

Premo presents HCT-LF series AC/DC current transducer, a new design based on the Hall Effect principle. HCT-LF series has good stability in high currents and a highly insulated primary and secondary.



## Features

- Closed loop Hall Effect sensor.
- Bipolar power supply.
- High currents measurement.
- Isolated plastic case recognized according to UL94-V0.
- EN60947-1:2004, IEC60950-1:2001, EN50178:1998 compliant.

## 1. Electrical parameters

	Symbol	Min	Typ	Max	Unit
Nominal current HCT-1000LF HCT-2000LF	$I_{PN}$		1000 2000		A A
Measuring range HCT-1000LF HCT-2000LF	$I_P$	-2000 -3000		2000 3000	A A
Rated output (at $I_{PN}$ ) HCT-1000LF HCT-2000LF	$I_S$		200 400		mA mA
Supply voltage ( $\pm 5\%$ )	$V_{CC}$	$\pm 15$		$\pm 24$	V
Turns ratio			1:5000		
Current consumption	$I_{CC}$		$35 + I_S$		mA
Secondary coil resistance ( $\pm 0.1\%$ ) HCT-1000LF	$R_C$		50		$\Omega$



## AC/DC Current transducers HCT-LF series

Email: [info@grupopremo.com](mailto:info@grupopremo.com)  
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### 2. Performance parameters

	Symbol	Min	Typ	Max	Unit
Accuracy (measured at $I_{PN}$ ) HCT-1000LF HCT-2000LF		$\pm 0.1$ $\pm 0.2$			% %
Linearity (measured at full scale) HCT-1000LF HCT-2000LF	$\epsilon_{LLR}$			0.05 0.1	% %
Offset current	$I_{OS}$			$\pm 0.2$	mA
Offset current drift (starting at -40 °C)	$KI_{OS}$			$\pm 0.5$	mV/°C
Response time	$T_R$			1	$\mu$ s
di/dt		100			A/ $\mu$ s
Bandwidth (-3 dB)	$F_C$	0		150	kHz

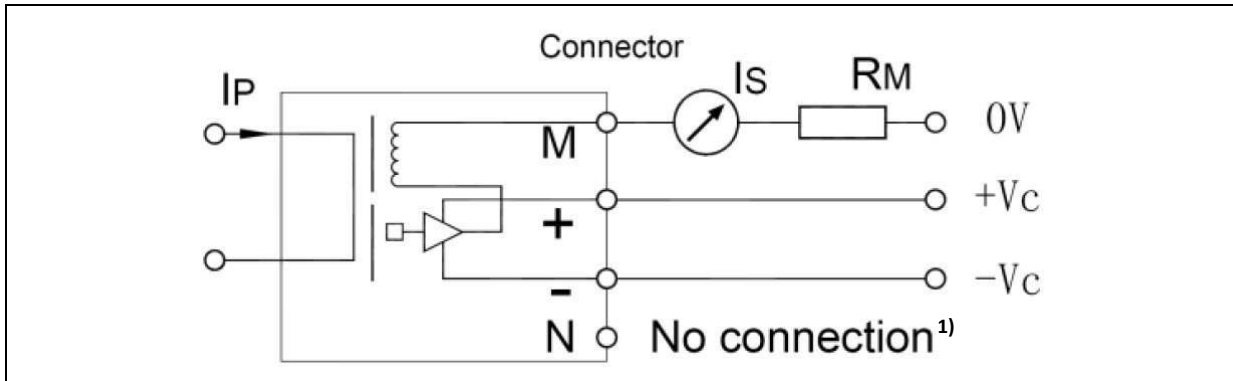
### 3. Isolation parameters

	Symbol	Min	Typ	Max	Unit
Galvanic isolation (50 Hz, 1 min)	$V_I$		6		kV

### 4. General parameters

	Symbol	Min	Typ	Max	Unit
Operating temperature	$T_A$	-40		85	°C
Storage temperature	$T_S$	-40		125	°C

## 5. Electrical connexion



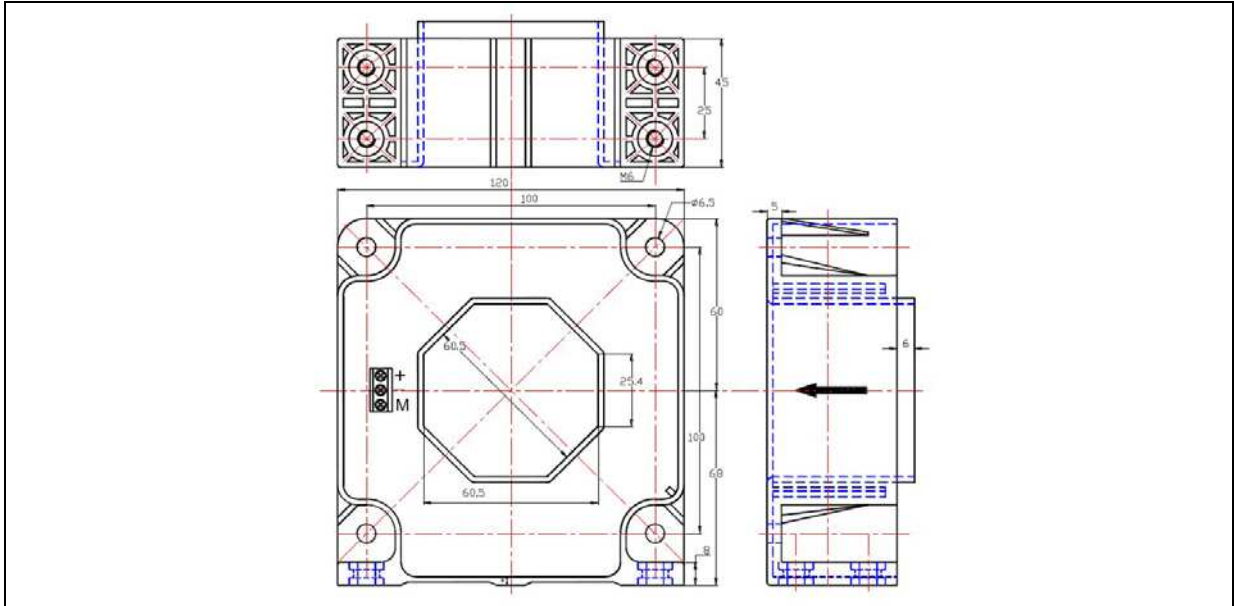
<sup>1)</sup>HCT-1000LF only

### Burden resistor

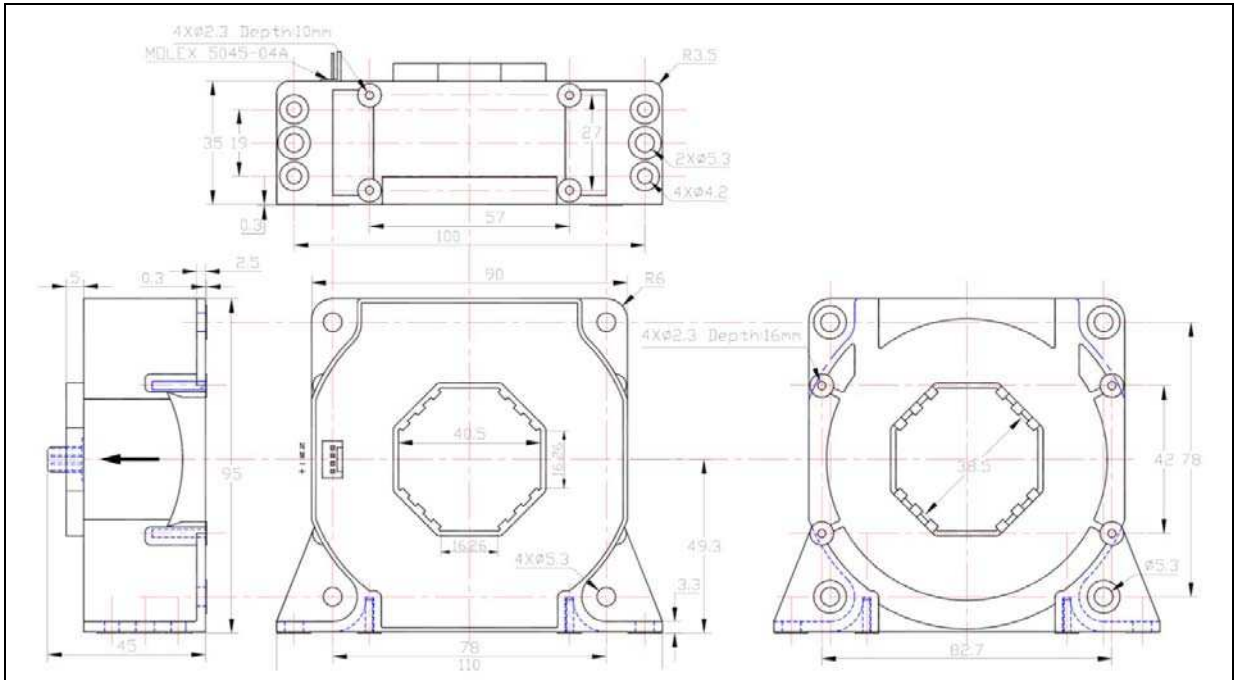
Code	Conditions	Value			Units
		Min	Typ	Max	
HCT-1000LF	$\pm 15 \text{ V @ } \pm 1000 \text{ A}$	0		20	$\Omega$
	$\pm 15 \text{ V @ } \pm 1200 \text{ A}$	0		7.5	
	$\pm 24 \text{ V @ } \pm 1000 \text{ A}$	0		65	
	$\pm 24 \text{ V @ } \pm 2000 \text{ A}$	0		7.5	
HCT-2000LF	$\pm 15 \text{ V @ } \pm 2000 \text{ A}$	0		5	$\Omega$
	$\pm 15 \text{ V @ } \pm 2500 \text{ A}$	0		2	
	$\pm 24 \text{ V @ } \pm 2000 \text{ A}$	0		25	
	$\pm 24 \text{ V @ } \pm 3000 \text{ A}$	0		5	

## 6. Dimensions

### HCT-2000LF



### HCT-1000LF



### Pin description

Pin	Value
+	+V <sub>CC</sub>
-	-V <sub>CC</sub>
M	Output
N	No connect

HCT-1000LF

Pin	Value
+	+V <sub>CC</sub>
-	-V <sub>CC</sub>
M	Output

HCT-2000LF

### Mechanical notes

1. All dimensions are in mm.
2. General tolerances according to ISO 2768-c
3. All dimensions and mechanical fixations could be changed upon user needs or PREMO transducer development.

## 7. Marking

*HCT-2000LF marking example*



*HCT-1000LF marking example*



### Marking notes

1. Component is marked in the lateral side.
2. Arrow indicates direction of positive currents.