**PowerCom M553-CTX**

The M553-CTX PowerCom is a complete single or three phase multifunction ac power transducer, providing RS485 Modbus communication and a pulsed output in a 55mm Din enclosure. The M553-CTX model can be used on single phase and three phase systems without modification. It has a universal power supply which is suitable for ac or dc auxiliary voltages. The M553-CTX covers a wide range of voltage inputs and CT and VT ratios can be programmed.

**COMMUNICATION**

The M553-CTX uses the well established Modbus protocol. This enables remote reading and programming of the M553-CTX using a host computer. The RS485 network allows up to 32 units to be connected in parallel, enabling them to be used with PC, PLC, RTU, Data loggers and Scada programs.

The PowerCom's communication port incorporates an auto-configure function which, when connected to an existing Modbus network, will automatically detect the network's parameters. A red LED is provided to indicate that auxiliary power is present, and that the unit is communicating correctly.

**PROGRAMMING**

The following can be programmed via the RS485 port: CT and VT ratios, pulse duration, relay divisor.

**SOFTWARE**

MultiView set-up and monitoring software is available free of charge from our web-site: www.multitek-ltd.com

**PULSED OUTPUT**

An optional pulsed output can be ordered. This can be assigned to W.h Var.h (import or export) A.h or VA.h. Alternatively, it can be configured to act as set-point indicator.

**SYSTEM TYPES**

Single Phase
- Single phase 3 wire balanced load
- 3 phase 3 wire balanced load
- 3 phase 3 wire unbalanced load
- 3 phase 4 wire unbalanced load

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**PARAMETERS MEASURED**

* Phase Voltage (V)
* Line Voltage (V)
* Phase Current (I)
* Frequency (Hz)
* Active Power per phase (W)
* System Active Power (W)
* Reactive Power per phase (VAR)
* System Reactive Power (VAR)
* Apparent Power per phase (VA)
* System Apparent Power (VA)
* Import Active Energy (W.h)
* Export Active Energy (W.h)
* Import Reactive Energy (VAR.h)
* Export Reactive Energy (VAR.h)
* Apparent Energy (VA.h)
* Ampere Energy (A.h)
* Power Factor per phase (P.F.)
* System Power Factor (P.F.)
* Amp Demand (Ad)
* Watt Demand (Wd)
* VA Demand (VAd)
* Maximum Amp Demand (Max Ad)
* Maximum Watt Demand Import (Max Wd)
* Maximum Watt Demand Export (Max Wd)
* Maximum VA Demand (Max VAd)
* Neutral Current
* Hours Run

**ORDERING INFORMATION**

<table>
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<tr>
<th>Information required</th>
<th>Example</th>
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<tbody>
<tr>
<td>Product Code</td>
<td>M553-CTX</td>
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<tr>
<td>Nominal input current</td>
<td>1 or 5A AC</td>
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GENERAL SPECIFICATION

INPUT
Rated Un  Direct connected voltages between
28 to 330V L-N, 48V to 570V L-L.
(280V L-N. Nominal)

Range Un  2-120% Un
Overload  800V continuous
Rated In  1A or 5A nominal
Range In  2-120% via C.T.
De-rate Point  2% In
Overload  4xIn for 1 second
Burden  0.5VA per phase Volts & Amps
Frequency  45-65Hz

ACCURACY
Specified @ 23°C 10%-Un 10%-In
Parameters unless stated  Class 0.3% to IEC 688
Volts and Amps  Class 0.25% to IEC 688
Frequency  Class 0.1Hz to IEC 688
Power Factor  Class 1.0% to IEC 688
Active & Reactive Energy 1% of reading to IEC 1036

INSULATION
Installation category  III (480 VAC ph/ph)
Degree of pollution  2
Rated impulse withstand voltage  IEC60947-1-V imp:4kV
Electrical security  IEC 61010-1
Inputs + Aux to case  3kV rms 50Hz for 1 min
Inputs + Aux to RS485  3kV rms 50Hz for 1 min
Inputs + Aux to relay  1k5V rms 50Hz for 1 min

ELECTROMAGNETIC COMPATIBILITY
Immunity to:
electrostatic discharges:  IEC 61000-4-2-Level III
radiated radio-Hz fields:  IEC 61000-4-3-Level III
electrical fast transient/bursts:  IEC 61000-4-4-Level III
impulse waves:  IEC 61000-4-5-Level III
conducted disturbances:  IEC 61000-4-6-Level III
voltage dips & short interruptions:  IEC 61000-4-11
Emissions to:
Conducted and radiated  CISPR11-Class A

AUXILIARY
100 to 440V ac  100 to 420V dc
45 to 65Hz  Burden <10VA

ENVIRONMENTAL
Working Temperature  0 to +60 deg C
Storage Temperature  -30 to +65 deg C
Temperature Coefficient  0.01% per deg C

OPTIONS
Low voltage dc auxiliary  19-69V dc
Frequency  380-420Hz
dc measurement

DC OPTION PARAMETERS MEASURED
* Voltage (V)
* Current (I)
* Power (W)
* Energy (W.h)
* Amp Demand
* Power Demand
* Maximum Amp Demand (Max Ad)
* Maximum Power Demand (Max Wd)
* Ampere Hours (A.h)
* Hours Run

APPLIED STANDARDS
General  IEC 688 BSEN60688
Safety  BS4889 IEC 359

APPROVALS
UL, C-UL,  Pending

CASE DIMENSIONS

All Dimensions in mm

M3.5 terminals
DIN-EN 50022/BS5584 Rail Fixing

CONNCTION DIAGRAM

Unused voltage terminals are internally connected