



DATE: May 18, 2023

TITLE: UL60335 Certified WA and WH Products

FILE: SM23-01

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Bard Manufacturing uses a Nationally Recognized Testing Laboratory (NRTL) to ensure customers that we meet North American safety standards. UL 60335-2-40 is the latest testing and certification program for HVACR equipment and provides new, rigorous testing criteria. The currently used UL1995 4th and 5th edition standards will be gradually phased out and replaced with UL60335-2-40.

The new CH product line was launched earlier this year and is UL60335 compliant. The WA and WH product lines are the next to migrate from the existing UL1995 standard to the new UL60335 standard.

Changing from UL1995 to UL60335-2-40 has required significant changes to safety testing procedures, including those utilized to qualify the safety of electric heat. Due to changes to the procedures, all electric heater packages are being re-tested and redesigned.

UL60335-2-40 Electric Heat testing procedure and electrical rating changes include:

- Testing across a broadened voltage range.
- Additional testing with higher rated filters including MERV13.
- Revised electric heat data and Amp draw to reflect 230V electric heater operation instead of 240V electric heater operation. Actual heating BTUH output will remain the same, but electric heat information on serial plates, installation manuals, and unit specifications will reflect 230V operation. [See illustration 1-1.](#)
- Revised electric heat data and Amp draw to reflect 460V electric heater operation instead of 480V electric heater operation. Actual heating BTUH output will remain the same, but electric heat information on serial plates, installation manuals, and unit specifications will reflect 460V operation. [See illustration 1-1.](#)

UL60335-2-40 Compliant electric heater packages will include the following physical changes:

- Revised primary and secondary limit setpoints for electric heater packages per new testing requirements.
- Modern non-resettable bi-metal limits are used in replacement of non-resettable thermal cutoffs as a secondary protection device. The bi-metal secondary limit design is more consistent and reactive to varying conditions providing enhanced reliability. Primary limits will continue to be a field resettable design. See [illustration 1-2.](#)
- A 4-pin Molex low voltage connector is used for UL60336 compatible heater packages instead of the 6-pin Molex connector for factory and field installed kits.
- Removal of the emergency heat relay from select models and miscellaneous wiring changes are also part of the changes for the new UL60335 heater packages.

What this means from a sales standpoint:

The new WA and WH series UL60335-2-40 compliant electric heater packages will provide enhanced reliability during use at various temperature conditions. However, heater packages for UL60335-2-40 compliant equipment will not be compatible with heater packages for UL1995 certified equipment. New field installed heater package kits will be required for UL60335-2-40 certified equipment, and distributor stocking of UL1995 certified heater packages may need to be reduced. Factory installed heater packages will automatically be installed with the new UL60335-2-40 compliant heater packages as they are built. These units will be identified by the revision letter in the nomenclature.

Identifying unit models tested to UL60335-2-40 Standards:

- New UL60335 WA and WH products with a "Y" used as the revision letter in the nomenclature:

W**AY***** or W**HY*****

See Table 1-3 of WA and WH products and planned available heater packages.

- New CH products already released for production using “Y” as the revision letter in the nomenclature:

C**HY*****

See Specification #S3630 for further information regarding available heater packages.

Unit models continuing to use UL1995 Standards:

Various other unit models including the IH, IA, QH, QA, QC, QW, WSAC, WG, TS, MEGA-TEC, MULTI-TEC, FUSION-TEC and WRV will continue to use UL1995 standards until the launch of A2L refrigerants in all production equipment near the end of 2024. These products will make a minor change from UL1995 4th edition to UL1995 5th edition this year. This will not require new unit nomenclature, heater packages or electrical rating changes and will allow us to continue to produce these units in 2024 without meeting UL60335 compliance. Upon release, specification sheets for these products will have updates to the front page to indicate the change to UL1995 5th edition.

Distributor Inventory Considerations:

WA and WH units with the new “Y” revision in the nomenclature will require the UL60335-2-40 compatible field installed heater packages. Be aware of the field installed heater package kits that are being ordered, and the equipment that they will be installed in. **Existing WA and WH heater packages for UL1995 equipment will not be compatible with the new WA and WH “Y” revision UL60335 units.**

Purchase Order Considerations:

After release of the “Y” revision models, units on purchase orders need to reflect the “Y” revision in the nomenclature. Customer service will help guide this transition process.

Official Release Date of UL60335-2-40 compliant WA and WH models using the “Y” revision:

Bard is targeting **July 1st** to process all new WA and WH unit orders as the “Y” revision UL60335 compliant product. Production will be able to continue of the older revision products until January 1st, 2024. At that time, all production of WA and WH units will be the new “Y” revision (UL60335 compliant). Be aware that testing will still be in process for select units including the W48A, W60A, and W72A models. 15kw heater options may not be available for these unit models at launch. It is important to review the below heater package spreadsheet for availability of heater packages. See Table 1-3. Electrical MCA and MOCP ratings for the heater packages per UL60335 testing procedures will be released as tests are completed.

Solair Products:

Solair models (JA and JH) will be released approximately a month later on August 1st. Solair UL60335 models will use the “Y” revision upon launch and use the same heater packages as the WA and WH series products.

Reference Materials:

Illustration 1-1:

UL 1995 Electric Heat Table -

Electric Heat Nomenclature	Nominal KW	Total KW and BTUH @ Field-Supplied Voltage													
		@ 240V (1)			@ 208V (1)			@ 480V			@ 460V				
		KW	1-PH Amps	3-PH Amps	BTUH	KW	1-PH Amps	3-PH Amps	BTUH	KW	3-PH Amps	BTUH	KW	3-PH Amps	BTUH
04	4.0	4.0	16.7		13,700	3.0	14.4		10,200						
05	5.0	5.0	20.8	12.0	17,100	3.8	18.0	10.4	12,800	5.0	6.0	17,100	4.6	5.8	15,700
06	6.0	6.0		14.4	20,500	4.5		12.5	15,400	6.0	7.2	20,500	5.5	6.9	18,800
08	8.0	8.0	33.3		27,300	6.0	28.8		20,500						
09	9.0	9.0		21.7	30,700	6.8		18.7	23,000	9.0	10.8	30,700	8.3	10.4	28,300
10	10.0	10.0	41.7		34,100	7.5	36.1		25,600						
12	12.0									12.0	14.4	41,000	11.0	13.9	37,700
15	15.0	15.0	62.5	36.1	51,200	11.3	54.1	31.2	38,400	15.0	18.0	51,200	13.8	17.3	47,100
18	18.0	18.0		43.3	61,400	13.5		37.5	46,100	18.0	21.7	61,400	16.6	20.8	56,500
20	20.0	20.0	83.3		68,300	15.0	72.1		51,200						

(1) Listed electric heaters are available for 230/208V units only.

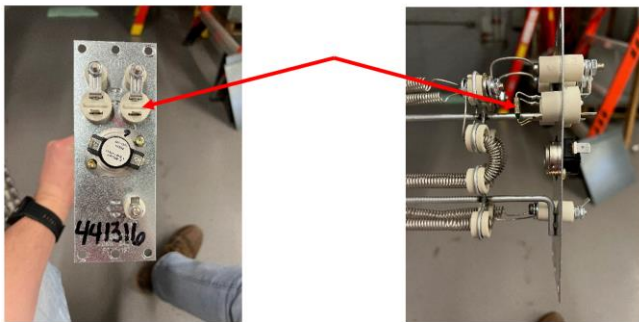
UL 60335-2-40 Electric Heat Table -

Electric Heat Nomenclature	Nominal KW	Total KW and BTUH @ Field-Supplied Voltage										
		@ 230V (1)				@ 208V (1)				@ 460V		
		KW	1-PH Amps	3-PH Amps	BTUH	KW	1-PH Amps	3-PH Amps	BTUH	KW	3-PH Amps	BTUH
04	4.0	3.7	16.0		12,600	3.0	14.4		10,200			
05	5.0	4.6	20.0	11.5	15,700	3.8	18.0	10.4	12,800	4.6	5.8	15,700
06	6.0	5.5		13.9	18,800	4.5		12.5	15,400	5.5	6.9	18,800
08	8.0	7.4	32.0		25,100	6.0	28.8		20,500			
09	9.0	8.3		20.8	28,300	6.8		18.7	23,000	8.3	10.4	28,300
10	10.0	9.2	40.0		31,400	7.5	36.1		25,600			
12	12.0									11.0	13.9	37,700
15	15.0	13.8	60.0	34.6	47,100	11.3	54.1	31.2	38,400	13.8	17.3	47,100
18	18.0	16.6		41.6	56,500	13.5		37.5	46,100	16.6	20.8	56,500
20	20.0	18.4	80.0		62,800	15.0	72.1		51,200			

(1) Listed electric heaters are available for 230/208V units only.

Illustration 1-2:

UL 1995 HEATERS WITH THERMAL CUT-OFF BACKUP PROTECTION DEVICES



UL 60335-2-40 HEATERS WITH ONE-SHOT BI-METAL BACKUP PROTECTION DEVICES

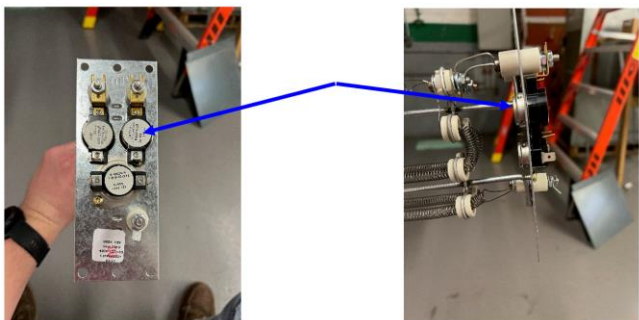


Table 1-3:

	Unit Model	Electric Heater Packages												
		00	02	04	05	06	07	08	09	10	12	15	18	20
	W18AY-A	Y	Y	N	Y	N	N	N	N	Y	N	N	N	N
	W18LY-A	N	Y	N	Y	N	N	N	N	Y	N	N	N	N
	W24AY-A	Y	Y	N	Y	N	N	N	N	Y	N	N	N	N
	W24AY-B	Y	Y	N	Y	N	N	N	N	N	N	N	N	N
	W24AY-C	Y	Y	N	Y	N	N	N	N	N	N	N	N	N
	W24AY-D	N	Y	N	Y	N	N	N	N	Y	N	N	N	N
	W24AY-F	N	Y	Y	N	N	N	N	N	N	N	N	N	N
	W24LY-A	N	Y	N	Y	N	N	N	N	Y	N	N	N	N
	W24LY-B	N	Y	N	Y	N	N	N	N	N	N	N	N	N
	W24LY-F	N	Y	Y	N	N	N	N	N	N	N	N	N	N
	W30AY-A	Y	Y	N	Y	N	N	N	N	Y	N	Y	N	N
	W30AY-B	Y	Y	N	Y	N	N	N	Y	N	N	Y	N	N
	W30AY-C	Y	Y	N	Y	N	N	N	Y	N	N	Y	N	N
	W30AY-D	N	Y	N	Y	N	N	N	N	Y	N	N	N	N
	W30AY-F	N	Y	N	N	N	Y	N	N	N	Y	N	N	N
	W30LY-A	N	Y	N	Y	N	N	N	N	Y	N	Y	N	N
	W30LY-B	N	Y	N	N	N	N	N	Y	N	N	Y	N	N
	W30LY-C	N	Y	N	N	N	N	N	Y	N	N	Y	N	N
	W30LY-F	N	Y	N	N	N	Y	N	N	N	Y	N	N	N
	W36AY-A	Y	Y	N	Y	N	N	N	N	Y	N	Y	N	N
	W36AY-B	Y	Y	N	Y	N	N	N	Y	N	N	Y	N	N
	W36AY-C	Y	Y	N	Y	N	N	N	Y	N	N	Y	N	N
	W36AY-D	N	Y	N	Y	N	N	N	N	Y	N	N	N	N
	W36AY-E	N	Y	N	Y	N	N	N	Y	N	N	N	N	N
	W36AY-F	N	Y	N	N	N	Y	N	N	N	Y	N	N	N
	W36LY-A	N	Y	N	Y	N	N	N	N	Y	N	Y	N	N
	W36LY-B	N	Y	N	N	N	N	N	Y	N	N	Y	N	N
	W36LY-C	N	Y	N	N	N	N	N	Y	N	N	Y	N	N
	W36LY-F	N	Y	N	N	N	Y	N	N	N	Y	N	N	N
	W42AY-A	Y	Y	N	Y	N	N	N	N	Y	N	Y	N	N
	W42AY-B	Y	Y	N	Y	N	N	N	Y	N	N	Y	N	N
	W42AY-C	Y	Y	N	N	N	N	N	Y	N	N	Y	N	N
	W42AY-E	N	Y	N	N	N	N	N	Y	N	N	Y	N	N
	W42AY-F	N	Y	N	N	N	Y	N	N	N	Y	N	N	N
	W48AY-A	Y	Y	N	Y	N	N	N	N	Y	N	Y	N	N
	W48AY-B	Y	Y	N	Y	N	N	N	Y	N	N	Y	N	N
	W48AY-C	Y	Y	N	N	N	N	N	Y	N	N	Y	N	N
	W48AY-E	N	Y	N	N	N	N	N	Y	N	N	Y	N	N
	W48AY-F	N	Y	N	N	N	Y	N	N	N	Y	N	N	N
	W60AY-A	Y	Y	N	Y	N	N	N	N	Y	N	Y	N	N
	W60AY-B	Y	Y	N	N	N	N	N	Y	N	N	Y	N	N
	W60AY-C	Y	Y	N	N	N	N	N	Y	N	N	Y	N	N
	W60AY-E	N	Y	N	N	N	N	N	Y	N	N	Y	N	N
	W60AY-F	N	Y	N	N	N	Y	N	N	N	Y	N	N	N
	W72AY-A	Y	Y	N	Y	N	N	N	N	Y	N	Y	N	N
	W72AY-B	Y	Y	N	N	N	N	N	Y	N	N	Y	N	N
	W72AY-C	Y	Y	N	N	N	N	N	Y	N	N	Y	N	N
	W72AY-F	N	Y	N	N	N	Y	N	N	N	Y	N	N	N

50hz and 60hz Air Conditioners

60hz Air Conditioners – Dehum.	Unit Model	Electric Heater Packages												
		00	0Z	04	05	06	07	08	09	10	12	15	18	20
W30AYDA	N	Y	N	Y	N	N	N	Y	N	Y	N	N	N	N
W30AYDB	N	Y	N	Y	N	N	N	Y	N	N	N	N	N	N
W30AYDC	N	Y	N	Y	N	N	N	Y	N	N	N	N	N	N
W36AYDA	N	Y	N	Y	N	N	N	Y	N	Y	N	N	N	N
W36AYDB	N	Y	N	Y	N	N	N	Y	N	N	N	N	N	N
W36AYDC	N	Y	N	Y	N	N	N	Y	N	N	N	N	N	N
W36AYDV	N	Y	Y	N	N	Y	N	N	N	N	N	N	N	N
W42AYDA	Y	Y	N	Y	N	N	N	N	Y	N	Y	N	N	N
W42AYDB	Y	Y	N	Y	N	N	N	Y	N	N	N	N	Y	N
W42AYDC	Y	Y	N	Y	N	N	N	Y	N	N	N	N	N	N
W48AYDA	Y	Y	N	Y	N	N	N	N	Y	N	Y	N	N	N
W48AYDB	Y	Y	N	Y	N	N	N	Y	N	N	N	N	Y	N
W48AYDC	Y	Y	N	Y	N	N	N	Y	N	N	N	N	N	N
W60AYDA	Y	Y	N	Y	N	N	N	N	Y	N	Y	N	N	N
W60AYDB	Y	Y	N	N	N	N	N	Y	N	N	Y	N	N	N
W60AYDC	Y	Y	N	N	N	N	N	Y	N	N	Y	N	N	N
W72AYDA	Y	Y	N	Y	N	N	N	N	Y	N	Y	N	N	N
W72AYDB	Y	Y	N	N	N	N	N	Y	N	N	Y	N	N	N
W72AYDC	Y	Y	N	N	N	N	N	Y	N	N	Y	N	N	N

Heat Pumps	Unit Model	Electric Heater Packages												
		00	0Z	04	05	06	07	08	09	10	12	15	18	20
W18HY-A	Y	Y	Y	N	N	N	Y	N	N	N	N	N	N	N
W24HY-A	Y	Y	Y	N	N	N	Y	N	N	N	N	N	N	N
W24HY-B	Y	Y	N	Y	N	N	N	N	N	N	N	N	N	N
W24HY-C	Y	Y	N	Y	N	N	N	N	N	N	N	N	N	N
W30HY-A	Y	Y	N	Y	N	N	N	N	Y	N	N	N	N	N
W30HY-B	Y	Y	N	Y	N	N	N	Y	N	N	N	N	N	N
W30HY-C	Y	Y	N	Y	N	N	N	Y	N	N	N	N	N	N
W36HY-A	Y	Y	N	Y	N	N	N	N	Y	N	Y	N	N	N
W36HY-B	Y	Y	N	Y	N	N	N	Y	N	N	N	N	N	N
W36HY-C	Y	Y	N	Y	N	N	N	Y	N	N	N	N	N	N
W42HY-A	Y	Y	N	Y	N	N	N	N	Y	N	Y	N	N	N
W42HY-B	Y	Y	N	Y	N	N	N	Y	N	N	Y	N	N	N
W42HY-C	Y	Y	N	Y	N	N	N	Y	N	N	Y	N	N	N
W48HY-A	Y	Y	N	Y	N	N	N	N	Y	N	Y	N	N	Y
W48HY-B	Y	Y	N	Y	N	N	N	Y	N	N	Y	N	Y	N
W48HY-C	Y	Y	N	Y	N	N	N	Y	N	N	Y	N	N	N
W60HY-A	Y	Y	N	Y	N	N	N	N	Y	N	Y	N	N	Y
W60HY-B	Y	Y	N	N	N	N	N	Y	N	N	Y	N	Y	N
W60HY-C	Y	Y	N	N	N	N	N	Y	N	N	Y	N	N	N

	Unit Model	Electric Heater Packages												
		00	02	04	05	06	07	08	09	10	12	15	18	20
Heat Pump Dehumidification	W24HYDA	Y	Y	Y	N	N	N	Y	N	N	N	N	N	N
	W24HYDB	Y	Y	N	Y	N	N	N	N	N	N	N	N	N
	W24HYDC	Y	Y	N	Y	N	N	N	N	N	N	N	N	N
	W30HYDA	Y	Y	N	Y	N	N	N	N	Y	N	N	N	N
	W30HYDB	Y	Y	N	Y	N	N	N	Y	N	N	N	N	N
	W30HYDC	Y	Y	N	Y	N	N	N	Y	N	N	N	N	N
	W36HYDA	Y	Y	N	Y	N	N	N	N	Y	N	N	N	N
	W36HYDB	Y	Y	N	Y	N	N	N	Y	N	N	N	N	N
	W36HYDC	Y	Y	N	Y	N	N	N	Y	N	N	N	N	N
	W42HYDA	Y	Y	N	Y	N	N	N	N	Y	N	Y	N	N
	W42HYDB	Y	Y	N	Y	N	N	N	Y	N	N	Y	N	N
	W42HYDC	Y	Y	N	Y	N	N	N	Y	N	N	Y	N	N
	W48HYDA	Y	Y	N	Y	N	N	N	N	Y	N	Y	N	N
	W48HYDB	Y	Y	N	Y	N	N	N	Y	N	N	Y	N	N
	W48HYDC	Y	Y	N	Y	N	N	N	Y	N	N	Y	N	N
	W60HYDA	Y	Y	N	Y	N	N	N	N	Y	N	Y	N	N
	W60HYDB	Y	Y	N	N	N	N	N	Y	N	N	Y	N	N
	W60HYDC	Y	Y	N	N	N	N	N	Y	N	N	Y	N	N

	Unit Model	Electric Heater Packages												
		00	02	04	05	06	07	08	09	10	12	15	18	20
Hi Res. Ground	W36AYRC	Y	Y	N	Y	N	N	N	Y	N	N	Y	N	N
	W36LYRC	Y	Y	N	N	N	N	N	Y	N	N	Y	N	N
	W42AYRC	Y	Y	N	N	N	N	N	Y	N	N	Y	N	N
	W48AYRC	Y	Y	N	N	N	N	N	Y	N	N	Y	N	N
	W60AYRC	Y	Y	N	N	N	N	N	Y	N	N	Y	N	N
	W72AYRC	Y	Y	N	N	N	N	N	Y	N	N	Y	N	N

- A - 208/230V-60hz-1ph.
- B - 208/230V-60hz-3ph.
- C - 460V-60hz-3ph.
- D - 200/220V-50hz-1ph.
- E - 200/220V-50hz-3ph.
- F - 415V-50hz-3ph.