

i-32V5 06-018 Inverter Monoblock Heat Pump

6kW÷18kW



VERSIONS

- i-32V5** Standard version reversible heat pump
- i-32V5/KA** Reversible heat pump with integrated defrosting kit

11 models: the most compact and the best performing of the market.

The inverter technology employment together with DC brushless motors ensures higher global energetic efficiency of equipment also thanks to high and effective modulating power. The employment extension to all components gives the COP and EER improvement and a substantial increase of partial loads efficiency.

Technical Features

- ▶ Customized control system with microcontroller regulation, overheating control logic with electronic expansion valve.
- ▶ DC inverter compressors: twin-rotary Dc Inverter.
- ▶ Ventilation: DC inverter with axial fan
- ▶ Source exchanger: optimized circuit with finned coil, copper pipes and hydrophilic aluminum fins.
- ▶ Users exchanger: a brazed plate type in stainless steel AISI 304 with reduced pressure drop on the water side.
- ▶ Refrigerant circuit is made with copper pipes and includes: condensing control, electronic expansion valve, reversing valve, high/low pressure switch, separator and liquid receiver, valves for maintenance and control, double-inlet pressure, high and low pressure transducers.
- ▶ Integral hydraulic system: pump with high efficiency brushless circulator, flow switch, air valve, pressure relief valve (6 bar), pressure gauge, water valve for system charge/discharge.

Logic and Controls

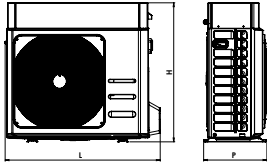
- ▶ All units can work in three different modes: heating, cooling and D.H.W., with specific programs that enhance the performance in all conditions, with possible management of the temperature curve.
- ▶ The V5 series units are able to handle mixing valves, diverter and circulatory secondary side; They are also able to control the solar thermal system, the eventual integration with external heat sources, and integration with external systems Home Building automation or Domotic. All i-32V5 series is controllable remotely (accessory HI-TV415).
- ▶ Modbus RS485 protocol as standard

The i-32V5 ka models with integrated defrosting kit "KA" has the same performance and technical data, in order to they have the same Eurovent HP Keymark certification.

i-32V5 Datasheet

i-32V5 06-018

Inverter Monoblock Heat Pump



Mod. 6-8

Dimensions		06A	08A	10	10T	12	MCS Certification Numbers	
L	mm	918	918	1.047	1.047	1.047	06A: ICIM-PDC-000103-01	08A: ICIM-PDC-000103-02
P	mm	394	394	455	455	455	10: ICIM-PDC-000073-00-01	10: ICIM-PDC-000073-00-02
H	mm	830	830	936	936	936	12: ICIM-PDC-000073-00-03	

	i-32V5	06A	08A	10	10T	12
Cooling						
Cooling capacity (1)	kW	5,7* / 5,2	6,7* / 6,1	8,3* / 7,5	8,3* / 7,5	9,4* / 8,5
Power input (1)	kW	1,6	2,0	2,4	2,4	2,8
E.E.R. (1)	W/W	3,2	3,1	3,2	3,2	3,1
Cooling capacity (2)	kW	6,7* / 6,4	8,7* / 8,0	10,4* / 9,5	10,4* / 9,5	12,8* / 11,6
Power input (2)	kW	1,3	1,8	2,2	2,2	2,8
E.E.R. (2)	W/W	4,9	4,5	4,4	4,4	4,2
SEER (5)	W/W	4,4	4,5	4,3	4,3	4,4
Water flow (1)	L/s	0,3	0,3	0,4	0,4	0,4
Available pressure (1)	kPa	75,0	71,0	68,9	68,9	63,4
Heating						
Thermal power (3)	kW	7,5* / 6,1	9,4* / 7,8	11,6* / 10,1	11,6* / 10,1	13,6* / 11,8
Power input (3)	kW	1,3	1,7	2,3	2,3	2,7
C.O.P. (3)	W/W	4,9	4,6	4,4	4,4	4,3
Thermal power (4)	kW	7,0* / 6,0	9,0* / 7,7	11,2* / 9,76	11,2* / 9,8	13,2* / 11,5
Power input (4)	kW	1,6	2,1	2,8	2,8	3,3
C.O.P. (4)	W/W	3,8	3,7	3,5	3,5	3,4
SCOP (6)	W/W	4,5	4,5	4,5	4,5	4,5
Water flow (4)	L/s	0,3	0,4	0,5	0,5	0,6
Available pressure (4)	kPa	73,0	65,5	55,2	55,2	43,4
Energy efficiency (Water 35°C-55°C)		A+++/A++	A+++/A++	A+++/A++	A+++/A++	A+++/A++
Compressor						
Type	Twin Rotary DC Inverter					
Compressors	n°	1	1	1	1	1
Refrigerant circuits	n°	1	1	1	1	1
Refrigerant charge (7)	kg	0,97	0,97	2,5	2,5	2,5
Hydraulic circuit						
Water connections	inch	1" M	1" M	1" M	1" M	1" M
Min. water volume (8)	L	40	40	50	50	60
Sound level						
Sound power Lw (9)	dB(A)	64	64	64	64	65
Sound pressure at 1 m distance Lp1 (10)	dB(A)	62	62	62	62	62
Electrical data						
Power supply		230V/1/50Hz		400V/3/50Hz		230V/1/50Hz
Max. power input	kW	3,4	4,1	4,6	4,6	5,1
Max. current input	A	15,5	18,7	20,2	6,6	22,1
Weight						
Gross weight	kg	77	77	110	110	110
Operation weight	kg	66	66	96	96	96

Operating conditions:

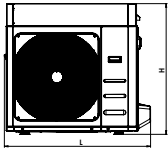
- (1) Cooling: Outdoor air temperature 35°C; inlet/outlet water temperature 12/7°C.
- (2) Cooling: Outdoor air temperature 35°C; inlet/outlet water temperature 23/ 18°C.
- (3) Heating: Outdoor air temperature 7°C DB 6°C WB; inlet/outlet water temperature 30/35°C.
- (4) Heating: Outdoor air temperature 7°C DB 6°C WB; inlet/outlet temperature 40/45°C.
- (5) Cooling: Water temperature inlet/outlet 12/7°C.
- (6) Heating: in average climate condition; T_{in}=7°C, water temperature inlet/outlet 30/35°C.
- (7) The data are only indicative and subject to change. For the correct data, refer to the technical label stucked on the unit.
- (8) Calculated for a decrease of the water temperature of the plant with 10°C with a defrosting cycle of 6 minutes.
- (9) Sound power heating mode condition (3); the value is determined respecting the measurements taken in accordance with the regulations UNI EN ISO 9614-2, in compliant with the Eurovent certification.
- (10) Sound pressure level obtained with internal measurements made in accordance with ISO 3744, at 1 m distance.
- (*) activating the Max Hz function.

Accessories

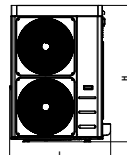
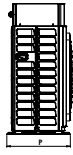
- AG**
 - EXOGEL**
 - FD**
 - GI ****
 - GI3**
 - Hi-TV415**
 - i-CR**
 - KA**
 - SAS**
 - SPS**
 - TR2**
 - VDIS2**
- Vibration damper kit*
Frost protection
Dirt separator filter
Plant management module
Hardware expansion module
Multifunctioning touch screen remote control
Remote wall controller
Antifreeze kit
DHW probe / Sanitary water probe
Solar panel probe
Anti-corrosion treatment
Three-way diverter valve for hot water production in sanitary thermal storage



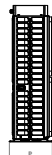
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Mod. 10-12



Mod. 14-14T-16-16T-18T



Dimensions		12T	14	14T	16	16T	18T
L	mm	1.047	1.044	1.044	1.044	1.044	1.044
P	mm	455	455	455	455	455	455
H	mm	936	1.409	1.409	1.409	1.409	1.409

i-32V5		12T	14	14T	16	16T	18T
Cooling							
Cooling capacity (1)	kW	9,4* / 8,5	12,1* / 11,5	12,1* / 11,5	14,5* / 13,8	14,5* / 13,8	15,8* / 15,04
Power input (1)	kW	2,8	3,5	3,5	4,4	4,4	4,9
E.E.R. (1)	W/W	3,1	3,3	3,3	3,2	3,2	3,1
Cooling capacity (2)	kW	12,8* / 11,6	14,7* / 14,0	14,7* / 14,0	16,6* / 15,8	16,6* / 15,8	18,0* / 17,1
Power input (2)	kW	2,8	2,6	2,6	3,2	3,2	3,6
E.E.R. (2)	W/W	4,2	5,4	5,4	5,0	5,0	4,8
SEER (5)	W/W	4,4	4,8	4,8	4,9	4,9	5,1
Water flow (1)	L/s	0,4	0,6	0,6	0,7	0,7	0,7
Available pressure (1)	kPa	63,4	75,0	75,0	62,3	62,3	55,6
Heating							
Thermal power (3)	kW	13,6* / 11,8	15,2* / 14,1	15,2* / 14,1	17,6* / 16,3	17,6* / 16,3	19,3* / 17,9
Power input (3)	kW	2,7	2,9	2,9	3,5	3,5	4,1
C.O.P. (3)	W/W	4,3	4,9	4,9	4,7	4,7	4,4
Thermal power (4)	kW	13,2* / 11,5	14,6* / 13,6	14,6* / 13,6	17,0* / 15,8	17,0* / 15,8	18,7* / 17,3
Power input (4)	kW	3,3	3,6	3,6	4,2	4,2	4,9
C.O.P. (4)	W/W	3,4	3,8	3,8	3,7	3,7	3,5
SCOP (6)	W/W	4,5	4,5	4,5	4,5	4,5	4,5
Water flow (4)	L/s	0,6	0,7	0,7	0,8	0,8	0,8
Available pressure (4)	kPa	43,4	63,6	63,6	48,5	48,5	37,3
Energy efficiency (Water 35°C-55°C)		A+++/A++	A+++/A++	A+++/A++	A+++/A++	A+++/A++	A+++/A++
Compressor							
Type		Twin Rotary DC Inverter					
Compressors	n°	1	1	1	1	1	1
Refrigerant circuits	n°	1	1	1	1	1	1
Refrigerant charge (7)	kg	2,5	3,2	3,2	3,5	3,5	3,5
Hydraulic circuit							
Water connections	inch	1"M	1"M	1"M	1"M	1"M	1"M
Min. water volume (8)	L	60	60	60	70	70	70
Sound level							
Sound power Lw (9)	dB(A)	65	68	68	68	68	68
Sound pressure at 1 m distance Lp1 (10)	dB(A)	62	66	66	66	66	66
Electrical data							
Power supply		400V/3P+N+T/50Hz	230V/1/50Hz	400V/3P+N+T/50Hz	230V/1/50Hz	400V/3P+N+T/50Hz	400V/3P+N+T/50Hz
Max. power input	kW	5,1	6,6	6,6	7,0	7,0	8,3
Max. current input	A	7,3	28,6	9,5	30,4	10,1	12,0
Weight							
Gross weight	kg	110	134	148	140	154	154
Operation weight	kg	96	121	136	126	141	141

Operating conditions:

- (1) Cooling: Outdoor air temperature 35°C; inlet/outlet water temperature 12/7°C.
 (2) Cooling: Outdoor air temperature 35°C; inlet/outlet water temperature 23/18°C.
 (3) Heating: Outdoor air temperature 7°C DB 6°C WB; inlet/outlet water temperature 30/35°C.
 (4) Heating: Outdoor air temperature 7°C DB 6°C WB; inlet/outlet temperature 40/45°C.
 (5) Cooling: Water temperature inlet/outlet 12/7°C.
 (6) Heating: in average climate condition, T_{db}=7°C; water temperature inlet/outlet 30/35°C.
 (7) The data are only indicative and subject to change. For the correct data, refer to the technical label stuck on the unit.
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 (9) Sound power heating mode condition (3); the value is determined respecting the measurements taken in accordance with the regulations UNI EN ISO 9614-2, in compliance with the Eurovent certification.
 (10) Sound pressure level obtained with internal measurements made in accordance with ISO 3744, at 1 m distance.
 (*) activating the Max Hz function.

MCS Certification Numbers

12T: ICIM-PDC-000073-00-04	14T: ICIM-PDC-000075-00-02	16T: ICIM-PDC-000074-00-02
14: ICIM-PDC-000075-00-01	16: ICIM-PDC-000074-00-01	18T: ICIM-PDC-000074-00-05

Accessories

AG	Vibration damper kit
EXOGEL	Frost protection
FD	Dirt separator filter
GI **	Plant management module
GI3	Hardware expansion module
Hi-TV415	Multifunctioning touch screen remote control
i-CR	Remote wall controller
KA	Antifreeze kit
SAS	DHW probe / Sanitary water probe
SPS	Solar panel probe
TR2	Anti-corrosion treatment
VDIS2	Three-way diverter valve for hot water production in sanitary thermal storage