

PROJECT



C 330-... Eco

from 56 to 651 kW



Gas condensing generator compact and modular



- Gas supply pressure: 20 mbar or 300 mbar with pressure regulator (optional)
- Annual operating efficiency > 109%
- Low pollutant emissions: NOx < 60 mg/kWh, CO < 20 mg/kWh
- Exchanger in cast aluminium/silicium components with self-cleaning properties and with inspection trap
- Total pre-mix burner, modulating from 20 to 100% in output for perfect adjustment of boiler output to the actual needs of the installation and optimal combustion

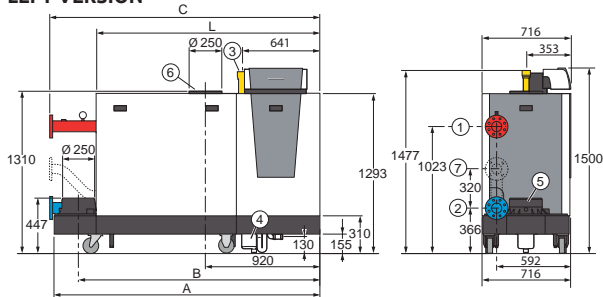
- quality over the entire output range thanks to the constant air/gas ratio by venturi system
- Electronic ignition, ionisation sensor
- DIEMATIC iSystem or iniControl control system
- Delivered fully assembled and tested in the factory
- Provided with casters + guide rail for easy installation into the boiler room optional separation of the returns possible
- Available in 2 versions: right or left according the orientation of hydraulic connection: see diagrams below
- Packaging: 2 packages

N° CE 0063CL3613

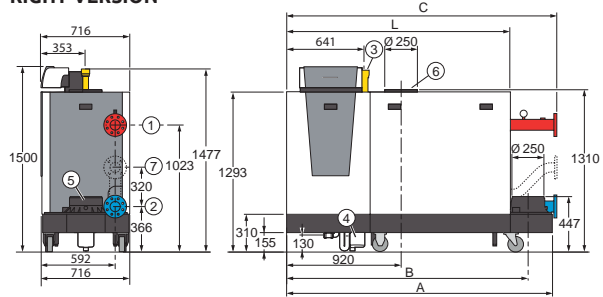
OPTIONS: see following pages / FLUE SYSTEMS: see chapter 16

MAIN DIMENSIONS (mm and inches)

LEFT VERSION



RIGHT VERSION



- ① Heating flow, flange DN 80 (DIN 2576)
 - ② Heating return, flange DN 80 (DIN 2576)
 - ③ Gas inlet G 2" (tapped)
 - ④ Condensates run-off, siphon provided, for PVC pipe int. Ø 32mm
 - ⑤ Flue gas nozzle Ø 250mm
 - ⑥ Combustive air inlet Ø 250mm
 - ⑦ Second return nozzle, flange DN 65 (DIN 2576) (optional)
- G: External cylindrical threading water tightness by flat gasket.

	C 330-280 Eco	C 330-350 Eco	C 330-430 Eco	C 330-500 Eco	C 330-570 Eco	C 330-650 Eco
A	1833	1833	1833	2142	2142	2142
B	1635	1635	1635	1944	1944	1944
C	1862	1862	1862	2172	2172	2172
L	1490	1490	1490	1800	1800	1800

TECHNICAL SPECIFICATIONS

Condensing

Max. operating temperature: 90°C : Max. operating pressure: 7 bar : Classification: B₂₃, B_{23Pr}, C₃₃, C₅₃, C₆₃, : NOx classification: 6
 Safety thermostat: 110°C : Min. operating pressure: 0,8 bar : C₈₃, C₉₃

BOILER TYPE

	C 330-... ECO	280	350	430	500	570	650
Nominal output at 50/30°C Pn	kW	279	350	425	497	574	651
Efficiency at...%	%	98.0	98.1	98.2	98.3	98.4	98.5
output and... - 100% Pn at average temp. 70°C	%	104.8	105.2	105.6	106.0	106.4	106.8
°C water temp. - 100% Pn at return temp. 30°C	%	109.0	109.0	108.6	108.3	107.9	107.6
Useful efficiency at 100% of rated heat output (1) - 30% Pn at return temp. 30°C	%	88.2	88.3	88.4	-	-	-
Useful efficiency at 30% of rated heat output (1)	%	98.6	98.6	98.5	-	-	-
Water flow at ΔT = 20 K	m³/h	11.3	14.2	17.0	19.9	22.7	25.9
Standing losses at ΔT = 30 K	W	464	479	493	508	522	537
according EN 15420	%	0.17	0.14	0.12	0.11	0.10	0.09
Auxiliary electrical power at Pn boiler	W	279	334	426	543	763	723
Electricity consumption at zero load	W	6	6	6	6	6	7
Min. nominal output at 50/30°C	kW	56	71	84	98	113	127
Min.-max. nominal output at 80/60°C	kW	51/261	65/327	79/395	92/461	106/530	119/601
Water resistance at ΔT = 20 K	mbar	113	110	120	110	125	130
Gas flow natural gas H	m³/h	28.1	35.2	42.5	49.6	57.0	64.6
Flue gas mass flow rate	kg/h	448	560	676	789	907	1026
Max. flue gas temperature at 40/30°C	°C	80	80	80	80	80	80
Flue gas pressure available	Pa	130	120	130	150	150	150
Water content	l	49	60	71	82	93	104
Minimum flow rate (operation > 75°C)	m³/h	3.4	4.2	5.1	5.9	6.8	7.8
Floor area	m²	1.31	1.31	1.31	1.53	1.53	1.53
Net weight	kg	364	398	433	495	531	568

(1) According to commission regulation n°813/2013 from 2/08/13

MODEL

	C 330-... ECO	280	350	430	500	570	650
left version:	C 330-... VG Eco DIEMATIC iSystem	Ref. 100019545	100019547	100019549	100019551	100019553	100019555
	C 330-... VG Eco iniControl	Ref. 100019557	100019559	100019561	100019563	100019565	100019567
right version:	C 330-... VD Eco DIEMATIC iSystem	Ref. 100019546	100019548	100019550	100019552	100019554	100019556
	C 330-... VD Eco iniControl	Ref. 100019558	100019560	100019562	100019564	100019566	100019568

PROJECT



C630ECO_00025

C 630-... Eco

from 74 to 1303 kW



The power in a compact unit

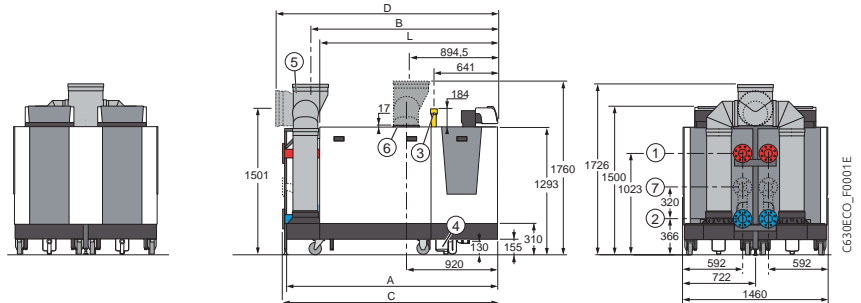
- Gas supply pressure: 20 mbar or 300 mbar with pressure regulator (optional)
- Annual operating efficiency > 109%
- **Low pollutant emissions:** NOx < 60 mg/kWh, CO < 20 mg/kWh
- Exchanger in cast aluminium/silicium components with self-cleaning properties and with inspection trap
- Total pre-mix burner, modulating from 15 to 100% in output for perfect adjustment of boiler output to the actual needs of the installation and optimal combustion quality over the entire output range thanks to the constant air/gas ratio by venturi system
- Electronic ignition, ionisation sensor, flue gas collector provided
- DIEMATIC iSystem + iniControl control systems or 2 x iniControl or 2 x DIEMATIC iSystem
- **Delivered in 2 units fully assembled and tested in the factory:** a flue gas valve integrated in the combustion line prevents any interference with the discharge of the flue gases between the 2 generators that compose it and thus facilitates cascade installation optional separation of the returns possible
- Provided with casters + guide rail for easy installation into the boiler room
- **Packaging:** 5 packages

N° CE 0063CL3613

OPTIONS: see following pages / **FLUE SYSTEMS:** see chapter 16

MAIN DIMENSIONS (mm and inches)

- ① Heating flow, flange DN 80 (DIN 2576)
 - ② Heating return, flange DN 80 (DIN 2576)
 - ③ Gas inlet G 2" (tapped)
 - ④ Condensates run-off, siphon provided, for PVC pipe Ø 32mm
 - ⑤ Flue gas nozzle Ø 250mm
 - ⑥ Combustive air inlet Ø 250mm, collector air inlet Ø 350mm optional
 - ⑦ Second return nozzle, flange DN 65 (DIN 2576) (optional)
- G: External cylindrical threading water tightness by flat gasket.



	C 630-560 Eco	C 630-700 Eco	C 630-860 Eco	C 630-1000 Eco	C 630-1140 Eco	C 630-1300 Eco
A	1833	1833	1833	2142	2142	2142
B	1635	1635	1635	1944	1944	1944
C	1862	1862	1862	2172	2172	2172
D	1962	1962	1962	2271	2271	2271
L	1490	1490	1490	1800	1800	1800

TECHNICAL SPECIFICATIONS

Condensing

Max. operating temperature: 90°C
Safety thermostat: 110°C

• Max. operating pressure: 7 bar
• Min. operating pressure: 0,8 bar

• Classification: B₂₃, B_{23P}, C₃₃, C₅₃, C₆₃, C₈₃, C₉₃

• NOx classification: 6

MODEL

	C 630-... ECO	560	700	860	1000	1140	1300		
Max. nominal output at 50/30°C		kW	558	700	850	994	1148	1303	
Efficiency at...% output and... °C water temp.	-	- 100% Pn at average temp. 70°C	%	98.0	98.1	98.2	98.3	98.4	98.5
		- 100% Pn at return temp. 30°C	%	104.8	105.2	105.6	106.0	106.4	106.8
		- 30% Pn at return temp. 30°C	%	109.0	109.0	108.6	108.3	107.9	107.6
Water flow at ΔT = 20 K		m³/h	22.5	28.9	34.1	39.7	45.4	51.8	
Standing losses at ΔT = 30 K according EN 15420	-	W	928	958	986	1016	1044	1074	
		%	0.17	0.14	0.12	0.11	0.10	0.09	
Auxiliary electrical power at Pn boiler		W	558	668	252	1086	1526	1446	
Electricity consumption at zero load		W	12	12	12	12	12	14	
Min. nominal output at 50/30°C		kW	74	94	131	130	156	165	
Min.-max. nominal output at 80/60°C		kW	69-522	87-654	123-790	122-922	148-1060	158-1202	
Water resistance at ΔT = 20 K		mbar	113	110	120	110	125	130	
Gas flow natural gas H		m³/h	56.2	70.4	85.0	99.2	114.0	129.2	
Flue gas mass flow rate		kg/h	896	1120	1352	1578	1814	2052	
Max. flue gas temperature at 40/30°C		°C	80	80	80	80	80	80	
Flue gas pressure available		Pa	130	120	130	130	130	150	
Water content		l	98	120	142	164	186	208	
Minimum flow rate (operation > 75°C)		m³/h	6.8	8.4	10.2	11.8	13.6	15.6	
Floor area		m²	2.68	2.68	2.68	3.13	3.13	3.13	
Net weight		kg	707	771	837	957	1025	1095	

MODEL

	C 630-... ECO	560	700	860	1000	1140	1300
C 630-... Eco DIEMATIC iSystem + iniControl	Ref. 100019639	100019640	100019641	100019642	100019643	100019644	
C 630-... Eco 2 x iniControl	Ref. 100019645	100019646	100019647	100019648	100019649	100019650	
C 630-... Eco 2 x DIEMATIC iSystem	Ref. 100019831	100019832	100019833	100019834	100019835	100019836	

OPTIONS

FOR C 330 ECO AND C 630 ECO

ALL OPTIONS EXCEPT CONTROL UNITS OPTIONS

ACCESSORIES

	PACKAGE	REF.
Complete safety kit with pressure switches and STB	-	100016229
2nd return nozzle C 330-280 ECO (1)	(2)	S101776
2nd return nozzle C 330-350 ECO (1)	(2)	S101777
2nd return nozzle C 330-430 ECO (1)	(2)	S101778
2nd return nozzle C 330-500 ECO (1)	(2)	S101779
2nd return nozzle C 330-570 ECO (1)	(2)	S101780
2nd return nozzle C 330-650 ECO (1)	(2)	S101781
Counter flange flow/return		7606977
Counter flange 2nd return		7606978
Low water pressure switch (1) (3)	(2)	S101784
Gas tightness control gas valve unit (1) (3):		
• C 330-280 to 570 (Honeywell gas valve)	(2)	S103305
• C 330-650 (Dungs gas valve)	(2)	S101724
Mini gas pressure switch (1) (3):		
• C 330-280 to 570 (Honeywell gas valve)	(2)	S103306
• C 330-650 (Dungs gas valve)	(2)	S101805
Air intake filter (1)	GS20	100002454
• 300 mbar pressure regulator GDJ 20, Ø 3/4" (for power input max. 340 kW)	SA12	7628753
• 300 mbar pressure regulator GDJ 25, Ø 1" (for power input max. 700 kW)	AD245	100011223
• 300 mbar pressure regulator GDJ 50, Ø 2" (for power input max. 1400 kW)	AD246	88027177
Flue gas sensor	-	S103023
Adaptation flange from 4 to 8 holes	-	S101775
Cleaning knife	GS21	100002455
Condensates neutralization system (with lift pump):		
• boilers up to 300 kW	SA4	7613610
• boilers from 300 to 1300 kW	DU15	83877011
Condensates neutralization system (without lift pump):		
• Boilers until 450 kW	SA3	7613609
• Boilers until 1300 kW	-	7622256
Neutralization granules for station (10 kg) (4)	-	94225601
Neutralization granules for station (25 kg) (4)	SA7	7613613

(1) to be order in duplicate for C 630 ECO
 (2) option can be prefitted on delivery, to be specified on order
 (3) Requires the option "PSB SCU-S05" - Ref. S103055" - see next page
 (4) to order at the spare parts department

FLUE SYSTEMS

	PACKAGE	REF.
► For C 330 ECO		
Flue gas nozzle adapter in case of replacement of C 310 ECO by C 330 ECO	S103178	S103178
Reduction Ø 250 on 200mm	S103179	S103179
Flue gas nozzle connecting kit for 2 x C 330 ECO	S103118	S103118
Collector air inlet for 2 x C 330 ECO	S103128	S103128
Vertical air/flue gas vent (galvanised aluminium):		
• Ø 200/300mm	51202	51202
• Ø 250/350mm	51203	51203
Flashing for flat roof:		
• Ø 300mm	46157	46157
• Ø 350mm	46158	46158
► For C 630 ECO		
Vertical air/flue gas vent Ø 2 x 350mm	54443	54443
Collector air inlet	S103128	S103128

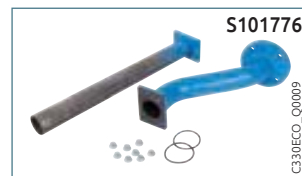
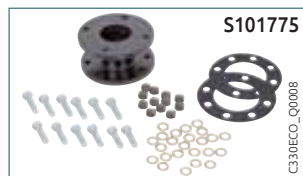
DHW PRODUCTION

	PACKAGE	REF.
• Independent or mixed calorifier		see chapter 11
• Solar calorifier		see chapter 12
DHW sensor (C... ECO DIEMATIC iSystem)	AD212	100000030

HYDRAULIC MODULES

	PACKAGE	REF.
► For C 630 ECO only		
Complete Hydraulic set DuoConnect (5):		
• for C 630-560	7622302	7622302
• for C 630-700	7622304	7622304
• for C 630-860	7622306	7622306
• for C 630-1000	7622307	7622307
• for C 630-1140 and 1300	7622308	7622308
Safety kit equipped with 2 Max pressure switches, 1 Min pressure switch and 1 STB. (to be ordered in duplicate for C 630 ECO)	100016229	100016229
Kit with insulated flow/return elbows for hydraulic set (for connection on left or right side)	7613414	7613414
Magnet filter cartridge (to mounted into the disconnecting cylinder)	7613415	7613415




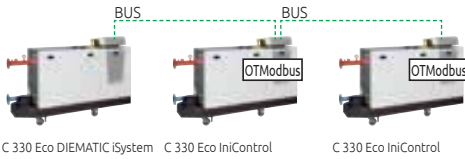


(5) The connection sets are composed by:
 - 2 stainless steel compensators on flow connections
 - 2 intermediate piping with flanges and free connection R 1" 1/2 for the safety valve
 - 2 intermediate connections with flanges safety kit equipped with 2 Max. pressure switches, 1 Min pressure switch and 1 STB
 - 4 valves on flow and return connections
 - 1 decoupling low loss header with adjustable foot, 1/2" reservation for the system sensor, 1/2" connection for air vent, R 1" connection for expansion vessel, R 1" 1/2" rain away, R 2" connection for an additional generator, Rp 1" 1/4 for magnetic bar (available optional)
 - 2 kits of return connections
 - 2 modulating pumps managed by 0-10V of the boiler control panel (option: PCB SCU - S05)
 - Insulation in PEE shells covered with an aluminium sheet and fast bindings
 The delivery includes all screws and gaskets



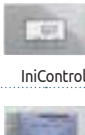

OPTIONS

FOR C 330 ECO AND C 630 ECO

CONTROL UNITS OPTIONS

CHOICE OF OPTIONS ACCORDING TO INSTALLATION TYPE	OBLIGATORY ACCESSORIES	OTHER ACCESSORIES
<p>► C 330 ECO self-standing</p> <ul style="list-style-type: none"> C 330 Eco DIEMATIC iSystem  <p>DIEMATIC iSystem</p>	/	<ul style="list-style-type: none"> S103055 PCB SCU-S05 
<ul style="list-style-type: none"> C 330 Eco IniControl  <p>IniControl</p>	/	<ul style="list-style-type: none"> S103055 PCB SCU-S05 
<p>► Cascade of several boilers C 330 ECO (or 1 or several boilers C 630 ECO)</p> <ul style="list-style-type: none"> Cascade controlled by 1 C 330 ECO DIEMATIC iSystem, "secondary" boilers are C 330 ECO iniControl  <p>C 330 Eco DIEMATIC iSystem C 330 Eco IniControl C 330 Eco IniControl</p>	<p>Per "secondary" boiler (with iniControl control panel):</p> <ul style="list-style-type: none"> 100018921 (AD287) 1 interface PCB OpenTherm-Modbus + 1 BUS cable (1 PCB AD287 + 1 BUS cable 1,5 m AD124, as standard with C 630 ECO) 	<p>Per boiler:</p> <ul style="list-style-type: none"> S103055 PCB SCU-S05 
<ul style="list-style-type: none"> Cascade of several boilers C 330 iniControl (for installation with external control cabinet)  <p>C 330 Eco IniControl C 330 Eco IniControl C 330 Eco IniControl</p>	<p>Per boiler:</p> <ul style="list-style-type: none"> S103055 1 PCB SCU-S05 	/

CHOICE OF OPTIONS ACCORDING TO THE CONTROL PANEL TYPE AND THE CONNECTED CIRCUITS

Circuit type	Boiler self standing or boiler 1 of cascade						Boiler 2 to 10 cascade by additional boiler (2)	
	DHW	direct	valve	direct + 1 valve	2 x valve	direct + 2 x with valve	valve	2 x valve
 <p>IniControl</p>	no	as standard	no	no	no	no	<ul style="list-style-type: none"> with iniControl control panel no	no
 <p>DIEMATIC iSystem (2)</p>	1 x AD212	as standard	1 x AD199	1 x AD199	1 x AD199 + 1 x AD249	1 x AD199 + 1 x AD249 (5)	<ul style="list-style-type: none"> with iniControl control panel (4) no	no
							<ul style="list-style-type: none"> with DIEMATIC iSystem control panel (1)(4) 1 x AD199	1 x AD199 + 1 x AD249

CONTROL UNITS

	PACKAGE	REF.		PACKAGE	REF.
• for DIEMATIC iSystem control panel:			• for iniControl control panel:		
CDI D. iSystem remote control	AD285	100018924	Roomthermostat:		
Radio remote control CDR D. iSystem module (without radio transmitter/receiver)	AD284	100018923	• programmable (wire)	AD137	88017855
Room temperature sensor	AD244	100012044	• programmable (wireless)	AD200	88017018
Radio outside temperature sensor	AD251	100013306	PCB SCU-S05 to connect the external safety components (3)	-	S103055
Boiler radio module (transmitter/receiver)	AD252	100013307	PCB OpenTherm Modbus	AD287	100018921
Simplified remote control + room sensor	FM52	85757747	Outside sensor (with SCU-S05 PCB only)	FM46	85757741
PCB + sensor for mixing valve	AD249	100013304	BUS connection cable (1,5 m)	AD124	88017836
Outlet sensor downstream of the valve	AD199	88017017			
BUS connection cable (12 m)	AD134	88017851			
BUS connection cable	AD124	88017836			
BUS connection cable (40 m)	DB119	81997720			
DHW sensor	AD212	100000030			
Sensor for storage tank or "Cascade outlet sensor"	AD250	100013305			
Dip sensor with sensor tube	AD218	100004781			
PCB SCU-S05 to connect the external safety components (3)	-	S103055			
DIEMATIC VM iSystem wall-hung control unit	AD281	100018254			

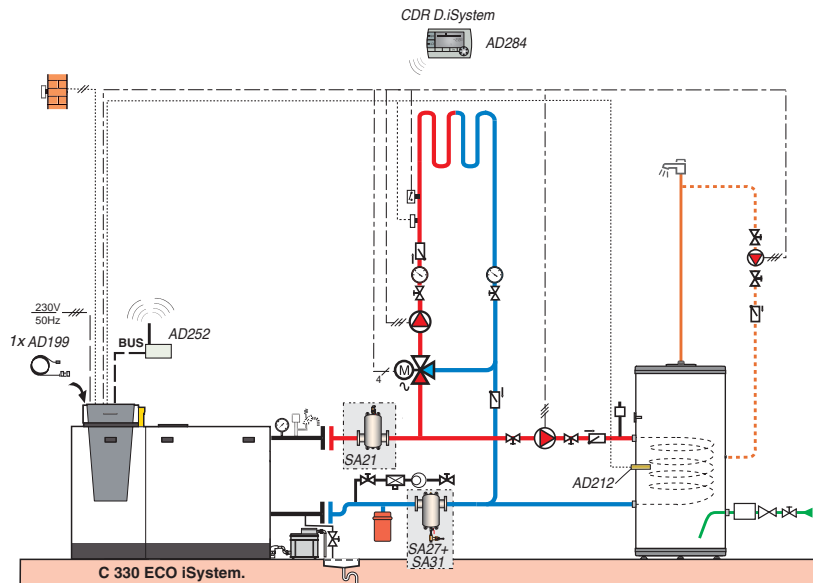
- According to the number of heating circuits to be connected, it will be necessary to insert 1 or more C 330... ECO DIEMATIC iSystem secondary boilers in the cascade, the other boilers of the cascade being fitted with the iniControl control panel.
- Each of the circuits "heating" can be completed in choice by a remote control AD285, AD252 + AD284, FM52 or room sensor AD244.
- This PCB includes the connecting possibility of the 0-10 V contact and of the modulating pump.
- Do not forget to order "Cascade outlet sensor", package AD250 or AD218 (1 sensor AD250 delivered with C 630 ECO DIEMATIC iSystem)
- One or more DIEMATIC VM iSystem units will control the additional circuits, autonomously or through connection to the boiler control panel (2 circuits with one valve per unit)

EXAMPLES OF INSTALLATIONS

FOR C 330 ECO AND C 630 ECO

C 330 Eco C 330-280 DIEMATIC iSystem

- 1 circuit with mixing valve
- 1 DHW circuit

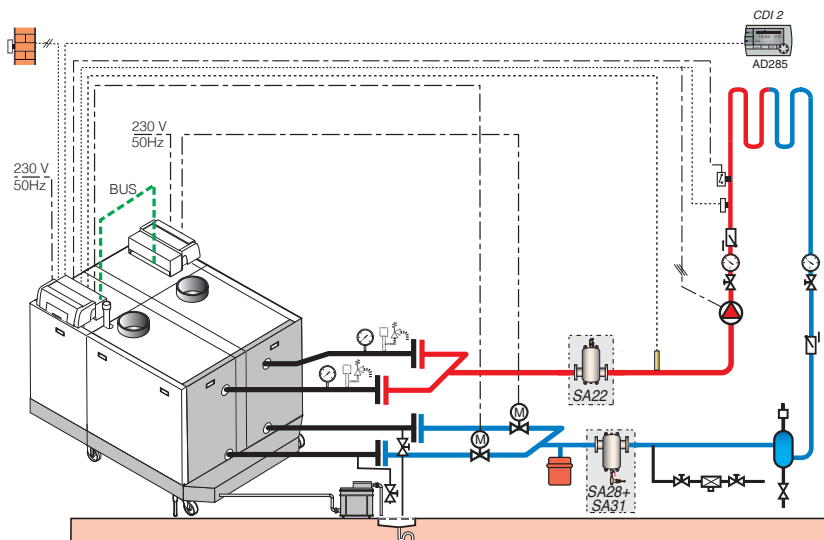


DESCRIPTION

	PACKAGE	REF.
C 330-280 ECO, VG DIEMATIC iSystem	-	100019545
Calorifier B 800 (tank)	AJ79	7650481
Rigid casing for B 800	AJ95	7650497
Outlet sensor downstream of the valve	AD199	88017017
DHW sensor	AD212	100000030
Options		
- Interactive remote control CDR D.iSystem	AD284	100018923
- Boiler radio module (radio transmitter)	AD252	100013307
- Steel microbubble degasser DN 65	SA21	7650338
- Steel sludge separator DN 65 (20 m ³ /h)	SA27+SA31	7651722

C 630 Eco C630-560 DIEMATIC iSystem + IniControl

- 1 underfloor direct heating circuit



DESCRIPTION

	PACKAGE	REF.
C 630-560 ECO DIEMATIC iSystem + iniControl	-	100019639
Options		
- Interactive remote control CDI D.iSystem	AD285	100018924
- Steel microbubble degasser DN 80	SA22	7650339
- Steel sludge separator DN 80 (27 m ³ /h)	SA28+SA31	7651730