



AC Filter capacitor

Film Capacitors for power Electronics

AKMJ-MC(SINGLE PHASE) series

■ FEATURES

E62 E65

- Aluminum cylindrical housing package, Sealed with resin
- Copper nut / screw leads, insulated plastic cover positioning,easy installation
- Large capacity, small size
- Resistance to high voltage, with self-healing
- High ripple current, high dv / dt withstand capability



■ APPLICATIONS

- Widely used in power electronic equipment used for the AC filter
- In the high-power UPS, switching power supply, inverter and other equipment for the AC filter, harmonics and improve power factor control

■ TECHNICAL DATA

工作温度范围/ Operating temperature range	Max.Operating temperature.,Top,max : +85°C Upper category temperature : +70°C Lower category temperature : -40°C
容量范围/ Capacitance range	20~200μF
额定电压/ Rated voltage	200V.AC~1000V.AC
容量偏差/ Capacitance tolerance	±5% (J) ; ±10% (K)
极间耐压/ Test voltage between terminals	1.5U _{rms} / 10S
极壳耐压/ Test voltage terminal to case	3000V.AC / 2S,50/60Hz
过电压/ Over voltage	1.1U _{rms} (30% of on – load – dur.)
	1.15U _{rms} (30min / day)
	1.2U _{rms} (5min / day)
	1.3U _{rms} (1min / day)
损耗角正切/ Dissipation factor	Tgδ ≤ 0.002 f = 100Hz
自感/ Self inductance	<70 nH per mm of lead spacing
绝缘电阻/ Insulation resistance	R _s × C ≥ 10000S (at 20°C 100V.DC)
耐脉冲电流冲击/ Withstand strike current	See the specification sheet
有效电流/ Irms	See the specification sheet
寿命预期/ Life time expectancy	Useful life time: >100000h at U _{NDC} and 70°C FIT: <10×10 ⁻⁹ /h(10 per 10 ⁹ component h) at 0.5×U _{NDC} ,40°C
电解质/ Dielectric	Metallized polypropylene
结构/ Construction	Filling with inert gas/ silicone oil, Non-inductive, over-pressure
外壳/ Case	Aluminum case
阻燃性/ Flame retardation	UL94V-0
引用标准/ Reference standard	IEC61071,GB17702,UL810



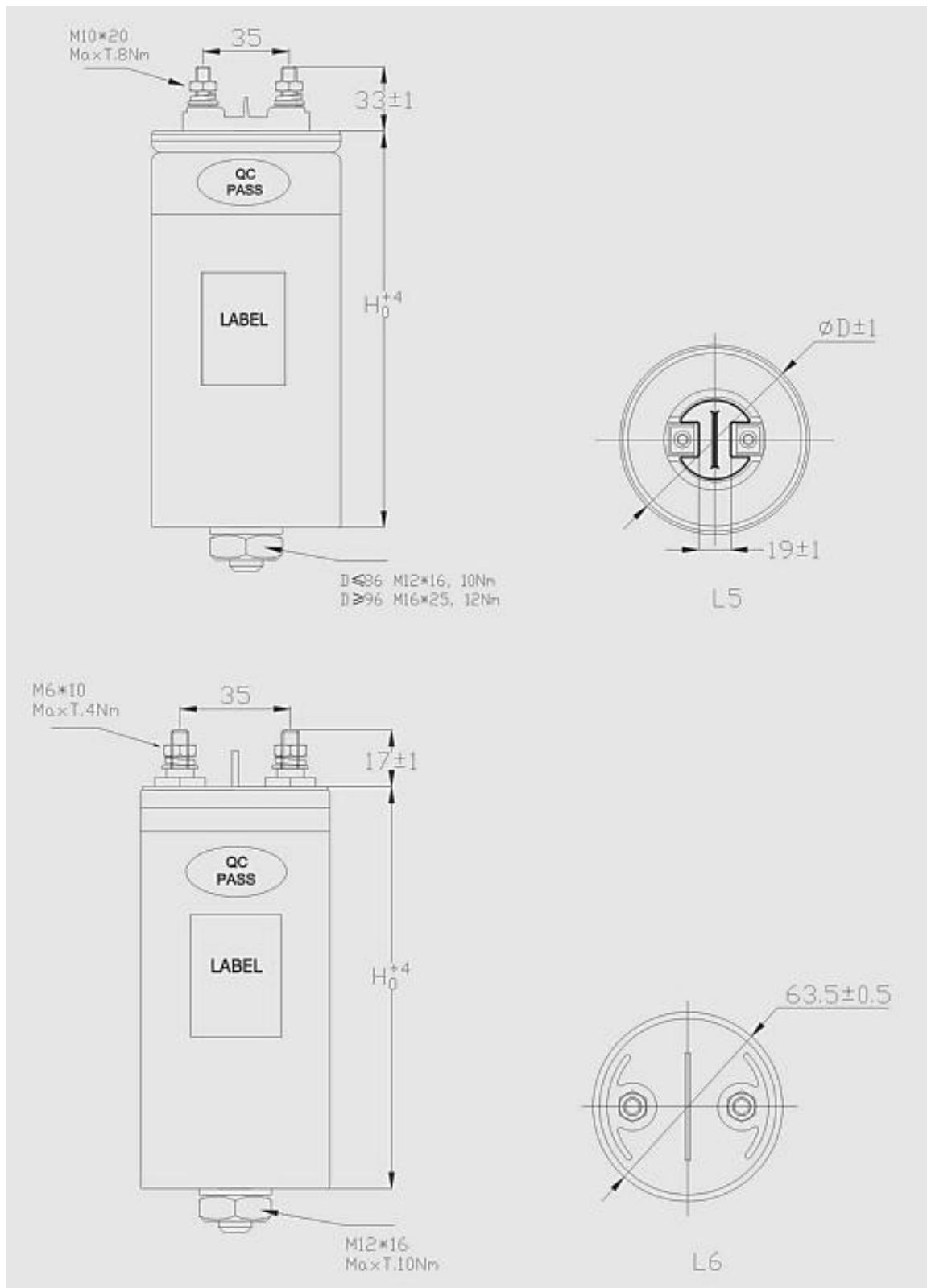
AC Filter capacitor

Film Capacitors for power Electronics

AKMJ-MC(SINGLE PHASE) series

■ SAFETY APPROVALS

UL

UL810, Voltage Limits: Max. 4000VDC, 85°C
Certificate No.: E496566**■ THE CONTOUR MAP**



■ SPECIFICATION TABLE

C _N (μF)	Φ D (mm)	H (mm)	I _{max} (A)	I _p (A)	I _s (A)	ESR (mΩ)	R _{th} (K/W)	P (mm)
Urms=300V.AC,U _N =420V.AC								
150	76	175	29	1270	3810	2.83	5.21	35
200	76	235	28	1300	3900	2.2	6.63	35
Urms=330V.AC,U _N =460V.AC								
80	76	105	20	890	2670	2.45	7.38	35
100	76	105	26	980	2940	2.68	6.52	35
200	86	175	33	1750	5250	1.5	5	35
Urms=400V.AC,U _N =560V.AC								
50	76	110	29	785	2355	3.5	9.53	35
100	86	150	41	2648	7944	2.82	6.26	35
200	86	240	49	3467	10401	2.53	4.89	35
350	116	210	68	3200	9600	1	4.2	35
Urms=480V.AC,U _N =680V.AC								
70	76	145	50	4000	12000	2	6.23	35
100	96	125	80	3500	10500	2	3.9	35
160	86	200	36	3000	9000	1.5	4.8	35
250	96	240	55	2700	8100	1.21	4.25	35
300	86	285	78	2500	7500	1.2	3.85	35
Urms=500V.AC,U _N =700V.AC								
33	76	115	29	752	2256	3.86	9.05	35
60	76	150	33	953	2859	3.72	7.23	35
100	76	200	37	1047	3141	3.05	6.78	35
133	86	200	40	1392	4176	2.87	6.41	35
200	96	220	45	3800	11400	1.25	3.89	35
250	96	240	50	4000	12000	1.15	3.56	35
Urms=550V.AC,U _N =780V.AC								
22	63.5	90	24	500	1500	4.01	12.4	35



AC Filter capacitor

AKMJ-MC(SINGLE PHASE) series

Film Capacitors for power Electronics

50	63.5	140	34	980	2940	3.58	7.1	35
100	76	200	50	3500	10500	1.6	6.84	35
133	86	200	55	4000	12000	1.5	6.84	35
Urms=600V.AC,UN=850V.AC								
150	96	240	52	3000	9000	2.1	3.87	35
200	116	240	55	3200	9600	1.89	3.12	35
Urms=640V.AC,UN=900V.AC								
15	63.5	90	22	350	1050	5.7	10.74	35
2	76	130	29	680	2040	4.28	7.93	35
33	76	130	33	800	2400	3.56	7.39	35
68	86	240	45	1496	4488	2.56	5.61	35
Urms=850V.AC,UN=1200V.AC								
50	96	240	62	2700	8100	1	4.05	35
Urms=1000V.AC,UN=1400V.AC								
30	86	175	38	650	1950	3.68	5.44	35
Urms=1400V.AC,UN=1900V.AC								
15	116	150	35	740	2220	2.5	5.21	35

■ **Maximum increase of the component temperature (ΔT), resulting from the component's power dissipation and heat conductivity.**

The maximum component temperature-increase ΔT is the difference between the temperature measured on the capacitor's housing and the ambient temperature (in proximity to the capacitor) when the capacitor is working during normal operation. During operation ΔT must not exceed 15°C at rated temperature. ΔT corresponds the rise of the component temperature caused by the I_{rms} . In order not to exceed ΔT of 15°C at rated temperature, the I_{rms} must be decreased with an increase of the ambient temperature.

$$\Delta T = P/G$$

$$\Delta T = T_c - T_{amb}$$

$$P = I_{rms}^2 \times ESR = \text{power dissipation (mW)}$$

$$G = \text{heat conductivity (mW/}^\circ\text{C)}$$