



# IVAR•ESAT DUAL

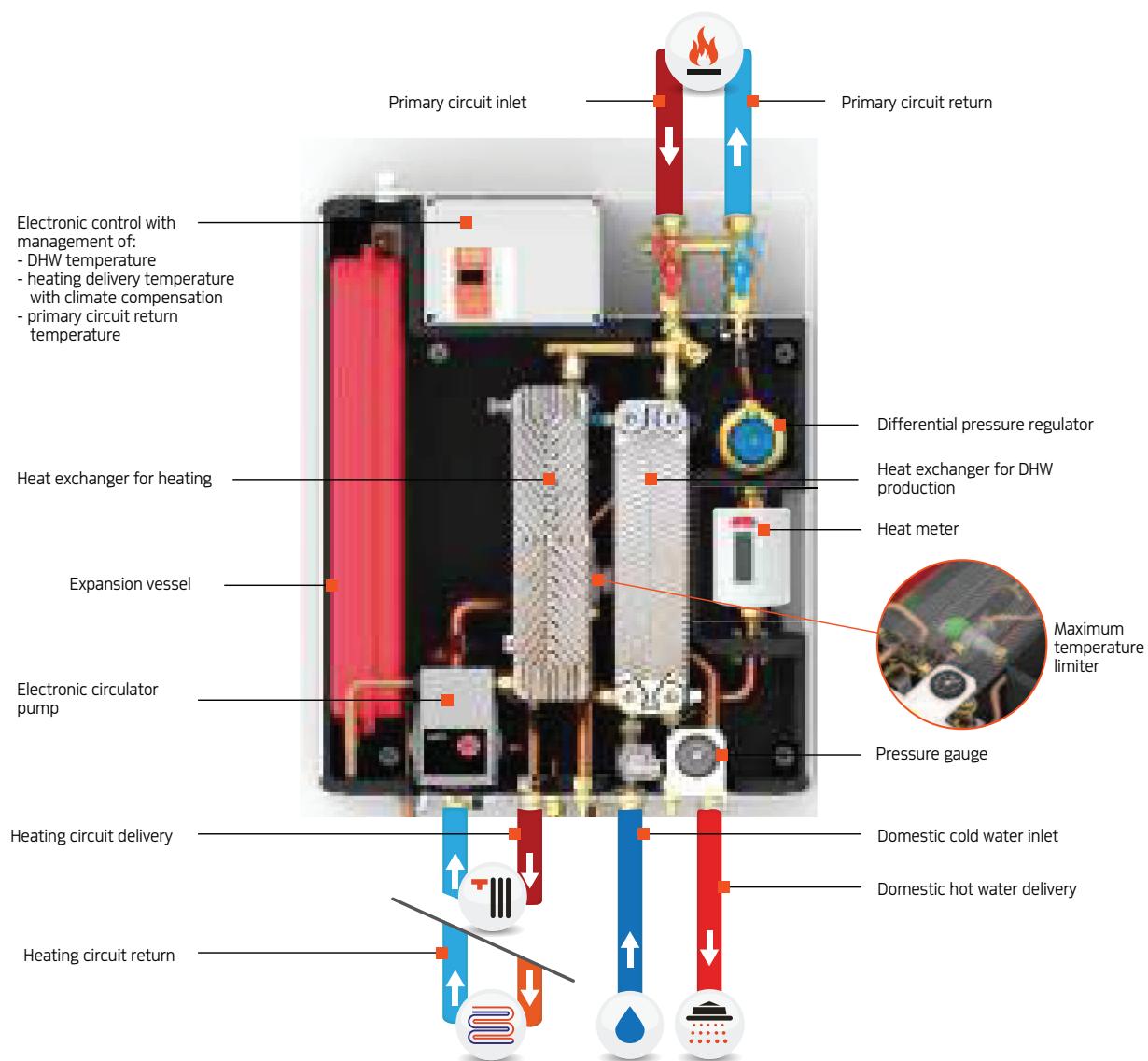
IVAR•ESAT DUAL is a heating interface unit with separate heat exchangers for heating and water to offer three functions: instant DHW production, heating control and metering of water and heat consumption. The dual heat exchanger design enables all three circuits to be kept separate (primary, domestic, and heating). In this way, any intervention on secondary circuits can be performed without acting on the primary circuit, shared by multiple utilities and users. Its strength lies in electronic control of the temperature of hot water delivery and delivery to the heating system, and therefore only the primary flow effectively necessary to meet demands is handled, consequently optimising pump energy consumption and the primary temperature variations. IVAR•ESAT DUAL is supplied pre-assembled on the frame, insulated by a polypropylene casing and with a provision for insertion of meters as required; it can be completed with a sheet steel cover, differential pressure regulator for the heating or primary circuit, and shut-off valve.

## IVAR•ESAT DUAL

DHW data: production of 18 l/min DHW\* (input at 10°C - output of DHW 55°C) - Power: approx. 55 kW

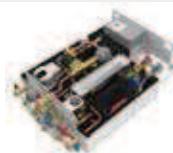
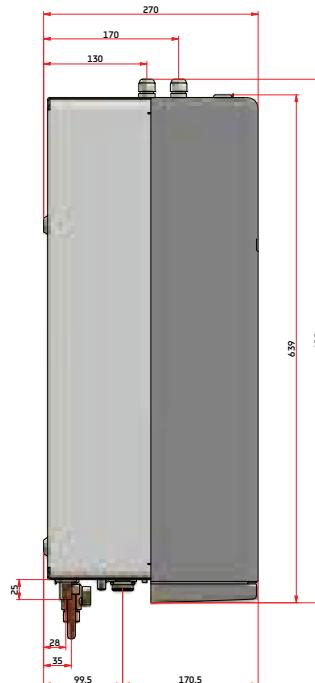
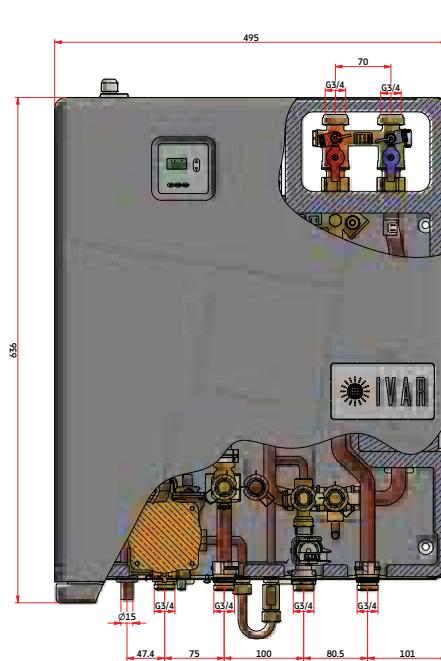
Heating data: Max. power: 23.6 kW (Delivery/return on secondary circuit: 60/40°C)\*

(\* ) The specified values refer to  $D_p = 500$  mbar on the primary circuit and delivery temperature on the primary circuit of 70°C



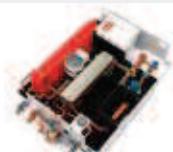
+ **PLUS**

- Energy saving thanks to electronic temperature control of the boiler return.
- Power of the heat exchanger in DHW production up to 55 kW.
- Electronic DHW temperature control.
- Heat exchanger power for heating up to 24 kW.
- Electronic control with external compensation for the heating delivery temperature.
- **Electronic intervention** for: circuit temperature monitoring, water hammer delay, plumbing flow rate check by flowmeter, anti-lock function, fouled exchangers warning, PWM circulator control in heating mode, intelligent automatic loading.


**IVAR E-SAT MONO**

Indirect heat interface unit for domestic water preparation and heating/cooling applications with single heat exchanger. Several configurations available.

**AVAILABLE  
ON REQUEST**


**IVAR E-SAT TANK**

Heat interface unit for domestic hot water preparation with delocalized storage tank and heating applications with heat exchanger.

**AVAILABLE  
ON REQUEST**


**HC IVAR E-SAT DUAL**

4-pipe indirect heat interface unit for domestic water preparation and heating/cooling applications

**AVAILABLE  
ON REQUEST**

### ■ IVAR•ESAT DUAL



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- Satellite di utenza a doppio scambiatore per riscaldamento e produzione di acqua calda sanitaria con pompa elettronica a velocità variabile, coibentazione e controllo elettronico. Disponibile con regolatore di pressione differenziale EQF 01 (per il circuito primario o di riscaldamento), copertura in lamiera e valvola di riempimento automatico optionali.

Unità contabilizzazione del calore: Qn 1,5 m<sup>3</sup>/h (contatore non incluso).

- Heating interface unit with separated heat exchangers for heating and domestic hot water preparation, variable speed electronic pump, insulation and electronic controller. Available with optional differential pressure control valve EQF 01 (for primary or heating circuit), metal sheet cover and automatic filling valve. Heat metering unit: Qn 1,5 m<sup>3</sup>/h (meter not included).

- Satellite d'application à double échangeur de chaleur pour le chauffage et la production d'eau chaude sanitaire avec pompe électrique à vitesse variable, isolation et contrôle électronique. Disponible avec le régulateur de pression différentielle EQF 01 (pour le circuit primaire ou de chauffage), le couvercle en tôle et vanne de remplissage automatique optionnels.

Unité de comptabilisation de la chaleur: Qn 1,5 m<sup>3</sup>/h (compteur non inclus).

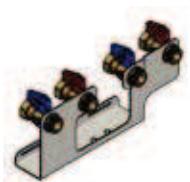
- Satellitenmodul mit getrennten Wärmetauschern für Heizung und Frischwasserzubereitung, elektronischer Pumpe mit variabler Geschwindigkeit, Dämmsschalen und elektronischer Steuerung. Erhältlich mit optionalen Differenzdruckregler EQF 01 (für Primär- oder Heizkreis), Blechabdeckung und automatisches Füllventil. Wärmemesseinheit: Qn 1,5 m<sup>3</sup>/h (Zähler nicht enthalten).

- Modulo satélite con intercambiadores de calor separados para calefacción y producción de agua caliente sanitaria con bomba eléctrica de velocidad variable, aislamiento y control electrónico. Disponible con regulador de presión diferencial EQF 01 (para circuito primario o de calefacción), cubierta de lámina y válvula de llenado automático opcionales.

Unidad de contabilización de calor: Qn 1,5 m<sup>3</sup>/h (contador no incluido).

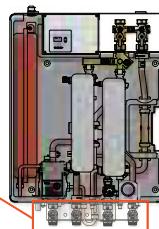
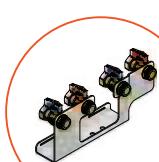
Code	ΔP adjustment	Filling	Metal sheet cover	Price	Class	Packaging
500325		Manual	-	3.535,75 €	UE	1
500325C		Manual	✓	3.650,62 €	UE	1
500362	50 - 300 mbar (Primary circuit)	Manual	-	3.785,10 €	UE	1
500362C	50 - 300 mbar (Primary circuit)	Manual	✓	3.899,98 €	UE	1
500363	50 - 300 mbar (Heating circuit only)	Manual	-	3.805,38 €	UE	1
500363C	50 - 300 mbar (Heating circuit only)	Manual	✓	3.920,24 €	UE	1
500325A		Automatic	-	3.641,44 €	UE	1
500325AC		Automatic	✓	3.756,30 €	UE	1
500362A	50 - 300 mbar (Primary circuit)	Automatic	-	3.890,78 €	UE	1
500362AC	50 - 300 mbar (Primary circuit)	Automatic	✓	4.005,67 €	UE	1
500363A	50 - 300 mbar (Heating circuit only)	Automatic	-	3.911,07 €	UE	1
500363AC	50 - 300 mbar (Heating circuit only)	Automatic	✓	4.025,94 €	UE	1

### ■ AC 688

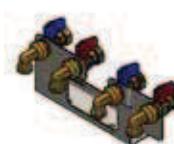


- Kit di valvole di intercettazione a sfera diritte per IVAR•ESAT DUAL.
- Straight isolation ball valves kit for IVAR•ESAT DUAL.
- Kit de vannes d'interception à bille droites pour IVAR•ESAT DUAL.
- Durchgangs-Absperrkugelventile-Set für IVAR•ESAT DUAL.
- Kit válvulas de cierre de bola rectas para IVAR•ESAT DUAL.

Code	Size	Price	Class	Packaging
508013	3/4" M x 3/4" F swivel	210,63 €	UE	1

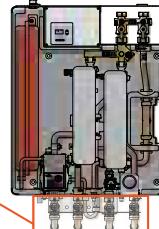
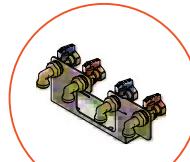


### ■ AC 688 S



- Kit di valvole di intercettazione a sfera con raccordo a squadra per IVAR•ESAT DUAL.
- Isolation ball valves kit with angle fitting for IVAR•ESAT DUAL.
- Kit de vannes d'interception à bille avec raccord équerre pour IVAR•ESAT DUAL.
- Absperrkugelventile-Set mit Winkel-Verbinder für IVAR•ESAT DUAL.
- Kit válvulas de cierre de bola con racor codo para IVAR•ESAT DUAL.

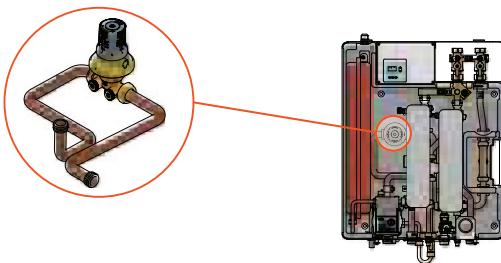
Code	Size	Price	Class	Packaging
508012	3/4" M x 3/4" F swivel	241,84 €	UE	1



**■ EQF 01 H**

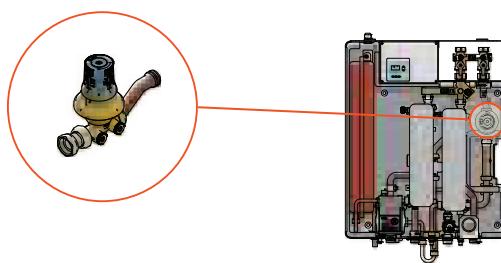

- Regolatore di pressione differenziale EQUIFLUID completo di kit di connessione per circuito solo di riscaldamento per IVAR•ESAT DUAL.
- Differential pressure control valve EQUIFLUID complete with connection kit for IVAR•ESAT DUAL heating circuit only.
- Régulateur de pression différentielle EQUIFLUID avec kit de connexion pour le circuit de chauffage seulement pour IVAR•ESAT DUAL.
- Differenzdruckregler EQUIFLUID mit Anschluß-Set für nur Heizkreis für IVAR•ESAT DUAL.
- Regulador de presión diferencial EQUIFLUID con kit de conexión para circuito de solo calefacción para IVAR•ESAT DUAL.

Code	Size	Range	Price	Class	Packaging
550147	DN 20 (M)	50 - 300 mbar	269,62 €	UE	1


**■ EQF 01 P**


- Regolatore di pressione differenziale EQUIFLUID completo di kit di connessione per circuito primario IVAR•ESAT DUAL.
- Differential pressure control valve EQUIFLUID complete with connection kit for IVAR•ESAT DUAL primary circuit.
- Régulateur de pression différentielle EQUIFLUID avec kit de connexion pour le circuit primaire pour IVAR•ESAT DUAL.
- Differenzdruckregler EQUIFLUID mit Anschluß-Set für Primärkreis für IVAR•ESAT DUAL.
- Regulador de presión diferencial EQUIFLUID con kit de conexión para circuito primario para IVAR•ESAT DUAL.

Code	Size	Range	Price	Class	Packaging
550148	DN 20 (M)	50 - 300 mbar	249,35 €	UE	1



# IVAR•SAT

IvarSAT is the solution for direct metering of heat and domestic hot water in central heating systems without centralised production of domestic hot water (DHW): in fact, thanks to IvarSAT the production of DHW takes place instantly and is given priority at the level of the individual housing unit. IvarSAT is available in three families: the "H" family with direct delivery, suitable for high temperature heating systems; the "LE" family equipped with mixing valve and booster pump, suitable for radiant systems, and the "HLE" family, which integrates two separate deliveries, one direct without booster and one mixed with booster. Domestic hot water temperature is controlled by a thermostatic anti-scald mixer (max 50 °C). For the "1" models there is the provision for a disconnect upstream of the mixer without limitation of the delivery temperature. IvarSAT is also available with a built-in circulation pump ("R" models). The unit also includes a heat meter, a domestic cold-water meter and heating management devices such as thermostats and electrothermal heads. To meet the needs of construction sites, IvarSAT can also be supplied as an installation template with functional components provided separately.

## IVAR-SAT H

Heating power (\*): approx. 10 kW

Domestic hot water output (\*\*): approx. 32 kW - production of approx. 12 l/min of domestic hot water at 48°C with mains input at 10°C

(\*) temperature difference = 10°C and pressure differential at the ends of the module = 200 mbar

(\*\*) pressure differential at module ends = 150 mbar and boiler temperature = 60°C

## IVAR-SAT LE

Heating power (\*): approx. 7 kW

Domestic hot water output (\*\*): approx. 32 kW - production of approx. 12 l/min of domestic hot water at 48°C with mains input at 10°C

(\*) temperature difference = 8°C and WILO4 circulator

(\*\*) boiler temperature = 60°C

## IVAR-SAT HLE

Heating power (\*): approx. 7 kW (low temperature part)

Heating power (\*): approx. 5 kW (high temperature part)

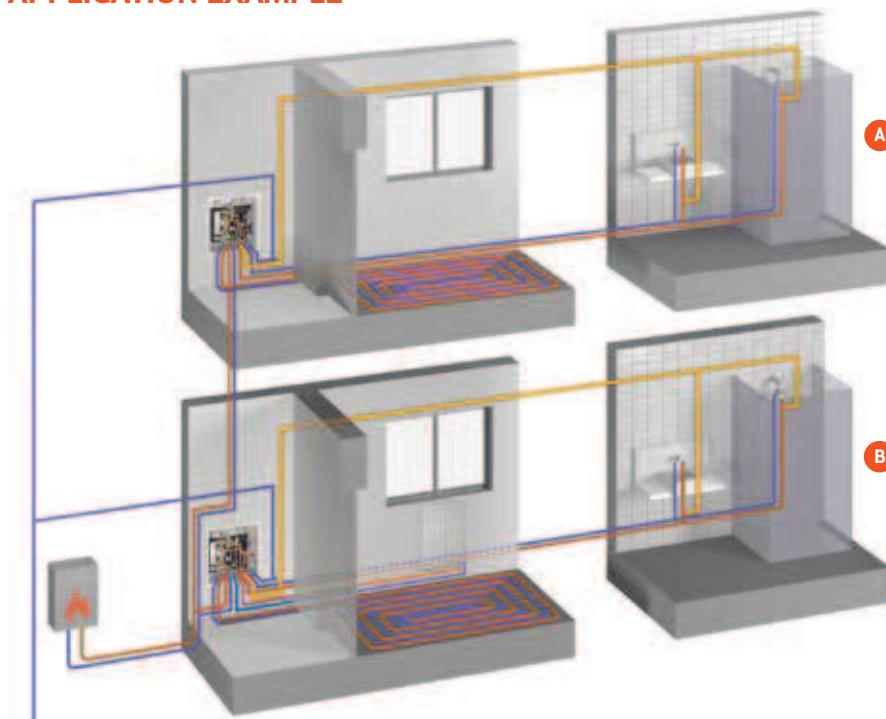
Domestic hot water output (\*\*): approx. 32 kW - production of approx. 12 l/min of domestic hot water at 48°C with mains input at 10°C

(\*) temperature difference = 8°C and WILO4 circulator

(\*) temperature difference = 10°C and pressure differential at the ends of the module = 200 mbar

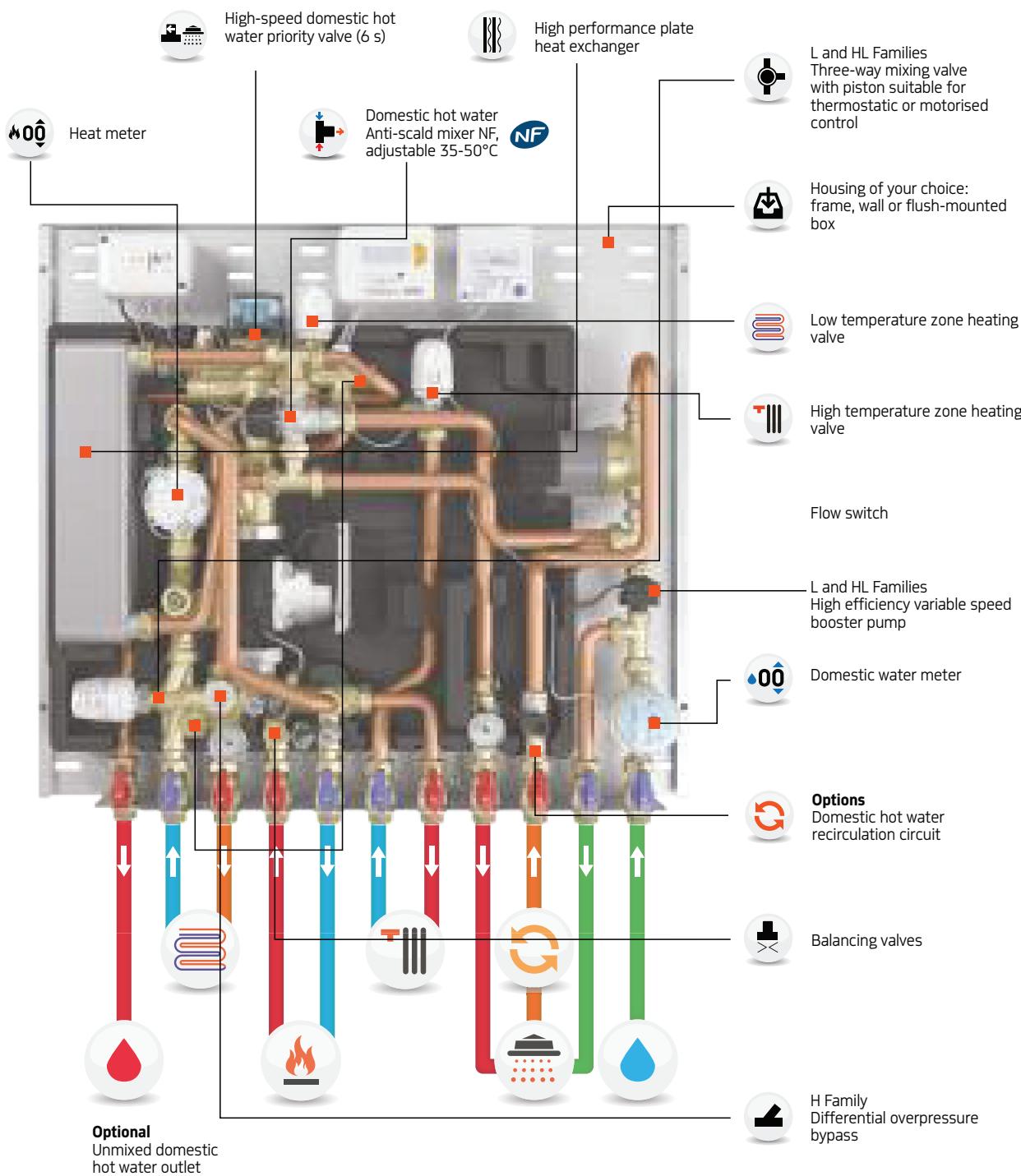
(\*\*) boiler temperature = 60°C

## APPLICATION EXAMPLE



**IVAR•SAT LRE (unit A)** with domestic cold water inlet, domestic cold water outlet, recirculation inlet, domestic hot water outlet, boiler return, boiler delivery, low temperature heating delivery, low temperature heating return.

**IVAR•SAT HLRE (unit B)** with domestic cold water inlet, domestic cold water outlet, recirculation inlet, domestic hot water outlet, high temperature heating delivery, high temperature heating return, boiler return, boiler delivery, low temperature heating delivery, low temperature heating return.



## PLUS

- Available in the following versions: **high temperature (IVARSAT H), low temperature (IVARSAT L/LE), combined (IVARSAT HL/HLE)**
- Can be equipped with **domestic hot water recirculation fittings**
- **Flush- or wall-mounted installation**
- **Electronic management of domestic hot water priority**
- **Ideal DHW delivery temperature control via thermostatic mixer**

## ■ IVARSAT-HLE



- Satellite di utenza per riscaldamento misto alta/bassa temperatura e produzione di acqua calda sanitaria miscelata con pompa elettronica a velocità variabile.
- Satellite module for hybrid high-/low-temperature heating and domestic hot water preparation with variable speed electronic pump.
- Satellite d'application pour le chauffage mixte haute/basse température et production d'eau chaude sanitaire avec pompe électronique à vitesses variable.
- Satellitenmodul für gemischtes Heizen mit hoher/niedriger Temperatur und Trinkwarmwasservorbereitung mit elektronischer Pumpe mit variabler Geschwindigkeit.
- Modulo satélite usuario para calefacción mixta de alta/baja temperatura y producción de agua caliente sanitaria con bomba electrónica de velocidad variable.

ErP

Code	Heat unit	Domestic water units	Additional units	Price	Class	Packaging
506699HLE	HIGH T. + LOW T. (Qn 1,5 m³/h)	COLD (Qn 1,5 m³/h) + MIX		2.775,98 €	UE	1
506699HLE1	HIGH T. + LOW T. (Qn 1,5 m³/h)	COLD (Qn 1,5 m³/h) + MIX	HOT	2.826,88 €	UE	1
506699HLRE	HIGH T. + LOW T. (Qn 1,5 m³/h)	COLD (Qn 1,5 m³/h) + MIX	RECIRCULATION	3.330,45 €	UE	1
506699HLRE1	HIGH T. + LOW T. (Qn 1,5 m³/h)	COLD (Qn 1,5 m³/h) + MIX	HOT+RECIRCULATION	3.381,33 €	UE	1



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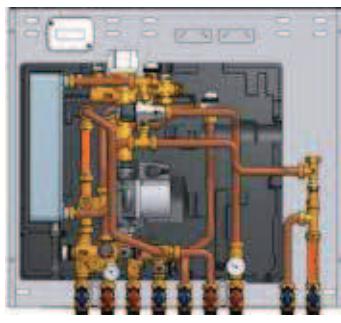


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## ■ IVARSAT-HL



- Satellite di utenza per riscaldamento misto alta/bassa temperatura e produzione di acqua calda sanitaria miscelata con pompa standard a 3 velocità.
- Satellite module for hybrid high-/low-temperature heating and domestic hot water preparation with 3-speed standard pump.
- Satellite d'application pour le chauffage mixte haute/basse température et production d'eau chaude sanitaire avec pompe standard à 3 vitesses.
- Satellitenmodul für gemischtes Heizen mit hoher/niedriger Temperatur und Trinkwarmwasservorbereitung mit Standardpumpe mit 3 Geschwindigkeiten.
- Modulo satélite usuario para calefacción mixta de alta/baja temperatura y producción de agua caliente sanitaria con bomba estándar de 3 velocidades.

ErP

Code	Heat unit	Domestic water units	Additional units	Price	Class	Packaging
506699HL	HIGH T. + LOW T. (Qn 1,5 m³/h)	COLD (Qn 1,5 m³/h) + MIX		2.536,56 €	UE	1
506699HL1	HIGH T. + LOW T. (Qn 1,5 m³/h)	COLD (Qn 1,5 m³/h) + MIX	HOT	2.587,44 €	UE	1
506699HLR	HIGH T. + LOW T. (Qn 1,5 m³/h)	COLD (Qn 1,5 m³/h) + MIX	RECIRCULATION	3.091,01 €	UE	1
506699HLR1	HIGH T. + LOW T. (Qn 1,5 m³/h)	COLD (Qn 1,5 m³/h) + MIX	HOT+RECIRCULATION	3.141,87 €	UE	1



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**For the supply of modules in separate components (template + functional blocks) please refer to the following tables.**

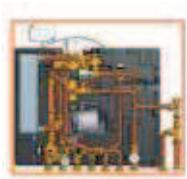
### ■ IVARSAT-HL/HLE Template



- Dima per satellite di utenza per riscaldamento misto alta/bassa temperatura e produzione di acqua calda sanitaria.
- Template for satellite module for hybrid high-/low-temperature heating and domestic hot water preparation.
- Gabarit pour satellite d'application pour le chauffage mixte haute/basse température et production d'eau chaude sanitaire.
- Schablon für Satellitenmodul für gemischtes Heizen mit hoher/niedriger Temperatur und Trinkwarmwasservorbereitung.
- Plantilla para modulo satélite usuario para calefacción mixta de alta/baja temperatura y producción de agua caliente sanitaria.

Code	Additional units	Price	Class	Packaging
506698HL		371,84 €	UE	1
506698HL1	HOT	375,68 €	UE	1
506698HLR	RECIRCULATION	375,68 €	UE	1
506698HLR1	HOT+RECIRCULATION	400,40 €	UE	1

### ■ IVARSAT-HLE Complementary module

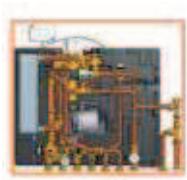


ErP

- Modulo complementare per satellite di utenza per riscaldamento misto alta/bassa temperatura e produzione di acqua calda sanitaria con pompa elettronica a velocità variabile.
- Complementary module for satellite module for hybrid high-/low-temperature heating and domestic hot water preparation with variable speed electronic pump.
- Module complémentaire pour satellite d'application pour le chauffage mixte haute/basse température et production d'eau chaude sanitaire avec pompe électronique à vitesses variable.
- Ergänzungsmodul für Satellitenmodul für gemischtes Heizen mit hoher/niedriger Temperatur und Trinkwarmwasservorbereitung mit elektronischer Pumpe mit variabler Geschwindigkeit.
- Módulo complementario para modulo satélite usuario para calefacción mixta de alta/baja temperatura y producción de agua caliente sanitaria con bomba electrónica de velocidad variable.

Code	Pump	Additional units	Price	Class	Packaging
506697HLE	WILO4F		2.326,91 €	UE	1
506697HLE1	WILO4F	HOT	2.359,88 €	UE	1
506697HLRE	WILO4F	RECIRCULATION	2.863,45 €	UE	1
506697HLRE1	WILO4F	HOT+RECIRCULATION	2.896,43 €	UE	1

### ■ IVARSAT-HL Complementary module



ErP

- Modulo complementare per satellite di utenza per riscaldamento misto alta/bassa temperatura e produzione di acqua calda sanitaria con pompa standard a 3 velocità.
- Complementary module for satellite module for hybrid high-/low-temperature heating and domestic hot water preparation with 3-speed standard pump.
- Module complémentaire pour satellite d'application pour le chauffage mixte haute/basse température et production d'eau chaude sanitaire avec pompe standard à 3 vitesses.
- Ergänzungsmodul für Satellitenmodul für gemischtes Heizen mit hoher/niedriger Temperatur und Trinkwarmwasservorbereitung mit Standardpumpe mit 3 Geschwindigkeiten.
- Módulo complementario para Modulo satélite usuario para calefacción mixta de alta/baja temperatura y producción de agua caliente sanitaria con bomba estándar de 3 velocidades.

Code	Pump	Additional units	Price	Class	Packaging
506697HL	WILO3F		2.087,48 €	UE	1
506697HL1	WILO3F	HOT	2.120,45 €	UE	1
506697HLR	WILO3F	RECIRCULATION	2.491,64 €	UE	1
506697HLR1	WILO3F	HOT+RECIRCULATION	2.524,62 €	UE	1



## ■ IVARSAT-LE



- Satellite di utenza per riscaldamento a bassa temperatura e produzione di acqua calda sanitaria miscelata con pompa elettronica a velocità variabile.
- Satellite module for low-temperature heating and domestic hot water preparation with variable speed electronic pump.
- Satellite d'application pour le chauffage à basse température et production d'eau chaude sanitaire avec pompe électronique à vitesse variable.
- Satellitenmodul für Heizen mit niedriger Temperatur und Trinkwarmwasservorbereitung mit elektronischer Pumpe mit variabler Geschwindigkeit.
- Modulo satélite para calefacción de baja temperatura y producción de agua caliente sanitaria con bomba electrónica de velocidad variable.

ErP

Code	Heat unit	Domestic water units	Additional units	Price	Class	Packaging
506699LE	LOW T. (Qn 1,5 m³/h)	COLD (Qn 1,5 m³/h) + MIX		2.620,47 €	UE	1
506699LE1	LOW T. (Qn 1,5 m³/h)	COLD (Qn 1,5 m³/h) + MIX	HOT	2.671,34 €	UE	1
506699LRE	LOW T. (Qn 1,5 m³/h)	COLD (Qn 1,5 m³/h) + MIX	RECIRCULATION	3.174,90 €	UE	1
506699LRE1	LOW T. (Qn 1,5 m³/h)	COLD (Qn 1,5 m³/h) + MIX	HOT+RECIRCULATION	3.225,80 €	UE	1



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## ■ IVARSAT-L



- Satellite di utenza per riscaldamento a bassa temperatura e produzione di acqua calda sanitaria miscelata con pompa standard a 3 velocità.
- Satellite module for low-temperature heating and domestic hot water preparation with 3-speed standard pump.
- Satellite d'application pour le chauffage à basse température et production d'eau chaude sanitaire avec pompe standard à 3 vitesses.
- Satellitenmodul für Heizen mit niedriger Temperatur und Trinkwarmwasservorbereitung mit Standardpumpe mit 3 Geschwindigkeiten.
- Modulo satélite para calefacción de baja temperatura y producción de agua caliente sanitaria con bomba estándar de 3 velocidades.

ErP

Code	Heat unit	Domestic water units	Additional units	Price	Class	Packaging
506699L	LOW T. (Qn 1,5 m³/h)	COLD (Qn 1,5 m³/h) + MIX		2.381,03 €	UE	1
506699L1	LOW T. (Qn 1,5 m³/h)	COLD (Qn 1,5 m³/h) + MIX	HOT	2.431,91 €	UE	1
506699LR	LOW T. (Qn 1,5 m³/h)	COLD (Qn 1,5 m³/h) + MIX	RECIRCULATION	2.935,48 €	UE	1
506699LR1	LOW T. (Qn 1,5 m³/h)	COLD (Qn 1,5 m³/h) + MIX	HOT+RECIRCULATION	2.986,38 €	UE	1



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**For the supply of modules in separate components (template + functional blocks) please refer to the following tables.**

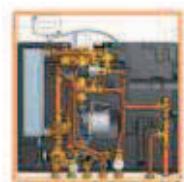
### ■ IVARSAT-L/LE Template



- Dima per satellite di utenza per riscaldamento a bassa temperatura e produzione di acqua calda sanitaria.
- Template for satellite module for low-temperature heating and domestic hot water preparation.
- Gabarit pour satellite d'application pour le chauffage à basse température et production d'eau chaude sanitaire.
- Schablone für Satellitenmodul für Heizen mit niedriger Temperatur und Trinkwarmwasservorbereitung.
- Plantilla para modulo satélite para calefacción de baja temperatura y producción de agua caliente sanitaria.

Code	Additional units	Price	Class	Packaging
506698L		324,63 €	UE	1
506698L1	HOT	338,92 €	UE	1
506698LR	RECIRCULATION	338,92 €	UE	1
506698LR1	HOT+RECIRCULATION	353,20 €	UE	1

### ■ IVARSAT-LE Complementary module

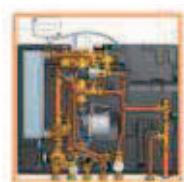


ErP

- Modulo complementare per satellite di utenza per riscaldamento a bassa temperatura e produzione di acqua calda sanitaria con pompa elettronica a velocità variabile.
- Complementary module for satellite module for low-temperature heating and domestic hot water preparation with variable speed electronic pump.
- Module complémentaire pour satellite d'application pour le chauffage à basse température et production d'eau chaude sanitaire avec pompe électronique à vitesse variable.
- Ergänzungsmodul für Satellitenmodul für Heizen mit niedriger Temperatur und Trinkwarmwasservorbereitung mit elektronischer Pumpe mit variabler Geschwindigkeit.
- Módulo complementario para modulo satélite para calefacción de baja temperatura y producción de agua caliente sanitaria con bomba electrónica de velocidad variable.

Code	Pump	Additional units	Price	Class	Packaging
506697LE	WILO4F		2.216,38 €	UE	1
506697LE1	WILO4F	HOT	2.249,36 €	UE	1
506697LRE	WILO4F	RECIRCULATION	2.752,94 €	UE	1
506697LRE1	WILO4F	HOT+RECIRCULATION	2.785,90 €	UE	1

### ■ IVARSAT-L Complementary module



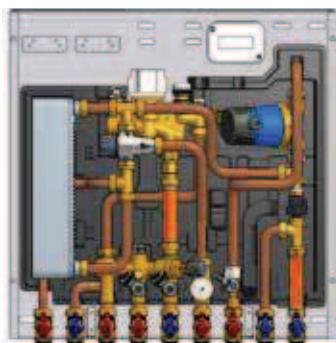
ErP

- Modulo complementare per satellite di utenza per riscaldamento a bassa temperatura e produzione di acqua calda sanitaria con pompa standard a 3 velocità.
- Complementary module for satellite module for low-temperature heating and domestic hot water preparation with 3-speed standard pump.
- Module complémentaire pour satellite d'application pour le chauffage à basse température et production d'eau chaude sanitaire avec pompe standard à 3 vitesses.
- Ergänzungsmodul für Satellitenmodul für Heizen mit niedriger Temperatur und Trinkwarmwasservorbereitung mit Standardpumpe mit 3 Geschwindigkeiten.
- Módulo complementario para modulo satélite para calefacción de baja temperatura y producción de agua caliente sanitaria con bomba estándar de 3 velocidades.

Code	Pump	Additional units	Price	Class	Packaging
506697L	WILO3F		1.976,95 €	UE	1
506697L1	WILO3F	HOT	2.009,92 €	UE	1
506697LR	WILO3F	RECIRCULATION	2.513,50 €	UE	1
506697LR1	WILO3F	HOT+RECIRCULATION	2.546,48 €	UE	1



## ■ IVARSAT-H



- Satellite di utenza per riscaldamento ad alta temperatura e produzione di acqua calda sanitaria miscelata.
- Satellite module for high-temperature heating and domestic hot water preparation.
- Satellite d'application pour le chauffage à haute température et production d'eau chaude sanitaire.
- Satellitenmodul für Heizen mit hoher Temperatur und Trinkwarmwasservorbereitung.
- Modulo satélite para calefacción a alta temperatura y producción de agua caliente sanitaria.

Code	Heat unit	Domestic water units	Additional units	Price	Class	Packaging
506699H	HIGH T. (Qn 1,5 m³/h)	COLD (Qn 1,5 m³/h) + MIX		1.850,39 €	UE	1
506699H1	HIGH T. (Qn 1,5 m³/h)	COLD (Qn 1,5 m³/h) + MIX	HOT	1.917,33 €	UE	1
506699HR	HIGH T. (Qn 1,5 m³/h)	COLD (Qn 1,5 m³/h) + MIX	RECIRCULATION	2.434,12 €	UE	1
506699HR1	HIGH T. (Qn 1,5 m³/h)	COLD (Qn 1,5 m³/h) + MIX	HOT+RECIRCULATION	2.471,77 €	UE	1



• AC 830 / AC 830 P >> p. 396



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For the supply of modules in separate components (template + functional blocks) please refer to the following tables.

## ■ IVARSAT-H Template



- Dima per satellite di utenza per riscaldamento ad alta temperatura e produzione di acqua calda sanitaria.
- Template for satellite module for high-temperature heating and domestic hot water preparation.
- Gabarit pour satellite d'application pour le chauffage à haute température et production d'eau chaude sanitaire.
- Schablone für Satellitenmodul für Heizen mit hoher Temperatur und Trinkwarmwasservorbereitung.
- Plantilla para modulo satélite para calefacción a alta temperatura y producción de agua caliente sanitaria.

Code	Additional units	Price	Class	Packaging
506698H		300,70 €	UE	2
506698H1	HOT	322,62 €	UE	1
506698HR	RECIRCULATION	308,92 €	UE	1
506698HR1	HOT+RECIRCULATION	323,20 €	UE	1

## ■ IVARSAT-H Complementary module



- Modulo complementare per satellite di utenza per riscaldamento ad alta temperatura e produzione di acqua calda sanitaria.
- Complementary module for satellite module for high-temperature heating and domestic hot water preparation.
- Module complémentaire pour satellite d'application pour le chauffage à haute température et production d'eau chaude sanitaire.
- Ergänzungsmodul für Satellitenmodul für Heizen mit hoher Temperatur und Trinkwarmwasservorbereitung.
- Módulo complementario para modulo satélite para calefacción a alta temperatura y producción de agua caliente sanitaria.

Code	Additional units	Price	Class	Packaging
506697H		1.477,22 €	UE	1
506697H1	HOT	1.526,27 €	UE	1
506697HR	RECIRCULATION	2.043,06 €	UE	1
506697HR1	HOT+RECIRCULATION	2.062,83 €	UE	1

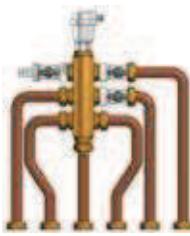
### **KIT R IVARSAT**



- Kit di ricircolo per IVAR-SAT.
- Recirculation kit for IVAR-SAT.
- Kit de recirculation pour IVAR-SAT.
- Rückführung-Bausatz für IVAR-SAT.
- Kit de recirculación para IVAR-SAT.

Code	Price	Class	Packaging
506409	586,46 €	UE	1

### **TEST KIT H/B IVARSAT**



- Kit collaudo circuito di riscaldamento e caldaia per satelliti IvarSAT, completo di valvola di sfiato automatica e portagomma per il carico/scarico dell'impianto.
- Heating and boiler circuits test kit for IvarSAT satellites, complete of automatic air vent valve and connecting nozzle for system loading/unloading.
- Kit de contrôle du circuit de chauffage et chaudière pour les satellites IvarSAT, complété d'un purgeur d'air automatique et d'un porte-caoutchouc pour le remplissage/évacuation de l'installation.
- Bausatz Endprüfung Heiz- Kesselkreislauf für Satellitenmodul IvarSAT, komplett mit automatischem Auslassventil und Gummihalter zum Laden/Entladen der Anlage.
- Conjunto de prueba del circuito de calefacción y de la caldera para los modulos satélites IvarSAT, equipado con válvula de purga automática y portagoma para la carga/descarga de la instalación.

Code	Price	Class	Packaging
520046	250,04 €	UE	1

### **TEST KIT DW IVARSAT**



- Kit collaudo circuito sanitario per satelliti IvarSAT, completo di valvola di sfiato automatica e portagomma per il carico/scarico dell'impianto.
- Domestic water circuit test kit for IvarSAT satellites, complete of automatic air vent valve and connecting nozzle for system loading/unloading.
- Kit de contrôle du circuite sanitaire pour les satellites IvarSAT, complété d'un purgeur d'air automatique et d'un porte-caoutchouc pour le remplissage/évacuation de l'installation.
- Bausatz Endprüfung Sanitärkreislauf für Satellitenmodul IvarSAT, komplett mit automatischem Auslassventil und Gummihalter zum Laden/Entladen der Anlage.
- Conjunto de prueba del circuito de agua sanitaria para los modulos satélites IvarSAT, equipado con válvula de purga automática y porta-goma para la carga/descarga de la instalación.

Code	Price	Class	Packaging
520047	290,58 €	UE	1

## ■ AC 830



- Cassetta murale ad incasso per collettori e moduli MC / IVAR-SAT / MULTIMIX / MULTIMIX-C con altezza e profondità variabili.
- Wall fitted cabinet for manifolds and MC / IVAR-SAT / MULTIMIX / MULTIMIX-C modules with variable height and depth.
- Cassette murale encastrable pour collecteurs et modules MC / IVAR-SAT / MULTIMIX / MULTIMIX-C avec hauteur et profondeur variables.
- Einbauwandkasten für Verteiler und Module MC / IVAR-SAT / MULTIMIX / MULTIMIX-C mit variabler Höhe und Tiefe.
- Caja mural de empotrar para colectores y modulos MC / IVAR-SAT / MULTIMIX / MULTIMIX-C de altura y profundidad variables.

Code	Height	Width	Depth	Module	Price	Class	Packaging
200090	860-960 mm	700 mm	110-160 mm	MC 1/11/12/13/14 - MC4 series (1") - IVAR-SAT H/L/LE - 3-way Multimix/Multimix-C	342,76 €	NZ	1
200190	860-960 mm	900 mm	110-160 mm	MC2 series - IVAR-SAT HL/HLE	452,88 €	NZ	1

## ■ AC 830 P



- Cassetta murale pensile per satelliti di utenza IvarSAT.
- Wall hanging cabinet for IvarSAT utility satellites.
- Caisse murale suspendue pour les satellites d'application IvarSAT.
- Hängewandkasten für Satellitenmodule IvarSAT.
- Caja mural colgante para los modulos satélites IvarSAT.

Code	Height	Width	Depth	Module	Price	Class	Packaging
200094	722 mm	600 mm	150 mm	IVAR-SAT H	307,79 €	UE	1
200194	785 mm	640 mm	150 mm	IVAR-SAT L/LE	355,44 €	UE	1
200294	785 mm	750 mm	150 mm	IVAR-SAT HL/HLE	363,31 €	UE	1

## ■ T 5011 U



- Testa termostatica con comando incorporato e sensore remoto ad immersione.
- Thermostatic head with incorporated control and immersion remote sensor.
- Tête thermostatique avec commande incorporée et capteur à distance à immersion.
- Thermostat-Kopf mit eingebauter Steuerung und Eintauch-Fernfühler.
- Cabeza termostática con mando incorporado y sensor remoto de inmersión.



Code	Size	Range	Length	Price	Class	Packaging
501175U	M30 x 1,5 - 1/2"	30-55 °C	1 m	54,57 €	AA	5 / 40

## ■ RV 01



- Servomotore assiale. Compatibile con tutti i vitoni termostatici IVAR.
- Axial motor. Suitable for all IVAR thermostatic inserts.
- Servomoteur axial. Adapté pour tous les inserts thermostatiques IVAR.
- Axial-Stellantrieb. Geeignet für alle Thermostat-Regulievorrichtungen IVAR.
- Servomotor axial. Adecuado para todos los tornillos termostáticos IVAR.



Code	Size	Price	Class	Packaging
501381	M30 x 1,5 - 3-point regulation (230 V AC)	141,88 €	PC	100
501383	M30 x 1,5 - Proportional 0-10 V (24 V AC/DC)	164,60 €	PC	100



- CLIMA•HUB - Regolatore elettronico per impianti di riscaldamento e raffrescamento >>p. 351
- CLIMA•HUB - Electronic controller for heating and cooling systems >>p. 351
- CLIMA•HUB - Régulateur électronique pour systèmes de chauffage et de refroidissement >>p. 351
- CLIMA•HUB - Elektronischer Regler für Heiz- und Kühlsysteme >>p. 351
- CLIMA•HUB - Regulador electrónico para sistemas de calefacción y refrigeración >>p. 351

### ■ TE 3040



- Testa elettrotermica normalmente chiusa (2 fili). Compatibile con tutti i vitoni termostatici IVAR e i collettori con interasse ≥ 50 mm (no EASY-RADIANT).
- Electrothermal head normally closed (2 wires). Suitable for all IVAR thermostatic inserts and manifolds with centre-to-centre distance ≥ 50 mm (no EASY-RADIANT).
- Tête électrothermique normalement fermée (2 fils). Adaptée pour tous les inserts thermostatiques IVAR et aux collecteurs avec entraxe ≥ 50 mm (non EASY-RADIANT).
- Elektrothermischer Stellantriebe stromlos-zu (2 Kabel). Geeignet für alle Thermostat-Regulievorrichtungen IVAR und für Verteiler mit Achsabstand ≥ 50 mm (keine EASY-RADIANT).
- Cabeza electrotérmica normalmente cerrada (de 2 hilos). Adecuada para todos los tornillos termostatizables IVAR y los colectores con distancia entre centros ≥ 50 mm (no EASY-RADIANT).

Code	Size	Price	Class	Packaging
501508	M30 x 1,5 ; ON / OFF (230 V AC)	36,60 €	AC	100
501524	M30 x 1,5 ; ON / OFF (24 V AC/DC)	36,60 €	AC	100

### ■ TE 3050 M



- Testa elettrotermica normalmente chiusa con contatto di fine corsa (4 fili). Compatibile con tutti i vitoni termostatici IVAR e i collettori con interasse ≥ 50 mm (no EASY-RADIANT).
- Electrothermal head normally closed with limit switch contact (4 wires). Suitable for all IVAR thermostatic inserts and manifolds with centre-to-centre distance ≥ 50 mm (no EASY-RADIANT).
- Tête électrothermique normalement fermée avec contact de fin de course (4 fils). Adaptée pour tous les inserts thermostatiques IVAR et aux collecteurs avec entraxe ≥ 50 mm (non EASY-RADIANT).
- Elektrothermischer Stellantriebe stromlos-zu mit Endschalterkontakt (4 Kabel). Geeignet für alle Thermostat-Regulievorrichtungen IVAR und für Verteiler mit Achsabstand ≥ 50 mm (keine EASY-RADIANT).
- Cabeza electrotérmica normalmente cerrada con contacto de fin de carrera (de 4 hilos). Adecuada para todos los tornillos termostatizables IVAR y los colectores con distancia entre centros ≥ 50 mm (no EASY-RADIANT).

Code	Size	Price	Class	Packaging
500808M	M30 x 1,5 ; ON / OFF (230 V AC)	43,43 €	AC	100
500028M	M30 x 1,5 ; ON / OFF (24 V AC/DC)	43,43 €	AC	100

### ■ CBL 02



- Scheda multifunzione per moduli satellite IvarSAT.
- Multifunctional board for IvarSAT satellite modules.
- Fiche multifonctions pour les modules satellite IvarSAT.
- Multifunktionskarte für Satellitenmodule IvarSAT.
- Tarjeta multifunción para módulos satélite IvarSAT.

Code	Size	Price	Class	Packaging
520119	230 V AC	86,08 €	VA	4 / 32

# E-SAT - M-SAT

The E-SAT and M-SAT modules are highly streamlined and simply built user heating interface units able to ensure the production of domestic hot water, upon request, while providing heating to individual residential units. The two systems have no domestic hot water or heat-metering devices, which can be installed together with the module by the installer as required. Their main feature is compactness and despite their small size E-SAT and M-SAT units are able to provide all the domestic hot water (DHW) for an individual residential user component. E-SAT and M-SAT differ in their domestic hot water priority devices: E-SAT is equipped with a flow switch and motorised priority valve, while the M-SAT is a purely mechanical system with an ultra-fast thermostatic priority sensor.

## M-SAT

Heating power (\*): approx. 12 kW

Domestic hot water output (\*\*): approx. 29 kW - production of approx. 11 l/min of domestic hot water at 48°C with mains input at 10°C

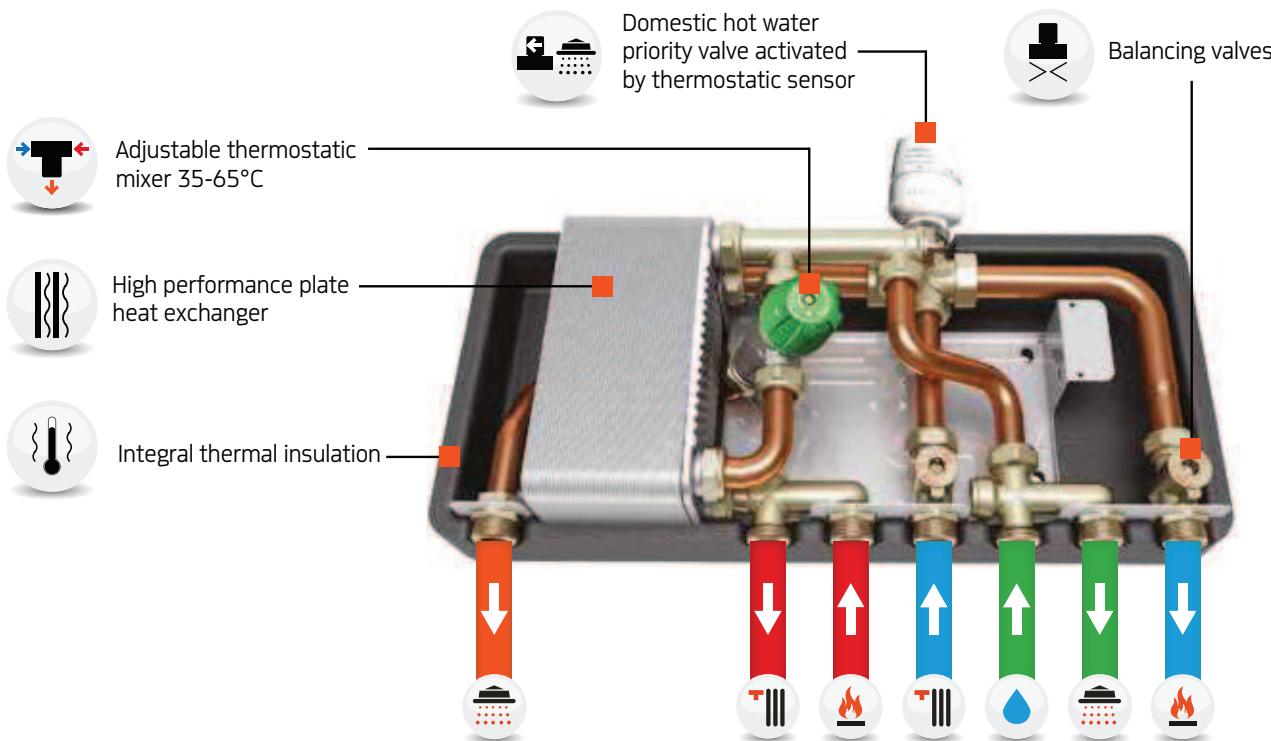
(\*) temperature difference = 10°C and pressure differential at the ends of the module = 200 mbar

(\*\*) pressure differential at module ends = 200 mbar and boiler temperature = 60°C

## M-SAT

- Satellite di utenza per riscaldamento ad alta temperatura e produzione di acqua calda sanitaria (con valvola di precedenza sanitario con sensore termostatico).
- Satellite module for high-temperature heating and domestic hot water preparation (thermostatic priority valve)
- Satellite d'application pour le chauffage à haute température et production d'eau chaude sanitaire (valve de priorité, à contrôle thermostatique)
- Satellitenmodul für Heizen mit hoher Temperatur und Trinkwarmwasservorbereitung (Thermostat-Prioritätsventil)
- Modulo satélite para calefacción a alta temperatura y producción de agua caliente sanitaria (válvula de prioridad con control termostático)

Code	Size	Price	Class	Packaging
506369	3/4" M	841,92 €	UE	1



### E-SAT

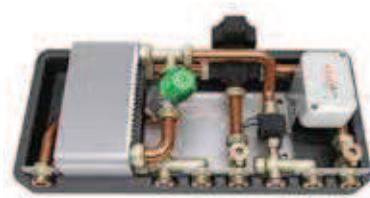
Heating power (\*): approx. 16 kW

Domestic hot water output (\*\*): approx. 33 kW - production of approx. 12 l/min of domestic hot water at 48°C with mains input at 10°C

(\*) temperature difference = 10°C and pressure differential at the ends of the module = 200 mbar

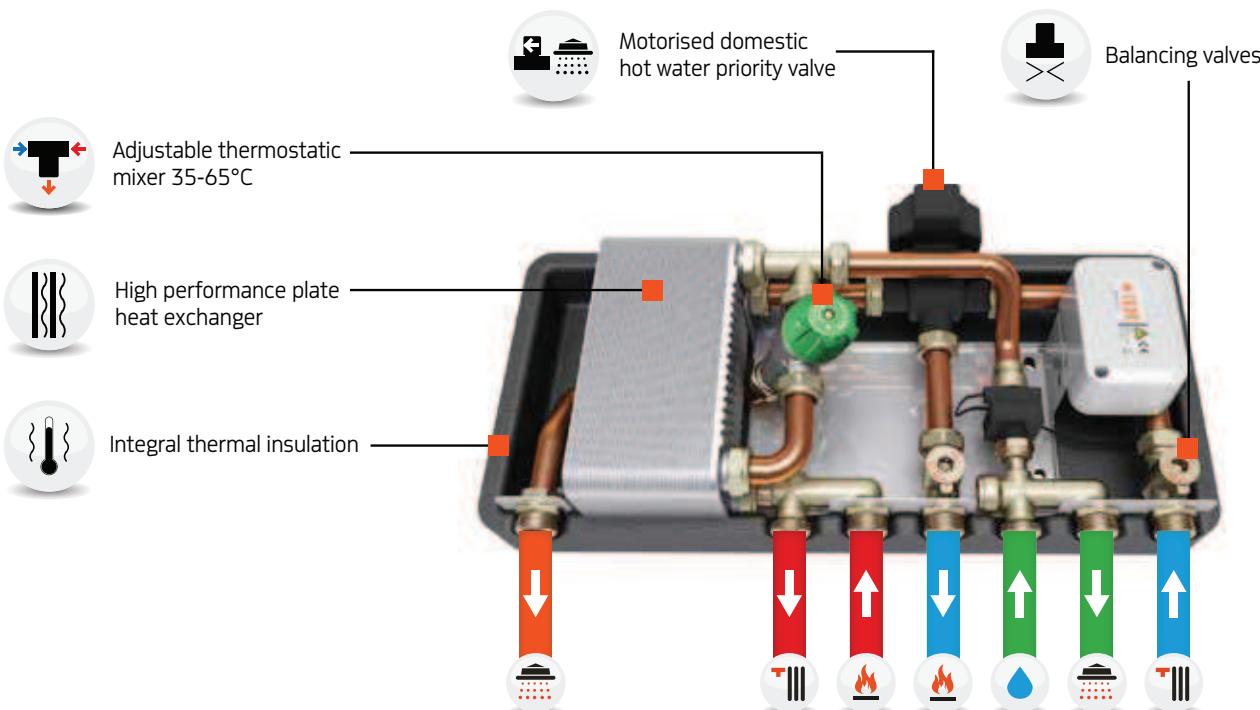
(\*\*) pressure differential at module ends = 200 mbar and boiler temperature = 60°C

### E-SAT



- Satellite di utenza per riscaldamento ad alta temperatura e produzione di acqua calda sanitaria (con valvola di precedenza sanitario motorizzata).
- Satellite module for high-temperature heating and domestic hot water preparation (motorized priority valve)
- Satellite d'application pour le chauffage à haute température et production d'eau chaude sanitaire (vanne de priorité motorisé)
- Satellitenmodul für Heizen mit hoher Temperatur und Trinkwarmwasservorbereitung (motorisierte Prioritätsventil)
- Modulo satélite para calefacción a alta temperatura y producción de agua caliente sanitaria (válvula de prioridad motorizada)

Code	Size	Price	Class	Packaging
506703	3/4" M	841,92 €	UE	1

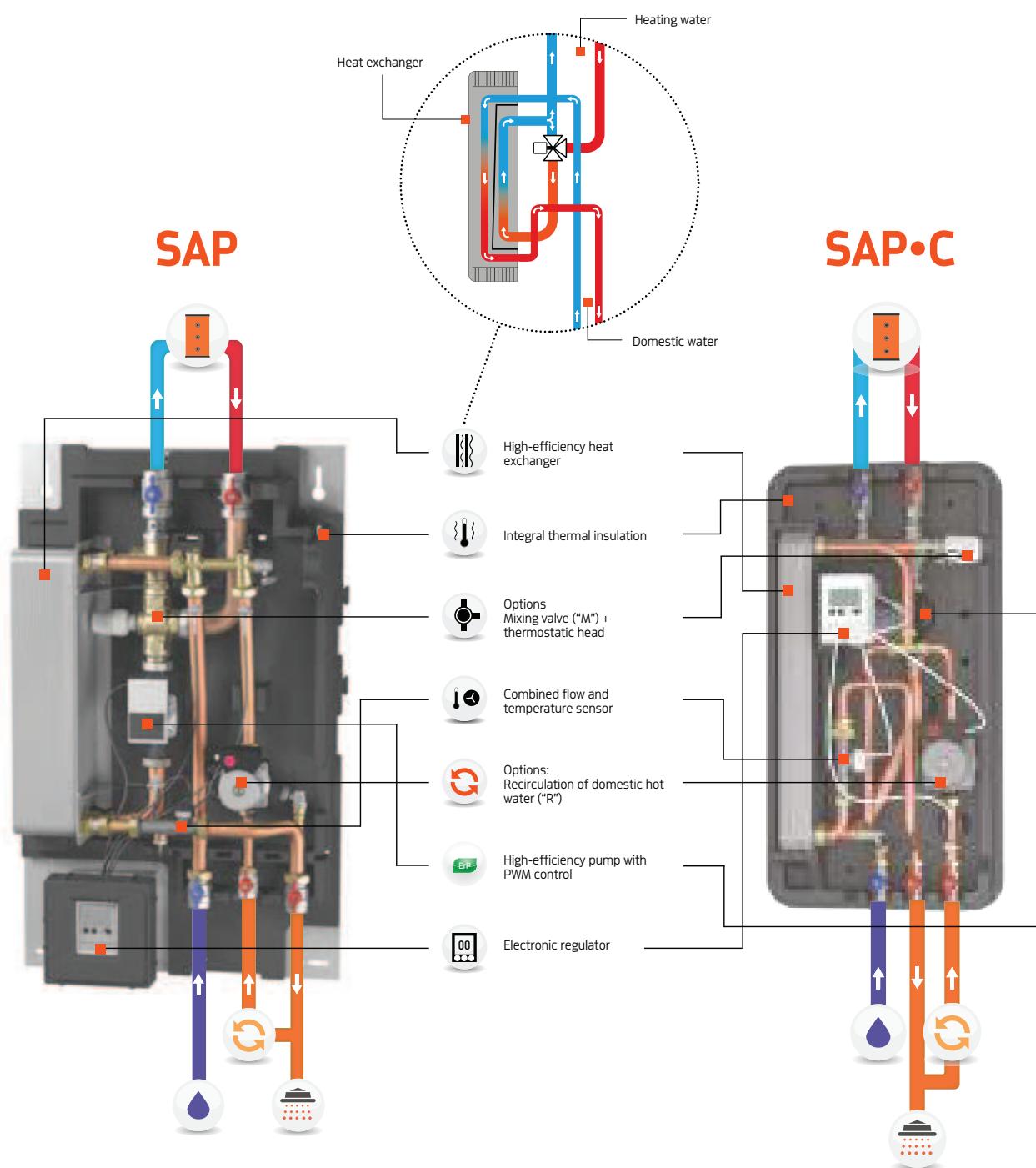


# SAP - SAP•C

The instantaneous heating of domestic hot water (DHW) is a refined alternative to heating in a storage tank that minimises the risk of proliferation of bacteria such as legionella and allows simple and total management of the water heater function. SAP and SAP-C are DHW instantaneous heating modules suitable for multi-family and apartment building utilities. SAP / SAP-C are connected to an inertial storage tank containing primary water heated by one or more generators. This water is sent to a high efficiency heat exchanger, which instantly transfers the heat to the domestic hot water on the secondary. The primary circulator is modulated by an electronic control unit according to the temperature read by the flow/temperature sensor, installed on the DHW outlet, compared to the set point set by the user. SAP and SAP-C are available in different sizes, in variants with or without a recirculation circuit, also with mixing valves and thermostatic heads on the primary side to limit the exchanger inlet temperature.

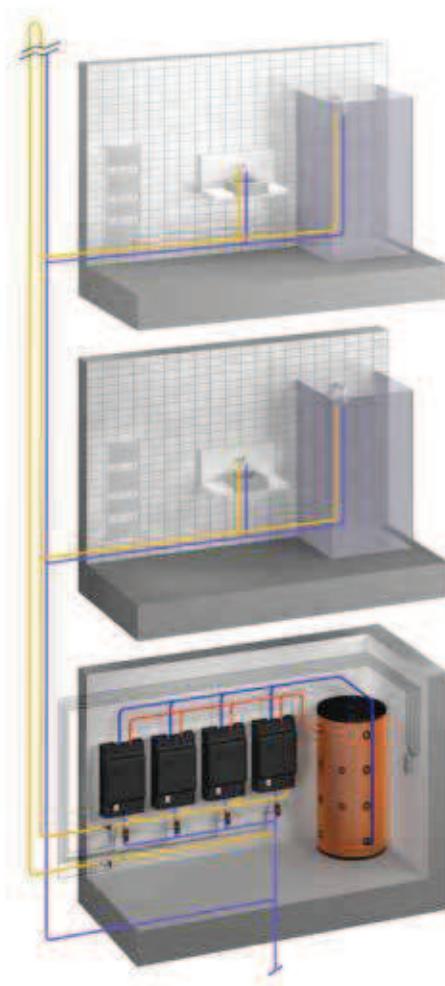
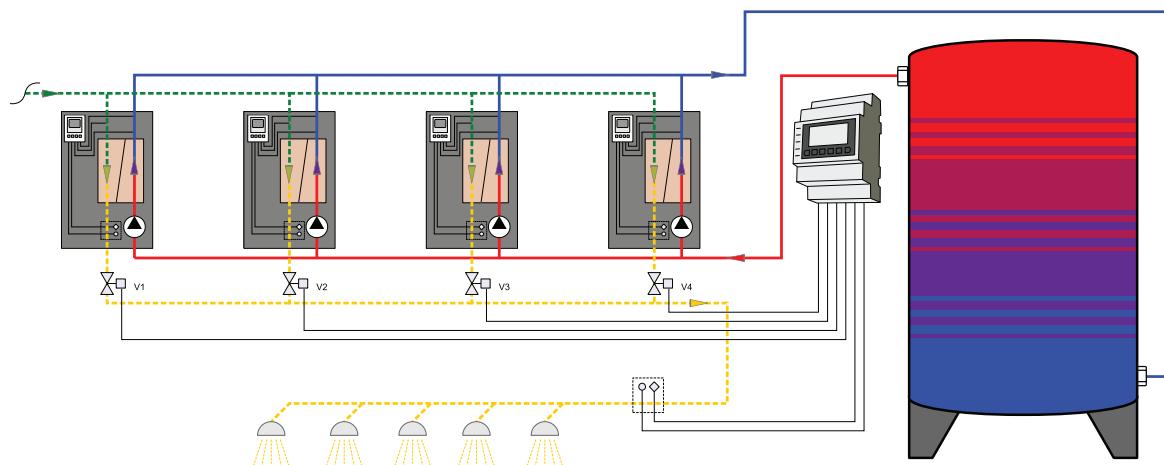
The product code refers to the maximum flow rate of domestic hot water in litres per minute that can be heated from 10°C to 45°C at a boiler temperature of 60°C.

**Attention.** The application of the KIT MIX SAP C to a SAP-C module without mixing valve will convert it into a module with a smaller mixer. For example, applying the SAP C MIX KIT to a SAP-C-30E converts it into a SAP-C-25ME.



## Can be connected in series

For systems with very high or highly variable requirements, it is possible to connect several units in parallel and operate them in series. The master management system (control unit, VFS meter and domestic hot water solenoid valves) leaves each heater the task of adjusting its operating parameters and carries out the rotation of the starts, so that the first element of the cascade is not excessively stressed.



**SAP**

- **Produttore istantaneo di acqua calda sanitaria.**
- *Fresh water station.*
- **Producteur instantané d'eau chaude sanitaire.**
- *Frischwasserstation.*
- **Productor instantáneo de agua caliente sanitaria.**

1.020 x 640 x 275 mm

Code	Domestic water units	Pump type	ErP	Included components	Price	Class	Packaging
SAP-30M	HOT 30 l/min	3-speed	-	Mixing valve	3.268,47 €	Z8	1
SAP-30MR	HOT 30 l/min	3-speed	-	Mixing valve - Recirculation	3.585,64 €	Z8	1
SAP-35	HOT 35 l/min	3-speed	-		3.024,33 €	Z8	1
SAP-35R	HOT 35 l/min	3-speed	-	Recirculation	3.341,50 €	Z8	1
SAP-40M	HOT 40 l/min	3-speed	-	Mixing valve	3.375,89 €	Z8	1
SAP-40MR	HOT 40 l/min	3-speed	-	Mixing valve - Recirculation	3.693,04 €	Z8	1
SAP-45	HOT 45 l/min	3-speed	-		3.051,31 €	Z8	1
SAP-45R	HOT 45 l/min	3-speed	-	Recirculation	3.368,47 €	Z8	1
SAP-50M	HOT 50 l/min	3-speed	-	Mixing valve	3.596,01 €	Z8	1
SAP-50MR	HOT 50 l/min	3-speed	-	Mixing valve - Recirculation	3.913,17 €	Z8	1
SAP-60	HOT 60 l/min	3-speed	-		3.367,07 €	Z8	1
SAP-60R	HOT 60 l/min	3-speed	-	Recirculation	3.684,24 €	Z8	1
SAP-70M	HOT 70 l/min	3-speed	-	Mixing valve	3.832,07 €	Z8	1
SAP-70MR	HOT 70 l/min	3-speed	-	Mixing valve - Recirculation	4.175,20 €	Z8	1
SAP-80	HOT 80 l/min	3-speed	-		3.603,13 €	Z8	1
SAP-80R	HOT 80 l/min	3-speed	-	Recirculation	3.946,27 €	Z8	1
SAP-90M	HOT 90 l/min	3-speed	-	Mixing valve	4.241,67 €	Z8	1
SAP-90MR	HOT 90 l/min	3-speed	-	Mixing valve - Recirculation	4.584,81 €	Z8	1
SAP-100	HOT 100 l/min	3-speed	-		4.012,73 €	Z8	1
SAP-100R	HOT 100 l/min	3-speed	-	Recirculation	4.355,87 €	Z8	1
SAP-30ME	HOT 30 l/min	Variable speed (PWM)	✓	Mixing valve	3.388,43 €	Z8	1
SAP-30MRE	HOT 30 l/min	Variable speed (PWM)	✓	Mixing valve - Recirculation	3.705,60 €	Z8	1
SAP-35E	HOT 35 l/min	Variable speed (PWM)	✓		3.144,29 €	Z8	1
SAP-35RE	HOT 35 l/min	Variable speed (PWM)	✓	Recirculation	3.461,46 €	Z8	1
SAP-40ME	HOT 40 l/min	Variable speed (PWM)	✓	Mixing valve	3.495,86 €	Z8	1
SAP-40MRE	HOT 40 l/min	Variable speed (PWM)	✓	Mixing valve - Recirculation	3.813,00 €	Z8	1
SAP-45E	HOT 45 l/min	Variable speed (PWM)	✓		3.171,28 €	Z8	1
SAP-45RE	HOT 45 l/min	Variable speed (PWM)	✓	Recirculation	3.488,45 €	Z8	1
SAP-50ME	HOT 50 l/min	Variable speed (PWM)	✓	Mixing valve	3.715,97 €	Z8	1
SAP-50MRE	HOT 50 l/min	Variable speed (PWM)	✓	Mixing valve - Recirculation	4.033,14 €	Z8	1
SAP-60E	HOT 60 l/min	Variable speed (PWM)	✓		3.487,03 €	Z8	1
SAP-60RE	HOT 60 l/min	Variable speed (PWM)	✓	Recirculation	3.804,20 €	Z8	1
SAP-70ME	HOT 70 l/min	Variable speed (PWM)	✓	Mixing valve	4.359,49 €	Z8	1
SAP-70MRE	HOT 70 l/min	Variable speed (PWM)	✓	Mixing valve - Recirculation	4.702,62 €	Z8	1
SAP-80E	HOT 80 l/min	Variable speed (PWM)	✓		4.130,57 €	Z8	1
SAP-80RE	HOT 80 l/min	Variable speed (PWM)	✓	Recirculation	4.473,70 €	Z8	1
SAP-90ME	HOT 90 l/min	Variable speed (PWM)	✓	Mixing valve	4.880,46 €	Z8	1
SAP-90MRE	HOT 90 l/min	Variable speed (PWM)	✓	Mixing valve - Recirculation	5.223,58 €	Z8	1
SAP-100E	HOT 100 l/min	Variable speed (PWM)	✓		4.652,56 €	Z8	1
SAP-100RE	HOT 100 l/min	Variable speed (PWM)	✓	Recirculation	4.995,70 €	Z8	1

### SAP-C



ErP

770 x 410 x 220 mm

Code	Domestic water units	Pump type	Included components	Price	Class	Packaging
SAP-C-25ME	HOT 25 l/min	Variable speed (PWM)	Mixing valve	2.664,22 €	Z8	1
SAP-C-25MRE	HOT 25 l/min	Variable speed (PWM)	Mixing valve - Recirculation	2.981,40 €	Z8	1
SAP-C-30E	HOT 30 l/min	Variable speed (PWM)		2.575,63 €	Z8	1
SAP-C-30RE	HOT 30 l/min	Variable speed (PWM)	Recirculation	2.892,78 €	Z8	1
SAP-C-35ME	HOT 35 l/min	Variable speed (PWM)	Mixing valve	2.771,65 €	Z8	1
SAP-C-35MRE	HOT 35 l/min	Variable speed (PWM)	Mixing valve - Recirculation	3.088,82 €	Z8	1
SAP-C-40E	HOT 40 l/min	Variable speed (PWM)		2.683,04 €	Z8	1
SAP-C-40RE	HOT 40 l/min	Variable speed (PWM)	Recirculation	3.000,20 €	Z8	1

### KIT R SAP



- Kit di ricircolo per SAP.
- Recirculation kit for SAP.
- Kit de recirculation pour SAP.
- Rückführung-Bausatz für SAP.
- Kit de recirculación para SAP.

Code	Module	Included components	Price	Class	Packaging
502305	SAP-##MR(E) / SAP-##R(E) ≤ 60 l/min	2-speed pump for sanitary applications	317,17 €	Z8	1
502304	SAP-##MR(E) / SAP-##R(E) > 60 l/min	2-speed pump for sanitary applications	343,14 €	Z8	1

### KIT R SAP-C



- Kit di ricircolo per SAP-C.
- Recirculation kit for SAP-C.
- Kit de recirculation pour SAP-C.
- Rückführung-Bausatz für SAP-C.
- Kit de recirculación para SAP-C.

Code	Module	Included components	Price	Class	Packaging
501626	SAP-C-##MRE / SAP-C-##RE	2-speed pump for sanitary applications	309,36 €	Z8	5

### KIT MIX SAP-C



- Valvola miscelatrice termostatica per produttore istantaneo di acqua calda sanitaria compatto.
- Thermostatic mixing valve for compact fresh water station.
- Vanne mélangeuse thermostatique pour producteur instantané d'eau chaude sanitaire compact.
- Thermostat-Mischventil für Kompakt-Frischwasserstation.
- Válvula mezcladora termostática para productor instantáneo de agua caliente sanitaria compacto.

Code	Size	Range	Length	Price	Class	Packaging
501625	1" - M30 x 1,5	20-60 °C	2 m	128,12 €	Z8	8 / 64

### VS SAP 01



- Valvola a sfera a 2 vie ad apertura rapida per applicazioni sanitarie.
- Quick-opening 2-way ball valve suitable to domestic water applications.
- Vanne à bille à 2 voies avec ouverture rapide pour des applications sanitaires.
- 2-Wege Kugelventil mit Schnellöffnung für Sanitäranwendungen.
- Válvula de bola de 2 vías de apertura rápida para aplicaciones sanitarias.

Code	Ways	Size	Price	Class	Packaging
IKR415D	2	G 1" (DN 15) - KV <sub>s</sub> 12	496,62 €	Z8	1

### IFWC3



- Regolatore elettronico di ricambio per SAP con pompa standard a 3 velocità.
- Spare controller for SAP modules with 3-speed standard pump.
- Unité de contrôle de recharge pour modules SAP avec pompe standard à 3 vitesses.
- Ersatzregler für SAP-Module mit Standardpumpe mit 3 Geschwindigkeiten.
- Regulador de reposición para módulos SAP con bomba estándar de 3 velocidades.

Code	Module	Price	Class	Packaging
43000	SAP-xx	430,79 €	Z6	1

### IKK01



- Centralina elettronica per la gestione di produttori istantanei di acqua calda sanitaria in cascata.
- Electronic control unit for the management of fresh water stations in cascade control.
- Unité de contrôle électronique pour gérer des producteurs instantanés d'eau chaude sanitaire en cascade.
- Elektronische Steuereinheit für die Steuerung der Frischwasserstationen in Kaskade.
- Unidad de control electrónico para la gestión de los productores instantáneos de agua caliente sanitaria en cascada.

Code	Size	Price	Class	Packaging
IKK01	Max 4 modules	1.022,34 €	Z8	1

### VFS



- Tronchetto di misura per la gestione di produttori istantanei di acqua calda sanitaria in cascata.
- Measuring block for the management of fresh water stations in cascade control.
- Élément de mesure pour gérer des producteurs instantanés d'eau chaude sanitaire en cascade.
- Meßstutzen für die Steuerung der Frischwasserstationen in Kaskade.
- Elemento de medición para la gestión de los productores instantáneos de agua caliente sanitaria en cascada.

Code	Size	Range	Price	Class	Packaging
78040	3/4" M x 1" F	2-40 l/min	358,59 €	Z6	1
78100	1" M x 1" F	5-100 l/min	306,18 €	Z6	1
78400	1"1/2 M x 1"1/2 F	20-400 l/min	649,95 €	Z8	1

### VS SAP 02



- Motore per valvola a sfera a 2 vie ad apertura rapida per applicazioni sanitarie.
- Motor for quick-opening 2-way ball valve suitable to domestic water applications.
- Moteur pour vanne à bille à 2 voies avec ouverture rapide pour des applications sanitaires.
- Stellantrieb für 2-Wege Kugelventil mit Schnellöffnung für Sanitäranwendungen.
- Motor para válvula de bola de 2 vías de apertura rápida para aplicaciones sanitarias.

Code	Size	Price	Class	Packaging
IKLRQ24A	24 V AC	788,91 €	Z8	1

### PT 1000



- Sonda di temperatura con cavo in silicone.
- Temperature probe with silicone cable.
- Sonde de température avec câble en silicone.
- Temperatursonde mit Kabel aus Silikon.
- Sonda de temperatura con cable de silicona.

Code	Type	Max operating temp.	Price	Class	Packaging
81215	Contact	180 °C	29,62 €	Z8	1

### IKK02



- Centralina elettronica per la gestione di produttori istantanei di acqua calda sanitaria in cascata, circuito di ricircolo e funzione antilegionella.
- Electronic control unit for the management of fresh water stations in cascade control, sanitary recirculation circuit and Antilegionella function.
- Unité de contrôle électronique pour gérer des producteurs instantanés d'eau chaude sanitaire en cascade, circuit de recirculation sanitaire et fonction anti-Légionelle.
- Elektronische Steuereinheit für die Steuerung der Frischwasserstationen in Kaskade, Brauchwasserrückführungskreislauf und Antilegionellen-Funktion.
- Unidad de control electrónico para la gestión de los productores instantáneos de agua caliente sanitaria en cascada, circuito de recirculación de agua doméstica y función antilegionella.

Code	Size	Price	Class	Packaging
IKK02	Max 4 modules	1.054,69 €	Z8	1

# SANITARY SYSTEMS



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