

三相交流滤波电容器

Three-phase AC filter capacitors

YHD

特点与用途

- ◆ 损耗小，高脉冲电流承受能力
- ◆ 良好的自愈性和耐压性，长期稳定性高
- ◆ 干式树脂填充，无泄漏风险，阻燃等级UL94 V-0
- ◆ 防爆设计，过压力保护更安全
- ◆ 低损耗，高脉冲电流耐受能力。
- ◆ 防尘罩或防震危险端子

Features

- ◆ Low dissipation factor, high pulse current withstand capability.
- ◆ Good self-healing property and voltage withstand, high long term stability.
- ◆ Dry resin filling, no leakage risk, flame retardant grade UL94 V-0.
- ◆ Anti-explosion design, overpressure tear-off fuse and be more safety.
- ◆ Dust cover, or shock hazard protected terminal.

产品用途

- ◆ 电力电子设备或动力装置中的交流滤波电路
- ◆ 分用于风电、光伏、UPS等场合
- ◆ 用于功率传感器的交流滤波和电源系统

Applications

- ◆ AC-Filter circuit in power electronic Wind power.
- ◆ photovoltaic, UPS and other occasions.
- ◆ AC filtering and Power system for PFC.



技术参数 Technical Parameter

引用标准 Norms reference	IEC 61071 (idt GB/T 17702) 自选 IEC 60831 (idt GB/T 12747)
额定均方根电压 Rated RMS Voltage (U_{rms})	250 Vac ~ 1000 Vac
额定频率 Rated frequency f_N	50 or 60 Hz
额定电容量 Rated capacitance (C_N)	10 μ F ~ 600 μ F
连接方式 Connection Method	Δ 、Y
电容偏差 Capacitance tolerance	$\pm 5\%$ 、 $\pm 10\%$ or other
过电压 Over-voltage (U_{max})	1.1 U_{rms} : 8 h/d 1.5 U_{rms} : 30 min/d 1.2 U_{rms} : 5 min/d 1.3 U_{rms} : 1 min/d 1.5 U_{rms} : 50 ms $\times$ 1000 times
介质损耗角正切 Tangent of the dielectric lost angle ($\tan \delta_o$)	0.0002
损耗角正切 Tangent of the loss angle ($\tan \delta$)	≤ 0.0010 (100 Hz, 20°C)
极间耐电压 Test voltage between terminals (U_{T-T})	2.15 U_{rms} or 1.5 UN (50/60 Hz), 10 s
极壳耐电压 Test voltage between terminals and case (U_{T-C})	4 000 Vac (50/60 Hz), 10 s
绝缘电阻 Insulation resistance ($R_{ins} \times C_N$)	≥ 10000 s (20°C, 500 V, 1 min)
气候类别 Climatic category	40/70/56
工作温度范围 Operating temperature range (θ_{amb})	-40°C ~ +70°C
最高热点温度 Maximum hot-spot temperature (θ_{hs})	+85°C
贮存温度范围 Storage Temperature range (θ_s)	-40°C ~ +85°C
最大允许湿度 Maximum permissible humidity	95%RH
最高海拔 Maximum permissible altitude	2 000 m: 电流不降额 (No derating for current) 2000 m to 4000 m: 电流每500m按3%降额 (Decreasing factor 3 % per 500 m for current)
预期寿命 Expected lifetime	$ \Delta C/C \leq 3\%$ after 100 000h @ 0.8 U_{rms} $\theta_{hs} \leq 70^\circ\text{C}$

冷却方式 Cooling method

自然空气或强制冷却
Naturally air-cooled or force cooled

安全装置 Safety device

自愈特性和过压隔离开关
Self-healing property and overpressure disconnecter

引出端 Terminals

螺栓式端子: M8为6N·m, M10为8N·m
Bolt terminals: 6N·m for M8, 8N·m for M10
插拔式端子: M5为2N·m, M6为3N·m
Clamp terminals: 2N·m for M5, 3N·m for M6

内部填充料 Internal stuffing

软态聚氨酯 Soft polyurethane I

安装位置 Mounting position

室内安装 Indoors

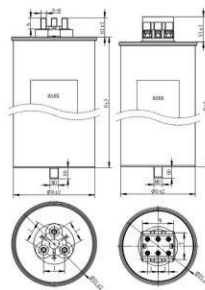
安装与接入方式 Mounting and grounding

外壳底部螺纹M12或M16螺栓接入
M12为10N·m, M16为12N·m
Threaded M12 or M16 stud on bottom of case
10N·m for M12, 12N·m for M16

放电装置 Discharge device

可选内部或外部接入放电电阻或不带放电电阻
Optional internal or external discharge resistor or without

外形图 Outline drawing



D	D1	M0 x H0	A		B			
			M x h	H1	W x T	H1		
76	81	M12x16	M6 x 15	27	30	45x44	36	15
			M8 x 17	29				
86	91	M12x16	M8x17	29	30	45x44	36	15
			M10x18	30				
96	101	M12x16	M8x17	29	30	45x44	36	15
			M10x18	30				
106	111	M12 x 16	M8x17	29	35	45x44	36	15
			M16 x 25	M10x18				
116	121	M12 x 16	M8x17	29	35	45x44	36	15
			M16 x 25	M10x18				
126	131	M12 x 16	M8x17	29	35	45x44	36	15
			M16 x 25	M10x18				
136	141	M12 x 16	M8x17	29	35	45x44	36	15
			M16 x 25	M10x18				

常用规格表
Common Specification

C_N (μF)	ΦD (mm)	H (mm)	R_s (m Ω)	L_s (nH)	Rth (K/W)	I _{max} (A)	$\hat{I}$ (kA)	$\hat{I}_s$ (kA)	Weight (kg)	Part Number
Urms=230Vac U _N =325Vac U _S =700V										
3×84	76	200	3×1.5	100	4.5	3×34	1.6	4.8	1.1	YHD2318405****
3×105	76	230	3×1.6	120	4	3×36	1.5	4.5	1.2	YHD2311056****
3×160	86	230	3×1.2	120	3.5	3×43	2.3	6.9	1.6	YHD2311606****
3×250	116	200	3×0.8	110	3.1	3×53	3	9	2.4	YHD2312506****
3×330	116	230	3×0.9	130	2.7	3×54	4.8	14.4	2.5	YHD2313306****
Urms=440Vac U _N =625Vac U _S =1300V										
3×13	76	140	3×1.8	100	6.2	3×22	0.8	2.4	0.9	YHD4411305****
3×16.5	76	140	3×1.5	100	5.6	3×25	1.1	3.3	0.9	YHD4411655****
3×26.5	76	200	3×2.3	100	4.4	3×25	0.8	2.4	1.2	YHD4412655****
3×33	76	200	3×1.9	100	4	3×28	1	3	1.2	YHD4413305****
3×50	86	200	3×1.4	110	3.4	3×34	1.5	4.5	1.4	YHD4415005****
3×66	86	230	3×1.5	120	2.9	3×36	1.4	4.2	1.7	YHD4416605****
3×83	116	200	3×1.1	110	3.1	3×40	2.4	7.2	2.4	YHD4418305****
3×100	116	200	3×1.0	110	2.8	3×43	2.9	8.7	2.4	YHD4411006****
3×133	136	200	3×0.9	120	2.5	3×46	3.9	11.7	3.3	YHD4411336****
3×154	136	200	3×0.8	120	2.3	3×48	4	12	3.3	YHD4411546****
3×170	136	230	3×0.9	130	2.2	3×45	4.5	13.5	3.8	YHD4411706****
Urms=540Vac U _N =760Vac U _S =1600V										
3×19	76	170	3×1.0	110	5.1	3×32	1	3	1	YHD5411905****
3×23	76	170	3×1.0	110	5	3×33	1.2	3.6	1.2	YHD5412305****
3×39	86	200	3×0.9	110	4	3×39	1.4	4.2	1.7	YHD5413905****
3×48	86	230	3×1.0	120	3.6	3×40	1.3	3.9	1.9	YHD5414805****
3×96	116	230	3×0.8	130	3	3×45	2.3	6.9	2.8	YHD5419605****
Urms=690Vac U _N =980Vac U _S =2000V										
3×33.5	116	170	3×0.8	110	3.5	3×42	1.6	4.8	2.2	YHD6913355****
3×38	116	200	3×0.8	110	3.5	3×40	1.3	3.9	2.4	YHD6913805****
3×75	136	230	3×0.8	130	2.6	3×45	1.9	5.7	3.7	YHD6917505****
Urms=850Vac U _N =1200Vac U _S =2580V										
3×8	76	170	3×1.3	110	5.6	3×24	0.6	1.8	1	YHD8518004****
3×10	86	170	3×1.1	110	5.2	3×27	0.7	2.1	1	YHD8511005****
3×12	86	170	3×1.0	110	4.8	3×29	0.9	2.7	1	YHD8511205****
3×17	106	170	3×0.9	110	4.3	3×34	1.1	3.3	1.7	YHD8511705****
3×23	86	230	3×1.1	120	3.4	3×37	0.9	2.7	1.6	YHD8512305****
3×28	106	230	3×1.0	130	3.3	3×38	1	3	2.2	YHD8512805****
3×33	106	230	3×1.0	130	3	3×41	1.2	3.6	2.3	YHD8513305****
3×38	116	230	3×0.9	130	2.9	3×42	1.4	4.2	2.8	YHD8513805****
3×49	136	230	3×0.9	130	2.7	3×43	1.9	5.7	3.7	YHD8514905****
3×55.8	136	230	3×1.0	130	2.5	3×45	2.2	6.6	3.8	YHD8515585****

*表中列尺寸为公司常用规格尺寸，其他规格尺寸均可按照客户要求生产

*The listed dimension on the above chart is our common specifications, we can produce as customer's requests.