

Natural refrigerant



SCREW COMPRESSOR

Single Stage UNIT

MCN SERIES



ΜΑΥΕΚΑΨΑ
MYCOM

Industrial Refrigeration Packages

High Efficiency Refrigerant

SCREW COMPRESSOR

[Single Stage]

MCN SERIES



Adopted Natural Refrigerant Ammonia

- High capacity@BkW
- Low environmental impact

GWP (Global Warming Potential) < 1
ODP (Ozone Depletion Potential) = 0

FLEXIBLE SELECTION

- Compressor : SCV series, UD series
- Oil cooler : Thermosyphon, Water cooled, Liquid injection
- Motor : Can be selected request
- Option : Full flow lubrication and Dual oil filter selection available

WIDE TEMPERATURE RANGE

- Booster to swing temperature range
- Variable manual Vi
- Economizer : High capacity and high efficiency at wide temperature range

SPECIAL CONTROL PANEL

- New control panel (MYPRO TOUCH)
- Icon touch type on the screen
- Can be selected two screen type (standard : type M)

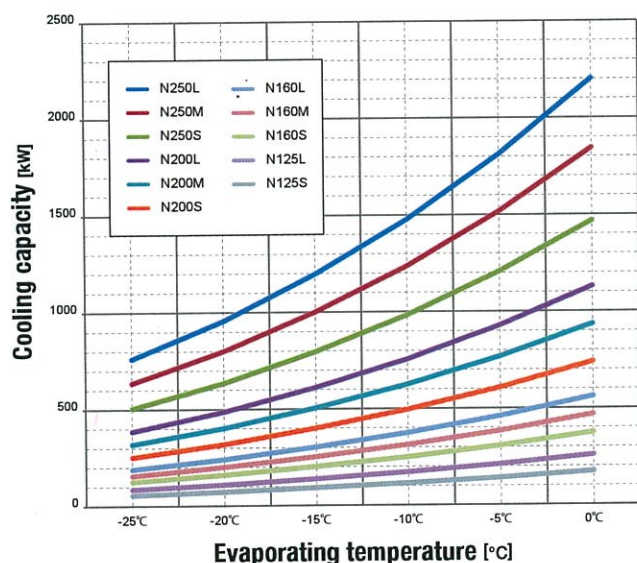
HIGH RELIABILITY & QUALITY

- High quality parts (oil pump, oil filter, oil separator)
- Reliable service by Mayekawa
- Robust packages

Performance charts

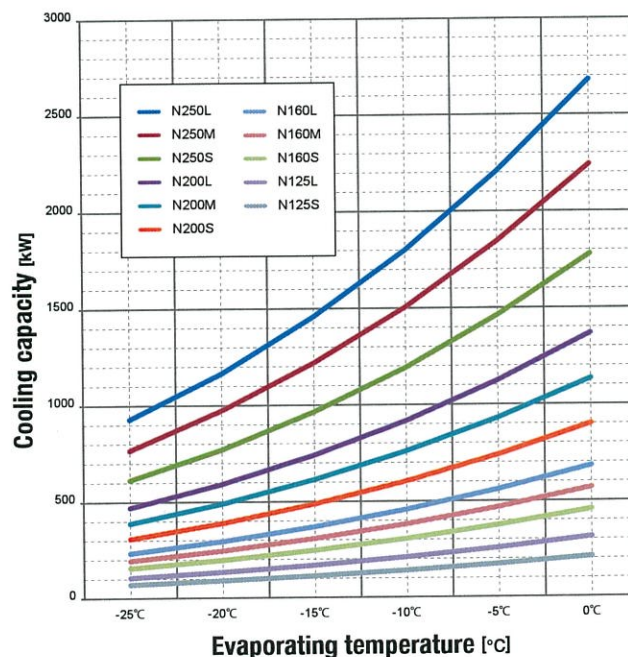
► 50Hz

Condensing temperature: 40°C
Suction Superheat: 0°C
Rotation speed: 2950rpm
Liquid Subcooling: 0°C



► 60Hz

Condensing temperature: 40°C
Suction Superheat: 0°C
Rotation speed: 3550rpm
Liquid Subcooling: 0°C



Specifications

Item		Model	125		160			200			250			
Compressor model *1			SUD	LUD	VSD	VMD	VLD	VSD	VMD	VLD	VSD	VMD	VLD	
Applied Code			Japanese code based											
Design Pressure			High Press. Side : 1.6MPa / Low Press. Side : 1.26MPa											
Design Temperature			High Press. Side : 90°C / Low Press. Side : -50°C											
Standard condition *2	High Stage		Condensing temperature from 35°C – 40°C / Evaporating temperature from -30°C – 0°C											
	Economizer		Condensing temperature from 35°C – 40°C / Evaporating temperature from -45°C – -20°C											
	Booster		Condensing temperature from -10°C – 5°C / Evaporating temperature from -45°C – -20°C											
Power source frequency			50Hz : 2950rpm / 60Hz : 3550rpm											
Displacement : m³/h		50Hz	197	295	415	519	622	810	1016	1214	1579	1981	2364	
		60Hz	237	356	499	624	749	975	1222	1461	1896	2384	2845	
Oil separator			Three stage horizontal oil separator which includes a fine coalescing type element.											
Oil cooling *3			Thermosyphon oil cooler : Shell & tube, carbon steel Water-cooled oil cooler : Shell & tube, stainless steel Liquid injection : Electrical pulse type liquid injection valve											
Economizer *4			Plated heat exchanger									Plated heat exchanger		
Control panel			MYPRO TOUCH (M)											
Range of capacity control		%	100 – 10 (Continuous)											
Lubrication			Pre-lubrication : Canned pump (Full flow oil lubrication for Booster : helical screw oil pump)											
Piping connection size: B (Inches)	Initial oil charge : Liter		150	150	150	150	150	210	270	270	340	490	490	
		Suction JPI#150	6	6	6	6	6	6	6	6	10	10	10	
		Discharge JIS20K	2	2	2	2	2	2&1/2	3	3	4	5	5	
		Safety valve	1	1	1&1/4	1&1/4	1&1/4	1&1/4	1&1/4	1&1/4	1&1/2	1&1/2	1&1/2	
	Thermosyphon oil cooling	Liquid inlet JIS20K	1&1/4		1&1/4			1&1/4			1&1/2			
		Gas outlet JIS20K	2&1/2		2&1/2			2&1/2			3			
	Water-cooled oil cooling	Water inlet JIS5K	1&1/4		1&1/4			2			2&1/2			
		Water outlet JIS5K	1&1/4		1&1/4			2			2&1/2			
	Liquid injection oil cooling	Liquid inlet JIS20K	1/2		3/4			1			1&1/4			

*1. 125 is UD series, 160, 200 and 250 are SCV series single stage compressors.

*2. If operating condition is not standard, contact factory.

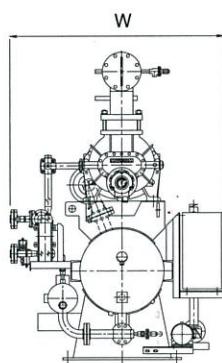
*3. Thermosyphon oil cooling is standard. Water-cooled and liquid injection oil cooling are options.

*4. For 125,160,200, plate type economizer. For 250, shell & tube type economizer.

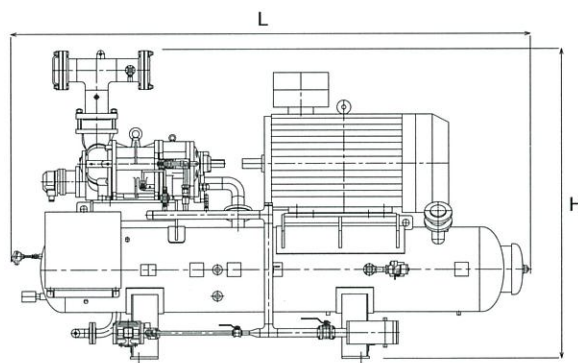
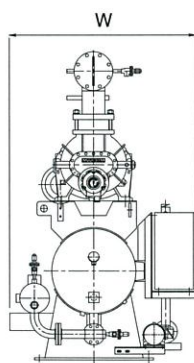
Option : Oil separator and motor base modification for over standard range operation./ Mypro-Touch (S) control panel / Full flow oil lubrication / Economizer valve kit / Dual oil filter.

Outer dimensions

[With Economizer]



[Without Economizer]



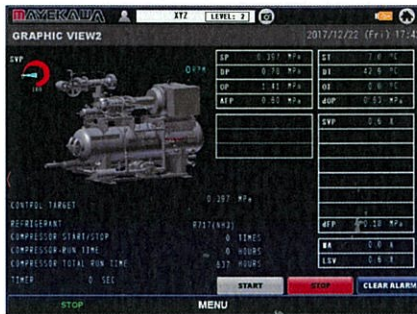
Model		MCN125		MCN160			MCN200			MCN250		
		SUD	LUD	VSD	VMD	VLD	VSD	VMD	VLD	VSD	VMD	VLD
Without Economizer	mm	L3,410 × W1,290 × H1,900		L3,410 × W1,290 × H1,980			L3,410 × W1,340 × H2,130			L3,850 × W1,630 × H2,700		
Dry weight	kg	1,420		1,620			2,100			4,010		
With Economizer	mm	L3,410 × W1,560 × H1,900		L3,410 × W1,560 × H1,980			L3,410 × W1,610 × H2,130			L3,850 × W1,880 × H2,700		
Dry weight	kg	1,510		1,710			2,210			4,240		

* The outer dimensions may vary according to the supplied main motor size and optional application.

* The dry weight does not include the main motor weight.

COMPRESSOR PACKAGE CONTROL SYSTEM MYPRO TOUCH

TYPE S MENU



Standard Features

- USB connection
- Ethernet connectivity
- Modbus RTU protocol and controller capabilities
- Password protection
- Available SD card storage
- Expandable system control

Optional Features

- Main status set points monitor available at any controller screen
- SSR I/O switch type
- Support multi-language display
- Controller summary overview screens
- Trend graph past data display
- Programmable ID for optional analog inputs
- Calibration menu

Ethernet IP Protocol

- Ethernet IP for communication with AB compact/Control Logix
- Ethernet IP for communication with AB Micrologix
- Modbus TCP protocol

Specifications

Description		Model	Type M	Type S ^{*1}
Screen size			5.7"	12.1"
Display type			TFT LCD Color, 320 × 240 dots	TFT LCD Color, 800 × 600 dots
Display communication			RS485 / Ethernet / USB2.0	
Control voltage		V	100-120 / 200-240	
Electrical frequency		Hz	50 / 60	
Operating temperature ambient condition			0°C -50°C 85% relative humidity	
Dimensions		mm	H700 × W600 × D300	
Analog input	QTY		16 (expandable to 32)	
	Current(signal)		DC 4-20mA	
	Voltage(signal)		DC 1-5V	
	Potentiometer input QTY		2	
	Potentiometer resistance range		0-1000Ω	
Analog output	QTY		4	
	Signal current		DC 4-20mA (Load resistance<500Ω)	
Digital I/O	QTY		16 (expandable to 32)	
	Digital input Voltage / Ampere rating		No external potential drop to connection. Board provides internal DC 12V Max.25mA.	
	Digital output Solid state relay ratings		Rated load: AC 100-240V,1.2A	

*1. Option : Mypro-Touch (S) control panel.

MAYEKAWA
MYCOM

MAYEKAWA MFG.CO.,LTD.

[Head Office]: 3-14-15 Botan, Koto-ku, Tokyo 135-8482, JAPAN
TEL:(81)3-3642-8181 FAX:(81)3-3643-7094

[Inquiries]: global-contact@mayekawa.co.jp
<http://www.mayekawa.com>

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