BRICK & BYTE

MDC (Maximum Demand Controller)

1. GENERAL :

Maximum Demand Controller is applicable for medium and large scale industries to reduce demand peaks without affecting their operation. Maximum demand charges are collected based on the highest recorded demand peak in the month. By temporarily reducing the loads during the periods of high demand the maximum demand charges can be reduced.

Two measure benefits when maximum demand is limited to a predetermined level.

a) Released electrical system capacity.
b) Reduced operating cost.

Maximum demand controller is a device designed to meet the need of load management for industries. Alarm I sounded when demand approaches a present value. If corrective action is not taken, the controller switches OFF non essential load in a sequence. The plant equipments selected for load management are stopped and restarted. Demand control is achieved by using suitable contactors and electrical hooters.

2. FEATURES :

- Better utilization of available power
- Avoid penalty, disconnection
- Improved load factor
- True RMS measurement
- Auto scaling from KVA to MVA
- Predictive control method adopted to optimize demand control
- Field programmable CT & PT ratios
- Demand profile generation for setting realistic demand targets
- Records 5 peak demands with date and time
- Time of day (TOD) facility
- Integration time selectable : 15/30 minutes
- RS485 communication interface to PC (optional)
- Three control outputs for better control

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3. APPLICATIONS :

- Main incomers in substations
- Hospitals and hotels
- Process control industries

4. TECHNICAL SPECIFICATIONS :

Sr.No	Particular	Specification
1.0	Voltage range	80V to 250V AC line to line for LT
		25V to 140V AC line to line for HT
2.0	Standard current	1A / 5A
3.0	Max current	1.5A / 7.5A
4.0	Frequency range	40 to 60 Hz
5.0	Aux supply	Self powered
6.0	Operating temp	55°C
7.0	Measurement methods	3 phase 4 wire for LT 3 phase 3 wire for HT
8.0	Accuracy	Class 0.5, 1
9.0	Display	7 digit 0.5" high bright 7 segment red colour LED display
10.0	LED indication	Relay ON and Load add/remove
11.0	**Output**	
(a)	Relay output	3 (1 for predictive demand and 2 for rising demand)
(b)	Contact rating	3A at 240 VAC
(c)	Relay acknowledge	Provided
12.0	Communication (optional)	RS485 – MODBUS RTU
13.0 (a)	Dimensions	144(H)x144(W)x160(D) mm
(b)	Cut out size	138(H)x138(W)

5. MEASURED QUANTITIES :

The meter display following parameter as follows:

- 3 phase, phase to neutral voltage
- 3 phase, phase to phase voltage
- 3 phase current and total KVA
- Rising demand and demand time
- Predictive demand

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- Additional load capacity
- Time available to exceed the set point
- Maximum demand with date and time
- 24 hour demand with date and time
- Cumulative maximum demand
- MD reset count
- TOD demand and demand profile
- Control history with date and time

6. Communication Capability:

The offered Demand Controller has RS 485 port (optional) with MODBUS RTU protocol for communication with management software.