

## Technical Datasheet

### MPP Film Power Factor Correction Heavy Duty (Cylindrical) Capacitors

#### Item Number / Code:

#### Construction

- Dielectric: Metallized Polypropylene film
- Electrode: Metallized Film
- Connection:  $\Delta$
- External Discharge device: Resistor
- Encapsulation: Jelly Oil
- Aluminium Container
- RoHS Compliant

#### Terminals:

- Screw / Stud type Finger proof terminals (IP 20)

#### Typical Applications:

- For Industrial Power factor correction applications

#### Features:

- Low dissipation factor
- Conforms to IEC 60831-1+2:2014 & IS 13340:2012
- Naturally air cooled (or forced air cooling)
- Indoor mounting
- High insulation resistance
- NPCB(Non-Polychlorinated biphenyl) compliant
- No. of switching per annum Max. 15000 switching

#### Safety:

- Over pressure disconnecter ( Burst Proof)
- Self-healing properties
- Protection: IP 20 (optionally with terminal cap for IP54)

#### Marking / Identification Label

- |  |                                   |
|--|-----------------------------------|
| ▪ Tibcon logo  | Rated Kvar                        |
| ▪ Rated voltage  | Rated Frequency                   |
| ▪ Rated Current  | 3 Phase                           |
| ▪ Connection $\Delta$  | SH- MPP                           |
| ▪ Discharge Device :  | Over pressure Disconnecter $\neq$ |
| ▪ Date of Manufacture  | Temperature Category              |
| ▪ CE Marking   | Serial Number                     |

#### Delivery Mode

- Sequential arranged Packing

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#### Electrical Characteristics:

▪ Reference Standard	: IEC:60831-1+2 & IS:13340/41
▪ Rated Kvar	: 5 Kvar to 30 Kvar
▪ No of Phases	: 3Ø
▪ Capacitance tolerance	: -5 To + 10 %
▪ Rated voltage VR	: 480 Vac
▪ Inrush current	: Up to 400* IR
▪ Over Voltage Vmax	: VR x 1.1 ( Continuous)
▪ Over Current I max	: Up to 1.3...2.0 * IR
▪ Rated Frequency FR	: 50 - 60 Hz
▪ AC test Voltage terminal to terminal	: 2.15 x VR ,2s (Routine test) : 2.15 x VR ,10s (Type test)
▪ AC test Voltage terminal to case	: 2*Un+2 KV AC , 10s
▪ Insulation Resistance R is at 20°C,	: 3000 s
▪ Relative Humidity	: 95 %
▪ Discharge time	: < 50 V within 60 seconds.
▪ Losses (tan δ)	: 0.3 W / KVAR (without discharge resistors) : 0.45 W / KVAR (with discharge resistors)
▪ Temperature Category	: -25 / D OR - 40 / D ( As per Customer specifications)
▪	
▪ Maximum Operating Temperature	: 55 °C
▪ Maximum Case Temperature	: 65°C
▪ Storage Temperature	: - 40°C to +60°C
▪ Type of Terminals	: Screw /Stud type Finger proof terminals
▪ Mounting Position	: Vertical
▪ Mean Life Expectancy	: 150,000 / h 65 °C , 180,000 / h 55 °C
▪ Max. over Voltage U max	: UN,+ 10% 8h in every 24h : UN,+ 15% 30 min in every 24h : UN,+ 20% 5 min in every 24h : UN,+ 30% 1 min in every 24h

Authorised by: Design & Development Dept  
Tibrewala Electronics Ltd

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#### Important note:

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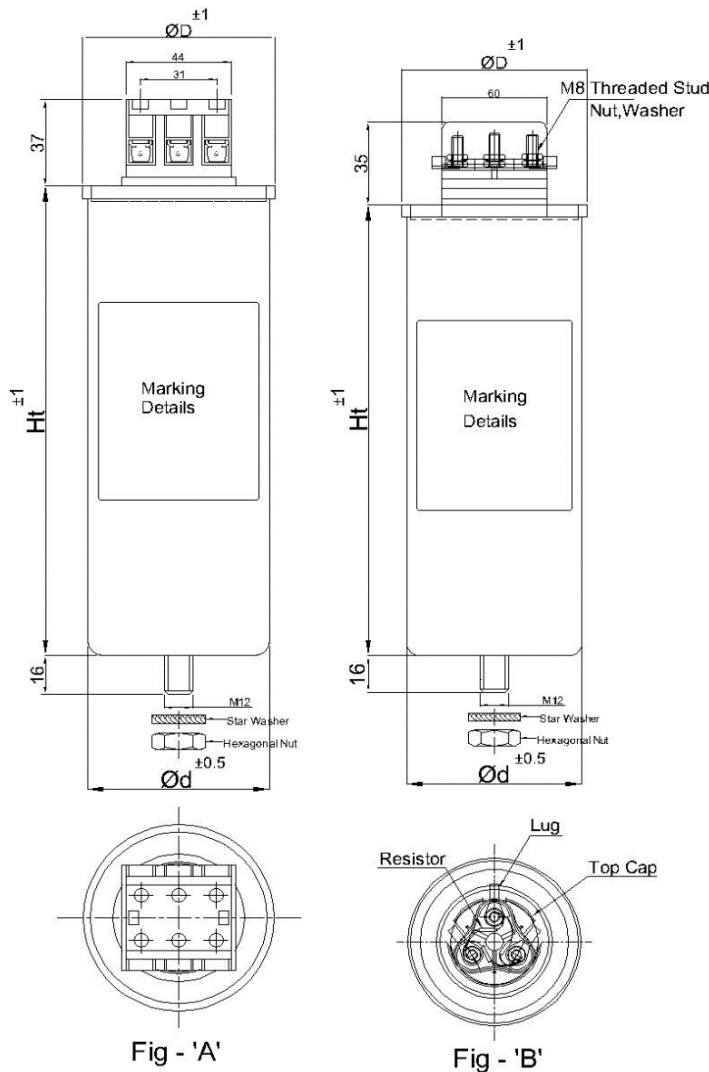
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Table:

Sr.No	Kvar	Voltage	Amps	Al Can Size (ØdxHt) (mm)	Flange Dia(ØD)	Total Height with Stud (mm)	Fig.
1	5.0	480	6	76X210	80	263	A
2	7.5	480	9	76X210	80	263	A
3	10.0	480	12	76X210	80	263	A
4	12.5	480	15	85X210	90	263	A
5	15.0	480	18	95X210	100	263	A
6	20.0	480	24	95X247	100	300	A
7	25.0	480	30	116X247	121	300	B
8	30.0	480	36	116X247	121	300	B
9	33.3	480	40	136X247	141	300	B

Capacitor Drawing:



Marking Details:

**TIBCON**  
POWER CAPACITORS

**Power Factor Correction Capacitor**

Q <sub>N</sub>	U <sub>N</sub>	f <sub>N</sub>
kvar	V	50Hz
kvar	V	50Hz
kvar	V	50Hz

C<sub>N</sub>: 3 x 3 Phase ▲ IEC 60831-1&2  
 I<sub>N</sub>: 3 x

DISCHARGE RESISTOR SELF HEALING  
 DEŞARJ DİRENÇLİ ÖZ ONARIMLI  
 NON-PCB DRY OVERPRESSURE DISCONNECTOR  
 PCB KİŞİRETMEN KURUTUP BASINÇ KÖRÜNMELİ

Production Batch No.: 40/830/29.02.20/122  
 Green Part No:

-5% +10% -25... +65C 3Kv

**WARNING!!!**  
 TO OPEN SWITCH OFF WAIT 3 MIN  
 PLACE TERMINAL OFF SHORT CIRCUIT AND GROUND  
 DİKKAT!!!  
 ENERJİSİNİ KESTİKTEN SONRA 3 DK. BEKLEYİN  
 UÇLARI KISADEVRE EDİN VE TOPRAKLAYIN

**HAZARD OF ELECTRICAL SHOCK**  
 - high voltage  
 - only authorized maintenance  
 Personnel may intervene  
 - Hochspannung  
 - Nur autorisiertes  
 Wartungspersonal darf eingreifen  
 - Haute tension  
 - Seul le personnel de  
 maintenance autoeise peut intervenir.

**DISCHARGE CAPACITOR BEFORE HANDLING**  
 Mfd. by: TIBREWALA ELECTRONICS LIMITED, MADE IN INDIA

**HEAVY DUTY**

Mounting  
 Vertical  
 Horizontal