

# MOULDED CASE CT - WITH UNIQUE TRANSUDCER OPTION

**TYPES: ASK101.4**

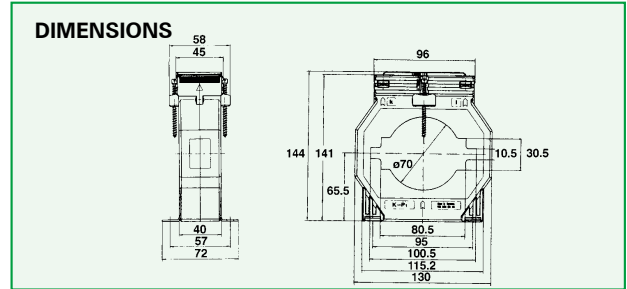
**FEATURES**

- Foot mounted or bus-bar mounted
- Snap fit secondary terminal covers
- Insulated ends to bus-bar pinch screws
- Transformer width 130mm
- Max conductor size 70mm dia.
- Max bus-bar size 100x10mm or 2x 80x10mm
- Primary ranges from 500 Amps to 2000 Amps
- 1 Amp or 5 Amp secondaries



**NMC PLUG IN TRANSUDCERS**

P/No	CT SECONDARY	AUX SUPPLY	OUTPUT
NMC014-37215	1A	Self powered	0-20mA & 0-10VDC & 1A
NMC024-37015	5A	Self powered	0-20mA & 0-10VDC & 5A
NMC214-39235	1A	24VDC	4-20mA & 0-10VDC & 1A
NMC224-39035	5A	24VDC	4-20mA & 0-10VDC & 5A
NMC314-36235	1A	230VAC	4-20mA & 0-10VDC & 1A
NMC324-36035	5A	230VAC	4-20mA & 0-10VDC & 5A
NMC414-76235	1A	110VAC	4-20mA & 0-10VDC & 1A
NMC424-76035	5A	110VAC	4-20mA & 0-10VDC & 5A



PRIMARY CURRENT	500	600	800	1000	1200	1250	1500	1600	1800	2000
VA	10	10	10	15	15	15	15	30	30	30
CLASS	1	1	1	1	1	1	1	1	1	1

■ All ASK101.4 models available with 1 Amp or 5 Amp secondaries. Above ratios available as Class 0.5 to special order, please consult sales office for information.

## HOW FAR AWAY CAN A CT BE SITED FROM YOUR INSTRUMENTATION ?

Firstly, you have to allow double the distance, the return cabling has to be allowed for, therefore 15 mtrs is in fact 30 mtrs.

The formulae for calculating the VA required is  $I^2 R = VA$

Where **I** is the secondary current of the CT.

Where **R** is the resistance, the resistance of the secondary of the CT cabling per metre, multiplied by the number of metres.

Typical resistance of tri rated cable per metre is as follows at an ambient temperature of 20°C. However, it is advised that the customer specifically checks with his own cable supplier as specifications will slightly vary.

**TYPICAL TRI RATED CABLE IMPEDANCE**

0.5mm	=	0.039	Ohms / mtr
0.75mm	=	0.026	Ohms / mtr
1.0mm	=	0.0195	Ohms / mtr
1.5mm	=	0.0133	Ohms / mtr
2.5mm	=	0.00798	Ohms / mtr
4.0mm	=	0.00495	Ohms / mtr
6.0mm	=	0.0033	Ohms / mtr
10.0mm	=	0.00191	Ohms / mtr

The input burden of the instrumentation equipment that the secondary of the CT is feeding into must also be allowed for. Typically with modern digital display metering this is very low approx. 0.1 to 0.2VA, whilst analogue meters can be as high as 1.5VA

An example calculation:-

A meter sited 6 metres away from the CT with a 5 Amp secondary, utilising 1.5mm secondary cabling. What VA output from the CT is required:-

$5^2 \times (12 \times 0.0133) + 0.2VA \text{ (the meter)} = 4.19VA \text{ output required (Use a 5VA CT)}$

The VA required can be reduced by utilising 1 Amp secondary CT's because  $5^2$  becomes  $1^2$ , therefore the VA required reduces by x25 or the distance achievable increases by x25 depending on how you view the application.

Increasing the secondary cable size will also increase the distance achievable.