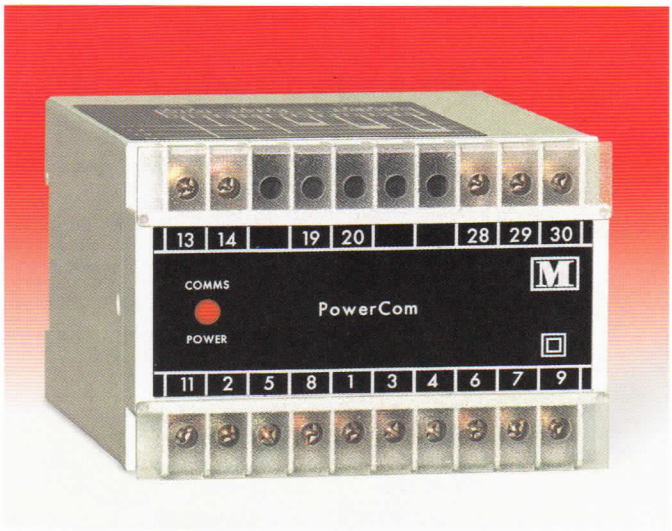
HOBUT




## POWERCOM

*The M550 PowerCom is a complete 1 phase or 3 phase multifunction AC power transducer packaged in a standard 100mm DIN enclosure. The M550 is fully programmable through the communication port.*

## 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)
* V A 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

## ACCURACY

*The accuracy of the M550 is Class 0.2 to IEC 688 over the range 10% to 120%.*
*For Active and Reactive energy the accuracy is 1% of reading to IEC 1036.*

## MEMORY

*All data including energy registers, current and voltage ratios and calibration data is stored in a non volatile eeprom.*

## COMMUNICATIONS

*PowerCom uses RS485 Modbus protocol.*
*This enables remote reading and programming of the PowerCom via a host computer.*
*The RS485 allows up to 32 PowerComs to be connected in parallel, allowing them to be used with PC, PLC, RTU, Data loggers and Scada programs.*
*The PowerCom's communication port is auto-configurable meaning that when connected to an existing Modbus network it will automatically set Baud rate, Parity and Stop bits.*
*A red LED is provided to indicate power is present, and the unit is communicating correctly.*

## PULSED OUTPUT

*An option of pulsed output via a relay is offered. The pulsed output can be assigned to W.h, VAr.h, (import or export), A.h or VA.h.*

## PROGRAMMING

*CT and VT ratios, demand time, assigning relay to different parameters, pulse duration etc. can all be programmed via the RS485 port.*
*Set-up and monitoring software is available free from your Multitek distributor or visit the Multitek website www.multitek-ltd.com*

## ORDERING INFORMATION

| Information required | Example |
|---|---|
| Product Code | M550-CT9 |
| Nominal input voltage | 230 / 400V AC |
| Nominal input current | 5A AC |
| System Frequency | 50Hz |
| Auxiliary | 230V |
| Options | Pulsed Output |

## GENERAL SPECIFICATION

**INPUT**

| | |
|---|---|
| Rated Un | Direct connected voltages between 57.8 and 600 V. Specify nominal. |
| Range | 2-120% Un |
| Overload | 1.5 x Un cont. 4 x Un for 1 sec |
| Rated In | 1 or 5 amp |
| Range | 0-120% In |
| Burden | 0.5VA per phase Volts & Amps |
| Overload | 4 x In continuous. 50 x In for 1sec |
| Frequency | 50 / 60 Hz nominal range 45/65Hz |

## ACCURACY

Specified @ 23°C 10%-Un 10%-In

| | |
|---|---|
| Parameters unless stated | Class 0.2% to IEC688 |
| Frequency | Class 0.1Hz to IEC 688 |
| Power Factor | Class 1.0% to IEC 688 |
| Active & Reactive Energy | 1%of reading IEC1036 |

## INSULATION

| | |
|---|---|
| Test Voltage | 4 kV RMS 50 Hz for 1 min Inputs / Case / Auxiliary 3kV RS485 / 1.5kV Relay |
| Impulse Test | EMC 5kV transient complying with IEC 801/EN 55020 HF |
| Surge withstand | IEC 801 / EN55020 ANSI C37.90A |
| Interference | EHF 2.5 kV 1Mhz complying with IEC 255-4 |
| Protection Class II | complying with IEC348 |

## APPLIED STANDARDS

| | |
|---|---|
| General | IEC 688 BSEN60688, BS4889, IEC 359 |
| EMC | Emissions BSEN50081/1 Immunity BSEN50082/2 |
| Safety | IEC 1010, BSEN601010 |

## AUXILIARY

| | |
|---|---|
| AC voltage | 115 or 230 or 277 volts (±15%) |
| DC voltage | 12 / 24 / 48 / 110 / 125 volts (±15%) |

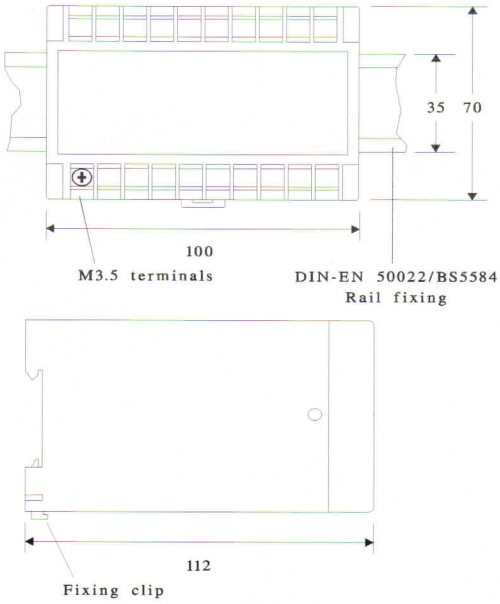
## ENVIRONMENTAL

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

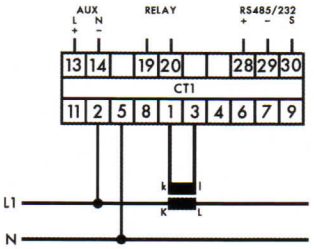
## APPROVALS

| | |
|---|---|
| UL, C-UL, CSA | Pending |

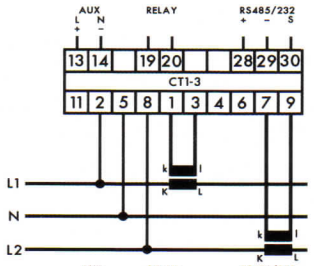
## CASE DIMENSIONS



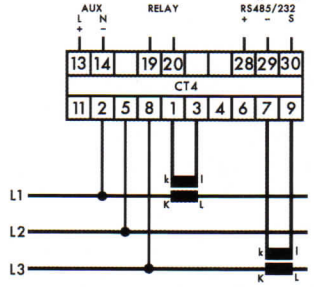

## CASE CONNECTION DIAGRAMS



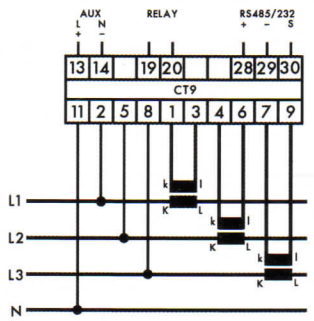

Single Phase




Single Phase 3 Wire




3 Phase 3 Wire Unbalanced Load




3 Phase 4 Wire Unbalanced Load

Our policy is one of continuous development and therefore specifications may change without notice.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E-Mail: sales@hobut.co.uk Web: www.hobut.co.uk

## GENERAL SPECIFICATION

**INPUT**

| | |
|---|---|
| Rated Un | Direct connected voltages between 57.8 and 600 V. Specify nominal. |
| Range | 2-120% Un |
| Overload | 1.5 x Un cont. 4 x Un for 1 sec |
| Rated In | 1 or 5 amp |
| Range | 0-120% In |
| Burden | 0.5VA per phase Volts & Amps |
| Overload | 4 x In continuous. 50 x In for 1sec |
| Frequency | 50 / 60 Hz nominal range 45/65Hz |

## ACCURACY

Specified @ 23°C 10%-Un 10%-In

| | |
|---|---|
| Parameters unless stated | Class 0.2% to IEC688 |
| Frequency | Class 0.1Hz to IEC 688 |
| Power Factor | Class 1.0% to IEC 688 |
| Active & Reactive Energy | 1%of reading IEC1036 |

## INSULATION

| | |
|---|---|
| Test Voltage | 4 kV RMS 50 Hz for 1 min Inputs / Case / Auxiliary 3kV RS485 / 1.5kV Relay |
| Impulse Test | EMC 5kV transient complying with IEC 801/EN 55020 HF |
| Surge withstand | IEC 801 / EN55020 ANSI C37.90A |
| Interference | EHF 2.5 kV 1Mhz complying with IEC 255-4 |
| Protection Class II | complying with IEC348 |

## APPLIED STANDARDS

| | |
|---|---|
| General | IEC 688 BSEN60688, BS4889, IEC 359 |
| EMC | Emissions BSEN50081/1 Immunity BSEN50082/2 |
| Safety | IEC 1010, BSEN601010 |

## AUXILIARY

| | |
|---|---|
| AC voltage | 115 or 230 or 277 volts (±15%) |
| DC voltage | 12 / 24 / 48 / 110 / 125 volts (±15%) |

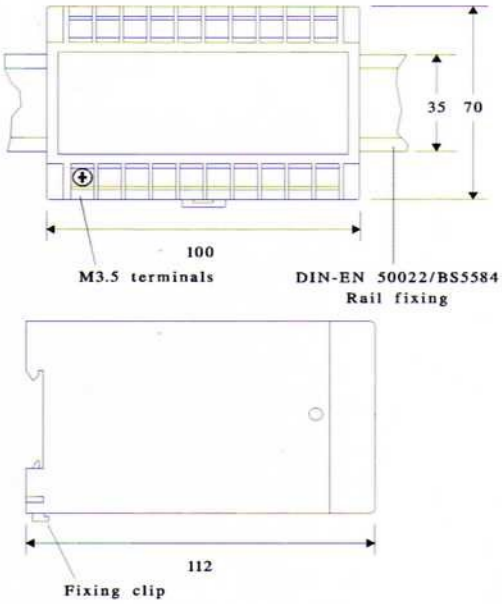
## ENVIRONMENTAL

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

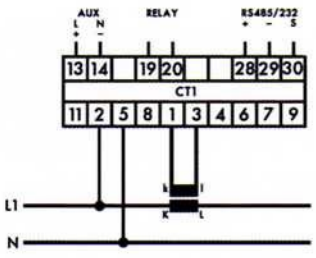
## APPROVALS

| | |
|---|---|
| UL, C-UL, CSA | Pending |

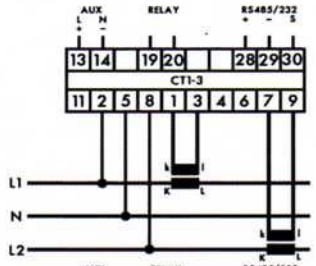
## CASE DIMENSIONS



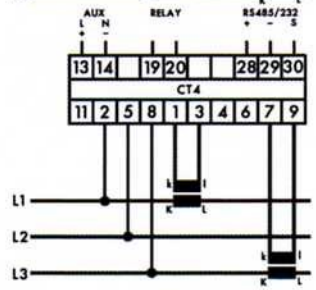

## CASE CONNECTION DIAGRAMS



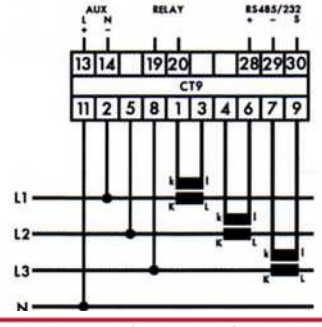

Single Phase




Single Phase 3 Wire




3 Phase 3 Wire Unbalanced Load




3 Phase 4 Wire Unbalanced Load

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