

NX2-G06 0404 - 0928

AIR SOURCED CHILLER



NX²G06

**MITSUBISHI ELECTRIC
HYDRONICS & IT COOLING SYSTEMS**

AIR SOURCED CHILLER

For outdoor installation

Cooling Capacity: 379 – 872kW

Outdoor unit for the production of chilled water with hermetic rotary scroll compressors, ozone-friendly refrigerant R454B, axial-flow fans, micro-channel full-aluminium condensing coils, electronic expansion valve as well as single-pass shell and tubes evaporator designed and produced by MEHITS.

The range is composed of units equipped with four, five, six or eight compressors in multi-circuit configuration.

Key Features

Scroll Compressors

Features new generation scroll compressors, developed for the use of high density A2L Refrigerants (Fluid Group 1 of PED Directive). The tandem/trio configuration benefits higher seasonal efficiency and provides a specific oil management solution for enhanced reliability.

Low GWP Refrigerant

The new generation refrigerant R454B is an eco-sustainable alternative to traditional refrigerant R410A, offering a 76% reduction in terms of GWP (Global Warming Potential GWP of R454B = 467, GWP of R410A = 1924 as per IPCC rev. 5th) and zero impact on the ozone layer.

Aluminium Micro-Channel Heat Exchangers

The full aluminium micro-channel condenser coils deliver high efficiency while ensuring a reduced refrigerant volume and a lower unit weight. The optional e-coating protection grants the highest level of corrosion resistance in any condition, even in the most aggressive environments.

Shell and Tube Heat Exchanger

Direct expansion multi-circuit shell and tube exchanger is manufactured using copper tubes with internal grooves improving heat exchange. The tubes are mechanically expanded onto the tube plates. Insulated with 9mm thick closed-cell neoprene to prevent condensation, with a thermal conductivity of 0.33 W/mK at 0°C. The heat exchanger is fitted with a differential pressure switch to monitor the correct flow of water when the unit is operating. An electric antifreeze heater prevents the ice from forming inside the exchanger when the unit is not working but connected to the electrical supply. The heat exchanger is also fitted with a 10bar water side safety pressure relief valve.

Electronic Expansion Valve Supplied as Standard

The use of the electronic expansion valve generates considerable benefits, especially in cases of variable demand and at different working conditions. It guarantees energy savings due to efficiency optimisation in various different working conditions which translates into operating efficiency, a faster start-up of the unit and a wider extension of the operating limits.

Operating Range

Full load operation is ensured with outdoor air temperature from -20°C up to 48°C (up to 52°C at partial load). With evaporator leaving water at temperatures from -12°C to 20°C.

Capacity Range

High Efficiency Performance



VERSION		COOLING CAPACITY
K	STANDARD EFFICIENCY	379 – 867kW
A	HIGH EFFICIENCY	380 – 872kW
A+NR KIT†	SUPER LOW NOISE	379 – 868kW

* NX2-G06 / A / NR+EC / 0768 EN14511.

**NX2-G06 / A / NR+EC / 0768 Reg. EU 2016/2281.

† Performance data overleaf.

Specifications



NX2-G06/A + NR KIT

NOTE: Performance data of other versions are available upon request.

		0404	0424	0464	0515	0576	0585	0636	0676	0706	0768	0808	0848	0898	0928
Power supply	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
PERFORMANCE															
COOLING ONLY (EN14511 VALUE)															
Cooling capacity (1) (2)	kW	379.2	398.7	437.0	487.2	538.1	545.9	596.7	635.9	654.7	719.7	760.0	798.0	836.6	868.1
EER (1) (2)	kW/kW	3.33	3.32	3.25	3.24	3.22	3.26	3.24	3.28	3.25	3.36	3.34	3.32	3.29	3.24
ENERGY EFFICIENCY															
SEASONAL EFFICIENCY IN COOLING (REG. EU 2016/2281)															
Ambient refrigeration															
Prated, c (7)	kW	379.0	399.0	437.0	487.0	538.0	546.0	597.0	636.0	655.0	720.0	760.0	798.0	837.0	868.0
SEER (7) (8)		4.73	4.76	4.72	4.76	4.70	4.81	4.80	4.85	4.81	4.81	4.81	4.82	4.83	4.85
Performance ηs (7) (9)	%	186	188	186	187	185	189	189	191	189	189	189	190	190	191
EXCHANGERS															
HEAT EXCHANGER USER SIDE IN COOLING															
Water flow (1)	L/s	18.16	19.09	20.93	23.33	25.77	26.13	28.56	30.44	31.34	34.45	36.38	38.19	40.04	41.55
Pressure drop at the heat exchanger (1)	kPa	61.9	48.6	58.5	55.0	67.1	42.5	50.8	49.2	52.2	56.9	63.5	47.3	51.9	55.9
REFRIGERANT CIRCUIT															
Compressors nr.	No.	4	4	4	5	6	5	6	6	6	8	8	8	8	8
No. Circuits	No.	2	2	2	2	2	2	2	3	2	4	4	4	4	4
Theoretical refrigerant charge	kg	56.1	59.9	62.7	76.5	77.9	80.8	88.8	94.1	98.8	107.0	129.0	129.0	129.0	129.0
NOISE LEVEL															
Total sound pressure (3)	dB(A)	54	54	55	54	54	55	55	55	56	57	57	57	57	57
Total sound power level in cooling (4) (5)	dB(A)	86	86	87	87	87	88	88	88	89	90	90	90	90	90
SIZE AND WEIGHT															
A (6)	mm	5,080	5,080	5,080	6,255	6,255	6,255	7,430	7,430	7,430	9,780	9,780	9,780	9,780	9,780
B (6)	mm	2,260	2,260	2,260	2,260	2,260	2,260	2,260	2,260	2,260	2,260	2,260	2,260	2,260	2,260
H (6)	mm	2,560	2,560	2,560	2,560	2,560	2,560	2,560	2,560	2,560	2,560	2,560	2,560	2,560	2,560
Operating weight (6)	kg	2,930	2,960	3,000	3,600	3,830	3,900	4,290	4,430	4,450	5,660	5,720	5,770	5,810	5,850

(1) Plant (side) cooling exchanger water (in/out) 12°C/7°C, Source (side) heat exchanger air (in) 35.0°C.
 (2) Values in compliance with EN14511.
 (3) Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.

(4) Sound power on the basis of measurements taken in compliance with ISO 9614.
 (5) Sound power level in cooling, outdoors.
 (6) Unit in standard configuration, without optional accessories.
 (7) Parameter calculated according to [REGULATION (EU) N. 2016/2281].

(8) Seasonal energy efficiency ratio.
 (9) Seasonal space cooling energy efficiency.
 The units highlighted in this publication contain [GWP₁₀₀ 466] fluorinated greenhouse gases.
 Data highlighted in green are Eurovent Certified.

Optional Extras

- User Interface versions including KIPLINK
- Microchannel coils with e-coating protection
- Compressor Enclosures & Acoustical Enclosures
- Noise Reducer Kit (NR Kit)
- EC Fans with DC brushless motor
- Refrigerant Leak Detector
- Night Mode to limit the maximum noise level of the unit
- Automatic circuit breakers on loads
- Compressor power factor correction
- Soft start
- Integrated hydronic group-pumps & tanks
- Variable Primary flow control
- Compressor suction and discharge valves
- BMS Interface – such as Bacnet, ModBus
- Refrigerant pressure relief valves
- Group controllers
- C4 Corrosion Classification
- Energy meter

For more options refer to Databook

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