

The Cipunet[®] medium voltage system was completed by the introduction of the intrusive inductive screen coupler. Nowadays the Cipunet[®] coupler portfolio includes fully encapsulated capacitive couplers for core coupling as well as inductive couplers for screen coupling. An optimized low attenuative signal coupling has direct influence to system reliability and availability.

Worldwide installations proved the quality of inductive couplers.

For cable systems inductive coupling to the cable sheath/screen is a cost optimized solution.

Inductive couplers can be used in combination with capacitive couplers to suit mixed cable / overhead line systems in a very cost optimized way.

The interoperability of both systems is a huge advantage.

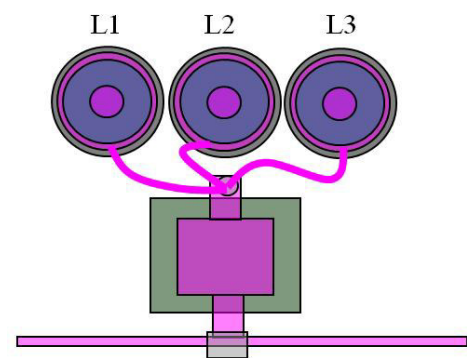
The CMC100 inductive coupler is used for:

- Broadband signal coupling into the cable screen / sheath.
- Coupling to more than one medium voltage cable, typical up to 4 cables can be connected to one coupler.
- Cost efficient coupling
- Small space installations
- Fast system rollout.
- Monitoring and supervision systems.
- Phase to Ground Coupling

This Coupler provides supreme advantages:

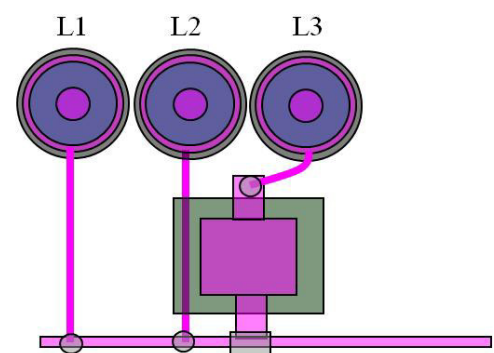
- Cost optimized
- Simple to install
- Ideal for installation in urban environments
- Small installation space
- Usable in a wide frequency range 20kHz to 12MHz
- Low coupling attenuation
- Doesn't interfere with the high voltage protection systems

Version 2 (Three Phase Cable 3/E)



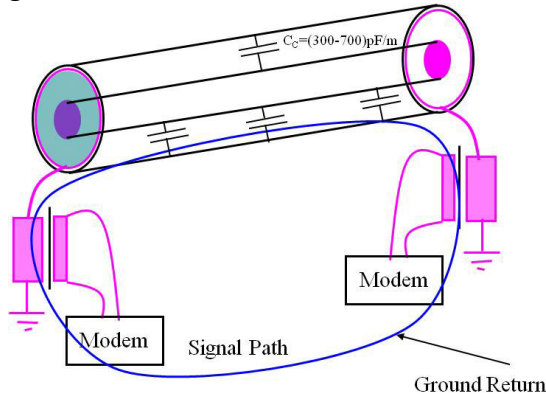
- Phase to Phase Coupling

Version 1 (Single Phase Cable 2/1)



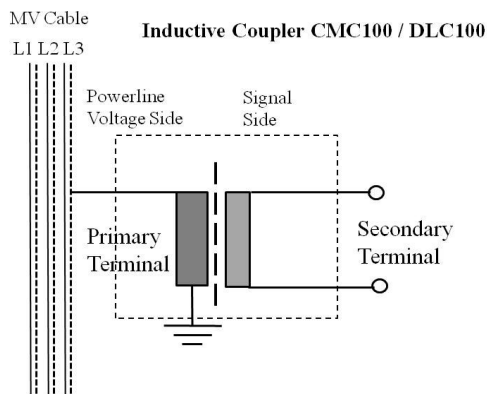
Principal of Operation

Installing the CMC100 means including the primary winding of a transformer into the ground connection.



The secondary winding will be directly connected with the external coupler output of the CMM75, CMM1000 and CMM2500.

That means we couple the high frequency signal in a defined way on the cable screen/sheath.



The CMC100 coupler is designed to fulfill the following functions:

- Galvanic insulation between high voltage cable screen and modem.
- Impedance matching for the modem.
- Providing a secure connection the ground 50mm².

The primary winding is designed to handle the normal screen current and provide a secure grounding in the ground fault case.

Technical Data

Saturation Current	120A _{RMS} 3dB attenuation
Maximum current Primary winding	6kARMS 3 x 1sec per hour 12kARMS 1sec. (After a current load above 6kA technical data is not guaranteed anymore)
Maximum current secondary winding	2A
Mechanical Dimensions	175x200x88mm LxWxH
Weight	3.45kg
Operating Temperature	-40°C ... +80°C.
Carrier Frequency Range	(<3dB) 30kHz – 500kHz (<10dB) 10kHz – 12MHz
SFDR	≥ 50dB (I _{psec} = 0A)
DIN EN 61334-3-22 Sub clause 5.7.2	2kVAC Impulse Voltage Continuous current
5.7.3	

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