Transducers

M553-CTX PowerCom

Single Phase or 3-Phase multifunction AC power transducer

PowerCom M553-CTX

The M553-CTX PowerCom is a complete single or three-phase multifunction AC power transducer, providing RS485 (MODBUS) communication and a relay (control or pulsed) output in a 55mm DIN enclosure.

The M553-CTX model can be used on single-phase and three-phase systems without modification. It is a low-cost power transducer that is ideal for applications where meters are no longer required.

The M553-CTX covers a wide range of voltage inputs and CT and PT ratios.

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: Electrical system, CT and PT ratios, pulse duration or relay value/setpoint.

Software

MultiView set-up and monitoring software is available free of charge from our website at www.pc-s.com.

Pulsed Output / Setpoint Control Relay

This device comes with a standard pulsed output/control relay. This can be assigned to W.h, A.h or VA.h. Alternatively, it can be configured to act as a set-point control.

Options

Low voltage DC auxiliary	19-69V,DC
Frequency	380-420Hz

Electrical System Types

1 Phase, 2 Wire
1 Phase, 3 Wire
3 Phase, 3 Wire (balanced load)
3 Phase, 4 Wire (balanced load)
3 Phase, 3 Wire (unbalanced load)
3 Phase, 4 Wire (unbalanced load)

MEASURED PARAMETERS

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 (kW.h)
Export Active Energy (kW.h e)
Import Reactive Energy (kVAr.h)
Export Reactive Energy (kVAr.h e)
Apparent Energy (VA.h)
Ampere Energy (A.h)
Power Factor per phase (PF)
System Power Factor (PF)
Amp Demand (Ad)
Watt Demand (kWd)
VA Demand (kVAd)
Maximum Amp Demand (Max Ad)
Max. Watt Demand Import (Max kWd)
Max. Watt Demand Export (Max kWd e)
Max. VA Demand (Max VAd)
Neutral Current
Hours Run

What's New!

Products constantly update. All specifications are subject to change without notice.
For more information on this product, please contact:

PC&S, Inc. at +1 (800) 523-9194 or +1 (973) 448-9400
www.pc-s.com

M553-CTX Multifunction AC Power Transducer

ELECTRICAL SPECIFICATIONS

INPUT

Rated Un	Direct connected voltages between 28V to 330V,AC (L-N) 48V to 570V,AC (L-L) (280V L-N nominal)
Range Un	2-120% Un
Overload	800V,AC continuous
Rated In	5A,AC
Range In	2-120% In
Overload	4x In for 1 second
Burden	0.5VA per phase Volts & Amps
Frequency	45-65Hz

ACCURACY

Specified at 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

AUXILIARY VOLTAGE

Range: 100 to 440V,AC / 100 to 420V,DC / 45-65Hz
Burden: <10VA

OUTPUT RELAY

SPST (Form A)
Solid State - 100V,DC - 120mA - 8 Ohm (max. on resistance)
*NOTE: When used to drive an interposing control relay, use an appropriately-rated TVS diode across the relay output.

INSULATION

Insulation Category	III
Degree of Pollution	2
Rated Impulse	IEC 60947-1-V
Withstand Voltage	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 (ESD)	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-Level III

GENERAL SPECIFICATIONS

ENVIRONMENTAL

Working Temperature	-32°F to +140°F (0°C to +60°C)
Storage Temperature	-22°F to +149°F (-30°C to +65°C)
Temperature Coefficient	0.01% per deg C

APPLIED STANDARDS

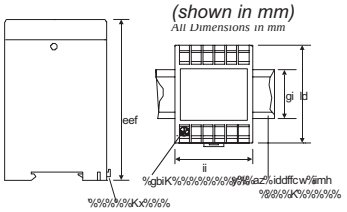
General	IEC 688 BSEN60688 BS4889 IEC 359
Safety	IEC 6101-1 2010

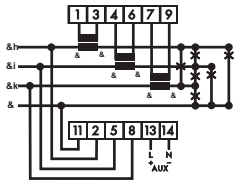
APPROVAL

UL, C-UL	Pending

DIMENSIONS AND CONNECTION DIAGRAM

(shown in mm)
All Dimensions in mm





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	&h	&i	&k	&	&h	&i	&k
h&&	✓	×	×	✓	✓	×	×
h&&Ok&	✓	✓	×	✓	✓	×	×
k&&Ok&	✓	✓	✓	×	✓	×	✓
k&&Ol&	✓	✓	✓	✓	✓	✓	✓
k&&Ok&Ozy&	✓	✓	✓	×	✓	×	×
k&&Ol&Ozy&	✓	×	×	✓	✓	×	×

Unused voltage terminals are internally connected

ORDERING INFORMATION

Select your requirements from the table below to build your part number:

M553CTX – [ ] – [ ] – [ ] – [ ]

Special Options	HS	High Shock
	CC	Conformal Coating
Aux Power Supply	PK	19-69V,DC low voltage aux
	(No Code)	100-440V,AC / 100-420V,DC (standard configuration)
Input Frequency	FX	Special
	FC	400Hz
	(No Code)	46-65Hz
Input Voltage Code	AB	48-570V,AC (L-L) - 1A,AC
	(No Code)	48-570V,AC (L-L) (standard configuration) - 5A,AC
Item	M553CTX	Multifunction AC power transducer

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www.pc-s.com

For more information and certifications, please contact:
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