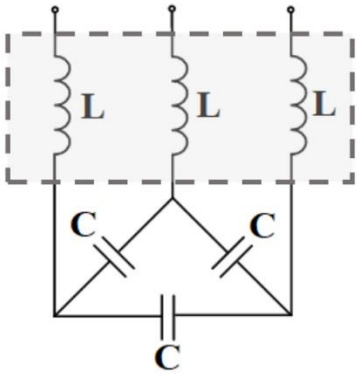
# HAYKA

Manufacturer of harmonic
compensating equipment

# 3-phase Detuned Reactor for Capacitor Bank

Detuned Reactors prevent harmonic amplification caused due to resonance and avoid the risk of overloading capacitors, thereby significantly reducing voltage and current harmonic distortion in the network. it is common to insert reactors in series with capacitor banks. The reactor also by its nature will safeguard capacitor and associated switch gears against switching inrush, which other may damage capacitors, circuit breakers and contactors.

## Typical Elecetrical Schematic




## Approvals

E.P.I.

## Features and Benefits

- eliminates harmonic amplification
- enhances the life of capacitors by reducing voltage and thermal stress due to harmonics
- prevents the constant nuisance of input fuse blowing or circuit breaker tripping
- Reduces over heating of the transformer, cables, switchgear etc. caused due to harmonic amplification
- Reduces the harmonic current in the electrical supply system
- Addresses the harmonic problems created by non-linear loads
- Improves Power Factor in harmonic rich environment

## Technical Features

| | | |
|---|---|---|
| **Electrical Features** | Voltage | 400 V |
| | Frequency | 50 Hz |
| | Nominal Power | 12.5 - 50 kvar |
| | Value of p% | 5.67%, 7%, 14% |
| | Conductor Type | Copper |
| | Tolerance L | ± 5 % |
| | Linearity (5 % L) | 1.6 × In |
| | Isolation Voltage | 3 kV |
| | Room Temperature | -10 ... +45 °C |
| | Internal Isolation | Class F (155 °C) |
| **Maximum Overload** | Permanent | 1.2 × In |
| | Temporary (1 min) | 2 × In |
| **Safety** | Protection | Overtemperature protection switch |
| | Degree of Protection | IP00 |
| | Installation | Indoor |

## 400 Vac, 50 Hz, f resonance = 210 Hz / p = 5.67%

| Type | Freq. [Hz] | KVAR | L [mH] | In [A] | Weight [kg] |
|---|---|---|---|---|---|
| RDHC-12.5-400-5.67 | 50 | 12.5 | 2.36 | 18 | 9.0 |
| RDHC-25-400-5.67 | 50 | 25 | 1.19 | 38 | 15.6 |
| RDHC-50-400-5.67 | 50 | 50 | 0.59 | 75 | 27.1 |

## 400 Vac, 50 Hz, f resonance = 189 Hz / p = 7%

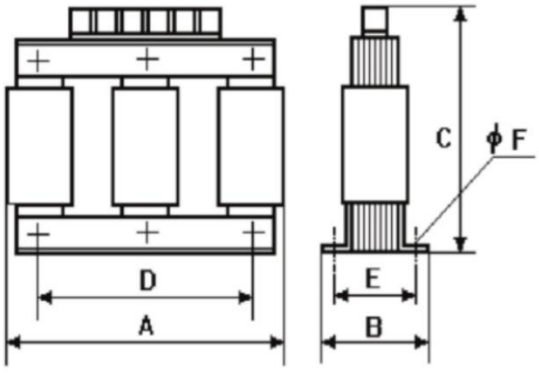
| Type | Freq. [Hz] | KVAR | L [mH] | In [A] | Weight [kg] |
|---|---|---|---|---|---|
| RDHC-12.5-400-7 | 50 | 12.5 | 3.06 | 18 | 11.5 |
| RDHC-25-400-7 | 50 | 25 | 1.53 | 38 | 17.4 |
| RDHC-50-400-7 | 50 | 50 | 0.77 | 75 | 31.8 |

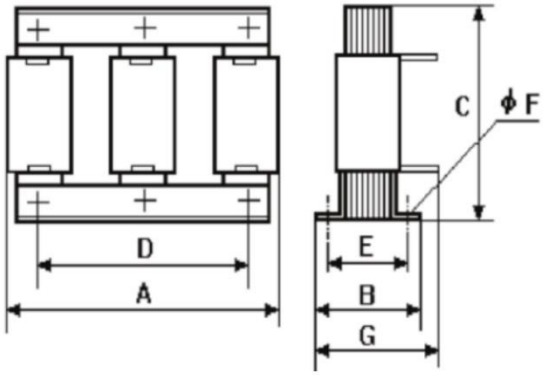
## 400 Vac, 50 Hz, f resonance = 134 Hz / p = 14%

| Type | Freq. [Hz] | KVAR | L [mH] | In [A] | Weight [kg] |
|---|---|---|---|---|---|
| RDHC-12.5-400-14 | 50 | 12.5 | 6.4 | 18 | 17.0 |
| RDHC-25-400-14 | 50 | 25 | 3.22 | 38 | 32.6 |
| RDHC-50-400-14 | 50 | 50 | 1.59 | 75 | 54.9 |

## Dimensions

| Type | A [mm] | B [mm] | C [mm] | D [mm] | E [mm] | F [mm] | G [mm] |
|---|---|---|---|---|---|---|---|
| RDHC-12.5-400-5.67 | 190 | 105 | 170 | 120 | 75.0 | 8 | -- |
| RDHC-25-400-5.67 | 265 | 120 | 210 | 168 | 80.0 | 10 | 130 |
| RDHC-50-400-5.67 | 310 | 135 | 250 | 200 | 95.0 | 10 | 150 |
| RDHC-12.5-400-7 | 230 | 105 | 200 | 144 | 75.0 | 8 | -- |
| RDHC-25-400-7 | 265 | 125 | 210 | 168 | 85.0 | 10 | 135 |
| RDHC-50-400-7 | 310 | 145 | 250 | 200 | 105.0 | 10 | 160 |
| RDHC-12.5-400-14 | 230 | 125 | 200 | 144 | 95.0 | 8 | -- |
| RDHC-25-400-14 | 310 | 145 | 250 | 200 | 105.0 | 10 | 155 |
| RDHC-50-400-14 | 370 | 160 | 300 | 240 | 120.0 | 10 | 175 |



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