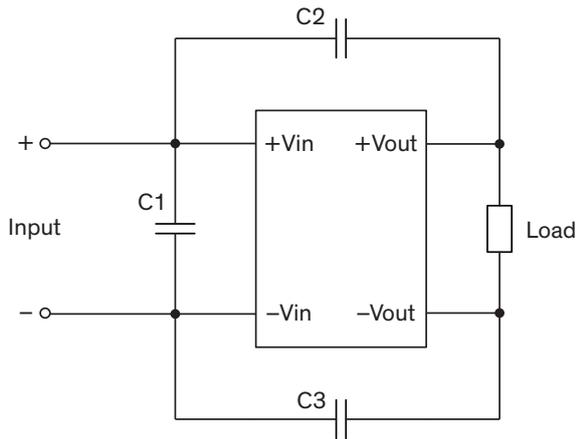


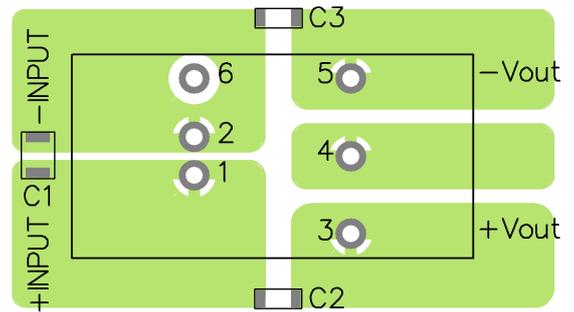
### EMI Consideration

Suggested filter to comply with EN 55032 Conducted and Radiated Emissions Class A limits

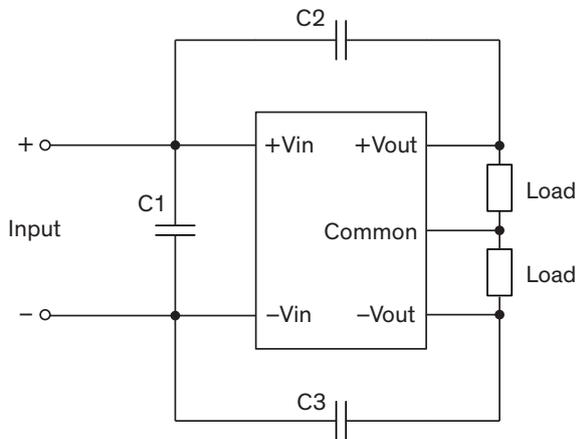
#### Single output models



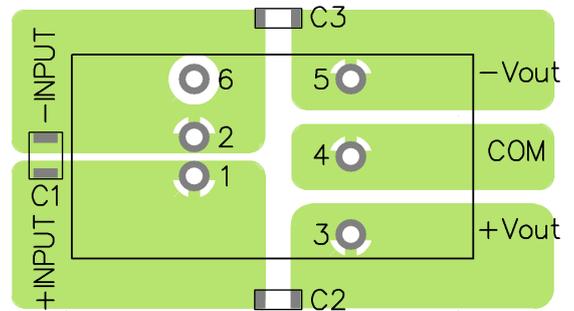
#### PCB layout suggestion



#### Dual output models



#### PCB layout suggestion

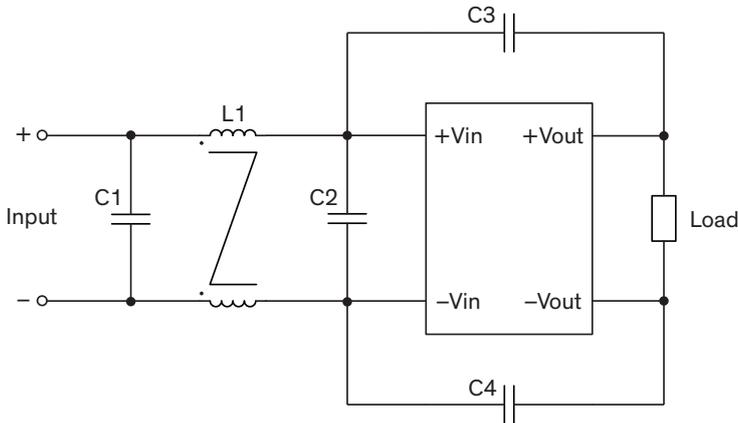


### Suggested components to comply with EN 55032 Conducted and Radiated Emissions Class A limits

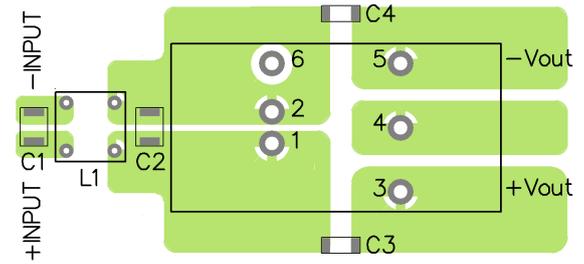
| Model          | C1                            | C2                          | C3                          |
|----------------|-------------------------------|-----------------------------|-----------------------------|
| TEN 20-24xxWIN | -                             | 1'000 pF / 2 kV / 1808 MLCC | 1'000 pF / 2 kV / 1808 MLCC |
| TEN 20-48xxWIN | 1 $\mu$ F / 100 V / 1210 MLCC |                             |                             |

### Suggested filter to comply with EN 55032 Conducted and Radiated Emissions Class B limits

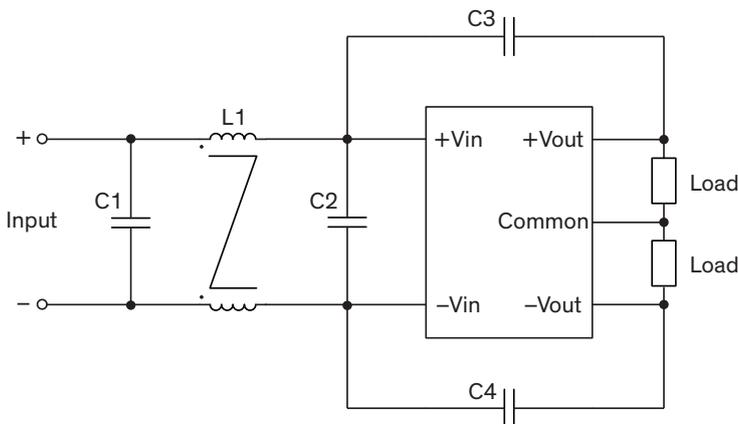
#### Single output models



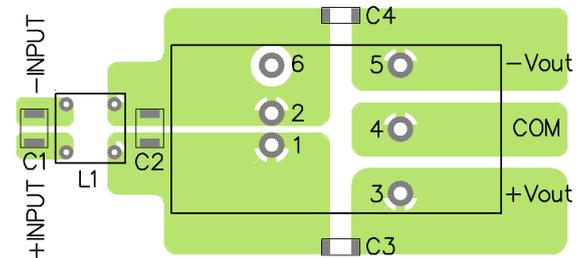
#### PCB layout suggestion



#### Dual output models



#### PCB layout suggestion



### Suggested components to comply with EN 55032 Conducted and Radiated Emissions Class B limits

| Model          | C1                               | C2                               | C3, C4                       | L1                             |
|----------------|----------------------------------|----------------------------------|------------------------------|--------------------------------|
| TEN 20-24xxWIN | 4.7 $\mu$ F / 50 V<br>1812 MLCC  | -                                | 1'000 pF / 2 kV<br>1808 MLCC | 450 $\mu$ H / 5.2 A<br>TCK-048 |
| TEN 20-48xxWIN | 2.2 $\mu$ F / 100 V<br>1812 MLCC | 2.2 $\mu$ F / 100 V<br>1812 MLCC |                              | 325 $\mu$ H / 3.3 A<br>TCK-050 |

TCK-048 datasheet: [www.tracopower.com/overview/tck-048](http://www.tracopower.com/overview/tck-048)

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