

PROJECT

Evodens PRO

AMC 45, AMC 65, AMC 90, AMC 115 from 9.1 to 109.7 kW

point

Wall-hung gas condensing solution, high performance for small collective and tertiary application



NEW

up to
A



Wall-hung gas condensing boiler

- Equipped to operate on natural gases and can be converted to propane
- Gas supply pressure: 20 mbar
- Forced flue or chimney connection
- Annual operating efficiency up to 110%
- Low pollutant emissions: NOx < 37 mg/kWh for AMC 45, 32 mg/kWh for AMC 65, 45 mg/kWh for AMC 90 and 46 mg/kWh for AMC 115
- Monoblock heating body in aluminium/silicium
- Gas premix burner in stainless steel with a surface in woven metallic fibres, modulating from 18 to 100% of output

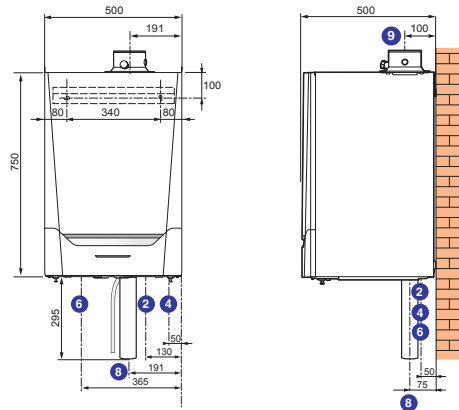
- Fan with air intake silencer
- Delivered with integrated automatic air vent, run-off siphon
- Choice of one of the following two control panels: DIEMATIC Evolution or iniControl 2
- Packaging: 2 packages

N° CE 0063CS3928

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

MAIN DIMENSIONS (mm and inches)

- ② Heating flow R 1" 1/4
 - ④ Gas inlet R 3/4"
 - ⑥ Heating return R 1" 1/4
 - ⑧ Condensates drain (siphon and flexible drain Ø 25 mm ext provided)
 - ⑨ Air/flue gas connection:
 - Ø 80/125 mm for AMC 45
 - Ø 100/150 mm for AMC 65, 90 and AMC 115
- R: Threading



TECHNICAL SPECIFICATIONS

Condensing

Mini. operating temperature: 30°C (average flow/return) : Max. operating temperature: 90°C : Protection index: IP X4D : Classification: B₂₃P, B₂₃, B₃₃, C₁₃(x), C₃₃(x), C₉₃(x), C₅₃
 : Max. operating pressure: 4 bar : Power supply: 230 V/50 Hz

BOILER TYPE

	AMC	45	65	90	115
Energy efficiency class (heating)		A	A	-	-
Nominal output at Pn (50/30°C)	kW	42.4	65	89.5	109.7
Efficiency at ...% output and ...°C water temp.	%	- 100% Pn at average temp. 70°C - 100% Pn at return temp. 30°C - 30% Pn at return temp. 30°C			
Seasonal space heating energy efficiency (without contribution of regulation)	%	94	94	-	-
Seasonal space heating energy efficiency (delivered outdoor sensor with AMC DIEMATIC Evolution)	%	96	96	-	-
Useful efficiency at 100 % of rated heat output	%	-	-	88.2	87.5
Useful efficiency at 30 % of rated heat output	%	-	-	97.4	97.3
Water flow at ΔT = 20 K	m³/h	1.72	2.62	3.62	4.60
Auxiliary electrical power at Pn (without circul. pump)	W	79	89	114	182
Stand-by losses at ΔT = 30 K	W	101	110	123	123
Min./max. useful output at 50/30°C	kW	9.1-42.4	13.5-65.0	15.8-89.5	21.2-109.7
Min./max. useful output at 80/60°C	kW	8-40.8	12-61.5	14.1-84.2	189-103.9
Min./max. flue gas mass flow rate	kg/h	14/69	21/104	28/138	36/178
Flue gas pressure available	Pa	150	100	160	220
Water content	l	4.3	6.4	9.4	9.4
Minimum flow rate	m³/h	0.4	0.4	0.4	0.4
Water resistance at ΔT = 20 K	mbar	90	130	140	250
Gas flow (15°C-1013 mbar)	m³/h	- natural gas H - propane			
Net weight	kg	53	60	67	68

MODEL

	AMC	45	65	90	115
AMC... DIEMATIC Evolution	Ref.	7699475	7699476	7699477	7699478
AMC... iniControl 2	Ref.	7684462	7684586	7684587	7684588

GAS

COMPLETE CASCADE SYSTEMS FOR 2 TO 4 AMC 45, 65, 90 OR 115 BOILERS

PROJECT

EVODENS PRO

AMC 45, 65, 90, 115 cascade systems from 80 to 428 kW

point

The modularity in answer to high output



NEW

AMC_Q0014

N° CE 0063CS3928

OPTIONS: see following pages



- AMC 45 to 115 cascade systems are available in 3 versions:
 - LW: for wall-hung alignment of the boilers
 - LV: for floor-standing alignment of the boilers
 - RG: for back to back assembly of the boilers
- These systems include:
 - the decoupling cylinder
 - the boiler connection collector including the heating flow and return connection pipes Ø 65 mm, the gas connection pipes Ø 65 mm and the flanges the primary injection pumps
 - the boiler connection kits including the outlet valve, the multi-function return valve (with filling and draining valve, gate valve, non-return valve,

- safety valve and connection for the expansion vessel), and the gas valve
- the wall assembly rail for LW versions or, for LV and RG versions, the corner support structures with the boiler assembly frame
- the outlet sensor + sensor tube and the inter-boiler BUS connection cable

NOTA: the boilers should be ordered separately

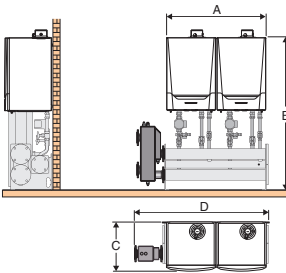
OPTIONS:

- Insulating shells
- connecting flanges...

"CASCADE" COMBINATIONS DEPENDING ON THE TOTAL REQUIRED OUTPUT (2)

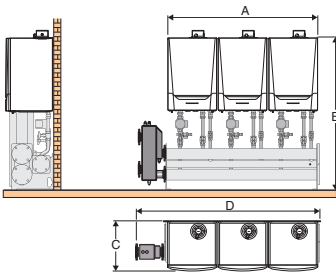
- WALL-HUNG ALIGNMENT: "LW"

- 2 boilers



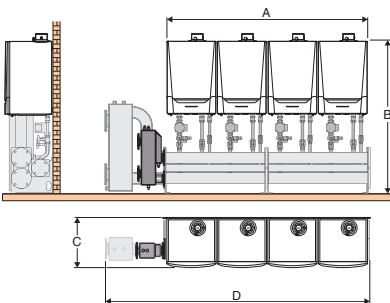
OUTPUT (80/60°C) KW	BOILER TYPE				WATER FLOW $\Delta T = 20 K$ m³/h	DESIGNATION AND REF. (*)
	AMC 45	AMC 65	AMC 90	AMC 115		
080	2	0	0	0	3.43	LW.0080kW.20000
122	0	2	0	0	5.23	LW.0122kW.02000
168	0	0	2	0	7.20	LW.0168kW.00200
214	0	0	0	2	9.17	LW.0214kW.00020

- 3 boilers



OUTPUT (80/60°C) KW	BOILER TYPE				WATER FLOW $\Delta T = 20 K$ m³/h	DESIGNATION AND REF. (*)
	AMC 45	AMC 65	AMC 90	AMC 115		
120	3	0	0	0	5.14	LW.0120kW.30000
183	0	3	0	0	7.84	LW.0183kW.03000
252	0	0	3	0	10.80	LW.0252kW.00300
321	0	0	0	3	13.76	LW.0321kW.00030

- 4 boilers



OUTPUT (80/60°C) KW	BOILER TYPE				WATER FLOW $\Delta T = 20 K$ m³/h	DESIGNATION AND REF. (*)
	AMC 45	AMC 65	AMC 90	AMC 115		
160	4	0	0	0	6.86	LW.0160kW.40000
244	0	4	0	0	10.46	LW.0244kW.04000
336	0	0	4	0	14.40	LW.0336kW.00400
428 (1)	0	0	0	4	18.34	LW.0428kW.00040

AMC_F0021

(*) except insulating shells
(1) with decoupling cylinder > 350 kW

(2) Important: boiler cascade of up to 1070 kW: consult us

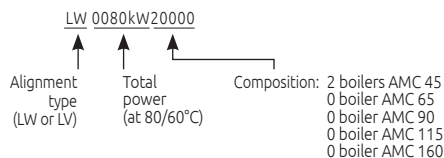
number of boiler

dimensions (mm)

	A	B	C	D	Water Ø DN	Gas Ø DN
2 x AMC 45/65/90/115	1030	1576	550	1337	65	50
3 x AMC 45/65/90/115	1560	1576	550	1867	65	50
4 x AMC 45/65/90	2090	1576	550	2397	65	50
4 x AMC 115	2090	1576	550	2739	65	50

Legende:

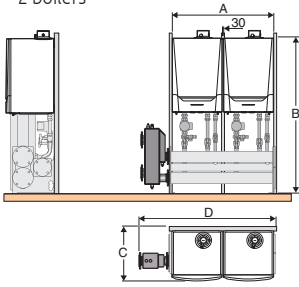
Designation



"CASCADE" COMBINATIONS DEPENDING ON THE TOTAL REQUIRED OUTPUT (2)

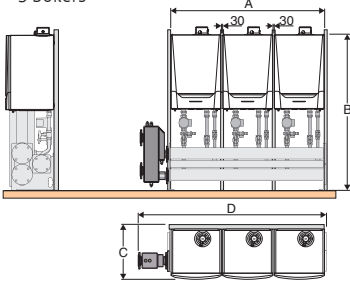
- FLOOR-STANDING ALIGNMENT: "LV"

• 2 boilers



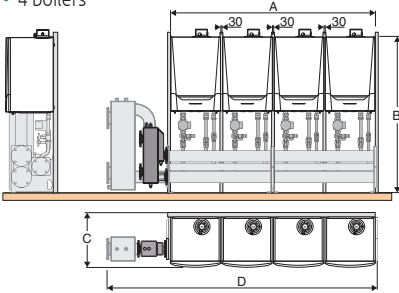
OUTPUT (80/60°C) KW	BOILER TYPE				WATER FLOW $\Delta T = 20\text{ K}$ m^3/h	DESIGNATION AND REF. (*)
	AMC 45	AMC 65	AMC 90	AMC 115		
80	2	0	0	0	3.43	LV.0080kW.20000
122	0	2	0	0	5.23	LV.0122kW.02000
168	0	0	2	0	7.20	LV.0168kW.00200
214	0	0	0	2	9.17	LV.0214kW.00020

• 3 boilers



OUTPUT (80/60°C) KW	BOILER TYPE				WATER FLOW $\Delta T = 20\text{ K}$ m^3/h	DESIGNATION AND REF. (*)
	AMC 45	AMC 65	AMC 90	AMC 115		
120	3	0	0	0	5.14	LV.0120kW.30000
183	0	3	0	0	7.84	LV.0183kW.03000
252	0	0	3	0	10.80	LV.0252kW.00300
321	0	0	0	3	13.76	LV.0321kW.00030

• 4 boilers



OUTPUT (80/60°C) KW	BOILER TYPE				WATER FLOW $\Delta T = 20\text{ K}$ m^3/h	DESIGNATION AND REF. (*)
	AMC 45	AMC 65	AMC 90	AMC 115		
160	4	0	0	0	6.86	LV.0160kW.40000
244	0	4	0	0	10.46	LV.0244kW.04000
336	0	0	4	0	14.40	LV.0336kW.00400
428 (1)	0	0	0	4	18.34	LV.0428kW.00040

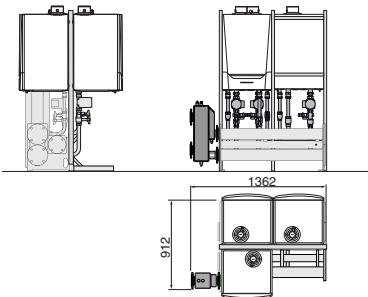
AMC_F0022

(*) except insulating shells
(1) with decoupling cylinder > 350 kW
(2) Important: boiler cascade of up to 1070 kW: consult us

Number of boiler	dimensions (mm)					
	A	B	C	D	Water \varnothing DN	Gas \varnothing DN
2 x AMC 45/65/90/115	1110	1576	500	1362	65	50
3 x AMC 45/65/90/115	1640	1576	500	1892	65	50
4 x AMC 45/65/90	2170	1576	500	1422	65	50
4 x AMC 115	2170	1576	500	2739	65	50

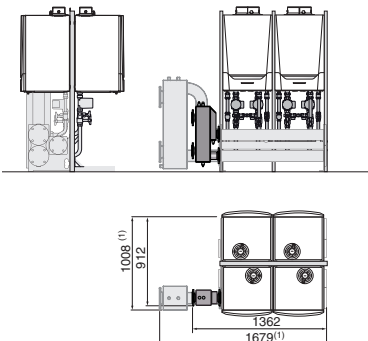
- BACK TO BACK ALIGNMENT: "RG"

• 3 boilers



OUTPUT (80/60°C) KW	BOILER TYPE				WATER FLOW $\Delta T = 20\text{ K}$ m^3/h	DESIGNATION AND REF. (*)
	AMC 45	AMC 65	AMC 90	AMC 115		
120	3	0	0	0	5.14	RG.0120kW.30000
183	0	3	0	0	7.84	RG.0183kW.03000
252	0	0	3	0	10.80	RG.0252kW.00300
321	0	0	0	3	13.76	RG.0321kW.00030

• 4 boilers



OUTPUT (80/60°C) KW	BOILER TYPE				WATER FLOW $\Delta T = 20\text{ K}$ m^3/h	DESIGNATION AND REF. (*)
	AMC 45	AMC 65	AMC 90	AMC 115		
160	4	0	0	0	6.86	RG.0160kW.40000
244	0	4	0	0	10.46	RG.0244kW.04000
336	0	0	4	0	14.40	RG.0336kW.00400
428 (1)	0	0	0	4	18.34	RG.0428kW.00040

AMC_F0027

(*) except insulating shells
(1) with decoupling cylinder > 350 kW
(2) Important: boiler cascade of up to 1070 kW: consult us

OPTIONS

FOR EVODENS PRO AMC 45 TO 115

ALL OPTIONS EXCEPT CONTROL UNITS OPTIONS

ACCESSORIES

	PACKAGE	REF.
Hydraulic connection kit	HC139	100002310
Pipe cover	HC242	5101539
Electronic heating pump with energy efficiency index EEI < 0.23 for AMC 45 and AMC 65	-	5101614
Electronic heating pump with energy efficiency index EEI < 0.23 for AMC 90 and AMC 115	-	7608398
Primary pump for AMC 45	HC147	100002323
Primary pump for AMC 65, 90, 115	SA13	7630016
Interface SCU-X03 in housing	HC258	5101477
Motorized 3 way valve	HC15	85317005
Right gas tap 3/4" AMC 45 to 115	HC158	100004641
Decoupling cylinder 60/60 - 1"	GV45	100019346
Decoupling cylinder 80/60 - 1" 1/4	GV46	100019347
Decoupling cylinder 120/80 - 2"	GV47	100019348
Condensates station DN1 (until 75 kW)	SA1	7613605
Condensates station DN 2.0 (until 450 kW)	SA3	7613609
Wall bracket for neutralisation station DN1	SA2	7613606
Neutralisation granules 10 kg	-	94225601
Condensates neutralisation system with lift pump:		
• boiler up to 120 kW	DU13	83877009
• from 120 to 350 kW	SA4	7613610
• from 350 to 1300 kW	DU15	83877011
Neutralisation granules 10 kg for DU13, DU15 and SA4 *	-	94225601
Neutralisation granules 25 kg	SA7	7613613
Cleaning tool boiler body AMC 45/65	HC246	552484
Cleaning tool boiler body AMC 90/115	HC247	558286
Adapter bi-flow 2 x Ø 80 mm	DY906	5100762
Adapter bi-flow 2 x Ø 100 mm	DY907	5101626
Gas valve to operate on propane of AMC 90*	-	7606393
Gas pressure regulators 300 mbar:		
• GDJ 15 (from 40 to 150 kW) Ø 1/2"	SA11	7628752
• GDJ 20 (from 150 to 340 kW) Ø 3/4"	SA12	7628753
• GDJ 25 (from 340 to 700 kW) Ø 1"	AD245	100011223

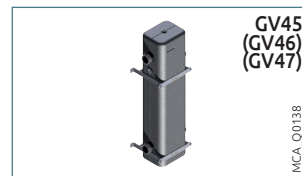
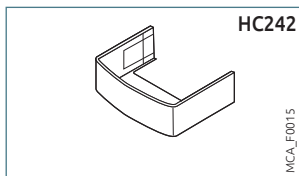
* To order at the spare parts department

DHW PRODUCTION

	PACKAGE	REF.
With solar calorifier		see chapter 12
With independent water calorifier		see chapter 10
DHW temperature sensor	AD212	100000030
AMC 45 to 115/independent or solar calorifier kit	EA121	100007827

BOILER ROOM EQUIPMENT

See chapter 17



ACCESSORIES

(CASCADE SYSTEMS)

	PACKAGE	REF.
AMC mounting rail on an existing MC cascade system ("LV" and "RG" alignment only)	HC245	5101463
Gas filter Ø 50 mm	HC255	5101655
Counter flanges DN 50 for gas filter	HC261	5103345
Set of elbows Ø 65 mm	HC209	111788
Extension pipe for gas filter Ø 50 mm	HC211	111805
Collector insulation	HC213	111069
Insulation for hydraulic boiler connection kit	HC252	122441
Rear insulation for hydraulic boiler connection kit	HC243	123182
Decoupling cylinder insulation < 350 kW	HC224	115269
Decoupling cylinder insulation > 350 kW	HC215	111067
Insulation 90° elbow	HC216	111167
Set of counter flanges to be welded Ø 65 mm	HC217	112632
Adjustable foot	HC219	111807
▶ For cascade of 428 to 1070 kW:		
Gas filter Ø 65 mm	HC256	5101656
Set of elbows Ø 100 mm	HC210	111790
Extension pipe for gas filter Ø 65 mm	HC212	111806
Set of counter flanges to be welded Ø 100 mm	HC218	112633



OPTIONS

FOR EVODENS PRO AMC 45 TO 115

CONTROL UNITS OPTIONS

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

		Boiler self-standing or boiler 1 of a cascade						Boiler 2 to 8 of a cascade for additional boiler (2)		
Circuit type		DHW	direct	valve	direct + 1 valve	2 x valve	direct + 2 x valve	valve	2 x valve	3 x valve
EVODENS PRO AMC 45 to 115 with control panel:	IniControl 2 (3)	no	no	no	no	no	no	no	no	no
	DIEMATIC Evolution (3)	1 x AD212	as standard (1)	1 x AD199	1 x AD199	2 x AD199	1 x AD199 + 1 x AD249	• With iniControl 2 control panel no no no • With DIEMATIC Evolution control panel (2) 1 x AD199 2 x AD199 2 x AD199 + 1 x AD249		

(1) + Package FM46 (outside temperature sensor) to control an installation of a single boiler according to the outside temperature.

(2) According to the number of heating circuits to be connected, it will be necessary to insert 1 or more AMC... Evolution slave boilers in the cascade, the other boilers of the cascade being fitted with the iniControl 2 control panel.

(3) The IniControl 2 panel is used: • for the slave boilers in a cascade, managed with a master boiler equipped with a DIEMATIC Evolution control panel.
• for systems using the 0-10 V contact to a control cabinet in the boiler room.

DESCRIPTION

• For DIEMATIC Evolution control panel:

	PACKAGE	REF.
PCB + sensor for mixing valve	AD249	100013304
Sensor for mixing valve	AD199	88017017
DIEMATIC BUS connection cable (12 m)	AD134	88017851
DHW sensor	AD212	100000030
Cascade flow sensor or sensor for storage tank	AD250	100013305
Room thermostat:		
• programmable (wire)	AD137	88017855
• programmable (wireless)	AD200	88017018
• non-programmable	AD140	88017859
Outside sensor	FM46	85757741

DESCRIPTION

S-BUS cable:

	PACKAGE	REF.
• with plug (1.5 m)	AD308	7663618
• with plug (12 m)	AD309	7663561
• with plug (20 m)	AD310	7663619
S-BUS plug	AD321	7688305
ModBus cable:		
• 1.5 m	AD124	88017836
• 12 m	AD134	88017851
• 40 m	DB119	81887720
Communication gateway GTW08 L-BUS-ModBus	AD332	7721982
AVAILABILITY JULY 2019		

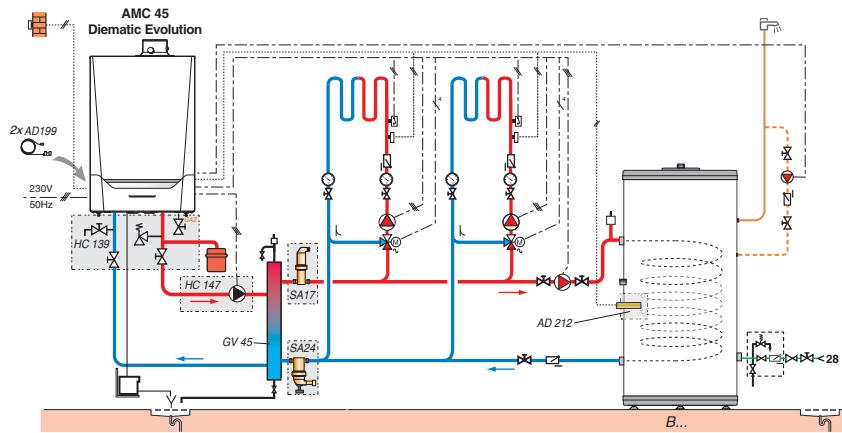
EXAMPLES OF INSTALLATION

FOR EVOSENS PRO

Evodens Pro AMC 45 DIEMATIC Evolution



- 2 circuits with mixing valve
- 1 DHW calorifier

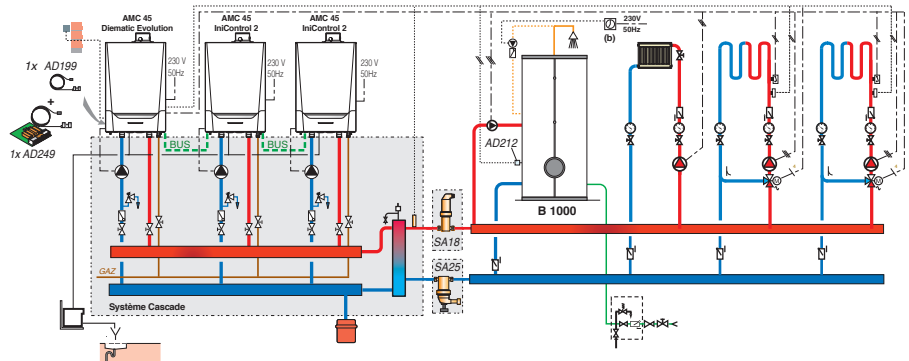


DESCRIPTION

	PACKAGE	REF
Boiler AMC 45 Evolution	HR161	7699475
Decoupling cylinder 60/60 - 1"	GV45	100019346
2 x Sensor for mixing valve	2 x AD199	2 x 88017017
DHW calorifier BPB 401	EC790	7682199
DHW temperature sensor	AD212	100000030
Options		
- Hydraulic connection kit MCA 45	HC139	100002310
- Primary pump	HC147	100002323
- Microbuble degasser Rp 1"1/4	SA17	7650330
- Sludge separator Rp 1" (3,7 m³/h)	SA24	7650376

Evodens Pro AMC 45 DIEMATIC Evolution + 2 x AMC 45 DIEMATIC IniControl 2

- 1 direct circuit
- 2 circuits with mixing valve
- 1 DHW calorifier



DESCRIPTION

	PACKAGE	REF
Boiler AMC 45 Evolution	HR161	7699475
2 x boiler AMC 45 IniControl 2	2 x HR167	2 x 7684462
Sensor for mixing valve	AD199	88017017
PCB + sensor for mixing valve	AD249	100013304
Cascade system for 3 boilers AMC 45 wall-hung alignment	-	LW.0120kW.30000
Calorifier B1000 (tank)	AJ80	7650482
Rigid caising for B 1000	AJ97	7650499
DHW temperature sensor	AD212	100000030
Options		
- Microbubble degasser Rp 1"1/2	SA18	7650333
- Sludge separator Rp 1" 1/2 (5,0 m³/h)	SA25	7650377