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MAXIMUM DEMAND CONTROLLER PCM9006

FEATURES

- Better Utilisation of available Power
- Avoid Penalty, Disconnection
- Improved Load Factor
- True RMS measurement
- Auto scaling from kVA to MVA
- Predictive control method adopted to optimise demand control
- Field programmable CT & PT ratios
- Demand profile generation for setting realistic demand targets
- Records 5 peak demands with date & time
- Time of the day (TOD) facility
- Integration time selectable : 15/30 minutes
- RS485 communication interface to PC (optional)
- 3 Control outputs for better control

APPLICATIONS

- Main Incomers in Substations
- Hospitals and Hotels
- Process Control Industries

ICD 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 or cycling the loads during the periods of high demand the maximum demand charges can be reduced.

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

1) Released electrical system capacity

2) Reduced operating cost.

Controllable Loads

1) Some electrical equipments load can be turned OFF for few minutes to hours without causing loss of production in convenience or harm. Heating process like storage water, slab, storage room, ventilation and air conditioner and battery charger are some of the loads that can be differed to reduce demand charges.

2) Other restricted load to be carefully controlled are: Air compressor, Process Grinders, Refrigeration Motor, Electrical Furnaces, Pumps, Kilns etc.

Maximum demand controller is a device designed to meet the need of load management for industries. Alarm is sounded when demand approaches a preset value. If corrective action is not taken, the controller switches OFF non essential loads 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.

TECHNICAL SPECIFICATION

MEASURED QUANTITIES

Parameter Shown :1) 3 Phase, Phase to Neutral Voltage
2) 3 Phase, Phase to Phase Voltage
3) 3 Phase Current and Total kVA
4) Rising demand and demand time
5) Predictive demand
6) Additional load capacity
7) Time available to exceed the set point
8) Maximum demand with date & time
9) 24 hour demand with date & time
10) Cumulative maximum demand
11) MD reset count
12) TOD demand and demand profile
13) Control History with date and time

Demand History :Provided. Previous 5 MD reset values are stored with date and time

Demand Profile :Provided. 2 High profiles and 8 low profiles

Profile Generation :Profiles are generated with respect to first set point and profile band programmable through key pad

Additional / Removal of load indication :Provided through LED's on the front panel of the meter

TOD Facility :4 Zones with 6 different time slots

RATINGS

Voltage Range :80V to 520V AC line to line for LT
25V to 140V AC line to line for HT

Standard Current :1A / 5A

Max. Current :1.5A / 7.5A

Frequency Range :40.00 to 60.00 Hz

Auxiliary Supply :240V AC (-20% to +10%)

Operating Temperature :55° C (Max.)

MEASUREMENT

Method :3 Phase 4 wire for LT
3 Phase 3 wire for HT

Accuracy :Class 0.5, 1

DISPLAY

Type :7 digit 0.5" high bright 7 segment Red colour LED Display

LED Indication :Relay ON and Load Add/Remove

KEY FUNCTIONS

Key Pad :8 Keys used for Program mode setting and Run mode selection

Setting Parameter :1) Primary Voltage (HT Meter only)
2) Primary Current
3) Integration Time (15 / 30 Minutes)
4) Set Point for Rising demand
5) TOD zone setting
6) Clock and Calendar
7) Maximum Demand Reset

Unauthorised Person Entry Protection :Provided through Password Facility

OUTPUT

Relay Output :3 (1 for predictive demand and 2 for rising demand)

Contact Rating :3A at 240V AC

Relay acknowledge :Provided

COMMUNICATION (Option)

Type : RS485

Protocol : MODBUS - RTU

Isolation : Provided

Traffic Status : Indicated through TXD, RXD LED

CASE AND DIMENSIONS

Enclosure :ABS Plastic

Dimension :144(H) x 144(W) x 150(D) mm

Cutout :136(H) x 136(W) mm

Mounting :Flush / Panel

kW based maximum demand control option is available in model PCM9007

PARAMETERS DISPLAYED

PARAMETERS	RANGE	RESOLUTION	ACCURACY
R, Y, B Voltage (LT Meter)	180 V - 270 V	0.1 V	± 0.5% + 2 least digit
RY, YB, BR Voltage (LT Meter)	310 V - 470 V	0.1 V	± 0.5% + 2 least digit
R, Y, B Voltage (HT Meter)	Primary Voltage	0.01 kV	± 0.5% + 2 least digit
RY, YB, BR Voltage (HT Meter)	Primary Voltage	0.01 kV	± 0.5% + 2 least digit
Current	0 - 100 A 100 A & above	0.1 A 1 A	± 0.5% + 2 least digit
kVA (LT Meter)	0 - 1000 1000 & above	0.1 kVA 1 kVA	± 0.5% + 2 least digit
kVA (HT Meter)	0 - 10000 10000 & above	1 kVA 0.01 MVA	± 0.5% + 2 least digit
Frequency	40.00 - 60.00 Hz	0.01 Hz	± 0.2% + 2 least digit
RD kVA, PD kVA, MD kVA (LT Meter)	9999.9	0.1 kVA	Better than ± 1%
RD kVA, PD kVA, MD kVA (HT Meter)	99999	1 kVA	Better than ± 1%

PLEASE PROVIDE THE FOLLOWING DETAILS WHILE PLACING YOUR ORDER / ENQUIRY

1. Voltage Input 2. Current Input 3. HT / LT Application 4. CT Primary 5. PT Primary 6. Self Powered / External Supply.

OUR RANGE OF PRODUCTS

Volt Meter, Ammeter, VAF Meter, Energy Meter, Dual Source Meter, Load Manager, Power Multimeter, Trivector Meter, Maximum Demand Controller, Harmonic Indicator, Power Factor Controller, Smart PF Controller, Power Factor Correction Panel, AC Voltage Controller, AC Current Controller, Motor Protection System, Voltage/Current/Power/Frequency Transducer, Power Transmitter, Energy Management and Billing Systems etc...

ICD

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