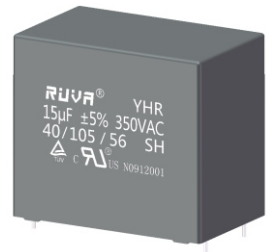
交流滤波聚丙烯薄膜电容器
AC Filtering Metallized Polypropylene Film Capacitors (MKP)

YHR

产品特点
- 耐高湿性能良好
- 具有优秀的自愈性
- 优秀的过压能力
- 低损耗，优秀的过电流能力
- 优秀的可靠性
- 使用寿命长
- 符合ROHS标准

Features
- Good High humidity resistance
- Good self-healing properties
- Over-voltage capability
- Low losses with high current capability
- High reliability
- Long useful life
- RoHS-compatible



产品用途
- 用于电源转换器的输出交流滤波，UPS，电机驱动

Applications
- Output AC filtering for power converters,UPS, motor drives

产品结构
- 电介质：聚丙烯（MKP）
- PBT/PPS塑料外壳（UL 94 V-0）
- 环氧树脂密封（UL 94 V-0）

Construction
- Dielectric: Polypropylene (MKP)
- PBT / PPS Plastic case (UL 94 V-0)
- Epoxy resin sealing (UL 94 V-0)

引出
- 平行引线，无铅镀锡
- 2引线，4引线版本
- 标准引线长度：5 ± 0.5 mm

Terminals
- Parallel wire leads, lead-free tinned
- 2-pins, 4-pins, versions
- Standard lead lengths: 5 ± 1 mm

认 证 Certification

	UL (美国)	UL810(constrution only), max 600VAC,105℃ 证书号Certificate No.: E256239
	TUV (德国)	EN 61071-2007 250VAC~600VAC,1.0μF~40μF,±5%,±10% 40/105/56（40/85/56） THB type：Humidity grades IIIB under 85℃/85%RH 1000h 证书号Certificate No.:R50559252

技术参数 Technical Parameter

参考标准 Reference standard	GB/T 17702-2021(IEC 61071:2007)；IEC 60068
气候类别 Climatic category	40/105/56，40/85/56
工作温度范围（外壳）Operating temperature range (case)	最高工作温度 Max. operating temperature, Top +105℃ 最低工作温度 Lower category temperature T_{min} -40℃
在85℃到105℃之间电压降低率 For temperatures between 85 ℃ and 105℃	每度按照1.5%的V_{RMS}进行下降 1.5%/℃ of Vop derating compared to V_{RMS} at 85 ℃
额定电压 Ratedvoltage（V_R)85℃	250VAC~600VAC
容量偏差 Capacitance tolerance	J(±5%) K(±10%)
直流耐压（电极间）DC test voltage between terminals (10 s)	1.5*V_R
绝缘耐压（极壳间）Voltage test terminal to case (10 s)	2100 Vac, 50 Hz
绝缘电阻 Insulation Resistance	> 10 000 s（20℃，100vdc，1min）

峰值电流 Maximum peak current	I_P=C*dV/dT
预期使用寿命 Operation life time	60 000 h at V_R and 85℃
耐湿负荷 Biased humidity test	在 60℃ / 95% 相对湿度环境下加载V_R测试1000H 1000 hours /60℃ / 95% relative humidity with V_R
性能要求 Performance requirements	容量变化：|ΔC/C|≤ 5% Capacitance change: |ΔC/C|≤ 5% 损耗变化 Δ tan δ ≤0.025 (at 10 kHz) Dissipation factor change Δ tan δ ≤0.025 (at 10 kHz) 绝缘电阻 Rins ≥ 50%规定值 Insulation resistance Rins ≥ 50% of initial limit
THB耐湿负荷 THB Biased humidity test	在 85℃ / 85% 相对湿度环境下加载V_R测试1000H 1000 hours / 85 ℃ / 85% relative humidity with V_R
THB 性能要求 THB Performance requirements	容量变化：|ΔC/C|≤ 10% Capacitance change: |ΔC/C|≤ 10% 损耗变化 Δ tan δ ≤0.025 (at 10 kHz) Dissipation factor change Δ tan δ ≤0.025 (at 10 kHz) 绝缘电阻 Rins ≥ 50%规定值 Insulation resistance Rins ≥ 50% of initial limit

常用规格表
Common Specification

C (uF)	W ±1	H ±1	T ±1	P ±0.5	P2 ±0.5	d ±0.05	dV/dt (V/us)	Tg δ *10⁻⁴ 1kHz	Tg δ *10⁻⁴ 10kHz	ESR@10 kHz(mΩ)	Irms (A)	Part number
V_{RMS}=250Vac U_N=350Vac U_{NDC}=500Vdc at 85℃												
1.5	32	21	11	27.5	–	0.8	50	8	15	20	4	YHR*155P0250Z27+-000
2	32	21.5	12	27.5	–	0.8	50	8	15	15	5	YHR*205P0250Z27+-000
2.5	32	23.5	13	27.5	–	0.8	50	8	15	12	5.5	YHR*255P0250Z27+-000
3	32	24.5	15	27.5	–	0.8	50	8	15	9	6.5	YHR*305P0250Z27+-000
4	32	30	16	27.5	–	0.8	50	8	15	6.5	8.5	YHR*405P0250Z27+-000
4.5	32	27.5	18	27.5	–	0.8	50	8	15	5.5	9	YHR*455P0250Z27+-000
5	32	33	18	27.5	–	0.8	50	8	15	5.8	9.5	YHR*505P0250Z27+-000
6	32	31	21	27.5	–	0.8	50	8	15	4.5	10	YHR*605P0250Z27+-000
7	32	37	22	27.5	–	1	50	8	15	4	12	YHR*705P0250H27+-000
4	42	24	15	37.5	–	0.8	25	10	25	9.5	6	YHR*405P0250Z37+-000
5	42	24	19	37.5	–	0.8	25	10	25	8	7	YHR*505P0250Z37+-000
6	42	30	16	37.5	–	0.8	25	10	25	7	8	YHR*605P0250Z37+-000
12	42	40	20	37.5	–	1	25	10	25	5	12	YHR*126P0250H37+-000
15	42	44	24	37.5	–	1	25	15	35	4	14	YHR*156P0250H37+-000
18	42	42.5	28	37.5	–	1	25	15	35	3.5	16	YHR*186P0250H37+-000
20	42	45	30	37.5	–	1	25	15	35	3	18	YHR*206P0250H37+-000
24	42	50	35	37.5	–	1	25	15	35	2.5	20	YHR*246P0250H37+-000
30	57.5	45	30	52.5	20.3	1.2	13	20	80	3.5	18	YHR*306P0250E5C+-000
40	57.5	50	35	52.5	20.3	1.2	13	20	80	3	22	YHR*406P0250E5C+-000
V_{RMS}=310Vac U_N=430Vac U_{NDC}=580Vdc at 85℃												
0.68	32	18	9	27.5	–	0.8	65	8	15	30	2.5	YHR*684P0310Z27+-000
1	32	21	11	27.5	–	0.8	65	8	15	22	3.5	YHR*105P0310Z27+-000
1.5	32	23.5	13	27.5	–	0.8	65	8	15	15	4	YHR*155P0310Z27+-000
2	32	24.5	15	27.5	–	0.8	65	8	15	12	5.5	YHR*205P0310Z27+-000
2.5	32	30	16	27.5	–	0.8	65	8	15	9.5	6.5	YHR*255P0310Z27+-000
3	32	27.5	18	27.5	–	0.8	65	8	15	8.5	7	YHR*305P0310Z27+-000
4	32	31	21	27.5	–	1	65	8	15	6.5	9	YHR*405P0310Z27+-000
5	32	37	22	27.5	–	0.8	65	8	15	5.5	10.5	YHR*505P0310Z27+-000
3	42	24	15	37.5	–	0.8	35	8	15	10	5.5	YHR*305P0310Z37+-000
4	42	24	19	37.5	–	0.8	35	10	25	8.5	6.5	YHR*405P0310Z37+-000
4.5	42	30	16	37.5	–	1	35	10	25	7.5	7	YHR*455P0310Z37+-000
8	42	40	20	37.5	–	1	35	10	25	5.5	12	YHR*805P0310H37+-000
10	42	44	24	37.5	–	1	35	10	25	4.5	13	YHR*106P0310H37+-000
12	42	42.5	28	37.5	–	1	35	15	30	4	13.5	YHR*126P0310H37+-000
14	42	45	30	37.5	–	1	35	15	30	3.5	15	YHR*146P0310H37+-000
18	42	50	35	37.5	–	1.2	35	15	30	3	18	YHR*186P0310H37+-000
18	57.5	45	30	52.5	20.3	1.2	35	15	30	4.5	18	YHR*186P0310E5C+-000
20	57.5	45	30	52.5	20.3	0.8	15	20	60	4	19	YHR*206P0310E5C+-000
25	57.5	50	35	52.5	20.3	0.8	15	20	60	3.5	21	YHR*256P0310E5C+-000
V_{RMS}=350Vac U_N=480Vac U_{NDC}=600Vdc at 85℃												
0.47	32	18	9	27.5	–	0.8	80	8	15	15	2.5	YHR*474P0350Z27+-000
0.68	32	21	11	27.5	–	0.8	80	8	15	14	3.5	YHR*684P0350Z27+-000
1	32	23.5	13	27.5	–	0.8	80	8	15	12	4.5	YHR*105P0350Z27+-000
1.5	32	24.5	15	27.5	–	0.8	80	8	15	10	5.5	YHR*155P0350Z27+-000
1.8	32	30	16	27.5	–	0.8	80	8	15	9	6	YHR*185P0350Z27+-000
2	32	27.5	18	27.5	–	0.8	80	8	15	8.5	6.5	YHR*205P0350Z27+-000
2.2	32	33	18	27.5	–	0.8	80	8	15	7.5	7	YHR*225P0350Z27+-000
3.3	32	37	22	27.5	–	0.8	80	8	15	6	8	YHR*335P0350Z27+-000

常用规格表
Common Specification

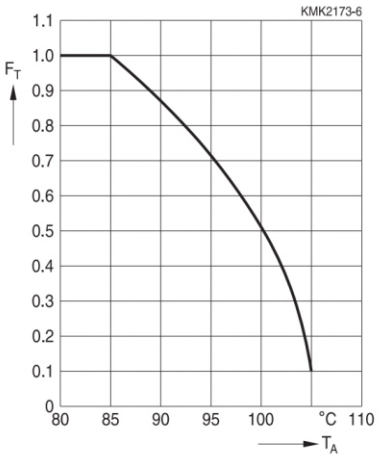
C (uF)	W ±1	H ±1	T ±1	P ±0.5	P2 ±0.5	d ±0.05	dV/dt (V/us)	Tg δ *10⁻⁴		ESR@10 kHz (mΩ)	Irms (A)	Part number
								1kHz	10kHz			
V_{RMS}=350Vac U_N=480Vac U_{NDC}=600Vdc at 85℃												
2	42	24	15	37.5	–	0.8	50	8	15	8	6.5	YHR*205P0350Z37+-000
2.5	42	24	19	37.5	–	0.8	50	10	25	7	7	YHR*255P0350Z37+-000
3	42	30	16	37.5	–	0.8	50	10	25	5	10	YHR*305P0350Z37+-000
5	42	40	20	37.5	–	1	50	10	25	4.5	12	YHR*505P0350H37+-000
7	42	44	24	37.5	–	1	50	10	25	4	13	YHR*705P0350H37+-000
9	42	45	30	37.5	–	1	50	12	30	3.5	14	YHR*905P0350H37+-000
12	42	50	35	37.5	–	1	50	12	30	3	15	YHR*126P0350H37+-000
12	57.5	45	30	52.5	20.3	1.2	25	20	50	4.5	17	YHR*126P0350E5C+-000
14	57.5	45	30	52.5	20.3	1.2	25	20	50	4	18	YHR*146P0350E5C+-000
18	57.5	50	35	52.5	20.3	1.2	25	20	50	3	20	YHR*186P0350E5C+-000
VRMS=400Vac UN=560Vac UNDC=700Vdc at 85℃												
0.33	32	18	9	27.5	–	0.8	100	8	15	20	2	YHR*334P0400Z27+-000
0.47	32	21	11	27.5	–	0.8	100	8	15	18	3	YHR*474P0400Z27+-000
0.68	32	23.5	13	27.5	–	0.8	100	8	15	15	4	YHR*684P0400Z27+-000
0.82	32	23.5	13	27.5	–	0.8	100	8	15	12	5	YHR*824P0400Z27+-000
1	32	24.5	15	27.5	–	0.8	100	8	15	10	5.5	YHR*105P0400Z27+-000
1.2	32	30	16	27.5	–	0.8	100	8	15	9	6	YHR*125P0400Z27+-000
1.5	32	27.5	18	27.5	–	0.8	100	8	15	8.5	6.5	YHR*155P0400Z27+-000
2	32	31	21	27.5	–	0.8	100	8	15	8	7	YHR*205P0400Z27+-000
2.5	32	37	22	27.5	–	0.8	100	8	15	7	8	YHR*255P0400Z27+-000
1.5	42	24	15	37.5	–	0.8	60	10	25	11	5.5	YHR*155P0400Z37+-000
2	42	24	19	37.5	–	0.8	60	10	25	10	6	YHR*205P0400Z37+-000
2.2	42	30	16	37.5	–	0.8	60	10	25	9	7	YHR*225P0400Z37+-000
4	42	40	20	37.5	–	1	60	10	25	7.5	9	YHR*405P0400H37+-000
6	42	44	24	37.5	–	1	60	15	30	6.5	11	YHR*605P0400H37+-000
7.5	42	42.5	28	37.5	–	1	60	15	30	5.5	13	YHR*755P0400H37+-000
10	42	50	35	37.5	20.3	1	60	15	30	4	15	YHR*106P0400H37+-000
10	57.5	45	30	52.5	20.3	1.2	30	20	50	3.5	17	YHR*106P0400E5C+-000
14	57.5	50	35	52.5	20.3	1.2	30	20	50	3	19.5	YHR*146P0400E5C+-000
VRMS=450Vac UN=630Vac UNDC=760Vdc at 85℃												
1.5	42	30	16	37.5	–	0.8	75	10	25	10.7	8.5	YHR*155P0450Z37+-000
3.3	42	40	20	37.5	–	1	75	10	25	6.5	9	YHR*335P0450H37+-000
4.5	42	44	24	37.5	–	1	75	10	25	4.6	10.5	YHR*455P0450H37+-000
5	42	45	30	37.5	20.3	1.2	75	10	25	4.2	12	YHR*505P0450E3C+-000
7	42	50	35	37.5	20.3	1.2	75	10	25	3.8	15	YHR*705P0450E3C+-000
8	57.5	45	30	52.5	20.3	1.2	35	20	50	4.6	15	YHR*805P0450E5C+-000
10	57.5	50	35	52.5	20.3	1.2	35	20	50	3.8	17.5	YHR*106P0450E5C+-000
12	57.5	50	35	52.5	20.3	1.2	35	20	50	3.2	20	YHR*126P0450E5C+-000
VRMS=500Vac UN=700Vac UNDC=800Vdc at 85℃												
1.2	42	30	16	37.5	–	0.8	80	10	25	10	8.5	YHR*125P0500Z37+-000
1.5	42	30	16	37.5	–	0.8	80	10	25	6.8	9	YHR*155P0500Z37+-000
2.7	42	40	20	37.5	–	1	80	10	25	5.5	10.5	YHR*275P0500H37+-000
4	42	44	24	37.5	–	1	80	10	25	4.5	12	YHR*405P0500H37+-000
4.7	42	45	30	37.5	20.3	1.2	80	10	25	3.8	13	YHR*475P0500E3C+-000
7	42	50	35	37.5	20.3	1.2	40	20	50	3.5	15	YHR*705P0500E3C+-000
9	57.5	45	30	52.5	20.3	1.2	40	20	50	4.5	15	YHR*905P0500E5C+-000
10	57.5	50	35	52.5	20.3	1.2	40	20	50	4	20	YHR*106P0500E5C+-000

C (uF)	W ±1	H ±1	T ±1	P ±0.5	P2 ±0.5	d ±0.05	dV/dt (V/us)	Tgδ *10⁻⁴ 1kHz	Tgδ *10⁻⁴ 10kHz	ESR@10 kHz (mΩ)	Irms (A)		Part number
V_{RMS}=550Vac U_N=770Vac U_{NDC}=850Vdc at 85℃													
1	42	30	16	37.5	-	0.8	85	10	25	10	8.5		YHR*105P0550Z37+-
1.2	42	30	16	37.5	-	0.8	85	10	25	6.8	9		YHR*125P0550Z37+-
2.2	42	40	20	37.5	-	1	85	10	25	5.6	10.5		YHR*225P0550H37+-
3.3	42	44	24	37.5	-	1	85	10	25	4.5	12		YHR*335P0550H37+-
5.6	42	45	30	37.5	20.3	1.2	85	10	25	3.8	13		YHR*565P0550E3C+-
6.8	42	50	35	37.5	20.3	1.2	45	20	50	3.5	16		YHR*685P0550E3C+-
7	57.5	45	30	52.5	20.3	1.2	45	20	50	4.5	17.5		YHR*705P0550E5C+-
8	57.5	50	35	52.5	20.3	1.2	45	20	50	3.5	20		YHR*806P0550E5C+-
V_{RMS}=600Vac U_N=845Vac U_{NDC}=900Vdc at 85℃													
1	42	30	16	37.5	-	0.8	90	10	25	10	8.5		YHR*105P0600Z37+-
1.2	42	30	16	37.5	-	0.8	90	10	25	6.8	9		YHR*125P0600Z37+-
2.2	42	40	20	37.5	-	1	90	10	25	5.6	10.5		YHR*225P0600H37+-
3	42	44	24	37.5	-	1	90	10	25	4.5	12		YHR*305P0600H37+-
3.3	42	45	30	37.5	20.3	1.2	90	10	25	3.8	13		YHR*335P0600E3C+-
4	42	50	35	37.5	20.3	1.2	50	20	50	3.5	15		YHR*405P0600E3C+-
5	57.5	45	30	52.5	20.3	1.2	50	20	50	4.5	17.5		YHR*505P0600E5C+-
7	57.5	50	35	52.5	20.3	1.2	50	20	50	3.5	20		YHR*705P0600E5C+-

1. “*”表示类型：“C”普通型、“S”THB型
2. “+-”表示容量公差可以符合“J” “K”
2. “000”表示内部使用导线长度
3. 在1kHz下测得的电容值
4. 10kHz时的最大纹波电流IRMS（ΔT≤15℃、ΔESRtyp≤±5%，T=85℃）
5. 在谐振频率下测量的典型ESL值

1. "*" Representation type: "C" ordinary type, "S" THB type
2. "+-" Means the capacity tolerance can conform to "J""K"
2. "000" Means Internal use the lead length
3. Capacitance value measured at 1 kHz
4. Max ripple current IRMS at 85℃, at 10 kHz for a ΔT ≤15 ℃ at ΔESRtyp ≤±5%
5. Typical ESL value measured at resonance frequency

◆ 曲线特性(Irms降额与温度)
Curves Characteristics (Irms derating vs temperature)



*最大I_{RMS}电流与环境温度的函数: I_{RMS} (TA) = Factor *I_{RMS} (85℃)
*Maximum I_{RMS} current as function of the ambient temperature

◆ 预期寿命–典型曲线
Life time expectancy – typical curve