

# TECHNICAL DATA SHEET

## PRODUCT: Buderus GE515 Boiler

### GE515 Floor Standing High Efficiency Boiler:

GE515 – 240	201 – 240kW
GE515 – 295	241 – 295kW
GE515 – 350	296 – 350kW
GE515 – 400	351 – 400kW
GE515 – 455	401 – 455kW
GE515 – 501	456 – 510kW



- ▶ Cast iron sectional boiler for use with pressure jet burners
- ▶ High efficiency up to 96% (NCV)
- ▶ G/GE Cast Iron Thermostream boilers have Ecostream Technology<sup>®</sup> patented worldwide
- ▶ Output available between 240kW and 510kW
- ▶ Delivered as loose sections ready to be assembled on site
- ▶ No minimum flow rate
- ▶ Flexible controls option using the Buderus 4000 controls system
- ▶ Can be used in conjunction with renewable technologies such as solar thermal, heat pumps and CHP
- ▶ System safety kits as per BS:6644 are available upon request

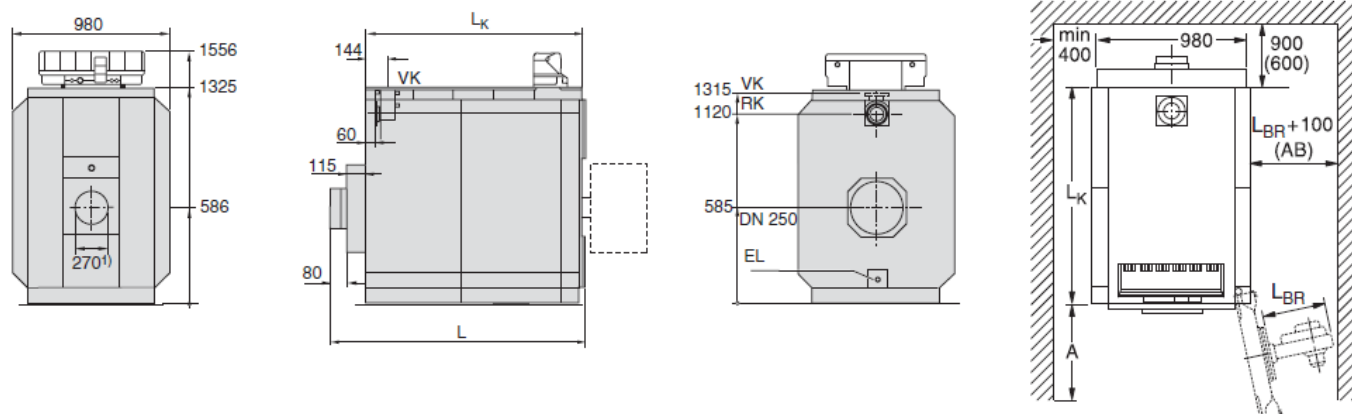
Whilst it is always our intention to fully assist, it is essential to recognise that all information given by the company in response to an enquiry of any nature is provided in good faith and based upon the information provided with the enquiry. We recommend that advice should always be checked with your installer or contract partner. Consequently, the company cannot be held responsible for any liability relating to the use or repetition of such information or part thereof. In addition, whilst making every reasonable effort to monitor the performance and quality of our supply, installation and service network, we do not accept responsibility for the workmanship or operation of any third party company that the company may have promoted either in conversation, e-mail or other communication.

Similarly, the views and opinions expressed in communication with individuals within the company may not reflect that of the business as a whole.

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## PRODUCT: Buderus GE515 Boiler

### GE515 Dimensions:



GE515		Unit	240	295	350	400	455	510
Boiler sections			7	8	9	10	11	12
Height	H	mm	1556					
	H <sub>K</sub>	mm	1325					
Length	L	mm	1580	1750	1920	2090	2260	2430
	L <sub>K</sub>	mm	1360	1530	1700	1870	2040	2210
Width		mm	980					
Net weight (dry)		kg	1270	1430	1590	1753	1900	2060
Flue gas connection	Ø D <sub>AA</sub>	mm	DN250					
	H <sub>AA</sub>	mm	585					
Boiler flow connection	Ø VK	mm	DN100*					
	H <sub>VK</sub>	mm	1315					
Boiler return connection	Ø RK	mm	DN100*					
	H <sub>RK</sub>	mm	1120					
Cold fill / drain	EL	Inch	Rp ¾					
Transport / Handling Assembled block	Length	mm	1360	1530	1700	1870	2040	2210
	Width	mm	835	835	835	835	835	835
	Height	mm	1315	1315	1315	1315	1315	1315
Transport / Handling Unassembled sections	Length	mm	170					
	Width	mm	835					
	Height	mm	1315					

\*The flow and return connections are DN100 flanges as standard, but these can be reduced to either DN80 or DN65 to match site requirements.

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## PRODUCT: Buderus GE515 Boiler

### GE515 Service Clearances:

GE515		Unit	240	295	350	400	455	510
Front clearance	A	mm	1700 (1000)			2200 (1000)		
Rear clearance		mm	900 (600)					
Left clearance*		mm	400					
Right clearance	AB	mm	Length of Burner (LBR) + 100					

Recommended clearances around the boiler, values in brackets are the minimum required clearances.

Please note that if the burner door hinge is changed to the opposite side, the left and right clearances must be swapped

### GE515 Technical Specification:

GE515		Unit	240	295	350	400	455	510
Rated heat output	Full load	kW	240	295	350	400	455	510
	Part load	kW	201	241	296	351	401	456
Rated heat input	Full load	kW	259.7	319.0	377.1	429.6	489.2	547.8
	Part load	kW	215.6	257.8	316.6	374.6	428.4	488.2
Net efficiency (NCV)		%	96					
Seasonal efficiency****		%	86.1	86.2	86.3	86.4	86.5	86.5
Max safety temperature setting*		°C	120					
Max working pressure		bar	6					
Water content		l	258	294	330	366	402	438
Water flow resistance	ΔT 20k	mbar	20.0	19.0	20.0	21.5	21.0	19.0
	ΔT 11k	mbar	65.0	70.0	65.0	75.0	70.0	60.0
Flue gas temperature**	Full load	°C	164-183	161-183	161-177	157-171	159-172	164-174
	Part load	°C	138	138	140	129	130	140
Flue gas mass flow rate - Gas***	Full load	kg/s	0.092 – 0.111	0.110 – 0.136	0.135 – 0.161	0.160 – 0.183	0.183 – 0.208	0.208 – 0.233
	Part load	kg/s	0.065	0.080	0.095	0.108	0.123	0.138
Flue gas mass flow rate - Oil***	Full load	kg/s	0.092 – 0.110	0.109 – 0.135	0.134 – 0.160	0.159 – 0.182	0.182 – 0.208	0.207 – 0.233
	Part load	kg/s	0.0647	0.080	0.094	0.108	0.123	0.137
CO <sub>2</sub> content	Gas	%	10					
	Oil	%	13					
Flue gas resistance		mbar	0.5 – 0.6	1.0 – 1.4	1.1 – 1.6	2.1 – 2.9	2.5 – 3.3	2.4 – 3.1
Required flue draught		Pa	0					
CE certification, product ID no.			CE-0461 AR 6154					

Please note: To maintain the boiler operating conditions, we recommend the use of a back-end protection system consisting of individual primary pump and back-end mixing valve.

\*The safety limit cut-out temperature can be adjusted within the 4000 series controls dependant on system requirements,

The maximum possible system flow temperature is the safety limit temperature minus 18k.

\*\*Calculated flue gas temperatures used for cross-sectional calculation according to EN 303

The actual flue gas temperature may differ from this, subject to burner setting and actual system temperature.

\*\*\*Flue gas mass flow has been measured at 60% for part load, and full load values relate to the upper and lower output range.

\*\*\*\*The seasonal efficiency has been calculated in accordance with the equation set out in the non-domestic building services compliance guide 2010.

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