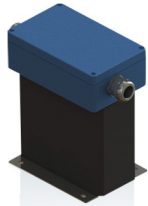


CNW M 903

Fully encapsulated three-phase line reactor 4% Uk



Unique Selling Point

- Usable in rough environment
- Protection ratings: IP00 - IP66
- Optimal mechanical protection of the choke
- Extended life-time of electrical consumers
- Attenuation of current spikes of up to 60%
- Reduction of the input current up to 20%
- Assembly of different options: cables, terminals, terminal box
- Lower surface temperature
- Low noise
- Manufacturing according to UL insulation system E251513 possible

Description

The mains chokes in fully encapsulated version are specially designed for rough environments and offer a very good mechanical protection of the component. The full encapsulation allows design up to protection ratings IP 66.

Power Noise Reduction - save up to 20% energy costs. A mains choke relieved the supply network by compensating the harmonics reactive power. The harmonics and commutation notches are reduced strongly. By using a mains choke the inverter electronics and DC-capacitors will be protected.

Starting currents and current peaks are reduced up to 60%. Mains chokes help to comply with international power quality standards IEEE 519 or EN 61000-3-2.

- Rated voltage: $U \leq 3 \times 500 \text{ V}$
- Short circuit: Uk 4% (400VAC/50Hz, INomin)
- Frequency: 50/60 Hz
- According to: EN 60289 / EN 61558
- Test voltage: L-L 2,500 V, DC 1min; L-PE 2,500 V, DC 1min
- Insulation class: T40/F
- Protection ratings: IP00 up to IP66
- Climatic category: DIN IEC 60068-1
- Overload: 1.5 x INnomin 1 min / h
- Design: mounted on footprint

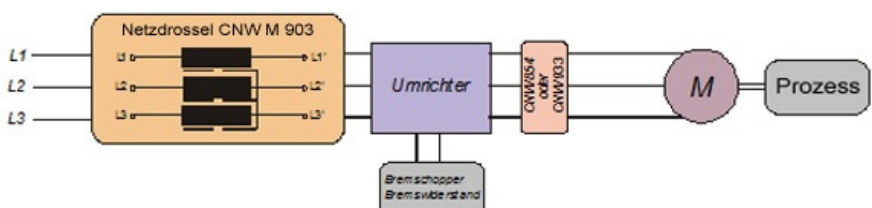
Typical applications

- Drive systems for motor drives:
 - Mechanical engineering
 - Elevators / escalators
 - Pipes
 - Conveyor technology
 - Ventilation and air conditioning
 - Robotics
 - Automation technology
- Power supplies
- Wind turbines

Technical Data

- Nominal Voltage : 500 V
- Rated current : 3 - 36 A
- Inductance : 0.81 - 9.8 mH

Circuit example



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Technical data

Type	Rated voltage [V]	Rated current [A]	Rated inductance [mH]	Copper [kg]	Weight [kg]	Strand [mm ²]
CNW M 903/3	Up to 3 x 500V 50/60 Hz	3	9.8	0.5	1.2	1.5
CNW M 903/6		6	4.8	0.7	1.9	1.5
CNW M 903/8		8	3.6	1.0	2.7	1.5
CNW M 903/10		10	2.9	1.1	3.7	1.5
CNW M 903/12		12	2.4	1.1	3.7	1.5
CNW M 903/16		16	1.8	1.6	4.6	2.5
CNW M 903/25		25	1.2	2.2	7.2	4.0
CNW M 903/36		36	0.81	2.5	7.2	6.0

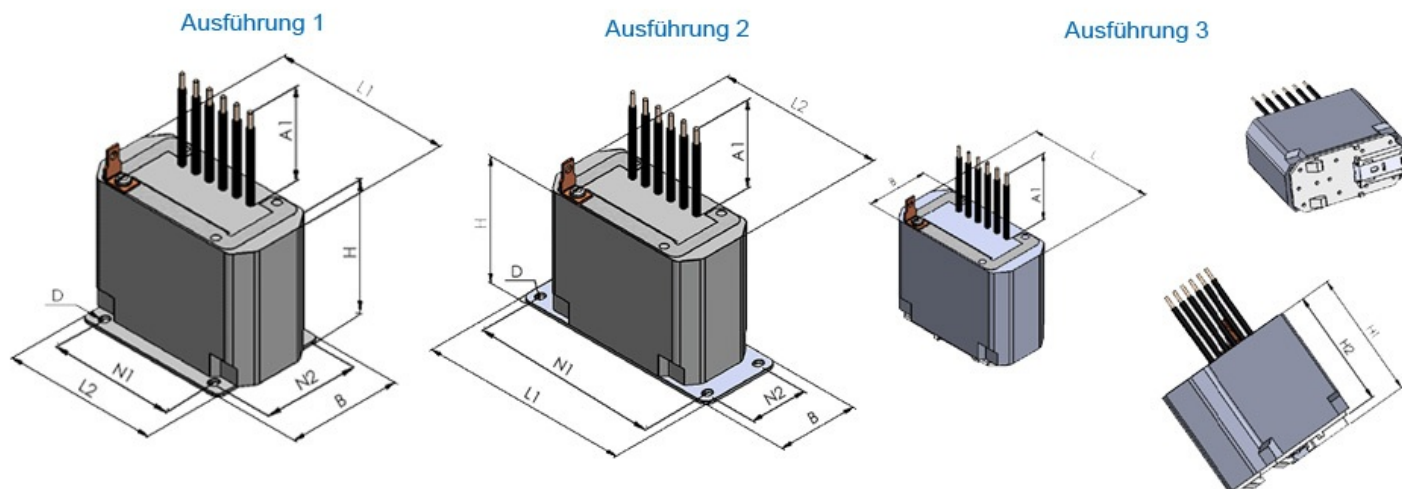
Higher power ratings on request

For Europe	For USA
Frequency: 50 Hz	Frequency: 60 Hz
Short circuit voltage Uk: 4% (by 400V)	Short circuit voltage Uk: 9.6% (by 200V)
Voltage drop: 9.23 V/branch	Voltage drop: 11.05 V/branch

CNW M 903

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Dimension drawings



Dimensions

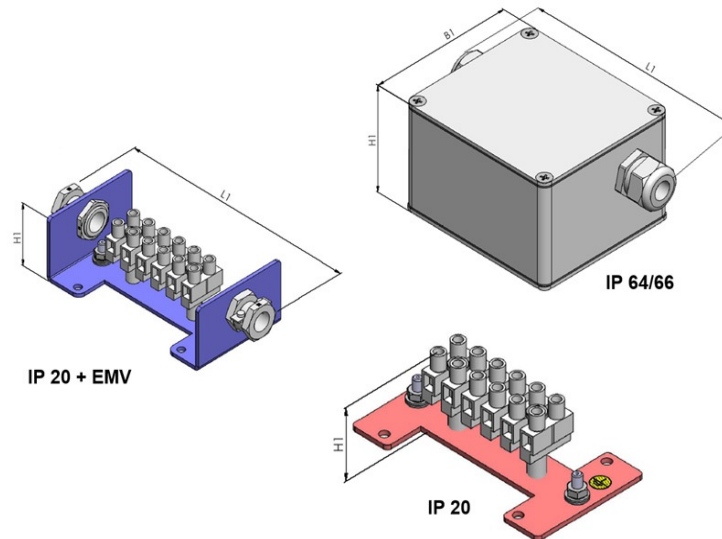
Type	Image	L1 [mm]	L2 [mm]	B [mm]	H1 [mm]	H2 [mm]	N1 [mm]	N2 [mm]	ØD [mm]	A1 [mm]
CNW M 903/3	1	115	100	65	88	-	80	51	5.5x7.0	200
	2	155	115	47	88	-	140	26	5.5x7.0	200
	3	115	-	47	97.5	91	-	-	-	200
CNW M 903/6	1	115	100	74	88	-	80	60	5.5x7.0	200
	2	155	115	56	88	-	140	35	5.5x7.0	200
	3	115	-	56	97.5	91	-	-	-	200
CNW M 903/8	1	140	125	77	113	-	100	60	5.5x7.0	200
	2	180	140	51	113	-	165	30	5.5x7.0	200
	3	140	-	51	122.5	116	-	-	-	200
CNW M 903/10	1	140	125	87	113	-	100	70	5.5x7.0	200
	2	180	140	61	113	-	165	40	5.5x7.0	200
	3	140	-	61	122.5	116	-	-	-	200
CNW M 903/12	1	140	125	87	113	-	100	70	5.5x7.0	200
	2	180	140	61	113	-	165	40	5.5x7.0	200
	3	140	-	61	122.5	116	-	-	-	200
CNW M 903/16	1	175	155	99	137	-	130	79	5.5x12.0	300
	2	215	175	61	137	-	200	40	5.5x12.0	300
	3	175	-	61	146.5	140	-	-	-	300
CNW M 903/25	1	175	155	114	137	-	130	94	5.5x12.0	300
	2	215	175	76	137	-	200	55	5.5x12.0	300
	3	175	-	76	146.5	140	-	-	-	300
CNW M 903/36	1	175	155	114	137	-	130	94	5.5x12.0	300
	2	215	175	76	137	-	200	55	5.5x12.0	300

Last modified: 07/12/2018. All data is provided to the best of our knowledge and awareness and is subject to error and amendment.

CNW M 903

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Dimension drawings of options



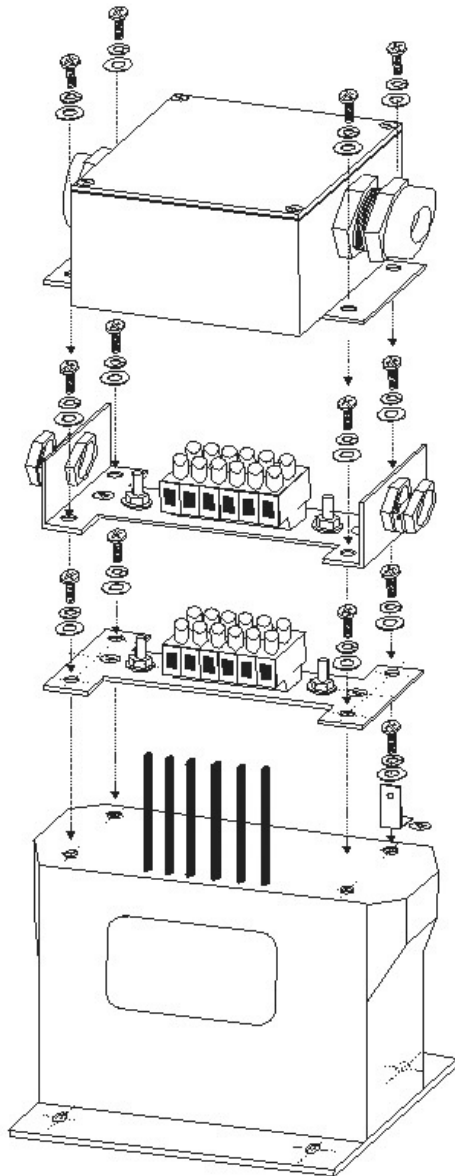
Dimensions of options

Type	IP 20		IP 20 + EMV		IP 64/66			
	Terminals		Terminals + EMC screen		Terminal box IP 64 with EMC-screw connection			
	Cross section [mm ²]	H1 [mm]	H1 [mm]	L1 [mm]	Screw connection	L1 [mm]	B1 [mm]	H1 [mm]
CNW M 903/3	2.5	35	34	130	M 20	151	85	60
CNW M 903/6	2.5	35	34	130	M 20	151	85	60
CNW M 903/8	2.5	35	34	130	M 20	151	85	60
CNW M 903/10	2.5	35	34	130	M 20	151	85	60
CNW M 903/12	2.5	35	34	130	M 20	151	85	60
CNW M 903/16	2.5	35	35	172	M 20	151	85	60
CNW M 903/25	6.0	35	35	172	M 25	155	85	60
CNW M 903/36	6.0	35	35	172	M 32	210	120	80

CNW M 903

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Installation



Assembly

for terminal connection in IP 64/66 enclosure with PE-screw connection for M4 and laterally assembled capacitor block (enclosed)

Assembly

for terminal connection, with the screen in IP 20 design, and with the PE-screw connection for M4 and laterally assembled capacitor block

Assembly

for terminal connection in IP 20 design with PE-screw connection for M4 and laterally assembled capacitor block

Assembly

with cables with PE-plug-in connection 6.3 x 0.8 and laterally assembled capacitor block