

NetThings split core CT Sensors

Current Transformers (CTs) are sensors that measure alternating current. They are used for measuring electricity consumption without the need to do any high voltage electrical work. The numeric description given for each of the CTs is for the diameter of hole that exists in the centre of the device. That is, CT16 means a diameter of 16mm.

			
CT16A – 80A		CT24-400A	
Burden resistor	27 Ω / 0.25 W	Burden resistor	3.3 Ω / 1 W
Max Current	80 A RMS	Max Current	400 A RMS
Current to Voltage Factor	9 mV/A	Current to Voltage Factor	1.65 mV/A
Current Ratio	3000:1	Current Ratio	2000:1
Lead Length	1.5 m	Lead Length	1.5 m
Maximum Size for Cable Type 6491X	95 mm ²	Maximum Size for Cable Type 6491X	185 mm ²
Maximum Size for Cable Type 6181B	50 mm ²	Maximum Size for Cable Type 6181B	150 mm ²
			

**** Use only CT`s supplied by NetThings, as other CT`s will lead to large measurement errors and may damage the Energy Manager ****

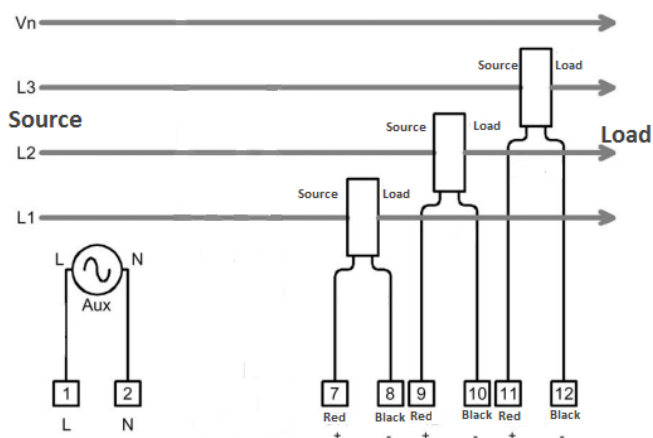
Lead length will affect accuracy. CT tail length should be no greater than 5m

Accuracy

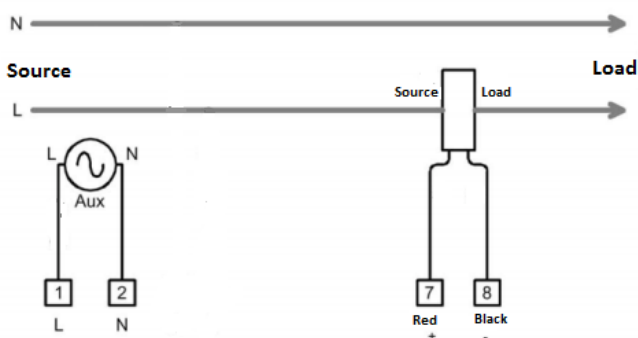
Factors that can significantly impair the accuracy of a split-core CT is contamination or introducing an air gap. Even a very small gap or dirt contamination of the ferrite faces might cause the output to drop by 10% or more, so it is important to ensure that the faces of the core are clean and properly aligned when the CT is installed.

Polarity fitting

Three-Phase



Single Phase



Where Cable Access Is Not Possible

Should you not be able to gain access for the fitment of the CT you may need to use pulse outputs from the utility meter to monitor your energy or install suitable pulse output sub-meters.