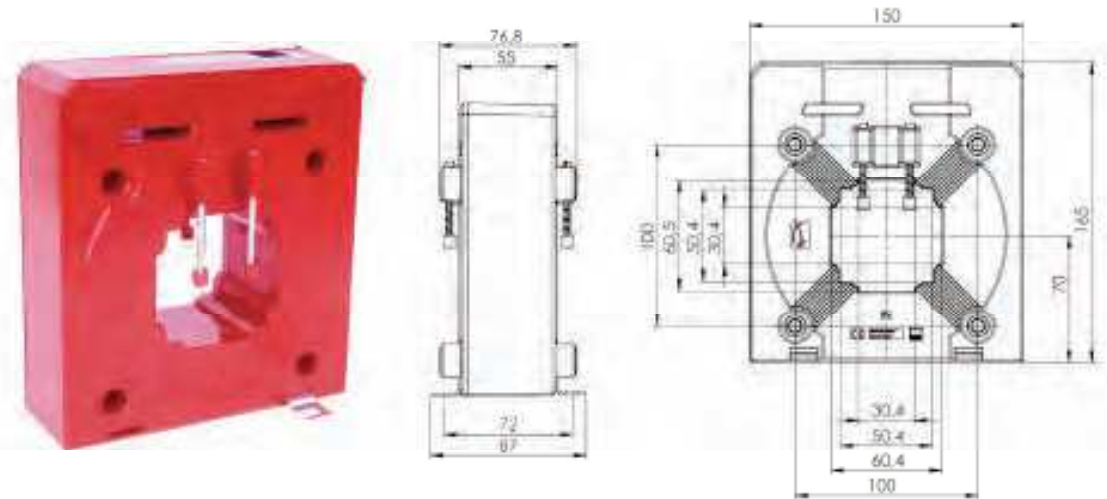


CCT 63.6 I (Compensation current transformer, MBS universal current sensor)

Current transformer for measuring both direct and alternating currents

- For use in network analysis, monitoring
- and for current measurement of non-sinusoidal and distorted networks



Dimensions:	Applied technical standards:	Electrical connection:
Rail 1: 60x30 mm	DIN EN 50179, 1998-04	$U_N + U_N - 0$ (Ground) I_N
Rail 2: 50x50 mm	DIN EN 61326-1, 2013-07	Plug-in terminal
Round conductors: 50 mm	IEC 61000-34	Connection cross-sections: 0.2 ... 1.5 mm ²
Width: 165 mm	DIN EN 61010-1	Stripping length: 10mm
Height: 150 mm		
Total depth: 77 mm		
Technical data:		
Measuring range:	0 ... 1,500 A DC / AC I_{pr} (rated current ranges adjusted to standard values according to IEC)	
Frequency range:	DC or 16.7 Hz ... 100 kHz, greater than 400 Hz only small signal	
Current output with AC input signal:	AC: 0 ... 300 mA I_{pr}	
Current output with DC input signal:	DC: 0 ... ± 300mA	
Max. load resistance at current output:	$R_L \leq 3 \Omega^*$ ($U_N = 24$ V DC)	
Output signal limitation in case of overload:	≤ 25 mA	
Accuracy:	± 0.5%	
Max. operating voltage U_N :	0.72 kV, U_{pr}	
Insulation test voltage:	6.4 kV, U_{pr} , 50 Hz, 12 sec., primary conductor against measuring output / housing	
Auxiliary voltage:	± 24 V DC, ± 10%, external fuse protection via one 300 mA time-lag fuse each	
Step response time (90 % I_{pr} d/dt = 100 A / μ s):	≤ 1 μ s	
Signal slew rate d/dt:	> 100 A / μ s	
Insulation material class:	E	
Protection class:	IP 20	
Permitted altitude for operation:	≤ 2000 m (DIN EN 61010-1)	
Max. temperature of the primary conductor:	100 °C	
Working temperature range:	-25 °C < T_a < +60 °C, 0 ... 95% rel. humidity, no condensation	
Storage temperature range:	-50 °C < T_s < +90 °C	

* The measurement output must not be operated open!

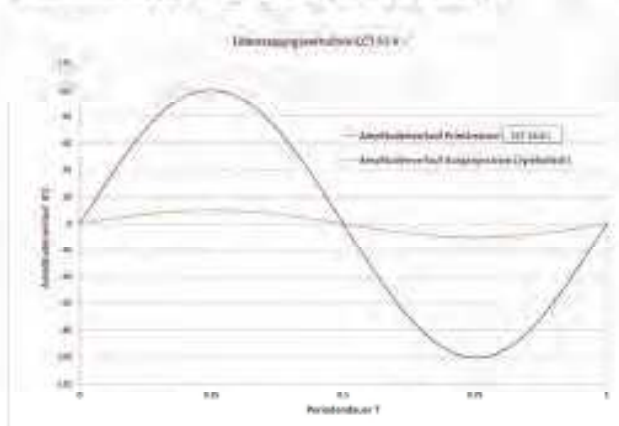
Functions of the CCT 63.6 I:

- The magnetic field surrounding a current-carrying conductor is detected by a measuring core surrounding the conductor. The magnetic flux induced in the measuring core, which is directly proportional to the current strength in the primary conductor, is detected by means of a semiconductor component. An electronic control unit integrated in the unit converts the signal supplied by the semiconductor into an output current signal directly proportional to the time curve of the measured variable.
- The inductive, contactless acquisition of the measured variable provides an electrically isolated output signal.
- The electrical contact of the secondary circuit of the current transformer is made via an 8-pole plug-in terminal. This terminal is suitable for connecting flexible stranded wires up to 1.5 mm².
- A bipolar DC auxiliary power supply of ± 24 V DC is required to supply the control electronics. The auxiliary voltage inputs must be protected by a 300 mA / 250 V / F line-wire fuse.

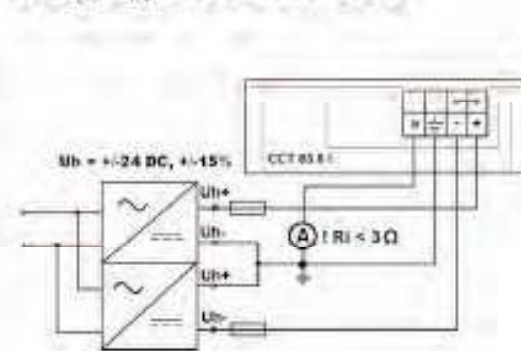
Advantages and benefits of the CCT 63.6 I:

- Measurement of both direct and alternating currents is possible with only one transformer.
- Wide working frequency range from 0 Hz (DC) to 100 kHz (AC).
- High electrical safety due to galvanically isolated acquisition of the measured variable.
- Low power consumption (≤ 2.5 VA)
- Simple and safe electrical wiring using proven plug-in terminal technology.
- Direct mounting on busbars by means of fixing screws integrated in the unit.
- High climatic and mechanical resistance due to PU encapsulation of all electrical components.

Transmission behaviour of the CCT 63.6 I:



Wiring diagram of the CCT 63.6 I:



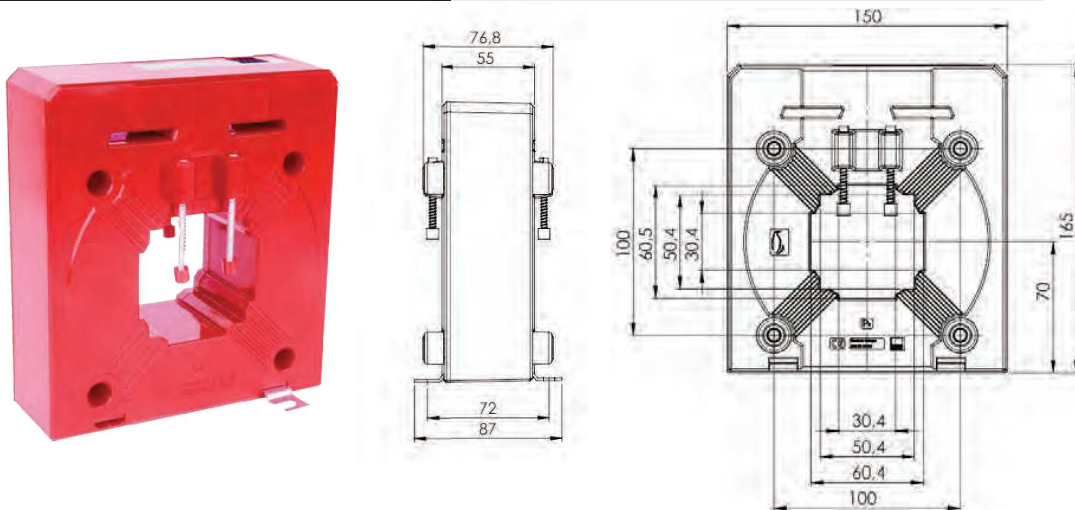
Ordering table

Type	Primary current [A]	Article number	Output signal
	DC / AC (<i>ler</i>)		
CCT 63.6 I	2000	1301-10008	DC: 0 ... ± 300 mA AC: 0 ... 300 mA <i>ler</i>

CCT 63.6 RMS (C ompensation c urrent transformer, MBS universal current sensor)

Current transformer for measuring both direct and alternating currents

- For current measurement of non-sinusoidal and distorted (constant) networks
- As current transducer for direct input wiring of PLC input cards



Dimensions:	Applied technical standards:	Electrical connections:
Rail 1: 60x30 mm	DIN EN 50178, 1998-04	$U_H + U_H - O$ (Ground) Ia
Rail 2: 50x50 mm	IEC 61000-3/4	Plug-in terminal
Round conductors: 50 mm	DIN EN 61010-1, 2002	Connection cross-sections: 0.2 ... 1.5 mm ²
Width: 165 mm	DIN EN 61326-1, 2013-07	Stripping length: 10 mm
Height: 150 mm		
Total depth: 77 mm		
Technical data:		
Measuring range:	0 ... 1,500 A DC / 0 ... 1,500 A I _{RMS} AC, depending on variant! (rated current ranges adjusted to standard values according to IEC)	
Frequency range:	DC or 16.7 Hz ... 6 kHz, crest factor ≤ 4	
Power output:	4 ... 20 mA DC, true effective value measurement	
Max. load resistance at current output:	$R_B \leq 500 \Omega$ ($U_H = \pm 24$ V DC)	
Output signal limitation in case of overload:	< 30 mA	
Accuracy:	± 1.0%	
Max. operating voltage U_m :	0.72 kV, U_{eff}	
Insulation test voltage:	6.4 kV, U_{eff} , 50 Hz, 12 sec., primary conductor against measuring output / housing	
Auxiliary voltage:	± 24 V DC, ± 10%, external fuse protection via one 300 mA fine-wire fuse each	
Step response time (90% I _{PN} , di/dt = 100 A / μs):	≤ 200 ms	
Signal slew rate di/dt:	> 100 A / μs	
Insulation material class:	E	
Protection class:	IP 20	
Permitted altitude for operation:	≤ 2000 m (DIN EN 61010-1)	
Max. temperature of the primary conductor:	100 °C	
Working temperature range:	-25 °C < T _u < +60 °C, 0 ... 95% rel. humidity, no condensation!	
Storage temperature range:	-50 °C < T _L < +90 °C	

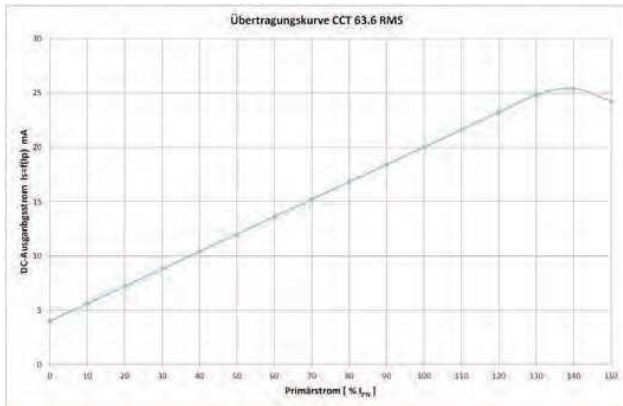
Functions of the CCT 63.6 RMS :

- The magnetic field surrounding a current-carrying conductor is detected by a measuring core surrounding the conductor. The magnetic flux induced in the measuring core, which is directly proportional to the current strength in the primary conductor, is detected by means of a semiconductor component. An electronic control unit integrated in the unit converts the signal supplied by the semiconductor into a DC output current signal proportional to the true effective value of the measured variable. The true effective values are calculating using the delta-sigma method.
- The inductive, contactless acquisition of the measured variable provides an electrically isolated output signal.
- The electrical contact of the secondary circuit of the current transformer is made via an 8-pole plug-in terminal. This terminal is suitable for connecting flexible stranded wires up to 1.5 mm².
- A bipolar DC auxiliary power supply of ± 24 V DC is required to supply the control electronics. The auxiliary voltage inputs must be protected by a 300 mA / 250 V / F fine-wire fuse.

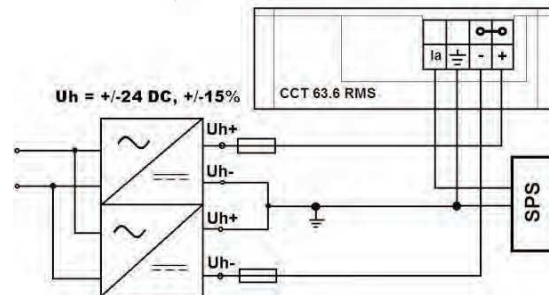
Advantages and benefits of the CCT 63.6 RMS :

- Measurement of both direct and alternating currents is possible with only one transformer.
- Accurate calculation of the true effective values of almost any time curve of the current to be measured.
- Wide working frequency range from 0 Hz (DC) to 20 Hz ... 6 kHz (AC).
- High electrical safety due to galvanically isolated acquisition of the measured variable.
- Low power consumption (≤ 2.5 VA)
- Simple and safe electrical wiring using proven plug-in terminal technology.
- Direct mounting on busbars by means of fixing screws integrated in the unit.
- High climatic and mechanical resistance due to PU encapsulation of all electrical components.

Transmission behaviour of the CCT 63.6 RMS :



Wiring diagram of the CCT 63.6 RMS :



Ordering table

Type	Primary current I _{RMS} [A]	Article number	Output signal
CCT 63.6 RMS	2000	1303-10006	4 ... 20 mA DC