

Product fiche concerning the COMMISSION DELEGATED REGULATIONS

(EU) No 811/2013 of 18 February 2013

(EU) No 813/2013 of 2 August 2013

Oil Boilers

Pro Range: Vortex Outdoor Module	Symbols	Unit	15-21	15-26	26-36	36-46
Condensing boiler			Yes	Yes	Yes	Yes
Low temperature boiler			No	No	No	No
B1 Boiler			No	No	No	No
Combination heater			No	No	No	No
Rated heat output	P_{rated}	kW	21	26	36	46
Useful heat output						
At rated heat output and high temp regime	P_4	kW	21	26	36	46
At 30% of rated heat output and low temp regime	P_1	kW	6.3	7.8	10.8	13.8
Auxiliary electricity consumption						
At Full load	El_{max}	kW	0.158	0.130	0.150	0.148
At part load	El_{min}	kW	0.052	0.039	0.049	0.052
In standby mode	P_{SB}	kW	0	0	0	0
Useful efficiency						
Seasonal space heating energy efficiency	η_s	%	90.81	91.71	94.56	90.00
At rated heat output and high temperature regime	η_4	%	88.9	93.6	95.1	90.8
At 30% of rated heat output and low temperature regime	η_1	%	97.1	96.4	99.3	94.4
Other items						
Standby heat loss	P_{stby}	kW	0.23	0.264	0.293	0.301
Ignition burner power consumption	P_{ign}	kW	0	0	0	0
Annual energy consumption	Q_{HE}	kWh	-	-	-	-
Sound power level, indoors	L_{WA}	db	49.6	50.6	53.7	51.1
Emissions of nitrogen oxides	NO_x	mg/kWh	<120	<120	<120	<120
Emissions Class			2	2	2	2
Daily fuel consumption	Q_{fuel}	kWh	-	-	-	-
Annual fuel consumption	AFC	GJ	-	-	-	-

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Pro Range: Vortex Pro External	Symbols	Unit	46-58	58-70
Condensing boiler			Yes	Yes
Low temperature boiler			No	No
B1 Boiler			No	No
Combination heater			No	No
Rated heat output	P_{rated}	kW	58	70
Useful heat output				
At rated heat output and high temp regime	P_4	kW	58	70
At 30% of rated heat output and low temp regime	P_1	kW	17.4	21
Auxiliary electricity consumption				
At Full load	El_{max}	kW	0.189	0.182
At part load	El_{min}	kW	0.072	0.075
In standby mode	P_{SB}	kW	0	0
Useful efficiency				
Seasonal space heating energy efficiency	η_s	%	91.94	91.61
At rated heat output and high temperature regime	η_4	%	91.5	90.9
At 30% of rated heat output and low temperature regime	η_1	%	96.7	96.2
Other items				
Standby heat loss	P_{stby}	kW	0.309	0.306
Ignition burner power consumption	P_{ign}	kW	0	0
Annual energy consumption	Q_{HE}	kWh	-	-
Sound power level, indoors	L_{WA}	db	55.7	55.0
Emissions of nitrogen oxides	NO_x	mg/ kWh	<120	<120
Emissions Class			3	3
Daily fuel consumption	Q_{fuel}	kWh	-	-
Annual fuel consumption	AFC	GJ	-	-

Pro range: Vortex Utility	Symbols	Unit	15-21	15-26 Kitchen Boiler	26-36 Utility Boiler	36/46	46-58	58-70	System 15-26S	26-36-S Utility System Boiler	System 36-46S
	Condensing boiler			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Low temperature boiler			No	No	No	No	No	No	No	No	No
B1 Boiler			No	No	No	No	No	No	No	No	No
Combination heater			No	No	No	No	No	No	No	No	No
Rated heat output	<i>Prated</i>	kW	21	26	36	46	58	70	26	36	46
Useful heat output											
At rated heat output and high temp regime	P_4	kW	21	26	36	46	58	70	26	36	46
At 30% of rated heat output and low temp regime	P_1	kW	6.3	7.8	10.8	13.8	17.4	21	7.8	10.8	13.8
Auxiliary electricity consumption											
At Full load	el_{max}	kW	0.158	0.130	0.150	0.148	0.189	0.182	0.130	0.150	0.148
At part load	el_{min}	kW	0.052	0.039	0.049	0.052	0.072	0.075	0.039	0.049	0.052
In standby mode	P_{SB}	kW	0	0	0	0	0	0	0	0	0
Useful efficiency											
Seasonal space heating energy efficiency	η_s	%	90.81	91.71	94.56	90.00	91.94	91.61	91.71	94.56	90.00
At rated heat output and high temperature regime	η_4	%	88.9	93.6	95.1	90.8	91.5	90.9	93.6	95.1	90.8
At 30% of rated heat output and low temperature regime	η_1	%	97.1	96.4	99.3	94.4	96.7	96.2	96.4	99.3	94.4
Other items											
Standby heat loss	P_{stby}	kW	0.23	0.264	0.293	0.301	0.309	0.306	0.264	0.293	0.301
Ignition burner power consumption	P_{ign}	kW	0	0	0	0	0	0	0	0	0
Annual energy consumption	Q_{HE}	kWh	-	-	-	-	-	-	-	-	-
Sound power level, indoors	L_{WA}	db	49.6	50.6	53.7	51.1	55.7	55.0	50.6	53.7	51.1
Emissions of nitrogen oxides	NO_x	mg/kWh	<120	<120	<120	<120	<120	<120	<120	<120	<120
Emissions Class			2	2	2	2	3	3	2	2	2
Daily fuel consumption	Q_{fuel}	kWh	-	-	-	-	-	-	-	-	-
Annual fuel consumption	AFC	GJ	-	-	-	-	-	-	-	-	-

Pro Range: Vortex Condensing Combi	Symbols	Unit	21	26	36
Condensing boiler			Yes	Yes	Yes
Low temperature boiler			No	No	No
B1 Boiler			No	No	No
Combination heater			Yes	Yes	Yes
Rated heat output	<i>Prated</i>	kW	21	26	36
Useful heat output					
At rated heat output and high temperature regime	P_4	kW	21	26	36
At 30% of rated heat output and low temperature regime	P_1	kW	6.3	7.8	10.8
Auxiliary electricity consumption					
At Full load	el_{max}	kW	0.158	0.13	0.15
At part load	el_{min}	kW	0.052	0.052	0.039
In standby mode	P_{SB}	kW	0.009	0.009	0.009
Declared load profile					
Daily electricity consumption	Q_{elec}		0.293	0.23	0.205
Annual electricity consumption	AEC		64.5	50.5	45.2
Useful efficiency					
Seasonal space heating energy efficiency	η_s	%	90.81	91.71	94.56
At rated heat output and high temperature regime	η_4	%	88.9	93.6	95.1
At 30% of rated heat output and low temperature regime	η_1	%	97.1	96.4	99.3
Other items					
Standby heat loss	P_{stby}	kW	0.23	0.264	0.522
Ignition burner power consumption	P_{ign}	kW	0	0	0
Annual energy consumption	Q_{HE}	kWh	-	-	-
Sound power level, indoors	L_{WA}	dB	50.6	50.6	53.7
Emissions of nitrogen oxides	NO_x	mg/kWh	<120	<120	<120
Emissions Class			2	2	2
Water heating efficiency	η_{wh}	%	68.23	62.6	60.38
Daily fuel consumption	Q_{fuel}	kWh	27.2	30	31.1
Annual fuel consumption	AFC	GJ	21.556	26.673	24.67

Vortex Boiler House			Boilerhouse 15/21	Boilerhouse 21/26	Boilerhouse 26/35	Boilerhouse 36-46	Boilerhouse 46-58	Boilerhouse 58-70
	Symbols	Unit						
Condensing boiler			Yes	Yes	Yes	Yes	Yes	Yes
Low temperature boiler			No	No	No	No	No	No
B1 Boiler			No	No	No	No	No	No
Combination heater			No	No	No	No	No	No
Rated heat output	P_{rated}	kW	21	26	35	46	58	70
Useful heat output								
At rated heat output and high temperature regime	P_4	kW	21	26	35	46	58	70
At 30% of rated heat output and low temperature regime	P_1	kW	5.8	7.4	9.6	13.8	17.4	21
Auxiliary electricity consumption								
At Full load	el_{max}	kW	0.113	0.154	0.146	0.155	0.215	0.215
At part load	el_{min}	kW	0.035	0.047	0.045	0.046	0.064	0.064
In standby mode	P_{SB}	kW	0	0	0	0	0	0
Useful efficiency								
Seasonal space heating energy efficiency	η_s	%	92.70	91.70	92.40	90.06	91.98	91.66
At rated heat output and high temperature regime	η_4	%	92.2	92.4	92.4	90.8	91.5	90.9
At 30% of rated heat output and low temperature regime	η_1	%	98.4	97.2	97.5	94.4	96.7	96.2
Other items								
Standby heat loss	P_{stby}	kW	0.082	0.091	0.09	0.1	0.12	0.12
Ignition burner power consumption	P_{ign}	kW	0	0	0	0	0	0
Annual energy consumption	Q_{HE}	kWh	-	-	-	-	-	-
Sound power level, indoors	L_{WA}	dB	63	63	66	61	68	67
Emissions of nitrogen oxides	NO_x	mg/ kWh	<120	<120	<120	<120	<120	<120
Emissions Class			2	2	2	2	3	3
Daily fuel consumption	Q_{fuel}	kWh	-	-	-	-	-	-
Annual fuel consumption	AFC	GJ	-	-	-	-	-	-

Pro Range: Vortex Outdoor Condensing Combi	Symbols	Unit	Vortex Outdoor Combi 21	26	36
Condensing boiler			Yes	Yes	Yes
Low temperature boiler			No	No	No
B1 Boiler			No	No	No
Combination heater			Yes	Yes	Yes
Rated heat output	<i>Prated</i>	kW	21	26	36
Useful heat output					
At rated heat output and high temperature regime	P_4	kW	21	26	36
At 30% of rated heat output and low temperature regime	P_1	kW	6.3	7.8	10.8
Auxiliary electricity consumption					
At Full load	el_{max}	kW	0.158	0.13	0.15
At part load	el_{min}	kW	0.052	0.052	0.039
In standby mode	P_{SB}	kW	0.009	0.009	0.009
Declared load profile					
Daily electricity consumption	Q_{elec}		0.293	0.23	0.205
Annual electricity consumption	<i>AEC</i>		65.4	50.5	45.2
Useful efficiency					
Seasonal space heating energy efficiency	η_s	%	90.81	91.71	94.56
At rated heat output and high temperature regime	η_4	%	88.9	93.6	95.1
At 30% of rated heat output and low temperature regime	η_1	%	97.1	96.4	99.3
Other items					
Standby heat loss	P_{stby}	kW	0.23	0.264	0.522
Ignition burner power consumption	P_{ign}	kW	0	0	0
Annual energy consumption	Q_{HE}	kWh	-	-	-
Sound power level, indoors	L_{WA}	dB	50.6	50.6	53.7
Emissions of nitrogen oxides	NO_x	mg/kWh	<120	<120	<120
Emissions Class			2	2	2
Water heating efficiency	η_{wh}	%	68.23	62.6	60.38
Daily fuel consumption	Q_{fuel}	kWh	30	30	31.1
Annual fuel consumption	<i>AFC</i>	GJ	21.556	26.673	24.67

Pro Range: Vortex Pro Combi XS	Symbols	Unit	26
Condensing boiler			Yes
Low temperature boiler			No
B1 Boiler			No
Combination heater			Yes
Rated heat output	P_{rated}	kW	26
Useful heat output			
At rated heat output and high temperature regime	P_4	kW	26
At 30% of rated heat output and low temperature regime	P_1	kW	8.3
Auxiliary electricity consumption			
At Full load	e_{lmax}	kW	0.167
At part load	e_{lmin}	kW	0.049
In standby mode	P_{SB}	kW	0.001
Declared load profile			
Daily electricity consumption	Q_{elec}		0.269
Annual electricity consumption	AEC		59.2
Useful efficiency			
Seasonal space heating energy efficiency	η_s	%	92.00
At rated heat output and high temperature regime	η_4	%	91.92
At 30% of rated heat output and low temperature regime	η_1	%	97.64
Other items			
Standby heat loss	P_{stby}	kW	0.135
Ignition burner power consumption	P_{ign}	kW	0
Annual energy consumption	Q_{HE}	kWh	-
Sound power level, indoors	L_{WA}	dB	49.6
Emissions of nitrogen oxides	NO_x	mg/kWh	<120
Emissions Class			2
Water heating efficiency	η_{wh}	%	68.11
Daily fuel consumption	Q_{fuel}	kWh	27.3
Annual fuel consumption	AFC	GJ	21.6

Eco Range: Vortex Eco Utility	Symbols	Unit	15-21	21-26	26-35	SYSTEM 15-21	SYSTEM 21-26	SYSTEM 26-35
Condensing boiler			Yes	Yes	Yes	Yes	Yes	Yes
Low temperature boiler			No	No	No	No	No	No
B1 Boiler			No	No	No	No	No	No
Combination heater			No	No	No	No	No	No
Rated heat output	P_{rated}	kW	21	26	35	21	26	35
Useful heat output								
At rated heat output and high temperature regime	P_4	kW	21	26	35	21	26	35
At 30% of rated heat output and low temperature regime	P_1	kW	5.8	7.4	9.6	5.8	7.4	9.6
Auxiliary electricity consumption								
At Full load	el_{max}	kW	0.113	0.154	0.146	0.113	0.154	0.146
At part load	el_{min}	kW	0.035	0.047	0.045	0.035	0.047	0.045
In standby mode	P_{SB}	kW	0	0	0	0	0	0
Useful efficiency								
Seasonal space heating energy efficiency	η_s	%	92.7	91.7	92.4	92.7	91.7	92.4
At rated heat output and high temperature regime	η_4	%	92.2	92.4	92.4	92.2	92.4	92.4
At 30% of rated heat output and low temperature regime	η_1	%	98.4	97.2	97.5	98.4	97.2	97.5
Other items								
Standby heat loss	P_{stby}	kW	0.082	0.091	0.09	0.082	0.091	0.09
Ignition burner power consumption	P_{ign}	kW	0	0	0	0	0	0
Annual energy consumption	Q_{HE}	kWh	-	-	-	-	-	-
Sound power level, indoors	L_{WA}	dB	50.6	50.6	53.7	50.6	50.6	53.7
Emissions of nitrogen oxides	NO_x	mg/ kWh	<120	<120	<120	<120	<120	<120
Emissions Class			2	2	2	2	2	2
Daily fuel consumption	Q_{fuel}	kWh	-	-	-	-	-	-
Annual fuel consumption	AFC	GJ	-	-	-	-	-	-

Eco Range: Vortex Eco External	Symbols	Unit	15-21	21-26	26-35	SYSTEM 15-21	SYSTEM 21-26	SYSTEM 26-35
Condensing boiler			Yes	Yes	Yes	Yes	Yes	Yes
Low temperature boiler			No	No	No	No	No	No
B1 Boiler			No	No	No	No	No	No
Combination heater			No	No	No	No	No	No
Rated heat output	P_{rated}	kW	21	26	35	21	26	35
Useful heat output								
At rated heat output and high temperature regime	P_4	kW	21	26	35	21	26	35
At 30% of rated heat output and low temperature regime	P_1	kW	5.8	7.4	9.6	5.8	7.4	9.6
Auxiliary electricity consumption								
At Full load	el_{max}	kW	0.113	0.154	0.146	0.113	0.154	0.146
At Part load	el_{min}	kW	0.035	0.047	0.045	0.035	0.047	0.045
In standby mode	P_{SB}	kW	0	0	0	0	0	0
Useful efficiency								
Seasonal space heating energy efficiency	η_s	%	92.7	91.7	92.4	92.7	91.7	92.4
At rated heat output and high temperature regime	η_4	%	92.2	92.4	92.4	92.2	92.4	92.4
At 30% of rated heat output and low temperature regime	η_1	%	98.4	97.2	97.5	98.4	97.2	97.5
Other items								
Standby heat loss	P_{stby}	kW	0.082	0.091	0.09	0.082	0.091	0.09
Ignition burner power consumption	P_{ign}	kW	0	0	0	0	0	0
Annual energy consumption	Q_{HE}	kWh	-	-	-	-	-	-
Sound power level, indoors	L_{WA}	dB	50.6	50.6	53.7	50.6	50.6	53.7
Emissions of nitrogen oxides	NO_x	mg/kWh	<120	<120	<120	<120	<120	<120
Emissions Class			2	2	2	2	2	2
Daily fuel consumption	Q_{fuel}	kWh	-	-	-	-	-	-
Annual fuel consumption	AFC	GJ						

Eco Range: Vortex Eco Wall Hung	Symbols	Unit	12-16	16-21	SYSTEM 12-16	SYSTEM 16-21
Condensing boiler			Yes	Yes	Yes	Yes
Low temperature boiler			No	No	No	No
B1 Boiler			No	No	No	No
Combination heater			No	No	No	No
Rated heat output	P_{rated}	kW	16	21	16	21
Useful heat output						
At rated heat output and high temperature regime	P_4	kW	16	21	16	21
At 30% of rated heat output and low temperature regime	P_1	kW	4.8	6.3	4.8	6.3
Auxiliary electricity consumption						
At Full load	el_{max}	kW	0.164	0.150	0.164	0.150
At part load	el_{min}	kW	0.062	0.07	0.062	0.07
In standby mode	P_{SB}	kW	0	0	0	0
Useful efficiency						
Seasonal space heating energy efficiency	η_s	%	90.13	90.52	90.13	90.52
At rated heat output and high temperature regime	η_4	%	93.1	90.8	93.1	90.8
At 30% of rated heat output and low temperature regime	η_1	%	96.7	96.9	96.7	96.9
Other items						
Standby heat loss	P_{stby}	kW	0.207	0.236	0.207	0.236
Ignition burner power consumption	P_{ign}	kW	0	0	0	0
Annual energy consumption	Q_{HE}	kWh	-	-	-	-
Sound power level, indoors	L_{WA}	dB	51.2	51.7	51.2	51.7
Emissions of nitrogen oxides	NO_x	mg/kWh	<120	<120	<120	<120
Emissions Class			2	2	2	2
Daily fuel consumption	Q_{fuel}	kWh	-	-	-	-
Annual fuel consumption	AFC	GJ	-	-	-	-

Eco Range: Vortex Eco Wall Hung External	Symbols	Unit	12-16	16-21	SYSTEM 12-16	SYSTEM 16-21
Condensing boiler			Yes	Yes	Yes	Yes
Low temperature boiler			No	No	No	No
B1 Boiler			No	No	No	No
Combination heater			No	No	No	No
Rated heat output	P_{rated}	kW	16	21	16	21
Useful heat output						
At rated heat output and high temperature regime	P_4	kW	16	21	16	21
At 30% of rated heat output and low temperature regime	P_1	kW	4.8	6.3	4.8	6.3
Auxiliary electricity consumption						
At Full load	el_{max}	kW	0.164	0.150	0.164	0.150
At part load	el_{min}	kW	0.062	0.07	0.062	0.07
In standby mode	P_{SB}	kW	0	0	0	0
Useful efficiency						
Seasonal space heating energy efficiency	η_s	%	90.13	90.52	90.13	90.52
At rated heat output and high temperature regime	η_4	%	93.1	90.8	93.1	90.8
At 30% of rated heat output and low temperature regime	η_1	%	96.7	96.9	96.7	96.9
Other items						
Standby heat loss	P_{stby}	kW	0.207	0.236	0.207	0.236
Ignition burner power consumption	P_{ign}	kW	0	0	0	0
Annual energy consumption	Q_{HE}	kWh	-	-	-	-
Sound power level, indoors	L_{WA}	dB	51.2	51.7	51.2	51.7
Emissions of nitrogen oxides	NO_x	mg/kWh	<120	<120	<120	<120
Emissions Class			2	2	2	2
Daily fuel consumption	Q_{fuel}	kWh	-	-	-	-
Annual fuel consumption	AFC	GJ	-	-	-	-

End of Life Information

General

Grant oil boilers incorporate components manufactured from a variety of different materials. The majority of these materials can be recycled whilst the smaller remainder cannot.

Materials that cannot be recycled must be disposed of according to local regulations using appropriate waste collection and/or disposal services.

Disassembly

There is little risk to those involved in the disassembly of this product. Please refer to and follow the Health and Safety Information given in the Installation & Servicing Instructions provided with the boiler.

For guidance on the disassembly of the boiler refer to the information given in the Servicing section of the Installation & Servicing Instructions provided with the boiler.

Recycling

Many of the materials used in Grant oil boilers can be recycled, these are listed in the table below:

Component	Material
Outer casing panels	Mild steel (polyester powder coated)
Primary heat exchanger and baffles	Mild steel
Secondary heat exchanger	Stainless steel
Secondary heat exchanger spirals	Aluminium alloy
Pipework	Copper
Burner body/flange	Aluminium alloy
Burner oil pump	Aluminium alloy/steel
Riello oil burner cover	Plastic
Electrical wiring	Copper/plastic
Thermostats	Copper/plastic
Printed Circuit boards	Copper/plastic

Disposal

All materials other than those listed above must be disposed of responsibly as general waste.

