

Bosch Greenstar Boilers



	Space Heating + DHW			Space Heating Only		
	Greenstar Combi 100	Greenstar Combi 151	Greenstar 57	Greenstar 100	Greenstar 131	Greenstar 151
Model	ZWB28-3	ZWB42-3	ZBR16-3	ZBR28-3	ZBR35-3	ZBR42-3
Part Number - NG	7738100002	7713331041	7712231416	7712231415	7712231414	7712231413
Performance Specifications						
Fuel	NG / LP	NG / LP	NG / LP	NG / LP	NG / LP	NG / LP
Input Maximum (MBH)	100.8	151.6	57.2	100.8	131.9	151.6
Input Minimum (MBH)	34.6	36	12.9	24.6	36	36
DOE Heating Capacity (MBH)	89.4	134.4	50.8	89.4	116.7	134.4
Net I=B+R (MBH)	79	117	45	79	103	117
AFUE	90%*					
Low Temp Application Efficiencies	98.9%	96.8%	98.7%	98.5%	97.5%	96.8%
DHW Flow Max (ΔT at 72°F)	2.65 GPM	4.0 GPM	-	-	-	-
Water Volume (Gal)	1.0	1.0	1.0	1.0	1.0	1.0
Technical Data						
Weight (Without Packaging)	110.2 lbs	110.2 lbs	103.6 lbs	103.6 lbs	103.6 lbs	103.6 lbs
Dimensions W x H x D	17.4" x 33.5" x 13.9"	17.4" x 33.5" x 13.9"	17.4" x 33.5" x 13.9"	17.4" x 33.5" x 13.9"	17.4" x 33.5" x 13.9"	17.4" x 33.5" x 13.9"
Minimum Recommended Pipe Size	1"	1"	1"	1"	1"	1"
Supply Tappings	1"	1"	1"	1"	1"	1"
Return Tappings	1"	1"	1"	1"	1"	1"
Domestic Cold Water Supply	¾"	¾"	-	-	-	-
Domestic Hot Water Supply	¾"	¾"	-	-	-	-
Gas Connection Size	¾"	¾"	¾"	¾"	¾"	¾"
Vent Size	2" - 3"	2" - 3"	2" - 3"	2" - 3"	2" - 3"	2" - 3"
Vent Material	PVC / CPVC	PVC / CPVC	PVC / CPVC	PVC / CPVC	PVC / CPVC	PVC / CPVC
Combustion Air Size	2" - 3"	2" - 3"	2" - 3"	2" - 3"	2" - 3"	2" - 3"
High Altitude Capability	No De-Rating up to 6,000'	De-Rating 3% per 1,000'	No De-Rating up to 6,000'	No De-Rating up to 6,000'	No De-Rating up to 6,000'	De-Rating 3% per 1,000'
Gas Pressure Minimum WC	NG 3.5" / LP 8"	NG 3.5" / LP 8"	NG 3.5" / LP 8"	NG 3.5" / LP 8"	NG 3.5" / LP 8"	NG 3.5" / LP 8"

* In November of 2012, AHRI, the agency that regulates AFUE ratings, announced that due to a testing inaccuracy all modulating gas condensing boilers from all manufacturers are down-rated to 90%. Bosch is working closely with AHRI to ensure that ratings reflect accurate test results. For more information visit www.ahri.ca/PDFs/20121128DOE_AFUE_Revision_Measurements.pdf

§Copies of original warranties in their entirety are available at www.boschheatingandcooling.com

Part Number	Description	Price List
Greenstar		
7713331041	Greenstar Combi 151	\$4,851.00
7738100002	Greenstar Combi 100	\$3,712.00
7712231416	Greenstar 57	\$2,855.00
7712231415	Greenstar 100	\$3,712.00
7712231414	Greenstar 131	\$4,183.00
7712231413	Greenstar 151	\$4,488.00

Part Number	Description	Price List
Greenstar Accessories		
7719003525	FB100 (Auxilliary Room Sensor)	\$128.00
7719003526	IPM2 (2 Zone Model)	\$256.00
7719003527	ISM2 (Solar Thermal Module)	\$256.00
7719003528	ICM (Cascade Module)	\$466.00
7719002503	Cleaning Tool	\$20.00
7719002502	Cleaning Brush Set	\$69.00

OUTPUTS

Capacity BTU/HR @ 65°F Entering Air										
Model	Fan Speed	Pressure Drop (Ft.)	ENTERING WATER TEMPERATURE (Deg. F.) - BTU/Hrs.							
			140'	150'	160'	170'	180'	190'	200'	210'
PSU-10	max. min.	2.75	4278	5325	6192	7024	7957	9081	9736	10598
			2994	3727	4334	4915	5570	6350	6810	7415
PSU-15	max. min.	3.07	5120	6255	7382	8933	10590	12250	14349	15430
			3580	4375	5163	6250	7412	8575	10040	10800
PSU-23	max. min.	3.82	8790	10932	13070	15210	17370	19500	21530	23820
			6150	7651	9145	10645	12160	13645	15072	16675
PSU-30	max. min.	4.6	10050	12750	15800	19150	22000	24900	27750	30450
			7030	8900	11020	13380	15350	17400	19425	21310
PSU-40	max. min.	4.6	19720	21384	23166	25300	29402	31600	35640	40700
			17000	18250	20050	23008	25200	27055	29184	31040

NOTES:

1. PSU 10, 15 & 23 capacities based on 2 gpm correction factors for:
.5 gpm = .80; 1.5 gpm = .96; 2.5 gpm = 1.07; 3 gpm = 1.12; and 5 gpm = 1.23.
PSU 30 & 40 capacities based on 3 gpm correction factors for:
1 gpm = .85; 5 gpm = 1.18.
2. Aquastat set to close on a rise to 130°F and to open on a drop to 110°F. For outputs at 130°F and below optional field mounted 110°F-90°F aquastat is required.
3. It is recommended that selections be made at low speed at the desired water temperature.

MODEL	UNIT WEIGHT	WT. PACKED	CUBIC FT./MINUTE	
			MAX.	MIN.
PSU-10	24.6 lbs.	28 lbs.	75	50
PSU-15	33 lbs.	37 lbs.	140	100
PSU-23	44 lbs.	50 lbs.	210	150
PSU-30	37.75 lbs.	45.25 lbs.	270	196
PSU-40	53.56 lbs.	62.86 lbs.	378	275

ENGINEERING SPECIFICATIONS

Construction. All PSU fan convectors are constructed of an internal "Heatpack" section mounted to a well designed back chassis. All components are then enclosed under a shroud (cover) which is made of high grade zinc coated steel painted with a dove grey baked enamel finish.

"Heatpack" Section. A uniquely designed internal component consisting of the coil, fan and motor assembly and all controls integrally mounted.

Heat Exchanger. A highly efficient, headered coil, made of copper tubes expanded into smooth aluminum plate fins (10 FPI), tested at 300 PSI, and sealed for quality. The heat exchanger is positioned in each PSU unit for maximum heat transfer over the coil.

Fan and Motor Assembly. High spec tangential SEL fan and motor assembly consists of high static fan wheel and scroll, detachable motor, replaceable "easy glide" sleeve bearings, and the fan and motor cut out are protected to UL/CSA specifications. This fan and motor assembly is designed to run whisper quiet without vibration.

Controls. All PSU units have integral two speed, max.-off-min., and switches (optional wall mounted fan speed controller is available). The LTC – low limit aquastat is also a high spec item with a close tolerance designed to close on a rise to 130°F+/-3°F and open at 110°F+/-3°F. For low temperature systems you will have to change out the aquastat located on the second copper tube U bend behind the speed switch, in the main control box, underneath the cover shroud.

Water Connections. Supply and return connections are 1/2" (PSU 10, 15 & 23) or 3/4" (PSU 30 & 40) sweat connections located on the left hand side of the unit as you face the grille. A water vent with wide convenient screwdriver slot is accessible on the left of the unit underneath.

Electrical Connections. (PSU 10, 15 & 23) 120/60/1 power supply is required. The cover shroud (i.e. the cover) must be removed to bleed the unit. (PSU 30 & 40) 120/60/1 power supply is required. All that's required is to knock out the junction box hole you want to use and wire to the L1 and L2 leads. There is a convenient one screw access plate on the top of the unit to get at the ground.