

CNW 174

DC filter for photovoltaic (2 lines)



Unique Selling Point

- protection of solar cells from high frequency
- noise generated by the inverter
- designed to conform to existing and planned
- optional with current transformer
- compact construction
- low temperature rise
- universal protection for all inverters
- optional anti-surge protection

Description

Applications: The DC-filter suppresses grid-bound troubles of inverters for renewable energies like solar and wind power.

- Conforming to: VDE 0565-3/ IEC 950/ UL 1283
- Test voltage: L-L 3,000 V, DC 1 s; L-PE 3,000 V, DC 1s
- Climatic category: DIN IEC 60068-1
- Overload: 1.5 x INenn 1 min / h

Technical Data

- Nominal Voltage : 900 V
- Rated current : 10 - 600 A

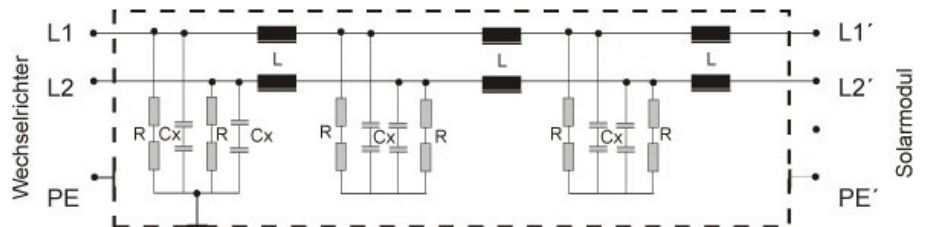
By using efficient energy conversion in modern high-frequency inverters, more high-frequency energies are in the DC circuits. Caused by the fast switching processes of modern power semiconductors, these energies can damage the solar modules. On the AC and DC side a very high interference level will be created in the frequency range of 150kHz – 30MHz.

This fact for the DC side is not recorded in the current standards. The long DC cables and the large PV modules on the filter are special features which distinguishes the inverter to all other electronic devices.

The PV generator and the often very long DC cables function as antennae and can radiate originally conducted interference.

The electromagnetic compatibility of the inverters to other devices is guaranteed.

Circuit example



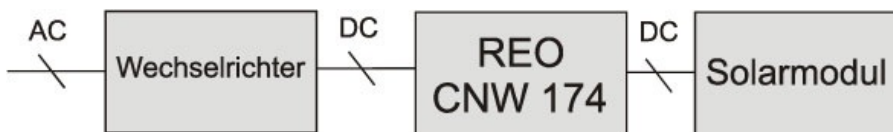
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Technical data

Type	Rated voltage [V]	Rated current [A]	Leakage current [mA]	Inverter Power [kW]	Losses [W]
CNW 174/150	900 V DC	150	<30	60	32
CNW 174/250		250	<30	100	10
CNW 174/400		400	<30	150	16
CNW 174/600		600	<30	250	28

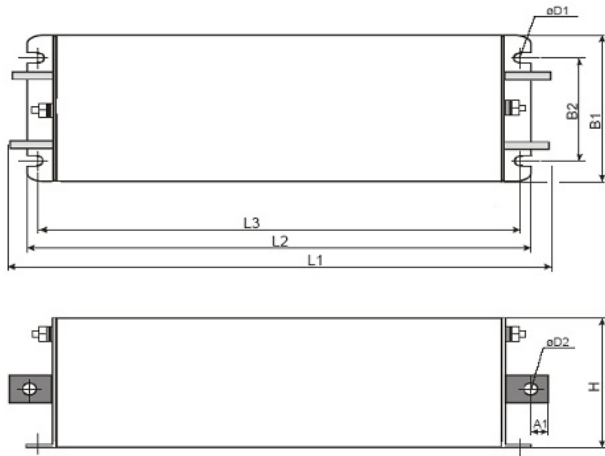
Example for interference suppression



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Dimensions



Type	Dimensions									Connection
	L1	L2	L3	B1	B2	H1	H2	D1	D2	
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	
CNW 174/150	405	325	300	140	120	120	-	7	9	Busbar 20x5 mm
CNW 174/250									10.5	Busbar 20x5 mm
CNW 174/400	470	375	350	140	120	120	-	7	10.5	Busbar 30x5 mm
CNW 174/600									13.0	Busbar 30x10 mm