

mCHILLER

FUGU

standard water-cooled ammonia chillers

MAYEKAWA
MYCOM

The **mCHILLER** series is a MAYEKAWA plug-and-play compact standard solution with a strong focus on energy consumption and the perfect balance between durability and simplicity. The **mCHILLER** series is designed with ammonia as natural refrigerant, which gives the highest energy efficiency and the best sustainable solution. The **mCHILLER** series provides a high level of safety with a low ammonia charge. It has been designed for easy and simple installation and a long lifespan. The MAYEKAWA **mCHILLER** series includes the water-cooled standard ammonia chillers **mCHILLER FUGU**.



Water-cooled

Key Features

- Strong industrial design
- Low charge ammonia
- High efficiency
- Plug-and-play solution

Benefits

- Reliable performance
- Safe solution
- Low operation cost
- Easy and convenient installation

FUGU Water-Cooled Ammonia Chiller

Natural refrigerant, very low charge

ADVANTAGES

- Plug-and-play design
- Compact overall dimensions for space saving
- Plate shell evaporator and condenser hold small charge of ammonia (no separate suction accumulator)
- M-series reciprocating compressor keep better efficiency than screw compressors in both full and part-load conditions
- Combination of VFD and step capacity control provide smooth response to constantly changing demands

APPLICATIONS

- Process cooling
- Beverages
- Dairy products
- Bakery
- Plastics
- District cooling/heating

Technical Data

General	FUGU 1280R		FUGU 960R		FUGU 640R	
	Water-cooled chiller	Water-cooled chiller	Water-cooled chiller	Water-cooled chiller	Water-cooled chiller	Water-cooled chiller
Package type:	Water-cooled chiller	Water-cooled chiller	Water-cooled chiller	Water-cooled chiller	Water-cooled chiller	Water-cooled chiller
Refrigerant/charge:	R717 / 80 kg	R717 / 80 kg	R717 / 80 kg	R717 / 80 kg	R717 / 55 kg	R717 / 55 kg
Total part load:	11.0-100 %	11.0-100 %	14.5-100 %	14.5-100 %	21.5-100 %	21.5-100 %
Cooling capacity:	1238.2 kW	744.6 kW	981.9 kW	575.4 kW	648.7 kW	370.7 kW
Condenser capacity:	1467.9 kW	941.4 kW	1154.0 kW	727.5 kW	765.5 kW	471.1 kW
Shaft power:	229.6 kW	196.8 kW	172.1 kW	152.1 kW	116.9 kW	100.4 kW
EER comp:	5.39 (-)	3.78 (-)	5.71 (-)	3.78 (-)	5.55 (-)	3.69 (-)
EER Total:	5.07 (-)	3.56 (-)	5.37 (-)	3.56 (-)	5.22 (-)	3.47 (-)
COP:	6.39 (-)	4.78 (-)	6.71 (-)	4.78 (-)	6.55 (-)	4.69 (-)
Evaporator						
Secondary medie:	WATER	MEG-30.0 %	WATER	MEG-30.0 %	WATER	MEG-30.0 %
Secondary inlet:	12.0 °C	0.0 °C	12.0 °C	0.0 °C	12.0 °C	0.0 °C
Secondary outlet:	7.0 °C	-5.0 °C	7.0 °C	-5.0 °C	7.0 °C	-5.0 °C
Flow:	212 m3/h	140 m3/h	169 m3/h	109 m3/h	111 m3/h	70 m3/h
Condenser						
Secondary medie:	WATER	WATER	WATER	WATER	WATER	WATER
Secondary inlet:	30.0 °C	30.0 °C	30.0 °C	30.0 °C	30.0 °C	30.0 °C
Secondary outlet:	35.0 °C	35.0 °C	35.0 °C	35.0 °C	35.0 °C	35.0 °C
Flow:	254 m3/h	163 m3/h	200 m3/h	126 m3/h	132 m3/h	81 m3/h
Electrical						
System earthing:	TN-S	TN-S	TN-S	TN-S	TN-S	TN-S
Input voltage:	3x400VAC+PE	3x400VAC+PE	3x400VAC+PE	3x400VAC+PE	3x400VAC+PE	3x400VAC+PE
Rated package current:	603A	495A	406A	406A	325A	325A
IK Max.:	20kA	20kA	20kA	20kA	20kA	20kA
Maximum fuse:	800A	630A	500A	500A	400A	400A
Slave communication type:	MODBUS TCP/IP, PROFINET	MODBUS TCP/IP, PROFINET	MODBUS TCP/IP, PROFINET	MODBUS TCP/IP, PROFINET	MODBUS TCP/IP, PROFINET	MODBUS TCP/IP, PROFINET

Capacity according to EN12900

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Subject to change without notice

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