



Midea Liquid Chiller for Energy Storage System

For long-term energy storage and safe operation



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Midea reserves the right to change the specifications of the product, and to withdraw or replace products without prior notification or public announcement.
Midea is constantly developing and improving its products.

PRODUCT INTRODUCTION

With the increasing capacity of energy storage system in power station, Midea launched CAG series chillers for high-power energy storage systems, which are stable and reliable, efficient and energy-saving, easy to install, and meet the safety and stable operation of energy storage system battery.



Application Scenarios

Energy storage containers, energy storage battery heat dissipation and other applications.



PRODUCT FEATURE

Stable and reliable

The unit can operate reliably in harsh environments such as low temperature, high temperature, high salt and high humidity, thunderstorm weather, high altitude and sandstorm, thus ensuring the safety of energy storage containers.



Desert
Design of high efficiency filter and enclosed electric control box



High altitude
Arc extinguishing technology of electric control device



Ultra-low temperature operation at -30°C
BYPASS technology



Heavy rain
Electric control IPX6, Compressor IP67



High ambient temperature operation at 55°C
Design of multi-layer large area condenser



Seaside
C4, C5 anti-corrosion design



Thunderstorm
6000V anti-lightning electric control design

· The products have passed UL certification in North America and CE certification in European Union, and passed the most stringent tests in the industry to ensure the safe and reliable operation of the products.

· The cumulative time of 200 device tests exceeds 24000H

· 5 rounds of whole units test, each round for one month

· The cumulative time of long-term operation exceeds 10000H



High efficiency

· Full inverter intelligent control technology, energy efficiency can reach 2.7.

· By adopting heat pump technology, the heating power consumption is reduced by 75%, cooling energy efficiency is improved by 23%, and the unit can run stably at a low temperature of -30°C, greatly improving the low temperature adaptability of the battery.

· It can achieve partial free cooling from 5-15°C and complete free cooling below 5°C by adopting a free cooling system.

PRODUCT PARAMETER

THE STRENGTH OF ENTERPRISE

Model	CAG80HN3H-A	CAG200VN1Z-A	CAG400VN1Z-A	CAG400UN1Z-A	CAGRE400VN1Z-A	SCAF115HV(FCD)		
Picture								
Cooling capacity	W	8000	20000	40000	40000	40000	400000	
COP	/	2.7	2.7	2.7	2.7	3.2	3.15	
Heating capacity	W	2500	8000	16000	12000	40000	/	
Coolant	/	50% Ethylene glycol solution						
Coolant flow	L/min	50L/min @90kPa	260L/min @100kPa	320L/min @120kPa	360L/min @140kPa	360L/min @140kPa	1138L/min @98kPa	
Power supply	V	220V-50 /60Hz	380/480V310%-3N/50/60Hz					
Max. operating current (cooling)	A	32	28	57	57	55	274	
Refrigerant	/	R134a	R410a				R134a	
Operation ambient temperature range	°C	-30-55°C				-35-52°C		
Storage and transportation ambient temperature range	°C	-40-80°C						
Control type	/	CAN/485						
Protection grade	/	IPX6			IPX5			
Sound pressure level	dB(A)	76	78	78	75	70	78	
Certification	/	UL, CE					AHRI	
Dimension	Width (mm)	275	978	978	980	1130	5440	
	Depth (mm)	1145	628	628	1400	440	2300	
	Height (mm)	1050	2400	2400	1800	2200	2460	
Installation	/	Plug-in frame type	Side discharge Floor Standing	Side discharge Floor Standing	Top discharge Floor Standing	Side discharge Floor Standing	Top discharge Floor Standing	
Net weight	kg	112	325	420.5	495	400	5650	

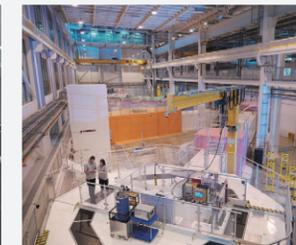
Note : 1. Special models can be customized according to requirements ;
 2. If the specifications change due to product improvement, the product nameplate parameters shall prevail.
 3. Cooling: outlet water temperature 18°C and outdoor air temperature 35°C DB.

Strong technology research and development system

Building Technology cooperates with Midea Group's National Enterprise Technology R&D Center and Postdoctoral Research Center to tackle key problems, and has strong product development strength. At present, there are more than 1,000 R&D scientific and technological workers (including more than 60 experts enjoying the special allowance of The State Council, foreign experts and doctors) who jointly inject top scientific and technological genes into product research and development. Established a cutting-edge basic technology research and product development secondary development system, with domestic advanced CAD center, world-class CAD, PLM system and rapid prototyping equipment.



Leading CAD Center in China



National Technology Research Center



Postdoctoral mobile station

The most advanced laboratory group in China



All kinds of enthalpy difference labs



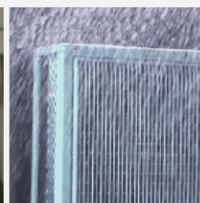
All kinds of transport vibration laboratories



Semi-silencing/full silencing laboratory



EMC Laboratory



Rainstorm test laboratory



Compressor analysis room

Six outfield experimental bases

Six outfield experimental bases can verify the reliable operation of products in various harsh environments.



Turpan
High temperature, wind & sand test base



Tibet University
High altitude attenuation, solar radiation



Qionghai Coconut Grove
Peninsula Marine Environmental Test Base



Mohe Arctic Village
Extreme cold climate test base



MuYuan Breeding Company
Corrosive gas test base



Sanya & Yongxing Island
Sea Island Environmental Salt Fog Test Base

Advanced laboratory certification



CSA Certification of Standards Association



UL certification in North America



CNAS certification