High efficiency modular plug and play circulation groups for the creation of complete thermal power plants





HOT COLD



**TEMPERATURE** 





DIMENSIONS







INSULATION INSTALLATION

#### Technical and construction characteristics

The A2B Accorroni Plug and Play inverter circulation groups have been designed to offer customers a professional service. Thanks to this pre-assembled modular system it is possible to connect all the patented HUB RADIATOR systems to the system terminals in a fast, effective and elegant way.

The range is divided into two configurations:

- Direct modules for high temperature terminals;
- Hot/cold electronic mixed modules for low-voltage terminals temperature.

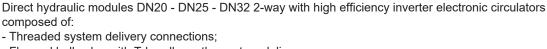
All modules are supplied with the following standard accessories:

- Analogue system flow and return thermometer;
- Inverter electronic circulator;
- Ball cocks on system delivery and return;
- Non-return valve;
- Protection and insulation shell.

#### Direct hydraulic modules



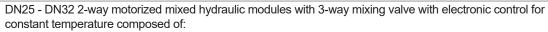




- Flanged ball valve with T-handle on the system delivery;
- Pre-wired high efficiency inverter electronic circulator;
- Flanged ball valve with thermometer holder handle on the system delivery;
- Flanged ball valve on the system return with 20 mbar non-return valve integrated into the ball, equipped with thermometer handle. The non-return valve can be excluded by turning the 45° handle;
- Threaded system return connection.

Model	Code	€
Hydraulic module DN20	35642001	484,00
Hydraulic module DN25	35642501	624,00
Hydraulic module DN32	35643204	911,00
Hydraulic module DN20 with high prevalence	35642004	598,00
Hydraulic module DN25 with high prevalence	35642505	736,00
Hydraulic module DN32 with high prevalence	35643201	1.196,00

### Motorized mixed hydraulic modules





- Threaded system delivery connections;
- Adjustable thermostatic 3-way mixing valve;
- Pre-wired high efficiency inverter electronic circulator;
- Flanged system delivery ball valve with thermometer handle;
- Temperature probe;
- Bimetallic thermostat 20-90 °C, unipolar with interrupting or switching contact;
- Flanged system return ball valve with 20 mbar non-return valve integrated into the ball, equipped with thermometer handle. The non-return valve can be excluded by turning the 45° handle;
- T-piece for mixing valve;
- Threaded system return connections.

Model	Code	€
Motorized mixed hydraulic module DN25	35642503	1.150,00
Motorized mixed hydraulic module DN32	35643203	1.510,00
Motorized mixed hydraulic module DN25 with high prevalence	35642507	1.264,00
Motorized mixed hydraulic module DN32 with high prevalence	35643206	1.794,00



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#### COLLECTORS for hydraulic modules



Distribution manifolds for heating systems in electro-welded and galvanized tubular, equipped with thermal insulation and protection box in galvanized sheet metal

Model	Code	€
Collector for 2 DN20 hydraulic modules with safety group connections	35652001	542,00
Collector for 3 DN20 hydraulic modules with safety group connections	35652002	604,00
Collector for 2 standard DN20 hydraulic modules	35652004	350,00
Collector for 3 standard DN20 hydraulic modules	35652005	400,00
Collector for 2 DN25 hydraulic modules with safety group connections	35652506	428,00
Collector for 3 DN25 hydraulic modules with safety group connections	35652597	486,00
Collector for 2 standard DN25 hydraulic modules	35652501	390,00
Collector for 3 standard DN25 hydraulic modules	35652502	446,00
Collector for 2 standard DN25 hydraulic modules	35653201	718,00
Collector for 3 standard DN25 hydraulic modules	35653202	912,00
Collector for 4 hydraulic modules DN25 standard - HV70 / 125-4	35652503	650,00
Collector for 5 hydraulic modules DN25 standard - HV70 / 125-5	35652504	804,00
Collector for 6 hydraulic modules DN25 standard - HV70 / 125-6	35652505	922,00
Collector for 4 hydraulic modules DN32 standard - HV80 / 125-4-M8	35653203	1.100,00
Collector for 5 hydraulic modules DN32 standard - HV80 / 125-5-M8	35653204	1.290,00
Collector for 6 hydraulic modules DN32 standard - HV80 / 125-6-M8	35653205	1.482,00

#### Adapter fitting set



Model	Code	€
Connection set for DN32 groups on DN25 manifolds	35653215	36,00
Connection set for DN25 groups on DN32 manifolds	35653216	30,00

#### Wall fixing bracket for manifold



Wall fixing brackets for DN20 and DN25 manifolds.

Pair of brackets to support the hydraulic manifold with 110 x 110 mm insulating box. The distance between the wall and the center of the collector can be 100 or 150 mm.



Wall fixing brackets for DN32 manifolds.

Pair of brackets to support the hydraulic manifold with insulating box  $152 \times 152 \text{ mm}$ . The distance between the wall and the center of the collector is 160 mm.

Model	Code	€
Brackets for DN 20 and DN 25 manifolds	35652006	62,00
Brackets for DN 32 manifold	35653206	142,00

#### Wall fixing bracket for single hydraulic module



Wall fixing brackets and support plate to support the single hydraulic module

Model	Code	€
Bracket for single module DN 20	35653211	52,00
Bracket for single module DN 25	35653212	76,00
Bracket for single module DN 32	35653213	108,00

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#### Hydraulic separators



Isolated hydraulic separator allows the primary circuit to be hydraulically separated from the secondary circuit and allows greater volumetric circulation on the manifold compared to what circulates in the generator. HYDRAULIC SEPARATOR DN 25:

- For flow rates up to 3 m3/h;
- Connection to the manifold: 1" 1/4 male center distance 125 mm
- Connection to the generator: 1" 1/4 female center distance 250 mm
- Insulating box section: 110 x 110 mm HYDRAULIC SEPARATOR DN 32:
- For flow rates up to 7.25 m3/h;
- Connection to the manifold: 2"
- Connection to the generator: 2"
- Insulating box section: 152 x 152 mm
- Safety group upper connection: 1" 1/4

Model	Code	€
Hydraulic separator DN 25	35652510	380,00
Hydraulic separator installation kit DN 25	35653218	420,00
Hydraulic separator DN 32	35653207	594,00
Hydraulic separator installation kit DN 32	35653209	412,00

#### Brackets for hydraulic separators



Pair of brackets to support the hydraulic separator

Model	Code	€
Brackets for hydraulic separator DN 25	35652511	76,00
Brackets for hydraulic separator DN 32	35653208	92,00

#### Safety group for collector





Safety groups for closed circuit heating systems as per EN 12828 standard consisting of: - Pressure gauge

- 3/8" automatic vent valve. Nominal pressure 12 bar
- Safety valve

DN 20

DN 25/32

Model	Code	€
Safety group for collector DN 20*	35652003	100,00
1/2" adapter with cap DN20*	35653214	16,00
Safety group for collector DN 25	35652508	96,00

<sup>\*</sup> To connect the DN20 safety group to the "DN20 Standard" manifolds it is necessary to choose the 1/2" adapter with cap

#### Safety group for hydraulic separator



Safety groups for closed circuit heating systems as per EN 12828 standard consisting of:

- Pressure gauge
- 3/8" automatic vent valve. Nominal pressure 12 bar
- Safety valve

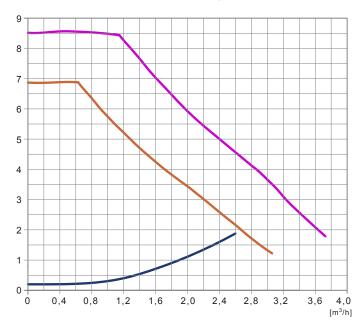
Model	Code	€
Safety group for separator DN 32	35653210	256,00



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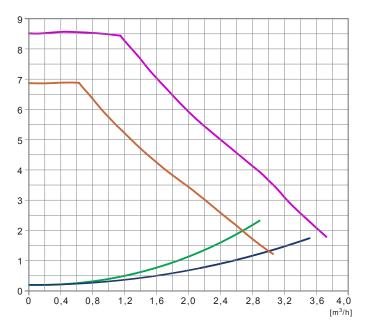
#### Technical characteristics of circulation groups

#### Characteristic curves of the DN20 hydraulic module and the circulators [mH,O]



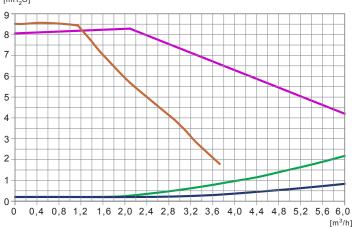
Wheelbase	90 mm
Connections	Towards the user 3/4" F
	To generator and collector 3/4" M
Dimensions	180 mm x 302 mm x 142 mm
Temperature max	110 °C
	Wilo Para 15/8 SC
	Wilo Para 15/6 SC
	Direct DN20 hydraulic module

#### Characteristic curves of the DN25 hydraulic module and the circulators $[mH_3O]$



Wheelbase	125 mm
Connections	Towards the user 1" F
	To generator and collector 1" M
Dimensions	250 mm x 380 mm x 170 mm
Temperature max	110 °C
	Wilo Para 25/8 SC
	Wilo Para 25/6 SC
	Direct DN25 hydraulic module
	Motorized mixed hydraulic module DN25

### Characteristic curves of the DN32 hydraulic module and the circulators

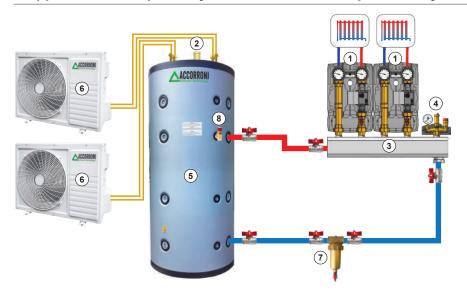


Wheelbase	125 mm
Connections	Towards the user 1"1/4 F
	To generator and collector 1"1/4 M
Dimensions	250 mm x 400 mm x 170 mm
Temperature max	110 °C
	Wilo Para 30/1-8 SC
	Wilo Para 30/8 SC
	Direct DN32 hydraulic module
	Motorized mixed hydraulic module DN32



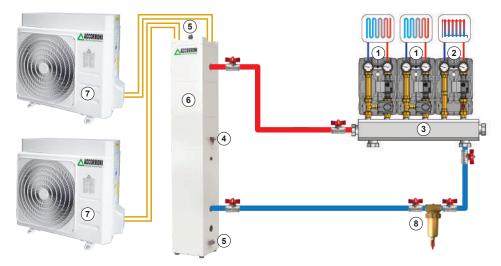
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#### Application example of hydraulic modules with patented system SUPER HUB RADIATOR



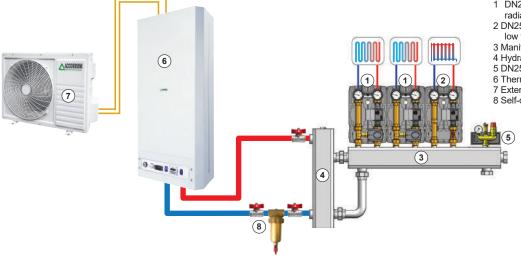
- DN25 2-way direct hydraulic module for radiators at low temperature
- 2 Jolly valve for air venting of technical water accumulation
- 3 Manifold for hydraulic modules DN25
- 4 DN25 safety group for module manifold
- 5 500 liter RM1 technical water storage tank
- 6 External moto-evaporator Booster HR 7.0
- 7 Self-cleaning magnetic dirt separator
- 8 3 bar technical water storage safety valve

#### Application example of hydraulic modules with patented system HUB RADIATOR POWER UNIT



- Motorized mixed hydraulic module DN32 a 2 ways for radiant floors
- 2 DN32 2-way direct hydraulic module for radiators a low temperature
- 3 Manifold for hydraulic modules DN32
- 4 Puffer safety valve
- 5 Puffer emptying tap
- 6 HUB RADIATOR POWER UNIT
- 7 External moto-evaporator Booster HR 9.0 INVERTER
- 8 Self-cleaning magnetic dirt separator

### Application example of hydraulic modules with patented system HUB RADIATOR MINI



- 1 DN25 2-way motorized mixing module for radiant floor
- 2 DN25 2-way direct hydraulic module for radiators a low temperature
- 3 Manifold for hydraulic modules DN25
- 4 Hydraulic separator
- 5 DN25 safety group for manifold
- 6 Thermodynamic boiler HUB RADIATOR MINI
- 7 External moto-evaporating Booster HR 7.0
- 8 Self-cleaning magnetic dirt separator