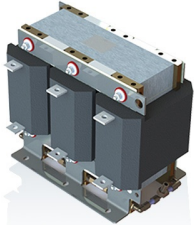


# CNW MD 953

Water-cooled three-phase mains choke 8% Uk



## Unique Selling Point

- Suitable for regenerative converters
- Up to 80% power dissipation at water cooling
- Reducing of the surface temperature to below 80 ° C
- Compact design
- Extended life-time of electrical consumers
- Attenuation of current spikes of up to 60%
- Reduction of the input current
- Production possible according to UL insulation system E251513
- Protection against dust and moisture
- Protection up to IP 65
- Excellent heat distribution

## Description

Power Noise Reduction - save energy costs. The water-cooled power / filter choke CNW MD 953 series has been specially developed for smoothing flows in regenerative converters. By efficiently cooling the power losses is dissipated up to 80% by cooling and reduces heating of switching cabinets. The CNW MD 953 is also suitable for use as a filter choke in LCL filters.

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 helps 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 8% (400VAC/50Hz, INenn)
- Frequency: 50/60 Hz
- According to: EN 60289 / EN 61558
- Test voltage: L-L 2500 V, 50Hz 60s; L-PE 2500 V, 50Hz 60s
- Insulation class: T50/F
- Protection rating: IP00
- Climatic categorie: DIN IEC 60068-1
- Overload: 1,5 x INenn 1 min / h
- Cooling: Water/Glykol (70/30 %)
- Max. increased coolant inlet temperature: 50° C
- Flow rate: min. 3,6 l/min.
- Pressure drop: <0,5 bar

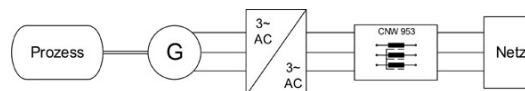
## Typical applications

- Drive systems for motor drives:
  - Mechanical engineering
  - Conveyor technology
  - Automation technology
- Wind turbines
- Solar systems

## Technical Data

- Nominal Voltage : 400 V
- Rated current : 200 - 1200 A
- Inductance : 0,012 - 0,074 mH

## Circuit example



# CNW MD 953

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## Technical data

| Type            | Rated voltage [V]           | Rated current [A] | U <sub>k</sub> | Linear up to | Inductance [μH] | R <sub>20</sub> [mΩ] | Winding weight [kg] |
|-----------------|-----------------------------|-------------------|----------------|--------------|-----------------|----------------------|---------------------|
| CNW MD 953/200  | 3 x 400<br>(optional 3x690) | 200               | 8%             | 300          | 294             | 2,1                  | 7                   |
| CNW MD 953/400  |                             | 400               |                | 600          | 147             | 0,96                 | 11                  |
| CNW MD 953/600  |                             | 600               |                | 900          | 98              | 0,49                 | 15                  |
| CNW MD 953/800  |                             | 800               |                | 1200         | 74              | 0,4                  | 19                  |
| CNW MD 953/1000 |                             | 1000              |                | 1500         | 59              | 0,3                  | 18                  |
| CNW MD 953/1200 |                             | 1200              |                | 1800         | 49              | 0,18                 | 32                  |

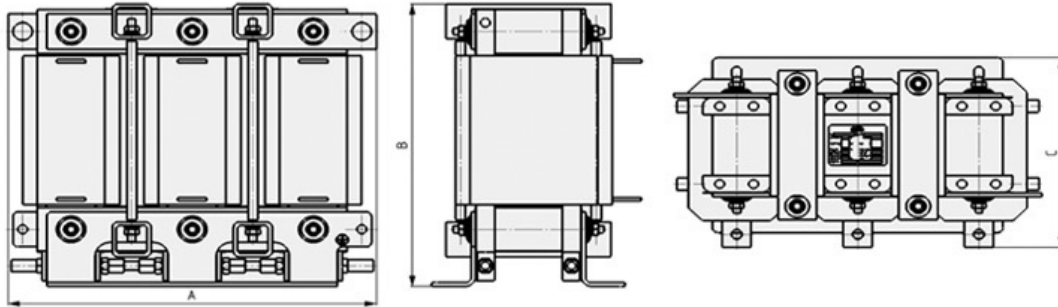
Higher power ratings on request

| For Europe  | For USA   |
|---|---|
| Frequency: 50 Hz                                    | Frequency: 60 Hz                                      |
| Short circuit voltage U <sub>k</sub> : 4% (by 400V) | Short circuit voltage U <sub>k</sub> : 9,6% (by 200V) |
| Voltage drop: 9,23 V/branch                         | Voltage drop: 11,05 V/branch                          |

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## Dimension drawings



## Dimensions

| Type            | A<br>[mm] | B<br>[mm] | C<br>[mm] | Weight<br>[kg] |
|-----------------|-----------|-----------|-----------|----------------|
| Braced          |           |           |           |                |
| CNW MD 953/200  | 380       | 320       | 250       | 70             |
| CNW MD 953/400  | 390       | 380       | 260       | 95             |
| CNW MD 953/600  | 420       | 505       | 325       | 140            |
| CNW MD 953/800  | 530       | 550       | 295       | 175            |
| CNW MD 953/1000 | 510       | 590       | 335       | 225            |
| CNW MD 953/1200 | 530       | 675       | 335       | 260            |
| Unbraced        |           |           |           |                |
| CNW MD 953/200  | 380       | 312       | 250       | 68             |
| CNW MD 953/400  | 390       | 372       | 260       | 93             |
| CNW MD 953/600  | 420       | 478       | 325       | 133            |
| CNW MD 953/800  | 530       | 523       | 295       | 168            |
| CNW MD 953/1000 | 510       | 563       | 335       | 218            |
| CNW MD 953/1200 | 530       | 646       | 335       | 253            |