

# KAUKAN

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精度·穩定·節能

**Precise Thermo Control**

# KAUKAN

高抗股份有限公司  
KAUKAN INDUSTRIES CO., LTD.

413 台中市霧峰區五福路412巷12號  
413 NO 12, LANE 412, WU-FU ROAD,  
WUFENG DIST., TAICHUNG, TAIWAN.  
TEL:886-4-2333 4858  
FAX:886-4-2333 5735  
E-mail: cooler@kaukan.com.tw  
http://www.kaukan.com.tw

南京高文數控科技有限公司  
NAN JING KAU WEN TECHNOLOGY CO., LTD.

南京市雨花台區鐵心橋大周路馬家店工業園199號  
No, 199 Da Zhou Road, Ma Jia Dian Industrial Area Tie Xin  
Bridge, Yu HuaTai District, Nan Jing City, China  
TEL: 025-5235 2816•5235 2817  
FAX: 025-5235 5069  
E-mail: 2350076478@qq.com



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# KAUKAN

## Accuracy, Stability, Energy Saving KAUKAN High Efficiency Coolers Solve Thermal Growth Problem

Dedicated to the research and manufacturing of coolers, Kaukan offers a wide range of cooler for use on high precision machine tools and industrial machinery. With years of research in heat exchange theorem in combination with practical experience, Kaukan is capable of producing ultra-high efficiency coolers recognized by domestic and foreign machine makers.

## 精度、穩定、節能 高抗全系列高效能冷卻器，有效解決溫升問題

致力於冷卻器研發與製造的高抗股份有限公司，推出各種冷卻器，適用於精密工具機與產業機械。秉持多年來在熱交換理論鑽研與實務經驗，高抗冷卻器以獨特的效能，廣受國內外機器廠的長期支持。

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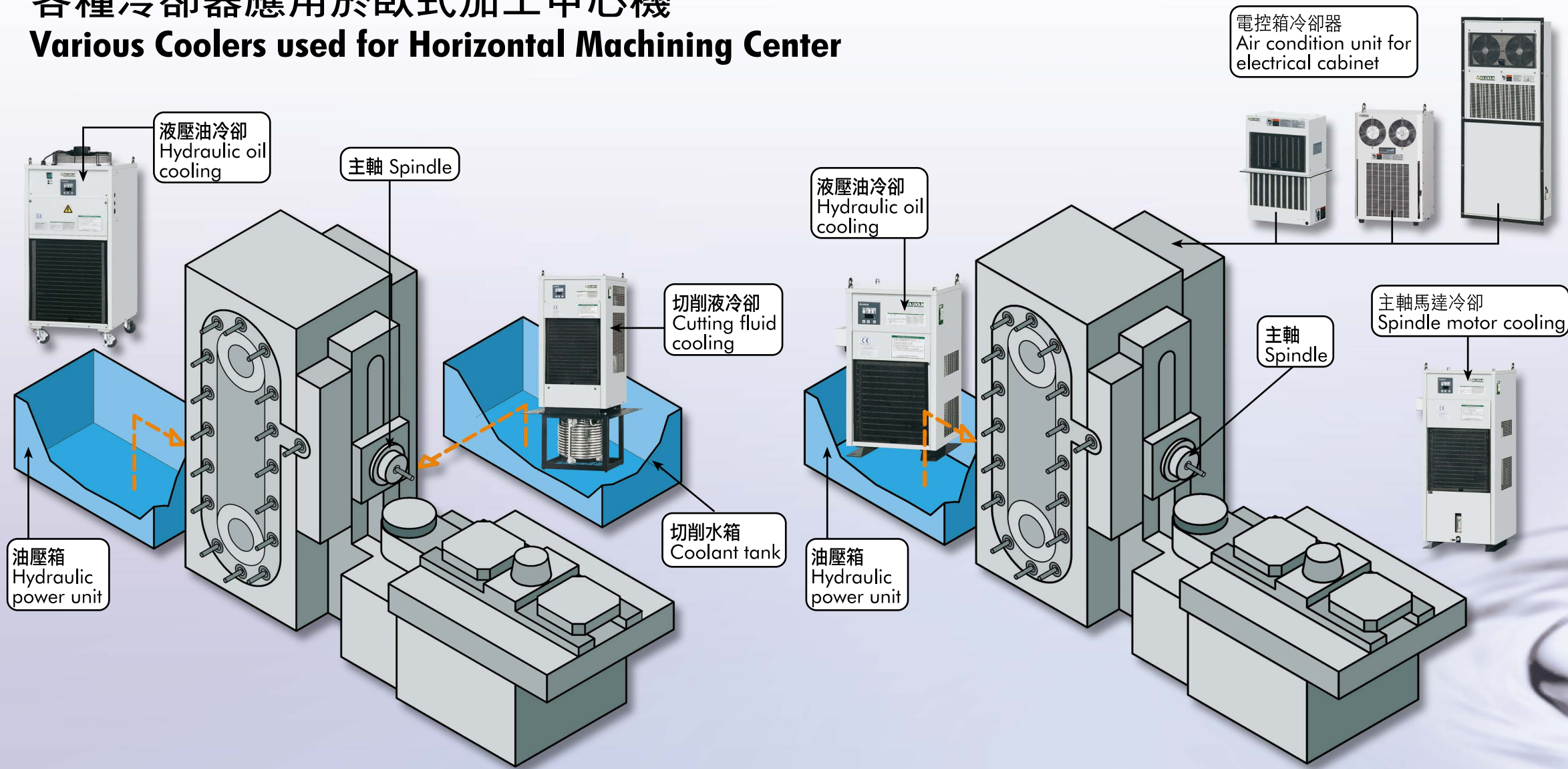
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# 各種冷卻器應用於臥式加工中心機 Various Coolers used for Horizontal Machining Center



## 應用例 Application Examples :

- 1. 工具機 / Machine Tools:**
  - 加工中心機/Machining centers
  - NC車床/NC lathes
  - 磨床/Grinding machines
  - NC專用機  
NC special purpose machines
  - 放電加工機  
Electric discharge machines
- 2. 產業機械  
Industrial Machinery:**
  - 成型機/Molding machines
  - 沖床/Presses

## 型號識別 Model Identification

KO	4	P	T	S	A	C	1	-	UC
<b>KO</b> 油溫控制冷卻器 Oil Cooler Unit	冷卻能力	P: 泵浦 Oil Pump (KO Unit)	油箱 Tank	<b>S</b> 標準數位控制 Standard Digital Control	<b>A</b> AC 控制迴路 AC Control Circuit	<b>C</b> 精密溫度控制+0.5 °C Precise Temperature Control +0.5 °C	<b>1</b> 定溫控制 Fixing Temperature Control		UL & CSA 認證冷卻器
<b>KW</b> 水溫控制冷卻器 Water Chiller Unit	Cooling Capacity	Water Pump (KW Unit)		<b>S1</b> 簡易數位控制 Simple Digital Control	<b>D</b> DC 控制迴路 DC Control Circuit	<b>K</b> 精密溫度控制+0.2 °C Precise Temperature Control +0.2 °C	<b>2</b> 差溫控制 Fixing Temperature Control		UL & CSA Certificatio Oil Cooler & Water Chiller
<b>KE</b> 放電加工專用油冷卻器 EDM Oil Cooler Unit		M: 攪拌馬達 Mixing Motor (KN unit)		<b>S2</b> 標準數位控制&使用PT100感溫計 Standard Digital Control With PT100 Sensor			<b>3</b> 機體同調 Synchronized Cabinet Adjustment		
<b>KV</b> 切削液、研磨液專用油冷卻器 Cutting Fluid, Grinding Fluid Oil Cooler Unit				<b>S3</b> 故障輸出顯示&數據連線控制 Alarm Output Display and Digital Connection					
<b>KN</b> 浸漬式切削液、研磨液專用油冷卻器 Impregnation Type Cutting Fluid, Grinding Fluid Oil Cooler Unit				<b>S4</b> 高精度溫度數位控制&數據連線 HighPrecise Temperature Control & Digital Connection					
<b>KAC</b> 電控箱空冷卻器 Air-Condition Unit									



# Oil Cooler Unit 油冷卻機系列



## 用途/APPLICATION

- 主軸冷卻油冷卻
- 放電加工油冷卻
- 齒輪潤滑油冷卻
- 油壓油冷卻
- 潤滑油冷卻
- 研磨油冷卻
- 切削油冷卻
- Spindle Oil Cooling
- EDM Oil Cooling
- Gear Lubricating Oil Cooling
- Hydraulic Oil Cooling
- Lubricating Oil Cooling
- Grinding Oil Cooling
- Cutting Oil Cooling

## 適用機器 / APPLICABLE MACHINES

- CNC車床
- NC專用機
- CNC沖床
- CNC綜合加工機
- CNC磨床
- CNC放電加工機
- 各式油壓作動設備
- CNC Lathe
- NC Special Purpose Machine
- CNC Punch Press
- CNC Machining Center
- CNC Grinding Machine
- CNC E.D.M
- Various Hydraulic Equipment

## 注意事項 / NOTICES

- 以上冷卻能力在周圍溫度35°C，出油溫度35°C，油品ISO VG32條件下測得。
- 特殊規格設計請與本公司連絡。
- 其它電壓需求請與本公司連絡。
- 設計及規格變更恕不另行通知。
- 油箱為選配件，訂購時須特別註明
- Above cooling capacity is tested under the conditions of ambient temperature 35°C, oil outlet temperature 35°C and oil grade ISO VG32.
- Contact us when special specifications are required.
- Contact us when special voltage is required.
- Design and specifications are subject to change without prior notice.
- Oil tank is an optional equipment. Specify your requirement when ordering.



機型 MODEL		KO-4G	KO-4	KO-6	KO-8	KO-12	KO-18	KO-2K	KO-3K	KO-4K	KO-5K	KO-6K	KO-7.5K	KO-10K	KO-15K	KO-20K		
電源 / Power Source	主電源電壓 / Main Power Source Voltage	3Phase 220 V 50 / 60 Hz																
	操作迴路 / Control Circuit Voltage	24 V DC / 220 V AC																
使用流體 / Applicable Fluid		油壓油、潤滑油 4-300 cSt Hydraulic Oil, Lubricating Oil 4 - 300 cSt																
冷卻能力 / Cooling Capacity	kcal/hr	800/1000	1200/1500	1600/2000	2400/3000	3600/4500	4800/6000	7200/9000	9600/12000	12000/15000	14400/18000	18000/22500	24000/30000	36000/45000	48000/60000			
	50 / 60 Hz W	925/1160	1390/1740	1860/2325	2790/3488	4185/5230	5580/6975	8370/10465	11160/13950	13920/17400	16704/20880	20880/26100	27840/34800	41760/52200	55680/69600			
溫度控制 / Temperature Control	1	定溫式 (設定範圍: 5 - 40°C) / Fixing Temperature ( Setting Range: 5 - 40°C)																
	2	差溫式 (室溫/油溫追蹤控制 設定範圍: -15 ~ + 15°C) / Differential Temperature ( Room Temperature/ Fluid Temperature, Setting Range: -15 ~ + 15°C)																
	3	差溫式 (機體溫/油溫追蹤控制 設定範圍: -15 ~ + 15°C) / Differential Temperature ( Casting Temperature/ Fluid Temperature, Setting Range: -15 ~ + 15°C)																
適用範圍 / Ambient Temperature Working Rang	室溫 Room Temp.	5 ~ 40 °C																
	油溫 Fluid Temp.	5 ~ 40 °C																
泵浦流量 / Pump Flow	50 / 60 Hz L / min	4.5/7.2	12/15	12/15	16/20	16/20	24/30	32/40	50/70	50/70	60/75	120 / 150	150 / 180	200 / 250	200 / 300			
進出口尺寸 / In / Out Port Size	Inch	PT 1/2"		PT 3/4"				PT 1"		PT 1-1/4"		PT 2"		PT 2-1/2"				
液體箱容量 / Capacity Of Liquid Tank	liter	6	15	25		45	45	50	80		100	150	200	300	350			
外型尺寸 / Dimension W x D x H mm	無油箱 / No Tank	455x540x690	470x455x765	510x540x870		545x620x900	510x675x1045	510x675x1045	660x760x1140		1130x735x1575		1130x750x1830		1350x850x1850		1650x1235x1850	2200x800x2050
	油箱 / Tank	455x540x690	470x490x975	540x575x1185		540x575x1185	510x710x1300	510x710x1300	660x835x1395		1130x735x1575		1130x750x1830		1350x850x1850		1650x1235x1850	2200x800x2050
重量 / Weight KG	無油箱 / No Tank	50	60	85		90	125	125	130	230	250	270	330	350	400	500		
	油箱 / Tank	55	70	95		105	145	150	160	265	280	300	400	450	500	600		

1. 以上冷卻能力在環境溫度35°C，出口液溫35°C及油品ISO VG32條件下測得。 / All cooling capacity at an ambient temperature of 35 °C, outlet liquid temperature of 35 °C and oil ISO VG32 are measured.
2. 特殊電壓及規格設計，請與本公司連絡。 / Special voltage and specifications requested, please contact us.
3. 本公司因技術更新及品質提升而變更本規格，恕不另行通知。 / Due to technological upgrading and quality improvement and change this specification without notice.





# Water Cooler Unit

## 水冷卻機系列



### 用途/APPLICATION

- 高速主軸 • High Speed Spindle
- 雷射 • Laser
- 切削液 • Cooling Water for Cutting Machine
- 模具冷卻 • Mold Colling
- 真空泵浦 • Vacuum Pump
- 其它需以水冷卻之設備 • All Equipments Needed to Cool by Water

### 適用機器 / APPLICABLE MACHINES

- CNC車床 • CNC Lathe
- CNC綜合加工機 • CNC Machining Center
- CNC線切割機 • CNC Wire Cutting Machine
- PCB鑽孔機及切割機 • PCB Drilling or Routing Machine
- 醫療儀器設備 • Medical Appliances
- 射出成型機 • Injection Machine
- 雷射加工機 • Laser Cutting & Marking Machine
- 低溫式水溫控制冷卻(-35°C) • Chiller of Low Temperature (-35°C)
- 食品機械 • Food Machine
- 各式半導體制程及儀器設備 • All Product Equipments & Instruments for Semiconductor.

### 注意事項 / NOTICES

- 以上冷卻能力在室溫32°C，液溫22°C，AC220V 60Hz條件下測得。
- 蒸發器耐壓5kg/cm<sup>2</sup>，若需用超過之泵浦，請與本公司連絡。
- 各規格之詳細內容請洽本公司。
- 設計及規格變更恕不另行通知。
- Above cooling capacity is tested under the conditions of ambient temperature 32°C, liquid temperature 22°C and AC220V 60 Hz.
- The maximum pressure resistance of evaporator is 5 kg/cm<sup>2</sup>, When a higher pressure pump is required, contact us.
- When further details of specifications are required, contact us.
- Design and specifications are subject to change without prior notice.



機型 MODEL		KW-4	KW-6	KW-8	KW-12	KW-18	KW-2K	KW-3K	KW-4K	KW-5K	KW-6K	KW-7.5K	KW-10K	KW-15K	KW-20K
電源 / Power Source	主電源電壓 / Main Power Source Voltage	3Phase 220 V 50 / 60 Hz													
	操作迴路 / Control Circuit Voltage	24 V DC / 220 V AC													
使用流體 / Applicable Fluid		水 (若需加其他具有防凍、防銹之液體,其成分不可含硫,且酸鹼值不可超出5 ~ 9之間) / Water (To add any other liquid for antifreezen, antirust that must benon-sulfur and PH shall be between 5 ~ 9)													
冷卻能力 / Cooling Capacity 50 / 60 Hz	kcal/hr	800/1000	1200/1500	1600/2000	2400/3000	3600/4500	4800/6000	7200/9000	9600/12000	12000/15000	14400/18000	18000/22500	24000/30000	36000/45000	48000/60000
	W	925/1160	1390/1740	1860/2325	2790/3488	4185/5230	5580/6975	8370/10465	11160/13950	13920/17400	16704/20880	20880/26100	27840/34800	41760/52200	55680/69600
溫度控制 / Temperature Control	1	定溫式 (設定範圍: 5 - 40°C) / Fixing Temperature ( Setting Range: 5 - 40°C)													
	2	差溫式 (室溫/油溫追蹤控制 設定範圍: -15 ~ + 15°C) / Differential Temperature ( Room Temperature/ Fluid Temperature, Setting Range: -15 ~ + 15°C)													
	3	差溫式 (機體溫/油溫追蹤控制 設定範圍: -15 ~ + 15°C) / Differential Temperature ( Casting Temperature/ Fluid Temperature, Setting Range: -15 ~ + 15°C)													
適用範圍 / Ambient Temperature Working Rang	室溫 Room Temp.	5 ~ 40 °C													
	油溫 Fluid Temp.	5 ~ 40 °C													
泵浦流量 / Pump Flow 50 / 60 Hz	L / min	7.2 / 14	26 / 33	26 / 33	26 / 33	40 / 50	40 / 50	40 / 50	64 / 80	64 / 80	64 / 80	106 / 133	106 / 133	160 / 200	160 / 200
進出口尺寸 / In / Out Port Size	Inch	PT 1/2"	PT 1/2"	PT 1/2"	PT 1/2"	PT 3/4"	PT 3/4"	PT 1"	PT 1 1/4"	PT 1 1/4"	PT 2"	PT 2"	PT 2"	PT 2 1/2"	PT 2 1/2"
液體箱容量 / Capacity Of Liquid Tank	liter	6	25	25	25	40	40	50	80	100	120	160	190	250	300
外型尺寸 / Dimension W x D x H mm	無油箱 / No Tank	565x325x665	515x600x1150			560x615x1370		600x660x1430	1130x735x1575		1120x710x1785	1300x800x1820	1300x800x1850		2200x800x2050
	油箱 / Tank														
重量 / Weight KG	無油箱 / No Tank	38	85	90	130	130	140	180	180	250	350	400	450	520	
	油箱 / Tank	45	100	105	150	150	170	200	220	300	400	450	500	600	

1. 以上冷卻能力在環境溫度32°C，出口液溫25°C及220V AC 60Hz條件下測得。 / All cooling capacity at an ambient temperature of 32 °C, outlet liquid temperature of 25 °C and 220 V AC 60Hz are measured.
2. 特殊電壓及規格設計，請與本公司連絡。 / Special voltage and specifications requested, please contact us.
3. 本公司因技術更新及品質提升而變更本規格，恕不另行通知。 / Due to technological upgrading and quality improvement and change this specification without notice.





# Cutting Fluid Unit

## 切削液研磨液放電油冷卻器



### 用途/APPLICATION

- 放電加工油冷卻
- 研磨油冷卻
- 切削油冷卻
- EDM Oil Cooling
- Grinding Oil Cooling
- Cutting Fluid Cooling

### 適用機器 / APPLICABLE MACHINES

- CNC磨床
- 放電加工機
- CNC Grinding Machine
- E.D.M

### 注意事項 / NOTICES

- 本產品不含外部濾油器。
- 以上冷卻能力在周圍溫度35°C，出油溫度35°C，油品ISO VG32條件下測得。
- 特殊規格設計請與本公司連絡。
- 設計及規格變更恕不另行通知。
- The cooler unit does not contain filter.
- Above cooling capacity is tested under the conditions of ambient temperature 35°C, oil outlet temperature 35°C and oil grade ISO VG32.
- Contact us when special specifications are required.
- Design and specifications are subject to change without prior notice.

機型 MODEL	KE-4	KE-6	KE-8	KE-12	KE-18	KE-2K	KE-3K	KE-4K	KE-5K	KN-6	KN-8	KN-12	KN-18	KN-2K	KN-3K	KN-4K	KN-5K	
電源 / Power Source	主電源電壓 / Main Power Source Voltage 1 Phase 220 V 50 /60 Hz					3 Phase 220 V 50 /60 Hz					1 Phase 220 V 50 /60 Hz		3 Phase 220 V 50 /60 Hz					
操作迴路 / Control Circuit Voltage	24 V DC / 220 V AC																	
使用流體 / Applicable Fluid	水、水溶性切削油、切削油、研磨油、放電專用油/Water、Water Based Cutting Oil、Cutting Oil、Grinding Oil、Cutting Oil、Grinding Oil、EDM Oil/tween																	
冷卻能力 / Cooling Capacity	kcal/hr	800/1000	1200/1500	1600/2000	2400/3000	3600/4500	4800/6000	7200/9000	9600/12000	12000/15000	1200/1500	1600/2000	2400/3000	3600/4500	4800/6000	7200/9000	9600/12000	12000/15000
50 / 60 Hz	W	925/1160	1390/1740	1860/2325	2790/3488	4185/5230	5580/6975	8370/10465	11160/13950	13920/17400	1390/1740	1860/2325	2790/3488	4185/5230	5580/6975	8370/10465	11160/13950	13920/17400
溫度控制 / Temperature Control	定溫式 Fixed Temperature	定溫式 (設定範圍: 5 - 40°C) / Fixing Temperature (Setting Range: 5 - 40°C)																
適用範圍 / Ambient Temperature	室溫 Room Temp.	5 ~ 40 °C																
Working Rang	油溫 Fluid Temp.	5 ~ 40 °C																
進出口尺寸 / In / Out Port Size	Inch	1" PT					PT 1 1/4"					—						
外型尺寸 / Dimension	W x D x H mm	365x385x870	455x460x915	475x455x915	510x675x1040	660x760x1040	1130x735x1575	510x590x1270	545x660x1250	560x670x1500	810x830x1650	1200x900x1970						
重量 / Weight	kg	42	55	60	68	120	130	160	250	265	60	65	85	115	130	160	220	250

1. 以上冷卻能力在環境溫度35°C，出口液溫35°C及油品ISO VG32條件下測得。 / All cooling capacity at an ambient temperature of 35 °C, outlet liquid temperature of 35 °C and oil ISO VG32 are measured.
2. 特殊電壓及規格設計，請與本公司連絡。 / Special voltage and specifications requested, please contact us.
3. 本公司因技術更新及品質提升而變更本規格，恕不另行通知。 / Due to technological upgrading and quality improvement and change this specification without notice.
4. 攪拌器與減速馬達為選配件，定購時需特別註明。 / Mixing motor is optional, please specify when ordering.



# Air-Condition Unit 電控箱空調式冷卻器

## 用途/APPLICATION

- 隔絕箱內空氣，防止外在空氣雜物進入
- 準確控制箱內溫度及濕度
- 延長電子零件壽命及避免誤動作產生
- It isolates air in the cabinet to prevent external dusts from entering.
- To accurately control temperature and moisture in the control cabinet.
- To extend service life of electronic components while preventing erroneous motion.

## 適用機器 / APPLICABLE MACHINES

- 各式電力、電機之控制箱
- 通信及網路設備
- 測量儀器
- Various electric and electronic control boxes.
- Communication and internet equipment.
- Measuring instrument.

## 注意事項 / NOTICES

- 以上冷卻能力在室溫35°C，控制箱內溫度35°C條件下測得。
- 特殊規格設計請與本公司連絡。
- 設計及規格變更恕不另行通知。
- 本公司提供同等冷卻能力多種外觀設計之選擇，請洽本公司。
- 箱體切割尺寸圖請連絡本公司。

- Above cooling capacity is tested under the conditions of 35°C ambient temperature and 35°C internal cabinet temperature in the control cabinet.
- Contact us when special specifications are required.
- Design and specifications are subject to change without prior notice.
- We can offer various outlook designs with same cooling capacity. Contact us for details.
- Cabinet sizes are available. Contact us when required.



機型 MODEL		KAC-1.5	KAC-2	KAC-3	KAC-4	KAC-4-H	KAC-6	KAC-8	KAC-12	KAC-15	KAC-18	KAC-20	
電源 / Power Source		1 Phase 220V 50/60 Hz						3 Phase 220V 50/60 Hz					
冷卻能力 / Cooling Capacity 50 / 60 Hz	kcal/hr	335/380	450/515	670/755	895/1000	895/1000	1345/1510	1795/2015	2116/2492	4511/5090	3600/4500	4800 / 6000	
	W	390/440	520/590	780/880	1040/1170	1040/ 1170	1560/1760	2087/2343	2460/2898	5245/5919	4185/5230	5580 / 6975	
箱內溫度控制 / Temperature Control	°C	定溫式 (設定範圍 25°C~32°C) / Fixing Temperature (setting range: 25°C~32°C)											
適用範圍 Ambient Temperature Working Rang		10 ~ 40 °C											
排液口口徑 / Drain Port Size	Inch	3/8" PT											
外型尺寸 / Dimension	W x D x H mm	285x250x615	365x260x625		365x260x735	375x280x850	375x280x850		555x265x1280	515x410x1550			
重量 / Weight	kg	28	34	34	38	42	55	60	90	90	115	125	

1. 特殊電壓及規格設計，請與本公司連絡。 / Special voltage and specifications requested, please contact us.
2. 本公司因技術更新及品質提升而變更本規格，恕不另行通知。 / Due to technological upgrading and quality improvement and change this specification without notice.



# Cooling & Heat Exchange Unit

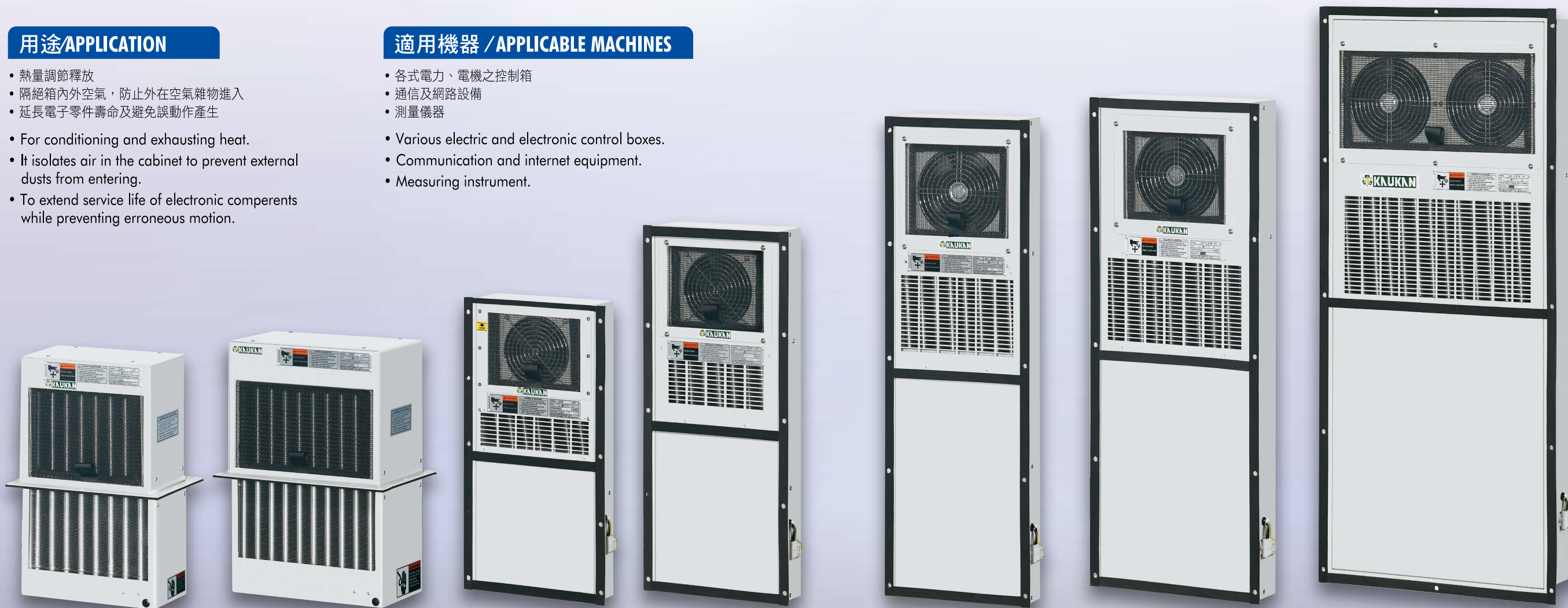
## 熱管式熱交換器

### 用途/APPLICATION

- 熱量調節釋放
- 隔絕箱內外空氣，防止外在空氣雜物進入
- 延長電子零件壽命及避免誤動作產生
- For conditioning and exhausting heat.
- It isolates air in the cabinet to prevent external dusts from entering.
- To extend service life of electronic components while preventing erroneous motion.

### 適用機器 / APPLICABLE MACHINES

- 各式電力、電機之控制箱
- 通信及網路設備
- 測量儀器
- Various electric and electronic control boxes.
- Communication and internet equipment.
- Measuring instrument.



### 注意事項 / NOTICES

- 特殊規格設計請與本公司連絡。
- 設計及規格變更恕不另行通知。
- 本公司提供同等冷卻能力多種外觀設計之選擇，請洽本公司。
- Contact us when special specifications are required.
- Design and specifications are subject to change without prior notice.
- We can offer various outlook designs with same cooling capacity. Contact us for details.

機型 MODEL		CH-1A	CH-2A	CH-3A	CH-5A	CH-7A	CH-10A
電源 / Power Source		1 Phase 220V 50/60 Hz					
熱交換量 / Quantity of Heat Exchange	W	100	200	300	500	700	1000
冷卻能力 / Cooling Capacity	W / °C	5	10	15	25	35	50
風扇馬達功率 / Fan Motor	W	50	50	70	70	70	140
耗電量 / Power Consumption	VA	60	60	90	90	90	180
外型尺寸 / Dimension W x D x H mm	內/外掛式 Outdoor/Indoor	252x72x480	255x78x580	250x80x780	295x90x780	298x120x860	415x125x940
	天井式 Top	—	—	260x165x390	305x198x395	305x205x425	445x205x480
重量 / Weight	內/外掛式 Outdoor/Indoor	6 kg	8 kg	10 kg	12 kg	13 kg	20 kg
	天井式 Top	—	—	10 kg	12 kg	14 kg	17 kg

1. 特殊電壓及規格設計，請與本公司連絡。 / Special voltage and specifications requested, please contact us.  
 2. 本公司因技術更新及品質提升而變更本規格，恕不另行通知。 / Due to technological upgrading and quality improvement and change this specification without notice.