

Dc Current Transducer v5 DCT247

The DCT247 is for monitoring of DC and true rms ac currents from 5 to 6000A and provides a standard process signal output. Internal coding plugs are used to use to program the output measurement range from 10 to 100% of the CT used. Current is detected by means of a toroidal Hall Effect sensor, providing total isolation and true waveform transfer. This is particularly useful for low voltage systems, where the traditional DC-Shunt method is not acceptable. To accommodate pulsing current or high harmonic contents the filter constant can be set by coding plugs. For external external CT versions the zero and span are accessible from the top. For top mounted CT versions the adjustments are accessible on the lower narrow edge Span is closest to bottom, Zero is closest to the terminals.



DCT247 – X X X X X

Power Supply:

4 = 8-60Vdc / 15-42Vac 50/60Hz

*) 5 = 80-300Vdc / 80-280Vac 50/60Hz

Input: (one turn)

*) 1 = 50A (5A steps in selection).

*) 2 = 100A (10A steps in selection).

3 = External CT specify type and calibration.

HCT016 = 0-50A 21mm hole

HCT017 = 0-100A 21mm hole

HCT018 = 0-400A 42mm hole

HCT019 = 800 to 6000A 150 x 40mm

*) 9 = Other (specify).

Output:

*) 0 = N/O relay contact (See new product DCA218)
(Use OFFSET trim to adjust trip point).

3 = 0 - 10mA. (1.2k).

4 = 0 - 20mA. (600Ω)

5 = 4 - 20mA. (600Ω).

6 = 0 - 5V. (100k).

7 = 1 - 5V. (100k).

8 = 0 - 10V. (100k).

*) 9 = Other (specify).

*) B = Bipolar specify (+/-10V max, 5mA)

*) L = 4-20mA(loop powered signal)

Action:

1 = Direct.

Measurement:

0 = DC current.

*) 1 = True rms ac current.

*) 9 = Other (specify)

*) = Price Extra.

Input Current Range Selection

Full Scale	JP 2 Selection			
	5	10	15	20
R	5	10	15	20
10%	X	-	-	-
20%	-	X	-	-
30%	-	-	X	-
40%	-	-	-	X
50%	X	-	-	X
60%	-	X	-	X
70%	-	-	X	X
80%	X	-	X	X
90%	-	X	X	X
100%	X	X	X	X

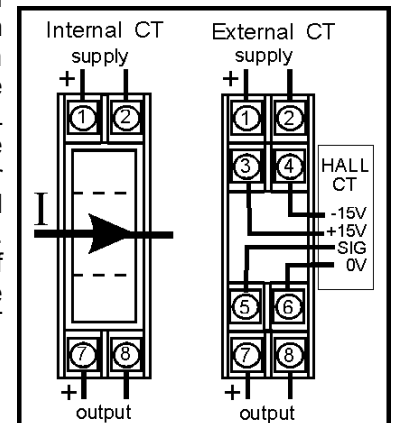
For inputs currents lower than 5A use several turns through the toroid, e.g. for 0-1A dc input use 5 turns and set coding plugs to 5 amps.

Input Filter Selection (T90)

JP1	A	B
10ms	-	-
250ms	X	-
500ms	-	X
800ms	X	X

External CTs

The top mounted CT models have an aperture of 12.5mm x 7mm. The external HALL effect CTs can be used with larger conductor sizes and higher currents. Drawings of external CTs are available via the CT part number.



Specifications

Size (top CT):	23.5W x 71.5H x 130D (mm)
Size (external CT):	23.5W x 71.5H x 109D (mm)
Housing:	ABS.
Mounting:	Clip for 35mm DIN-Rail.
Connection:	Screw terminals.
Weight:	104 gr.
Accuracy class:	AS-1384-1973, Class 0.2.
Response time:	See table.
Input range:	See input order code.
CT Aperture:	12.5mm x 7mm
Frequency range:	DC to 100kHz
Protection class:	IP40 (IP65) optional.
Cal. Accuracy:	<0.2% Span
Linearity:	<0.2% Span.
Operating temperature:	0...+70°C.
Temperature drift error:	< 0.05% per °C.
Load output effect:	0.1% up to RL max.
Overload continuous:	150% of rated input.
Short term (2 sec):	5 times rated input.
Input/output isolation:	3kV rms.
Power/output isolation:	2kV rms.
EMC:	AS/NZS 4251.1 (EN 50081.1)

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