

SPECIFICATION

APPROVAL SHEET

CUSTOMER:

PRODUCTS:

AKMJ series AC Capacitor (single phase)

CATEGORY:

450 μ F 510Vac

ORDERING CODE:

457J511A51401

CUSTOMER CODE:

DATE:

Oct 24th, 2022 (Ver 0)

承認印/APPROVAL STAMP			
供方 /VENDER		客戶 /CUSTOMER	
Design	Audit		
JJ.C Oct.24 th , 2022	D.H Oct.24 th , 2022		

Specification Revisions:

Revision Level	Revision Change	Date	Initials
Ver 1.0	PN 457J511A51501 → 457J511A51401	April 5 th , 2023	X.J.

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A Hi-Reliability capacitor brand of China

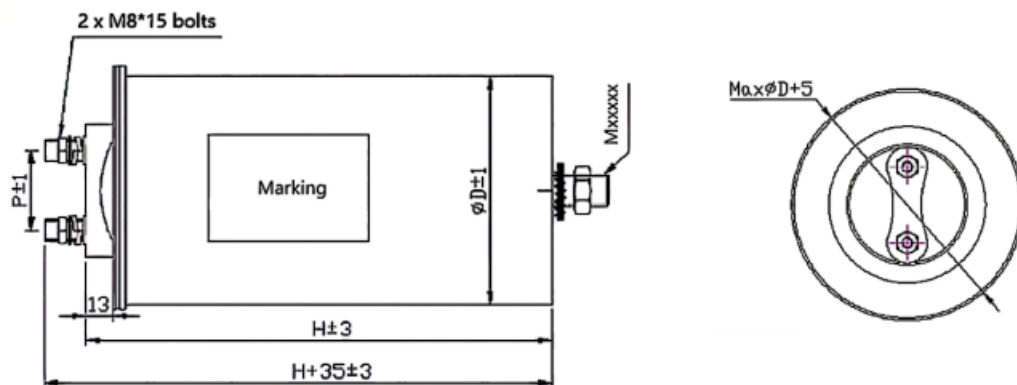
Failure Rate ≤ 50 FIT | 100% Tested Before Delivery



技術圖紙請勿外傳！該產品引用了多項自主技術專利，CABO 保留追究一切技術圖紙外流導致損失的權利。

Confidential and invention patents are contained in CABO solution, disclosure or distribution of this specification is prohibited.

AKMJ series single phase AC Capacitors

450 μ F510Vac Ordering code:457J511A51401

Capacitance (μ F)	U_{nac} (Vac)	U_{rms} (Vac)	ΦD (mm)	H (mm)	P (mm)	Mxxxxx
450	510	360	86	290	30	M12*16

Dimensions in mm, unspecified dimensions tolerance ± 1 mm

技術參數 Technical specification

Electrical Characteristics	
Capacitance (C_n)	450 μ F @100Hz
Capacitance tolerance	$\pm 5\%$ (J) @100Hz
Rated Voltage (U_n)	510 Vac
RMS Voltage (U_{rms})	360 Vac
Rated Current (I_{max})	59 A
Peak Current (I_{pk})	3.6k A
Surge Current (I_s)	10.8k A
Dissipation Factor	$tg\delta \leq 0.002$ @ 100Hz
Equivalent Series Resistance	$\leq 2.1m\Omega$ @10kHz
Insulation Resistance (R_i)	$R_i \cdot C \geq 5000s$ @100V, 1min
Operating Temperature (T_w)	-40~+85 $^{\circ}$ C*
Storage Temperature (T_s)	-40~+85 $^{\circ}$ C
Life expectancy	$\geq 100,000$ Hrs @ U_{rms} , $\theta_{hotspot} \leq 70^{\circ}$ C
Altitude	≤ 2000 m
Mechanical and test parameters	
Test voltage - terminals (U_{tt})	1.5 U_{rms} 5s
Test voltage - terminal/case (U_{tc})	3000Vac 10s @50Hz
Shell material	Aluminum shell
Electrode terminals	M8*15 bolts with installing parts
Dielectric medium	Metallized PP film, self-healing
Safety design	Over pressure disconnecter inside
Max torque terminals/bottom bolt	6.2N.m / 10N.m
Fire resistance	UL 94 V-0

* +70 $^{\circ}$ C to +85 $^{\circ}$ C: decreasing factor 1.5% per $^{\circ}$ C for $U_{rms}(ac)$

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VER. 1.0

引用標準 Reference standard

IEC61071-1/2 , UL810 , UL94 , CABO Internal Standard

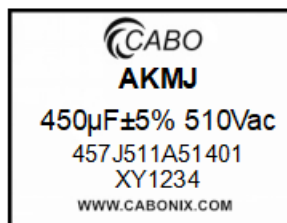
包裝與運輸 Packing and shipment

The capacitors are packed into a cardboard box, any kinds of shipment are permitted.
But the sprinkle of rain or snow and mechanical damage must be avoided.

標識 Marking

The capacitor is marked by laser print or stamp or adhesive label,
With following information:

1. Rated capacitance value (450 μ F)
2. Rated voltage (510Vac)
3. Tolerance on rated capacitance (J : $\pm 5\%$)
4. Part number (457J511A51401, former PN 457J511A51501)
5. Trace code and serial number (e.g. XY1234)



提醒和警示 Cautions and Warnings



- (1) Caution the installing direction:
- (2) Overpressure disconnecter inside, at least 30mm is necessary at the top space after the capacitors installed.
- (3) Pay attention to the application when the altitude over 2000m, it will affect the insulation and cooling of the capacitor.
- (4) The capacitor have not discharge resistors between terminals, so the energy stocked in the capacitor may be lethal, before handle capacitors please discharge through resistor, short-circuit the capacitor is not permit.
- (5) Check thickness of the connections/terminals periodically.
- (6) Do not use or store capacitors in corrosive atmosphere, especially where chloride gas, sulfide gas, acid, alkali, salt or the like are present. In the dusty environment regular maintenance and cleaning especially of the terminals is required to avoid conductive path between phases.
- (7) Maximum permissible voltages, Maximum within one day: (1.1U_n, 30% of on-load duration) (1.15U_n, 30min) (1.2U_n, 5min) (1.3U_n, 1min) (1.5U_n, 100ms).
- (8) All the data measured at Room Temperature(R.T. 23 \pm 8 $^{\circ}$ C) unless otherwise specified.
- (9) CABO is not responsible for any damages, which are caused by the improper installation and application. Before using the capacitor in any application, please read carefully this technical data-sheet.
- (10) Specifications are subject to change without prior notice. Don't hesitate to contact us for any doubts and more detail information.