PROCIDA AWS

INVERTER AIR-TO-WATER SPLIT HEAT PUMP
WATER PRODUCTION FOR HEATING AND COOLING



- **CLASS A+++ (for average climate conditions and for low-temperature application, according to EU regulation 811/2013, EN 14825)**
- **High COP for heating performance**
- **Touch-screen control panel with user interface provided as standard and fitted on indoor unit**
- **The hydronic circuit is housed inside the wall-hung unit to be installed indoor**
- **Reduced impact on global warming thanks to the use of R32 gas (GWP = 675)**
- **It can be combined with water tanks for domestic hot water production (3-way valve is included in the hydraulic unit of the indoor unit)**
- **Included in the price: heat pump, control panel, water filter and tank probe**
- Integrated hydraulic unit with heating element on system side, expansion vessel, high efficiency pump, plate exchanger, flow switch, vent and safety valve
- Twin rotary DC inverter compressor and brushless DC inverter axial fan
- Hydrophilic treated finned coil - Improved resistance to corrosion and condensation formation prevention
- Electronic expansion valve for refrigerant fluid optimisation
- Heating element on the base of the outdoor unit (prevents ice formation)
- Climate control and "Quiet" function for silent mode



HEAT PUMP INTERFACE

- *Touch-screen display*
- *Management of operating modes, system components and heating integration systems, parameters setting*
- *Weekly programming by time slots*
- *Anti-legionella cycle management*

Available in the following models:

4 6 8 10

Model	Refrigerant Gas	Code	Description	Nominal heating capacity (1)		Seasonal energy efficiency class of ambient heating (2)		Packaging dimensions WxHxD	Gross weight
				Water T 35°C kW	Water T 55°C kW	Water T 35°C	Water T 55°C	mm	kg
AWS X4	R32	DPBI0XWS04	PROCIDA AWS 4 (O) - o. u.	4,00	3,70	A+++	A++	1028x830x458	65
		DPBI0XWU04	PROCIDA IWU 4 - i. u.					1130x565x375	71
AWS X6	R32	DPBI0XWS06	PROCIDA AWS 6 (O) - o. u.	6,00	5,90	A+++	A++	1028x830x458	65
		DPBI0XWU06	PROCIDA IWU 6 - i. u.					1130x565x375	71
AWS X8	R32	DPBI0XWS08	PROCIDA AWS 8 (O) - o. u.	8,00	7,40	A+++	A++	1097x937x478	92
		DPBI0XWU08	PROCIDA IWU 8 - i. u.					1130x565x375	71
AWS X10	R32	DPBI0XWS10	PROCIDA AWS 10 (O) - o. u.	9,50	8,70	A+++	A++	1097x937x478	92
		DPBI0XWU10	PROCIDA IWU 10 - i. u.					1130x565x375	71

o. u. = outdoor unit - i. u. = indoor unit
(1) Outdoor air T 7°C dry bulb/6°C wet bulb
Inlet water T / outlet water T: 30 / 35 °C - Inlet water T / outlet water T: 50 / 55°C
According to EN 14511
(2) According to EN 14825



PROCIDA AWS 4 - 6 outdoor unit

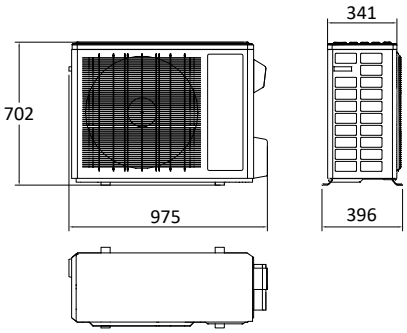


PROCIDA AWS 8 - 10 outdoor unit

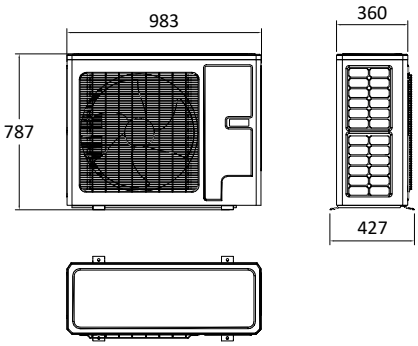


PROCIDA IWU 4- 6- 8 - 10 indoor unit

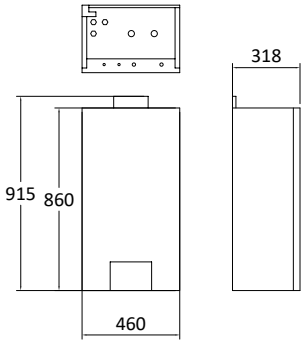
DIMENSIONS AND CONNECTION CENTRE DISTANCES



mod. Procida AWS 4 - 6 outdoor unit



mod. Procida AWS 8 - 10 outdoor unit



mod. Procida IWU 4- 6- 8 - 10 indoor unit

OUTDOOR UNIT TECHNICAL DATA

Technical data	um	AWS 4 (O)	AWS 6 (O)	AWS 8 (O)	AWS 10 (O)
Dimensions (W x H x D)	mm	975 x 702 x 396	975 x 702 x 396	983 x 787 x 427	983 x 787 x 427
Net weight	kg	55	55	82	82
Gross weight	kg	65	65	92	92
Refrigerant Gas	-	R32	R32	R32	R32
GWP	-	675	675	675	675
Refrigerant gas charge content	kg/tonnes of CO_2 eq	1,0 / 0,675	1,0 / 0,675	1,6 / 1,08	1,6 / 1,08
Sound power level, outdoors L_{WA}	dB (A)	62	62	67	68
Compressor	-	Twin rotary inverter	Twin rotary inverter	Twin rotary inverter	Twin rotary inverter
Variable speed fan	no.	1	1	1	1
Air flow rate	m³/h	3200	3200	3300	3300
Power supply voltage/frequency	V/Ph/Hz	230/1/50	230/1/50	230/1/50	230/1/50
Voltage range	V	220 - 240	220 - 240	220 - 240	220 - 240
Maximum current consumption in heating mode	A	10	10	13	15
Maximum power input in heating mode	kW	2,30	2,30	3,00	3,40
Maximum current consumption in cooling mode	A	10	10	19	22
Maximum power input in cooling mode	kW	2,55	2,55	4,32	5,06
Electric protection rating	IP	IPX4	IPX4	IPX4	IPX4

INDOOR UNIT TECHNICAL DATA

Technical data	um	IWU 4	IWU 6	IWU 8	IWU 10
Dimensions (W x H x D)	mm	460 x 860 x 318	460 x 860 x 318	460 x 860 x 318	460 x 860 x 318
Net weight	kg	62	62	62	62
Gross weight	kg	71	71	71	71
Water inlet/outlet connection	inches	1	1	1	1
Sound power level, outdoors L_{WA}	dB (A)	42	42	42	42
Expansion vessel capacity	l	10	10	10	10
Safety valve pressure	bar	3	3	3	3
System water minimum content	l	40	40	40	80
System water minimum flow rate	l/min	9,2	9,2	9,2	9,2
Water nominal flow rate at water T of 35°C / 45°C	m³/h	0,69/0,69	1,03/1,02	1,38/1,38	1,63/1,63
Circulation pump - max head	m	High efficiency – 8m	High efficiency – 8m	High efficiency – 8m	High efficiency – 8m
Evaporator (plate exchanger)	no.	1	1	1	1
Power supply voltage/frequency	V/Ph/Hz	230/1/50	230/1/50	230/1/50	230/1/50
Voltage range	V	220 - 240	220 - 240	220 - 240	220 - 240
Rated power input (1)	kW	3,1	3,1	6,1	6,1
Heating element	n x kW	2 x 1.5	2 x 1.5	2 x 3	2 x 3
Electric protection rating	IP	IPX1	IPX1	IPX1	IPX1

(1) The value includes the power of heating elements

HEATING PERFORMANCE - ACCORDING TO EN 14511

Water flow / return T: 35 / 30°C
Outdoor air T 7°C dry bulb

Model	Nominal heating capacity	Nominal electric power input	COP
	kW	kW	
AWS X4	4,00	0,78	5,13
AWS X6	6,00	1,20	5,00
AWS X8	8,00	1,70	4,71
AWS X10	9,50	2,07	4,59

Water flow / return T: 45 / 40°C
Outdoor air T 7°C dry bulb

Model	Nominal heating capacity	Nominal electric power input	COP
	kW	kW	
AWS X4	4,00	1,02	3,92
AWS X6	5,90	1,51	3,91
AWS X8	8,00	2,14	3,74
AWS X10	9,50	2,64	3,60

COOLING PERFORMANCE - ACCORDING TO EN 14511

Water flow / return T: 18 / 23°C
Outdoor air T 35°C dry bulb

Model	Nominal cooling capacity	Nominal electric power input	EER
	kW	kW	
AWS X4	3,80	0,82	4,63
AWS X6	5,80	1,32	4,39
AWS X8	7,00	1,75	4,00
AWS X10	8,50	2,24	3,79

Water flow / return T: 7 / 12°C
Outdoor air T 35°C dry bulb

Model	Nominal cooling capacity	Nominal electric power input	EER
	kW	kW	
AWS X4	3,15	0,92	3,42
AWS X6	4,09	1,28	3,20
AWS X8	5,30	1,73	3,06
AWS X10	6,50	2,27	2,86

ERP PERFORMANCE - ACCORDING TO EN 14825

LOW TEMPERATURE - AVERAGE CLIMATE CONDITIONS
Inlet water T / outlet water T: 30 / 35 °C - Outdoor air T 7°C dry bulb/6°C wet bulb

Model	Heating load - $P_{designh}$	Seasonal energy efficiency - η_s	Energy efficiency class
	kW	%	
AWS X4	5,00	184	A+++
AWS X6	6,00	179	A+++
AWS X8	7,00	181	A+++
AWS X10	9,00	181	A+++

MEDIUM TEMPERATURE - AVERAGE CLIMATE CONDITIONS
Inlet water T / outlet water T: 47 / 55 °C - Outdoor air T 7°C dry bulb/6°C wet bulb

Model	Heating load - $P_{designh}$	Seasonal energy efficiency - η_s	Energy efficiency class
	kW	%	
AWS X4	5,00	128	A++
AWS X6	5,00	127	A++
AWS X8	7,00	129	A++
AWS X10	8,00	127	A++

ENERGY CONSUMPTION

Annual energy consumption Q_{he} (kWh)

Model	Colder climate conditions		Average climate conditions		Warmer climate conditions	
	low T (A)	medium T (B)	low T (C)	medium T (D)	low T (E)	medium T (F)
AWS X4	2663	3015	2216	3152	1509	1365
AWS X6	2674	3701	2729	3169	1136	1575
AWS X8	4628	5982	3149	4371	1947	2645
AWS X10	5201	6985	4038	5091	2183	2927

REF.	CLIMATE	TEMPERATURE	Outdoor air T °C Dry bulb (Wet bulb)	Water inlet T °C	Water outlet T °C
A	COLDER	LOW	2 (1)	30	35
B	COLDER	MEDIUM	2 (1)	47	55
C	AVERAGE	LOW	7 (6)	30	35
D	AVERAGE	MEDIUM	7 (6)	47	55
E	WARMER	LOW	14 (13)	30	35
F	WARMER	MEDIUM	14 (13)	47	55

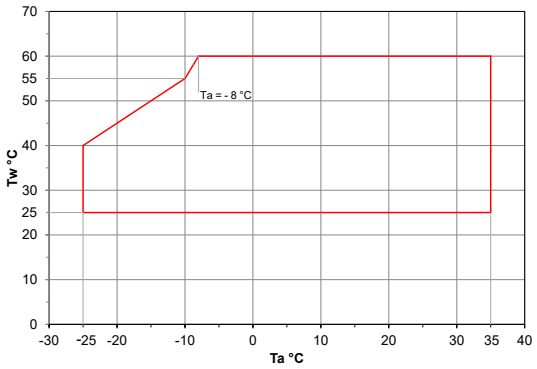
MAXIMUM OPERATING CONDITIONS

Mode	Outlet water temperature range	Air T temperature range
	°C	dry bulb °C
Heating mode	25 ÷ 60	- 25 ÷ 35
Cooling mode	7 ÷ 25	10 ÷ 48
DHW production mode with tank	40 ÷ 80 (*)	- 25 ÷ 45

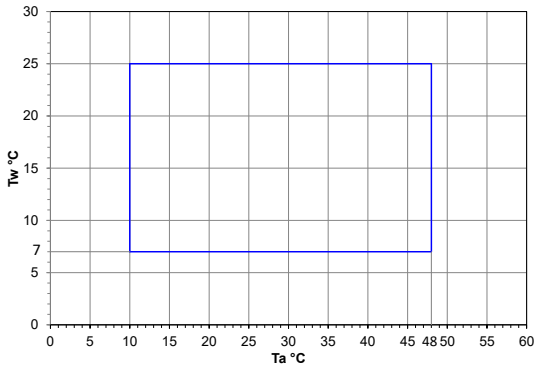
(*) Tank water temperature range

OPERATION RANGE

Heating Mode



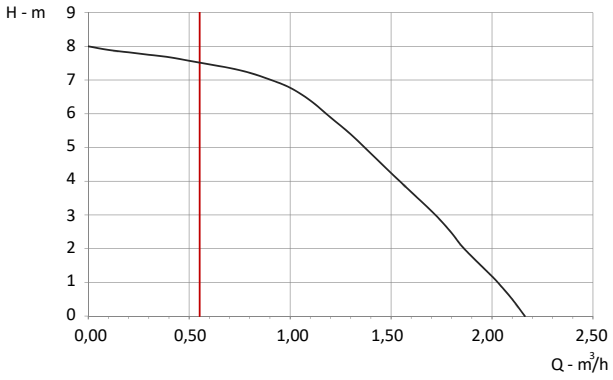
Cooling Mode



Ta = outdoor air temperature
Tw = outlet water temperature

AVAILABLE HEADS

PROCIDA AWS X 4 - 6 - 8 - 10



Minimum flow rate limit