WAK

85℃ 5,000小时风电专用高纹波品
85℃ 5,000hours wind power high ripple dedicated capacitors

规格表 SPECIFICATIONS

项目 Item	性能 Performance	
工作温度范围 Category Temperature Range	–25～85℃	
额定电压范围 Rated Voltage Range	400～450V.DC	
静电容量允许偏差 Electrostatic Capacitance Tolerance	±20% （20℃, 120Hz）	
漏电流 Leakage Current	I≦0.02CV or 5mA（5分钟值）（5minutes）	
	I=漏电流 Leakage Current (μA) C=静电容量 Electrostatic Capacitance (μF) V=额定电压 Rated Voltage (V)	
损耗角正切值 Dissipation Factor	尺寸标准一览表 The value in the size table	
温度特性 / 阻抗比 Temperature Stability / Impedance Ratio	静电容量变化率 Electrostatic Capacitance Change (120Hz) C(–25℃)/C(+20℃)≧0.7	
耐久性 Endurance	在85℃的环境中，在不超过额定电压的范围内重叠印加规定的额定纹波电流5,000小时后应符合下列要求. After 5000 hour life test at 85℃ with rated voltage and ripple current,the capacitors shall meet the following requirements .	
	静电容量变化率 Electrostatic Capacitance Change	初始值的± 20% ± 20% of the initial value
	损耗角正切值 Dissipation Factor	初始值的200% 200% of the initial value
	漏电流 Leakage Current	初始规格值 The initial specification value
高温无负荷特性 Shelf Life	经过1000个小时的保质寿命试验85℃,然后在20℃保存。经过预处理后（JIS C 5102规范4.4),电容器应符合下列要求。 After 1000 hour shelf life test at 85℃,then stored at 20℃.And after pre–treatment (JIS C 5102 4.4),the capacitors shall meet the following requirements.	
	静电容量变化率 Electrostatic Capacitance Change	初始值的± 20% ± 20% of the initial value
	损耗角正切值 Dissipation Factor	初始值的200% 200% of the initial value
	漏电流 Leakage Current	初始规格值 The initial specification value

WAK

85℃ 5,000小时风电专用高纹波品
85℃ 5,000hours wind power high ripple dedicated capacitors

■纹波电流修正系数 / CORRECTION COEFFICIENT FOR RIPPLE CURRENT

1. 频率系数 Frequence Coefficient

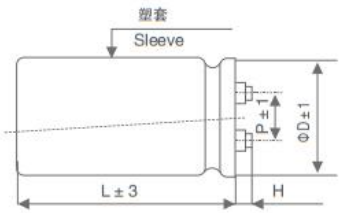
频率 Frequency	60 (50)	120	500	1K	≧10K
400~550V.DC	0.70	1.00	1.10	1.30	1.40

2. 周围温度系数 Temperature Coefficient

周围温度（℃） Ambient Temperature	40	60	85
系数 Coefficient	1.8	1.6	1.0

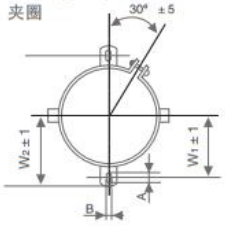
■尺寸图 / DIMENSIONS

标准端子
Standard terminal type



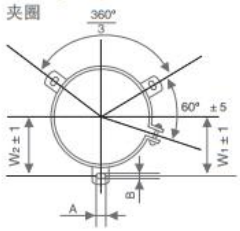
ΦD	P
36	12.7
51	21.8
64	28.2
77	31.4
90	31.4
100	41.5

Mounting clamp for Φ51, Φ64, Φ77, Φ90
夹圈



ΦD	A	B	W1	W2
51	7	5	34.5	40.0
64	7	5	40.0	46.0
77	7	5	46.8	53.0
90	7	5	54.0	60.3

Mounting clamp for Φ51, Φ64, Φ77, Φ90, Φ100
夹圈



ΦD	A	B	W1	W2
51	7	4.5	31.8	36.5
64	7	4.5	38.1	42.5
77	7	4.5	44.5	49.0
90	7	4.5	50.8	55.6
100	8	6	57.5	65.0

■产品代码规则 / PRODUCT CODE SYSTEM

□□□ WAS □□□ M □□□□ Y 2 5 B

- B → 安装方式（B:卡环安装；T：尾柱安装）
- 5 → 螺栓（5：M5；6：M6；8：M8）
- 2 → 端子直径：（1：φ17；2：φ10；）
- Y → 设计代码
- □□□□ → 尺寸/ Size（51×80：5180；90×155：90155）
- M → 允许偏差 / Rated Capacitance Tolerance（± 20%）
- □□□ → 电容/ Capacitance（100uF：101；82：820）
- WAS → 产品系列 / Series
- □□□ → 电压/ Voltage（500:500 ；50V：050）

WAK

标准品一览表、额定纹波电流
TYPICAL DIMENSIONS、RATED RIPPLE CURRENT

V.DC	Cpa (uF)	外壳尺寸 Case Size φD±1×L± 3mm	纹波电流 arms/85℃ Ripple current Arms/85℃, 120Hz	损耗角正切值 (20℃, 120赫兹) Dissipation factor (20℃, 120Hz)	产品型号 Part No
400	2,200	51×115	8.0	0.15	400WAK222M51115Y25B
	2,700	51×130	8.8	0.15	400WAK272M51130Y25B
	3,300	64×100	11.1	0.15	400WAK332M64100Y25B
	3,900	64×115	12.7	0.15	400WAK392M64115Y25B
	4,700	64×155	15.2	0.15	400WAK472M64155Y25B
	5,600	77×115	16.9	0.15	400WAK562M77115Y25B
	6,800	77×130	20.2	0.15	400WAK682M77130Y25B
	8,200	77×155	22.8	0.15	400WAK822M77155Y25B
	10,000	77×195	26.6	0.15	400WAK103M77195Y25B
	10,000	90×130	24.5	0.15	400WAK103M90130Y25B
	12,000	90×155	28.5	0.15	400WAK123M90155Y25B
	15,000	90×195	33.7	0.15	400WAK153M90195Y25B
	18,000	90×250	37.4	0.15	400WAK183M90250Y25B
	22,000	100×250	42.7	0.15	400WAK223M100250Y18T

V.DC	Cpa (uF)	外壳尺寸 Case Size φD±1×L± 3mm	纹波电流 arms/85℃ Ripple current Arms/85℃, 120Hz	损耗角正切值 (20℃, 120赫兹) Dissipation factor (20℃, 120Hz)	产品型号 Part No
450	1,800	51 × 115	7.6	0.15	450WAK182M51115Y25B
	2,200	51 × 115	8.0	0.15	450WAK222M51115Y25B
	2,200	51 × 130	8.8	0.15	450WAK222M51130Y25B
	2,700	51 × 130	8.8	0.15	450WAK272M51130Y25B
	2,700	64 × 100	10.1	0.15	450WAK272M64100Y25B
	3,300	64 × 100	11.1	0.15	450WAK332M64100Y25B
	3,300	64 × 115	11.7	0.15	450WAK332M64115Y25B
	3,900	64 × 115	12.7	0.15	450WAK392M64115Y25B
	3,900	64 × 130	13.8	0.15	450WAK392M64130Y25B
	4,700	64 × 155	15.2	0.15	450WAK472M64155Y25B
	4,700	77 × 130	16.7	0.15	450WAK472M77130Y25B
	5,600	77 × 115	16.9	0.15	450WAK562M77115Y25B
	5,600	77 × 130	18.3	0.15	450WAK562M77130Y25B
	6,800	77 × 130	20.2	0.15	450WAK682M77130Y25B
	6,800	77 × 155	20.7	0.15	450WAK682M77155Y25B
	8,200	77 × 155	22.8	0.15	450WAK822M77155Y25B
	8,200	77 × 195	24.1	0.15	450WAK822M77195Y25B
	8,200	90 × 130	22.2	0.15	450WAK822M90130Y25B
	10,000	77 × 195	26.6	0.15	450WAK103M77195Y25B
	10,000	90 × 130	24.5	0.15	450WAK103M90130Y25B
	10,000	90 × 170	27.8	0.15	450WAK103M90170Y25B
	12,000	90 × 155	28.5	0.15	450WAK123M90155Y25B
	12,000	90 × 195	29.7	0.15	450WAK123M90195Y25B
	12,000	100 × 170	29.3	0.15	450WAK123M100170Y18T
	15,000	90 × 195	33.7	0.15	450WAK153M90195Y25B
	15,000	90 × 250	36.0	0.15	450WAK153M90250Y25B
	15,000	100 × 195	34.0	0.15	450WAK153M100195Y18T
	18,000	90 × 250	37.4	0.15	450WAK183M90250Y25B
	18,000	100 × 250	37.0	0.15	450WAK183M100250Y18T
	22,000	100 × 250	42.7	0.15	450WAK223M100250Y18T

●重要说明 Important note

◆KAOUNE并不了解每一个客户对产品的应用，也不比客户更了解他们对产品的应用。因此，客户负有最终的责任，根据其整机电路参数选择适合其的KAOUNE产品，并根据KAOUNE产品参数判定其是否适用。

◆我们也毫不避讳地指出，即使在正常的应用条件下无源电子元器件仍有可能在使用寿命结束前出现故障或失效。这在目前的技术水平下是无法完全排除的。因此，对于操作安全 水平要求非常高的应用场合，特别是当无源电子元器件出现故障时可能会危及人身安全或健 康的情况下，客户必须适当设计其应用装置或由客户采取措施（如安全保护性电路或冗余），确保在无源电子元件出现故障时，第三方不会受到伤害或损害。

◆我们的工程师持续不断地致力于改善产品。因此，本出版物所述产品可能会发生变化。所以，订货之前或订货的时候请咨询我们的销售工程师本出版物的产品说明和规格在多大程度上是适用的。我们保留产品尺寸及技术参数发生变更的权利。因此，我们不保证任何时候 均可购买到本出版物所列全部产品。

◆由于客户的应用领域、安装尺寸、回路参数要求千差万别，对于同一电压同一容值的电容器亦是如此。因此，建议在订货前尽可能详尽地提供您所要求的信息，包括但不限于电压、容值、外形尺寸、安装尺寸及本出版物中《订货信息一览表》中所列明的项目。

◆KAOUNE do not understand each client on the application of the product, nor more than customers about their products. Customers have the ultimate responsibi ity to select suitable KAOUNE products for their whole circuit parameters, and under KAOUNE products parameters determine its applicability.

◆We also forthrightly pointed out that even in normal conditions of passive electronic components, it is still wi l failure or breakdown before the end of its useful life. And it cannot be completely excluded in the current level of technology. Therefore, requires a high level of operational safety applications, especially when passive electronic components failure could endanger the personal safety or health of the case, The customer must be properly designed appliance or measures taken by the customer (such as security protective circuitry or redundancy), to ensure when the failure in the passive electronic components, the third party will not harm or damage.

◆KAOUNE engineers constantly committed to improve the product. Therefore, the publication of the product may change. Therefore, please consult our sales engineer before order. We reserve the right to change the product dimensions and technical parameters. Therefore, we cannot guarantee that at any time can be purchased to the publications listed all products.

◆Due to the customer's applications, installation size, circuit parameters requirements vary widely, as well as the same capacitor values for the same voltage. Therefore, we suggest that provide requested information as much details as possible before order, including but not limited to voltage, capacitance, dimensions, installation size and the other parameters items of order information.

● 敬告和警告 Warning

◆电容器经过耐电压测试后或退出运行后，其上存储的能量足以对人身造成伤害。因此， 在接触电容器出线端子之前必须首先经过电阻放电、再短接引出端子，确保残存电荷泄放掉。

◆金属化薄膜介质电容器不应过多直接短路放电。短路放电试验属于型式试验项目,做过型式试验的产品不宜再正常使用。

◆进行耐电压测试会对其绝缘造成损害，且该损害具备累积效应。

◆电容器与电路的连接应可靠，避免接触不良引起高频振荡造成电容器过压或过热。

◆避免电容器暴露于强酸、强碱及其他腐蚀性介质的环境中运行。

◆避免电容器在充满易燃易爆的气体或尘埃的环境中运行。

◆避免外部能量传导到电容器内部，如火、热、雷电。

◆避免电容器过温运行。

◆避免电容器异常过载。

◆避免核辐射。

◆After resistant voltage test or out of operation, the capacitor stored energy is sufficient to cause the damage to the human. Therefore, in contact with the capacitor outlet terminals must discharge through the resistor first, and then short-circuited lead terminal, ensure that the residual charge of release.

◆Metalized film dielectric capacitors should not over discharge to the short circuit. Short circuit discharge test are type of pilot projects, the test products are not appropriate to normal use.

◆Excessive resistant voltage capacitor test will damage the insulation, and the damage has a cumulative effect.

◆The capacitor circuit connection should be reliable, to avoid capacitor overvoltage or overheating by high-frequency oscillation because of poor contact.

◆Avoid capacitor is exposed to strong acid, alkali and other corrosive medium environment operate.

◆Avoid the capacitor filled with flammable and explosive gas or dust environment operate.

◆Avoid external energy transmitted to the capacitor internal, such as fire, heat, electricity.

◆Avoid capacitor operate over-temperature.

◆Avoid capacitor abnormal overload.

◆Avoid nuclear radiation.