

# HD-VAR



## Features :

- Metallized polypropylene (MPP) film design.
- Compact cylindrical aluminum can design.
- Biodegradable resin/Oil impregnation gives cooling effect.
- Better heat dissipation.
- Explosion proof design (over pressure disconnecter)
- Low losses due to advanced winding and zinc spray equipments.
- Finger touch proof terminal connectors.

## Applications :

- Fixed P.F. correction.
- Automatic P.F. correction.
- Harmonic filter system.



## Technical Data :

|                                 |   |
|---------------------------------|---|
| STANDARDS                       | IS 13340-1/2, IEC 60831-1/2   |
| RATED VOLTAGE (U <sub>N</sub> ) | 400... 525 VOLT   |
| RATED FREQUENCY                 | 50/60 Hz  |
| OVER VOLTAGE                    | U <sub>N</sub> + 10% hours in every 24 h<br>U <sub>N</sub> + 15% 30 min. in every 24 h<br>U <sub>N</sub> + 20% 5 min. in every 24 h<br>U <sub>N</sub> + 30% 1 min in every 24 h |
| OVER CURRENT                    | 2.2* I <sub>N</sub>   |
| CAPACITANCE TOLERANCE           | -5 to +10% As per standards   |
| TEST VOLTAGE, TERMINAL          | 2.15 * U <sub>N</sub> , AC 2S   |
| TEST VOLTAGE, TERMINAL & CASE   | 2 * U <sub>N</sub> +2 kV or 3 kVac whichever is higher for 10S or 20% higher for 2S   |
| INRUSH CURRENT                  | Up to 400 * I <sub>N</sub>  |
| LOSSES                          | <0.20 W/kVar (dielectric) <0.5 W/kVar (total)   |
| CASING                          | Cylindrical Aluminium Can   |
| ENCLOSURE                       | IP20  |
| MEAN LIFE EXPECTANCY            | 1,80,000 h  |
| TEMPERATURE CLASS               | -40/55°C  |
| COOLING                         | Natural air cooled Casing temp. max 80°C permitted on top of the can  |
| DIELECTRIC SYSTEM               | Metallized polypropylene film, Self-healing property  |
| IMPREGNATION                    | NPCB, Biodegradable natural semi soft resin   |
| SAFETY FEATURES                 | Overpressure sensitive 3 phase disconnecter   |
| ALTITUDE                        | Max. 4000 Meter above sea level   |
| RELATIVE HUMIDITY               | Max. 95%  |
| MOUNTING POSITION               | Vertical  |
| MOUNTING & EARTHING             | M8X10mm, M12X16mm threaded stud, on bottom of case with Nut & Washer  |
| DISCHARGE RESISTORS             | External 3 Minutes, 75V   |
| TERMINALS                       | i) HD-VAR - with M5 Screw on double three way terminals<br>ii) HD-VAR BT - with M-10 threaded Stud  |



Note : U<sub>N</sub> - RMS Voltage at fundamental frequency without harmonics.  
I<sub>N</sub> - Rated RMS current (line) at rated voltage and frequency without transients.

## HD-VAR Cylindrical - Heavy Duty MPP Capacitor

| HD-VAR Series - Heavy Duty - 400 Volts - 50 Hz - 3 Ph - Delta Connection |             |                      |                  |                        |             |
|--|-------------|----------------------|------------------|------------------------|-------------|
| Product Code   | Output kVAR | Capacitance (in Mfd) | Current (in Amp) | Dimensions D*H (in mm) | Drawing No. |
| FT-H050-R0400-S1R3   | 5.0         | 3*33.17              | 7.22             | 75*196                 | C-5         |
| FT-H075-R0400-S1R3   | 7.5         | 3*49.76              | 10.83            | 75*196                 | C-5         |
| FT-H100-R0400-S1R3   | 10.0        | 3*66.35              | 14.43            | 90*203                 | C-5         |
| FT-H125-R0400-S1R3   | 12.5        | 3*82.94              | 18.04            | 90*203                 | C-5         |
| FT-H150-R0400-S1R3   | 15.0        | 3*99.52              | 21.65            | 90*243                 | C-5         |
| FT-H200-R0400-S1R3   | 20.0        | 3*132.70             | 28.87            | 116*243                | C-5         |
| FT-H250-R0400-S1R3   | 25.0        | 3*165.87             | 36.09            | 116*243                | C-5         |
| FT-H300-R0400-S1R3   | 30.0        | 3*199.04             | 43.30            | 116*283                | C-5         |
| BT-H400-R0400-S1R3   | 40.0        | 3*265.39             | 57.74            | 136*346                | C-6         |
| BT-H500-R0400-S1R3   | 50.0        | 3*331.74             | 72.17            | 136*346                | C-6         |
| HD-VAR Series - Heavy Duty - 415 Volts - 50 Hz - 3 Ph - Delta Connection |             |                      |                  |                        |             |
| Product Code   | Output kVAR | Capacitance (in Mfd) | Current (in Amp) | Dimensions D*H (in mm) | Drawing No. |
| FT-H050-R0415-S1R3   | 5.0         | 3*30.82              | 6.96             | 75*196                 | C-5         |
| FT-H075-R0415-S1R3   | 7.5         | 3*46.23              | 10.43            | 75*196                 | C-5         |
| FT-H100-R0415-S1R3   | 10.0        | 3*61.64              | 13.91            | 90*203                 | C-5         |
| FT-H125-R0415-S1R3   | 12.5        | 3*77.05              | 17.39            | 90*243                 | C-5         |
| FT-H150-R0415-S1R3   | 15.0        | 3*92.46              | 20.87            | 90*243                 | C-5         |
| FT-H200-R0415-S1R3   | 20.0        | 3*123.28             | 27.82            | 116*243                | C-5         |
| FT-H250-R0415-S1R3   | 25.0        | 3*154.10             | 34.78            | 116*283                | C-5         |
| BT-H400-R0415-S1R3   | 40.0        | 3*246.55             | 55.65            | 136*346                | C-6         |
| HD-VAR Series - Heavy Duty - 440 Volts - 50 Hz - 3 Ph - Delta Connection |             |                      |                  |                        |             |
| Product Code   | Output kVAR | Capacitance (in Mfd) | Current (in Amp) | Dimensions D*H (in mm) | Drawing No. |
| FT-H050-R0440-S1R3   | 5.0         | 3*27.42              | 6.56             | 75*196                 | C-5         |
| FT-H075-R0440-S1R3   | 7.5         | 3*41.12              | 9.84             | 75*196                 | C-5         |
| FT-H100-R0440-S1R3   | 10.0        | 3*54.83              | 13.12            | 90*203                 | C-5         |
| FT-H125-R0440-S1R3   | 12.5        | 3*68.54              | 16.40            | 90*203                 | C-5         |
| FT-H150-R0440-S1R3   | 15.0        | 3*82.25              | 19.68            | 90*243                 | C-5         |
| FT-H200-R0440-S1R3   | 20.0        | 3*109.67             | 26.24            | 116*243                | C-5         |
| FT-H250-R0440-S1R3   | 25.0        | 3*137.08             | 32.80            | 116*243                | C-5         |
| FT-H300-R0440-S1R3   | 30.0        | 3*164.50             | 39.37            | 116*283                | C-5         |
| BT-H400-R0440-S1R3   | 40.0        | 3*219.33             | 52.49            | 136*346                | C-6         |
| BT-H500-R0440-S1R3   | 50.0        | 3*277.17             | 65.61            | 136*346                | C-6         |
| HD-VAR Series - Heavy Duty - 480 Volts - 50 Hz - 3 Ph - Delta Connection |             |                      |                  |                        |             |
| Product Code   | Output kVAR | Capacitance (in Mfd) | Current (in Amp) | Dimensions D*H (in mm) | Drawing No. |
| FT-H050-R0480-S1R3   | 5.0         | 3*23.04              | 6.01             | 75*196                 | C-5         |
| FT-H075-R0480-S1R3   | 7.5         | 3*34.56              | 9.02             | 75*196                 | C-5         |
| FT-H100-R0480-S1R3   | 10.0        | 3*46.08              | 12.03            | 90*203                 | C-5         |
| FT-H125-R0480-S1R3   | 12.5        | 3*57.59              | 15.04            | 90*203                 | C-5         |
| FT-H150-R0480-S1R3   | 15.0        | 3*69.11              | 18.04            | 90*243                 | C-5         |
| FT-H200-R0480-S1R3   | 20.0        | 3*92.15              | 24.06            | 116*243                | C-5         |
| FT-H250-R0480-S1R3   | 25.0        | 3*115.19             | 30.07            | 116*243                | C-5         |
| FT-H300-R0480-S1R3   | 30.0        | 3*138.23             | 36.09            | 116*283                | C-5         |
| BT-H400-R0480-S1R3   | 40.0        | 3*184.30             | 48.11            | 136*346                | C-6         |
| BT-H500-R0480-S1R3   | 50.0        | 3*230.38             | 60.14            | 136*346                | C-6         |
| HD-VAR Series - Heavy Duty - 525 Volts - 50 Hz - 3 Ph - Delta Connection |             |                      |                  |                        |             |
| Product Code   | Output kVAR | Capacitance (in Mfd) | Current (in Amp) | Dimensions D*H (in mm) | Drawing No. |
| FT-H050-R0525-S1R3   | 5.0         | 3*19.26              | 5.50             | 75*196                 | C-5         |
| FT-H075-R0525-S1R3   | 7.5         | 3*28.89              | 8.25             | 75*196                 | C-5         |
| FT-H100-R0525-S1R3   | 10.0        | 3*38.52              | 11.00            | 90*203                 | C-5         |
| FT-H125-R0525-S1R3   | 12.5        | 3*48.14              | 13.75            | 90*203                 | C-5         |
| FT-H150-R0525-S1R3   | 15.0        | 3*57.77              | 16.50            | 90*243                 | C-5         |
| FT-H200-R0525-S1R3   | 20.0        | 3*77.03              | 21.99            | 116*243                | C-5         |
| FT-H250-R0525-S1R3   | 25.0        | 3*96.29              | 27.49            | 116*243                | C-5         |
| FT-H300-R0525-S1R3   | 30.0        | 3*115.55             | 32.99            | 116*243                | C-5         |
| BT-H400-R0525-S1R3   | 40.0        | 3*154.06             | 43.99            | 136*346                | C-6         |
| BT-H500-R0525-S1R3   | 50.0        | 3*192.58             | 54.99            | 136*346                | C-6         |

# Dimension - Reference Drawings

