

Description

Low impedance
Low ESR
Wide frequency range
Wide operating temperature range

Applications

Power supplies
Consumer electronics
Industrial electronics

Electrical characteristics

Operating temperature: -25°C ÷ 85°C
Rated voltage: 400Vdc ÷ 450Vdc
Rated capacitance: 100 µF ÷ 330 µF
Capacitance tolerance (pri 100Hz, 20°C): -20%+20%
Dissipation factor (pri 100Hz, 20°C): 0,15 ÷ 0,18
Leakage current (after 5 minutes application of rated voltage): $I = 0,005 \cdot C \cdot U$
I - current [µA]
C - rated capacitance [µF]
U - rated voltage [V]

The aluminum case capacitors are supplied with PVC sleeve insulation and a safety vent located on end-deck. Plus pole is marked on the perimeter

Load life:

Load life is 2000 Hrs (at maximum operating temperature, at rated voltage and AC current load as per Table 1).

After 2000 Hrs of the above application of rated voltage and current load, capacitors must meet the following characteristics requirements:

Capacitance change <= +/- 15% of initial value

Tan δ <= 150% of initial value

Leakage current <= initial value

AC Load:

The maximum AC load at maximum operating temperature (85°C) is given in Table 1.

The AC load can be increased at lower operating temperatures by coefficient as per Table 2, with capacitor life expectancy unaffected.

01
table

| Type Number | Rated Capacitance C_N [µF] | Rated Voltage U_N [V] | Dimensions [D x L mm] | max.tanδat 100Hz, 20°C | Iac [mA] | Drawing Number |
|-------------|------------------------------|-------------------------|-----------------------|------------------------|----------|----------------|
| MNH 040 | 100 | 400 | 22x42 | 0,15 | 600 | 1 |
| MNH 040 | 150 | 400 | 25x42 | 0,15 | 800 | 1 |
| MNH 040 | 220 | 400 | 30x50 | 0,15 | 1000 | 1 |
| MNH 040 | 330 | 400 | 30x50 | 0,18 | 1400 | 1 |
| MNH 040 | 470 | 400 | 35x50 | 0,18 | 1800 | 1 |
| MNH 045 | 180 | 450 | 25x42 | 0,15 | 900 | 1 |
| MNH 045 | 390 | 450 | 35x50 | 0,18 | 1500 | 1 |
| MNH 045 | 940 | 450 | 40x68 | 0,18 | 3500 | 2 |

02
table

| Coefficient for permissible Iac increase | 2,3 | 2,0 | 1,7 | 1,53 | 1,3 | 1,15 | 1,0 |
|------------------------------------------|--------|------|------|------|------|------|------|
| Operating temperature | <=40°C | 45°C | 50°C | 55°C | 60°C | 70°C | 85°C |

