

## >>> Reactors for frequency converter

The products are often installed at the outer side or inner side of converters. The main function is to limit the surge current flowing in the power grid, and to reduce its interference with other electrical components.



### Features

- ★ High voltage drop
- ★ VPI in full automatic system
- ★ Copper connections
- ★ Anti-dust non-wooden packing
- ★ Certified by international standards

### Technical Data

|                           |   |
|---------------------------|---|
| Standard                  | EN60076-6, EN61558-2-20, UL1446   |
| Rated voltage             | 380V to 1140V   |
| Rated frequency           | 50Hz/60Hz   |
| Line voltage tolerance    | +/-10%  |
| Dielectric test           | 50Hz 3kV, 60s   |
| Cooling method            | Natural air   |
| Ambient temperature       | -25 to +50°C  |
| Elevation above sea level | ≤1000m a.s.l. (≤5000m optional)   |
| Protection class          | IP00 indoor mounting  |
| Rated voltage drop        | 3%-6%   |
| Insulation class          | H (UL approved resin)   |
| Maximum humidity          | 95%   |
| Design method             | Single phase or three phase, dry type iron core, multiple air gap                                 |
| Winding material          | Copper  |
| Terminals                 | Copper terminals  |
| Approval marks            | CE, TUV, EAC,  |

## Input AC reactors

Also called line reactors, are used at inner side of the converter, so as to protect its electrical components and DC circuit from transient overpressure. It can also reduce the surge and peak current and increase the input power factor, as well as restrain the harmonics in the grid and improve the functions of input current wave, to ensure the safe operations of the frequency converter and motors.



| Ordering Code                                   | $U_N$ (V) | Converter (HP) | Power (KW) | $I_N$ (A) | $L_N$ (mH) | Weight(kg) |
|---|-----------|----------------|------------|-----------|------------|------------|
| $f_N=50\text{Hz}$ , 3Phase, Copper wire winding |           |                |            |           |            |            |
| LTACL38007                                      | 380       | 7              | 5.5        | 15        | 1.42       | 5          |
| LTACL38010                                      |           | 10             | 7.5        | 20        | 1.06       | 6          |
| LTACL38015                                      |           | 15             | 11         | 30        | 0.7        | 7          |
| LTACL38020                                      |           | 20             | 15         | 40        | 0.63       | 9          |
| LTACL38025                                      |           | 25             | 18.5       | 50        | 0.42       | 10         |
| LTACL38030                                      |           | 30             | 22         | 60        | 0.36       | 11         |
| LTACL38040                                      |           | 40             | 30         | 80        | 0.26       | 15         |
| LTACL38050                                      |           | 50             | 37         | 90        | 0.24       | 16         |
| LTACL38060                                      |           | 60             | 45         | 120       | 0.18       | 21         |
| LTACL38075                                      |           | 75             | 55         | 150       | 0.15       | 23         |
| LTACL38100                                      |           | 100            | 75         | 200       | 0.11       | 29         |
| LTACL38120                                      |           | 120            | 90         | 220       | 0.1        | 32         |
| LTACL38150                                      |           | 150            | 110        | 250       | 0.09       | 34         |
| LTACL38175                                      |           | 175            | 132        | 290       | 0.07       | 37         |
| LTACL38200                                      |           | 200            | 150        | 330       | 0.06       | 40         |
| LTACL38250                                      |           | 250            | 185        | 380       | 0.05       | 43         |
| LTACL38300                                      |           | 300            | 220        | 490       | 0.04       | 60         |
| LTACL38400                                      | 400       | 300            | 660        | 0.03      | 70         |            |

Other specifications are available upon request.

## Output AC reactors

Also called outlet reactors, are used for output side of the converter. It can have smooth filtering by reducing the transient voltage  $dv/dt$ , and prolong the motor's service life. The reactors are also applied to reduce eddy-current loss and the leak current caused by the harmonics, so as to protect the IGBT power switching components inside the frequency converter.



| Ordering Code                                   | $U_N$ (V) | Converter (HP) | Power (KW) | $I_N$ (A) | $L_N$ (mH) | Weight(kg) |
|---|-----------|----------------|------------|-----------|------------|------------|
| $f_N=50\text{Hz}$ , 3Phase, Copper wire winding |           |                |            |           |            |            |
| LTOCL38007                                      | 380       | 7              | 5.5        | 15        | 1.42       | 6          |
| LTOCL38010                                      |           | 10             | 7.5        | 20        | 1.06       | 7          |
| LTOCL38015                                      |           | 15             | 11         | 30        | 0.7        | 10         |
| LTOCL38020                                      |           | 20             | 15         | 40        | 0.63       | 12         |
| LTOCL38025                                      |           | 25             | 18.5       | 50        | 0.42       | 13         |
| LTOCL38030                                      |           | 30             | 22         | 60        | 0.36       | 15         |
| LTOCL38040                                      |           | 40             | 30         | 80        | 0.26       | 19         |
| LTOCL38050                                      |           | 50             | 37         | 90        | 0.24       | 21         |
| LTOCL38060                                      |           | 60             | 45         | 120       | 0.18       | 28         |
| LTOCL38075                                      |           | 75             | 55         | 150       | 0.15       | 30         |
| LTOCL38100                                      |           | 100            | 75         | 200       | 0.11       | 38         |
| LTOCL38120                                      |           | 120            | 90         | 220       | 0.1        | 42         |
| LTOCL38150                                      |           | 150            | 110        | 250       | 0.09       | 45         |
| LTOCL38175                                      |           | 175            | 132        | 290       | 0.07       | 49         |
| LTOCL38200                                      |           | 200            | 150        | 330       | 0.06       | 53         |
| LTOCL38250                                      |           | 250            | 185        | 380       | 0.05       | 58         |
| LTOCL38300                                      |           | 300            | 220        | 490       | 0.04       | 79         |
| LTOCL38400                                      | 400       | 300            | 660        | 0.03      | 92         |            |

Other specifications are available upon request.

## DC reactor

Is used at the DC side of the rectifier, mostly on the frequency converter (AC-DC-AC). It has the function of limiting the current waveform pulse in the rectifier, and the harmonics caused by the converter, thus improving the input power factor.



| Ordering Code                                   | $U_n$ (V) | Converter (HP) | Power (KW) | $I_n$ (A) | $L_n$ (mH) | Weight(kg) |
|---|-----------|----------------|------------|-----------|------------|------------|
| $f_n=50\text{Hz}$ , 3Phase, Copper wire winding |           |                |            |           |            |            |
| LTDCL38007                                      | 380       | 7              | 5.5        | 15        | 4.45       | 5          |
| LTDCL38010                                      |           | 10             | 7.5        | 20        | 3.2        | 6          |
| LTDCL38015                                      |           | 15             | 11         | 30        | 2.23       | 7          |
| LTDCL38020                                      |           | 20             | 15         | 40        | 1.77       | 8          |
| LTDCL38025                                      |           | 25             | 18.5       | 50        | 1.46       | 10         |
| LTDCL38030                                      |           | 30             | 22         | 60        | 1.19       | 11         |
| LTDCL38040                                      |           | 40             | 30         | 80        | 0.9        | 14         |
| LTDCL38050                                      |           | 50             | 37         | 90        | 0.73       | 15         |
| LTDCL38060                                      |           | 60             | 45         | 120       | 0.6        | 16         |
| LTDCL38075                                      |           | 75             | 55         | 140       | 0.48       | 18         |
| LTDCL38100                                      |           | 100            | 75         | 180       | 0.36       | 19         |
| LTDCL38120                                      |           | 120            | 90         | 220       | 0.28       | 21         |
| LTDCL38150                                      |           | 150            | 110        | 270       | 0.24       | 23         |
| LTDCL38175                                      |           | 175            | 132        | 320       | 0.2        | 24         |
| LTDCL38200                                      |           | 200            | 150        | 400       | 0.16       | 25         |
| LTDCL38250                                      |           | 250            | 185        | 440       | 0.14       | 28         |
| LTDCL38300                                      |           | 300            | 220        | 530       | 0.12       | 35         |
| LTDCL38400                                      | 400       | 300            | 750        | 0.08      | 49         |            |

Other specifications are available upon request.