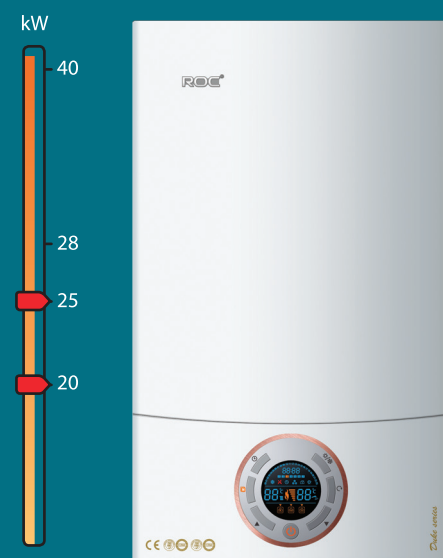


Series DUKE

Condensing wall-hung boilers



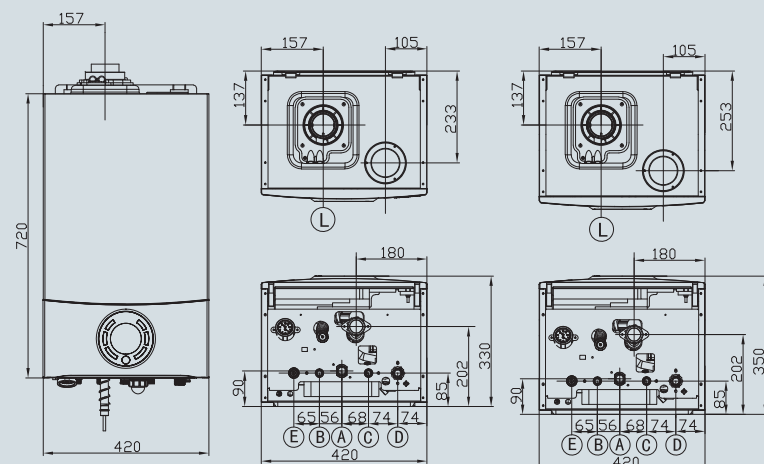
CE 720x420x330 mm

- 4-sectional stainless steel condensing heat exchanger for condensation and utilization of latent heat of the water vapors from exhausting smoke with efficiency till 106%
- Fan burner with full gas-air premix provides gas combustion with close to ideal conditions – so the condensation process begins earlier and by higher return line temperature (about 57°C)
- Electronic controlled fan with variable rotation speed for keeping the optimal minimal required air exceed in the gas-air mix
- Till 25 kW heating output, till 13.1 L/min hot water (DHW) with $\Delta T=25K$
- Modulation: boiler's output changes automatically to keep the set heating and DHW temperature constant, with great optimization of gas consumption
- Indication of temperatures, working modes, current burner power and error codes on the color multifunctional LED-display
- Automatic electronic ignition and ionization flame control
- Integrated pump, expansion tank, heating safety valve, manometer, automatic air exhaust device
- Automatic switch-off by: flame blackout, overheating over 90°C, too low pressure in the heating system (< 0.5 bar), too low DHW flow ($< 2.5L/min$), combustion products exhaust failure, failure in electronic
- Service menu for internal functions and working parameters adjusting
- Frost protection: burner and pump will be switch on automatically by danger of freezing. It is allowed to use antifreeze liquid instead of water in the heating system
- Supports outdoor temperature driven mode
- Supports smooth control with Open Therm® room thermostat from any producer
- Stainless flue-/air duct $\varnothing 60/100$ 1 m length included*)

*) depends on order



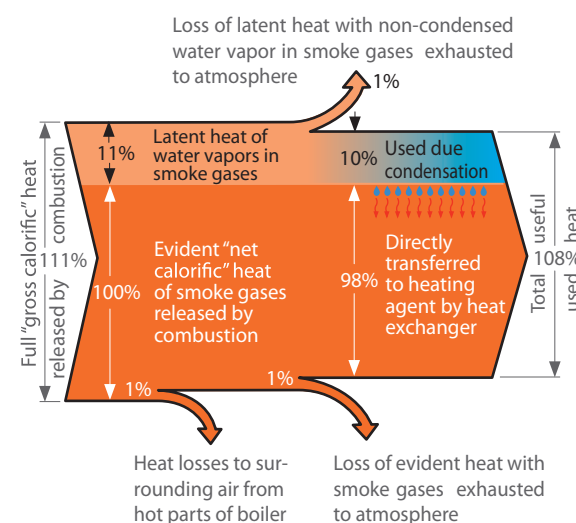
DUKE | Dimensions & Connections



▶ LL1GBQ18-B20CG

▶ LL1GBQ24-B26CG

- A Gas inlet connection G $\frac{3}{4}$
- B Hot water outlet (DHW) G $\frac{1}{2}$
- C Cold water inlet (DHW) G $\frac{1}{2}$
- D Heating return line (from CH) G $\frac{3}{4}$
- E Heating supply line (to CH) G $\frac{3}{4}$
- L Flue-/air connection $\varnothing 60/100$ mm



Through full premix burner and effective condensation of the water vapors from the smoke gases in the 4-sectional stainless steel heat exchanger it being released and used useful till 8% of vapors' latent heat (efficiency till 108%)

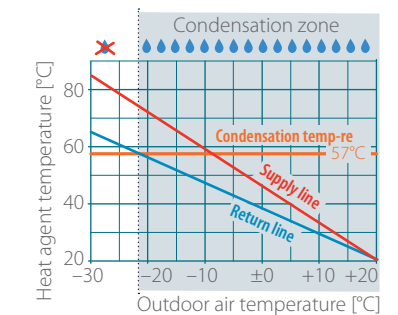
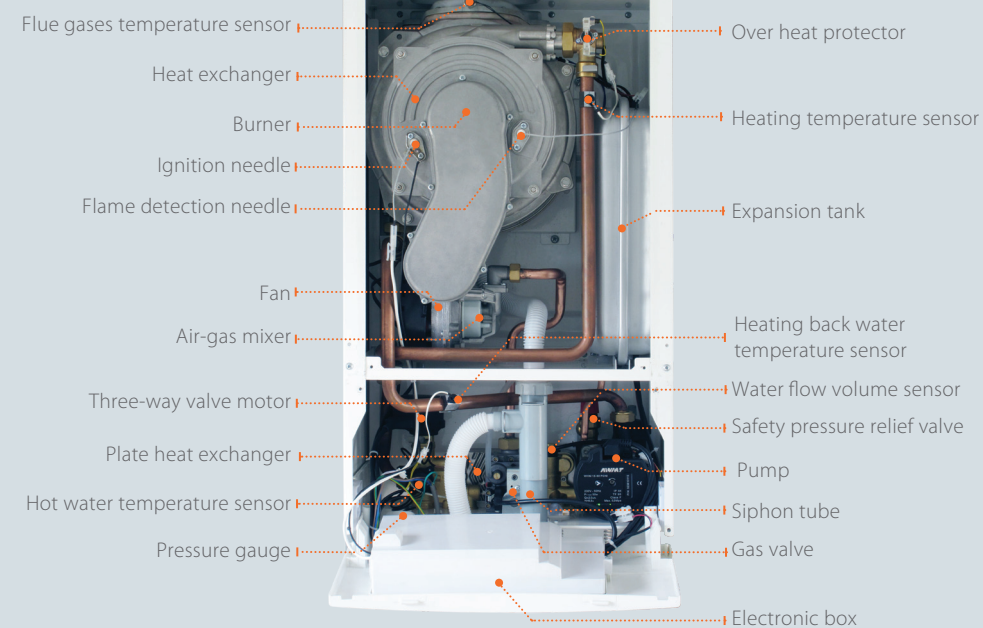
▶ Principle of heat flows distribution | Efficiency of boiler

DUKE | Control

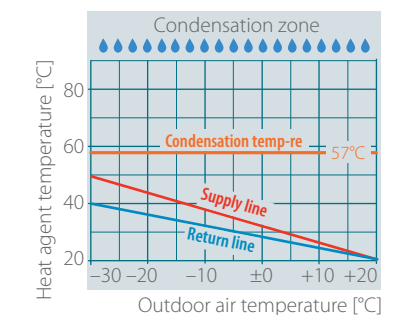


DUKE | Construction

▶ Inside structure



▶ Condensation zone | Radiators 85/65°C



▶ Condensation zone | Floor heating 50/40°C

DUKE | Technical data

Model DUKE		LL1GBQ18-B20CG		LL1GBQ24-B26CG		LL1GBQ28-B30CG		LL1GBQ32-B34CG		LL1GBQ35-B37CG			
		Unit											
General data													
Type of gas used		–		Natural gas									
Nominal gas inlet pressure		Pa		2000									
Type of smoke exhaust		–		Forced by fan									
Type and quantity of heat exchangers				2 separated									
Gas combustion parameters													
Nominal heat input(Qn)		kW		18.8		24.8		28.4		32.2		35.0	
Nominal heat output(Pn)		kW		5.0		5.0		5.5		5.6		5.8	
Nominal condensing output		kW		20		26.0		30.0		34.0		37.0	
Minimum heat input(Qr)		kW		18.0		24.0		28.0		31.0		33.6	
Minimum heat output(Pr)		kW		5.0		5.0		5.8		5.8		6.2	
Max. smoke gases flow		m³/h		33		48		48		48		48	
Max. smoke gases temperature by 100% burner power		°C		68		69		69		69		69	
NOx emission class		-		5		5		5		5		5	
Nominal efficiency by 100% power and temperatures 80/60°C		%		97		97		97		97		97	
Nominal efficiency by 100% power and temperatures 50/30°C		%		107		108		108		108		108	
Nominal efficiency by 30% of power		%		108		108		108		108		108	
Gas flow rate		m³/h		2.0		2.6		3.0		3.4		3.7	
Heating													
Set temperature range		°C		30-85		30-85		30-85		30-85		30-85	
Min. - Max. working pressure		bar		0.6-3		0.6-3		0.6-3		0.6-3		0.6-3	
Expansion tank volume		L		6.5		6.5		6.5		8.0		8.0	
Domestic hot water (DHW)													
Set temperature range		°C		30-60		30-60		30-60		30-60		30-60	
Flow by temp. difference 30K		kg/min		8.6		11.2		13.2		14.6		16.0	
Min. required DHW flow		kg/min		2.5		2.5		2.5		2.5		2.5	
Min. - Max. cold water pressure		bar		0.3-8		0.3-8		0.3-8		0.3-8		0.3-8	
Electric power supply (network)													
Power supply		V/Hz		220~/50									
Max. electric power		W		80		80		90		110		110	
Degree / Class of protection		–		IPX5D									
Mass & Overall dimensions													
Overall dimensions, HxBxD		mm		720x420x330		720x420x350		720x420x350		720x420x390		720x420x390	
Packing dimensions, HxBxD		mm		855x475x380		855x475x400		855x475x400		855x475x440		855x475x440	
Net weight / Gross weight		kg		38/41		39/42		39/42		40/43		40/43	
Q-ty [stainless steel flue 1m incl.] in container		pcs		20ft: 180 [160] / 40ft: 384 [340] / 40HQ: 448 [396]									