



**Inverter heat pumps**

air/water type

for central heating, cooling and domestic hot water



Testing in an accredited laboratory according to EN 14511 and EN 14825 standards

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NEXUS M9 PRO	420 000 065
NEXUS M14 PRO	420 000 064
NEXUS M17 PRO	420 000 063
+ INSYG ALFA+CLOUD	490 380 003

**Monobloc heat pumps**

The Nexus PRO series of heat pumps is designed with the latest technology designed to work with natural refrigerant R290. An inverter compressor was used, which allows the heat pump's performance to be adjusted to demand. The PRO series heat pumps can reach the temperature of the heating system supply water up to 67°C. In addition, a high-performance brushless EC-type fan with variable speed control has been used to ensure

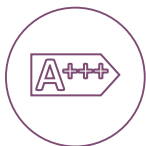
optimum efficiency while maintaining the lowest possible noise level. Other advantages of the unit include, compact housing, control system for heating circuits in the building and intelligent defrosting system to ensure efficient operation in all conditions. Experience the new face of comfort with NEXUS.



High efficiency in any installation thanks to Mitsubishi Scroll compressor



Compact weatherproof design



Energy efficiency class A+++ moderate climate, low temperature applications (EN 14825) (EN 14825)



Carel's intuitive easy-to-use controller ensures optimal control and proper system operation. Possibility of remote operation through the use of a dedicated internet module



Silent operation. Meets the requirements of Commission Regulation (EU) No. 813/2013



An ecological refrigerant.

**Main features**

- › Automation provides infinite capacity control of the compressor, fan and circulating pump;
- › The standard control regulates the operation of the heat pump and heating circuits for central heating and hot water;
- › The heat pump can operate in cooling mode. It is recommended to use this mode in an installation with floor heating systems;
- › The device is equipped with an automatic defrosting system using hot gas by reversing the circulation;
- › It has built-in temperature and pressure protection for the refrigerant circuit;
- › The control system, by regulating the components of the heat pump, seeks to maintain the parameters of the refrigeration system during operation so that they do not go beyond the acceptable operating range;
- › Active protection against freezing of the water circuit also during cooling operation (requires elec. power supply);
- › Passive antifreeze protection of the water circuit, without electrical supply (when the water circuit is equipped with a thermostatic antifreeze valve);
- › The ability to operate the heat pump using the weather control function;
- › Fan with energy-efficient electronically commutated (EC) brushless motor;
- › Supply water temperature up to 67°C;
- › Hydrophilic-coated evaporator;
- › The heat pump can operate in surface heating and radiator systems.

**Technical specifications**

SCOP (W35) moderate climate	kWh/kWh	4,79	5,02	4,81
SCOP (W55) moderate climate	kWh/kWh	3,61	3,73	3,83
A7/W35 heating power / COP	kW / -	from 4,1 to 10,0 / from 4,47 to 4,98	from 5,0 to 13,6 / from 4,69 to 5,20	from 6,1 to 16,7 / from 4,22 to 5,10
Energy efficiency class W35/W55		A+++ / A++	A+++ / A++	A+++ / A+++
Compressor		Mitsubishi Scroll		
Cooling mode		Yes		
Ambient temp. min/max in cooling mode	°C	17 / 40		
Ambient temp. min/max in heating mode	°C	-25 / 40		
Recommended heating water flow rate	m <sup>3</sup> /h	1,65	2,35	2,90
Working medium		R290		
Amount of working medium		2,45	2,8	2,8
Defrosting type	kg	hot gas (reverse circulation)		
Sound power level L <sub>WA</sub> acc. to EN12102	dB(A)	52	52	52
Sound pressure** at 5m distance	dB(A)	30		
Water connection	cal	1 IG		
Primary circulation pump		Grundfos 25-75	Grundfos 25-75	Grundfos 25-105
<b>Dimensions</b>				
L x W x H	mm	1186 x 667 x 762	1250 x 667(750)* x 1055	1390 x 667(750)* x 1055
Weight	kg	160	170	173
<b>Electrical connection</b>				
Power supply		400V 3~ 50Hz		
Power cable	mm <sup>2</sup>	5x4,0		
Maximum operating current	A	11,6	19,7	20,4
Maximum start-up current	A	<5		

\* total width including mounting skid.

\*\* The quoted sound pressure applies to the free-standing heat pump


**INSYG ALFA**

**Control module with user panel for Nexus M Pro Heat Pumps.**

**Main features**

- › Control of 2 heating circuits with mixing valves according to the heating curve;
- › Switching the circuit between central heating and DHW according to demand (DHW priority);
- › Switching on an electric heater as a heating support, emergency source or for heating domestic water;
- › Control of DHW circulation pump;
- › Schedule for central heating and for DHW;
- › User panel with 4.3" touch-screen graphic display;
- › Graphic display of heat pump and heating circuit operating parameters.
- › Can be connected to the Internet module through the MODBUS communication port.

**Technical specifications**

Dimensions (L x W x H)		129 x 351 x 299
Weight	kg	3,3
Electrical connection		230V / 50Hz**
Max. heater power***		6 kW

\*\* When connecting optional 400V heater, 400V 3~ 50Hz power supply should be used.

\*\*\* The heater is not an element of the Insyg Alfa.