (2.5mm ²) with Interposed CT, Galvanic Isolated.
Voltage Input Terminal Rating	600 Volt AC
Measuring Methods Supported	3Watt/4Wire or 2Watt/3Wire
Current Terminal Rating	32 Amp
Connection	
GSM	SMS communications
Monitoring	
Capacitors	Monitor up to 12 steps
Step Counters	Keeps track of every cap switched
kVA _r Measurements	Measures capacitance of each switch
kVA Demand	Registers and stores kVA Demand
Real-time Values	Real-time parameters can be viewed via sms



