



ELECTRIC FURNACE MODULAR AIR SYSTEM MMBV*E



- ✓ Mobile Home Approved
- ✓ R-410A Refrigerant
- ✓ Energy Efficient
- ✓ Durable Build & Finish
- ✓ Multi-Position Application
- ✓ Superior Performance
- ✓ Compact Design

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www.mrcool.com

ELECTRIC FURNACE MODULAR AIR SYSTEM

MMBV*E



The MRCOOL® Multi-Position Modular Blower is built for reliability and designed to deliver dependable comfort. The electronically commutated motor (ECM) delivers consistent airflow throughout the seasons, allowing you to stay comfortable all year long.

- Available in 2, 3, 4, and 5 ton capacities.
- 10-Year Parts Limited Warranty.†

SPECIFICATIONS

MODEL NO.		Unit	MMBV08BE	MMBV12BE	MMBV16CE	MMBV20DE
Power Supply		V/Hz/Ph	208-230,60,1	208-230,60,1	208-230,60,1	208-230,60,1
Blower Motor	Type		ECM™ variable	ECM™ variable	ECM™ variable	ECM™ variable
	Rated HP	HP	1/3	1/2	3/4	3/4
	Size	inch	9 x 6	9 x 6	10 x 8	10 x 8
Filter Size		inch	15 x 20	15 x 20	15 x 20	18 x 20
Max. Electric Heat available		kW	10	15	15	15
Indoor Unit	Dimension (WxHxD)	inch	17.5 x 25 x 21	17.5 x 25 x 21	21 x 26 x 21	21 x 26 x 24.5
	Packing (WxHxD)	inch				
	Weight	lbs	79	86	97	105
CFM @ 0.5 ESP	Up to	W.C.	980	1210	1610	1780



*Data provided by AHRI

†Warranty provides for a total of 10 years of limited warranty coverage (Standard 5-year limited parts warranty plus an additional 5-year limited extended parts warranty; 15-year for heat exchanger where specified). Warranty must be registered online within 60 days of installation to qualify for extended coverage. Unregistered equipment defaults to 5-year coverage.



10 year limited parts warranty available when applied with a system. See limited warranty document for details.

Features

Application

- 1-1/2 - 5 ton sizes
- Upflow, counterflow and horizontal positions

Cabinet

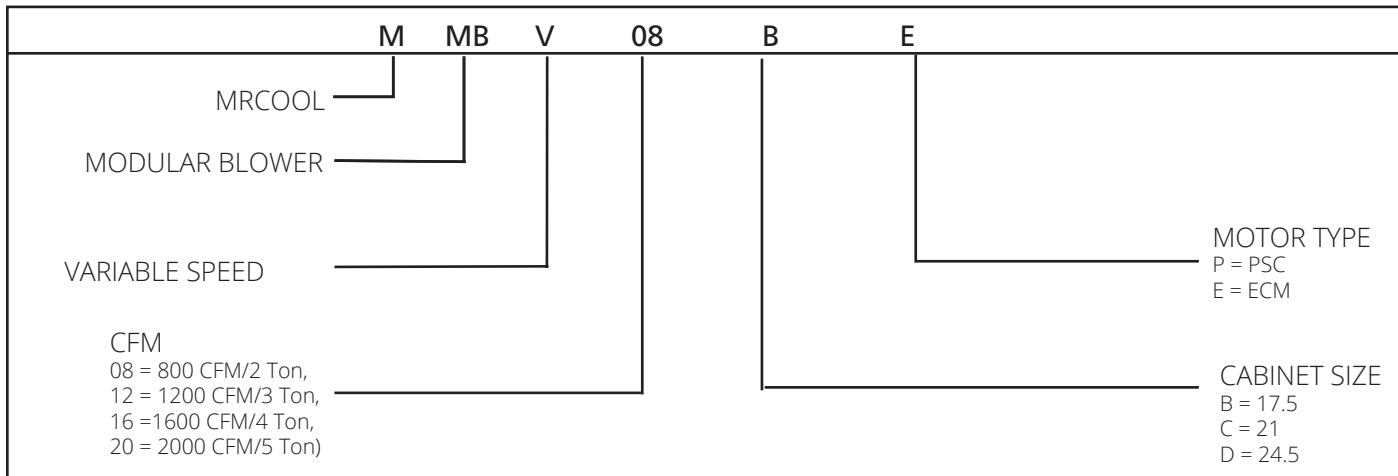
- Cabinet dimensions match standard furnace widths
- Painted galvanized cabinet

Components

- Models feature ECM™ variable speed motors
- Field installed 5 - 20 kW heat strips
- Factory installed fan relays for non-heat strip Installations



Model Number Guide



Physical Data

Model	Voltage/Phase/Hz	Blower Motor (hp)	Blower Motor Speeds	Maximum Duct Static	Rated Load Amps	Nominal Tonnage	Weight (lbs.)
MMBV08BE	208-230/1/60	1/3	*	.40	2.4	1-1/2 - 2	79
MMBV12BE	208-230/1/60	1/2	*	.40	3.1	1-1/2 - 3	86
MMBV16CE	208-230/1/60	3/4	*	.40	5.7	2 - 4	97
MMBV20DE	208-230/1/60	3/4	*	.40	5.7	3 - 5	105

Electrical Data

Blower Size	Electrical Heating Cap.		Blower Amps		(2) (3) Total Amps per Circuit						Total Unit Amps		MCA		Circuit Breaker	
	kW	Btuh			208v			240v							Amps per Stage	
	(1) 240v	(1) 240v	208V	240V	1	2	3	1	2	3	208	240	208v	240v	1	2
08 (no heat)	0	0	2.6	2.4	---	---	---	---	---	---	2.3	2.4	2.9	3.0	15	---
08	5	17,100	2.6	2.4	20.7	---	---	23.2	---	---	20.7	23.2	25.8	29.0	30	---
08	7.5	25,600	2.6	2.4	29.7	---	---	33.7	---	---	29.7	33.7	37.1	42.1	45	---
08	10	34,100	2.6	2.4	38.7	---	---	44.1	---	---	37.7	44.1	48.4	55.1	60	---
12 (no heat)	0	0	2.9	2.7	---	---	---	---	---	---	2.9	2.7	3.6	3.4	15	---
12	5	17,100	2.9	2.7	20.9	---	---	23.5	---	---	20.9	23.5	26.1	29.4	30	---
12	7.5	25,600	2.9	2.7	30.0	---	---	34.0	---	---	30.0	34.0	37.5	42.5	45	---
12	10	34,100	2.9	2.7	39.0	---	---	44.4	---	---	39.0	44.4	48.8	55.5	60	---
12	15	51,200	2.9	2.7	39.0	18.1	---	44.4	20.8	---	57.1	65.2	71.4	81.5	60	30
16 (no heat)	0	0	3.8	3.5	---	---	---	---	---	---	3.8	3.5	4.8	4.4	15	---
16	10	34,100	3.8	3.5	39.9	---	---	45.1	---	---	39.9	45.1	49.9	56.4	60	---
16	15	51,200	3.8	3.5	39.9	18.1	---	45.1	20.8	---	58.0	65.9	72.5	82.4	60	30
16	20	68,300	3.8	3.5	39.9	27.1	---	45.1	41.7	---	76.0	86.8	95.0	108.5	60	60
20 (no heat)	0	0	4.7	4.3	---	---	---	---	---	---	0.0	0.0	0.0	0.0	15	---
20	10	34,100	4.7	4.3	40.9	---	---	45.9	---	---	40.9	45.9	51.1	57.4	60	---
20	15	51,200	4.7	4.3	40.9	18.1	---	45.9	20.8	---	59.0	66.7	73.8	83.4	60	30
20	20	68,300	4.7	4.3	40.9	36.1	---	45.9	41.7	---	77.0	87.6	96.3	109.5	60	60

NOTE: If nominal CFM is 1000 (2.5 tons) with 15 kW electric heat, the motor speed must be set at medium or higher.
 Maximum kW for units with nominal CFM set at 1400 (3.5 tons) is 15 kW.
 For 208 volt use .751 correction factor for kW and Btuh.
 15 and 20 kW (2 stage models) require 2 supply circuits.
 Circuit #1 includes blower motor amps.
 kW packages in bold indicate that these packages require and include circuit breakers. Optional for others.

Accessories

Kit Number	Description	Used with
MHK05B	5kW with Circuit Breaker	8, 12
MHK07B	7.5kW with Circuit Breaker	8, 12
MHK10B	10kW with Circuit Breaker	All
MHK15B	15kW with Circuit Breaker	12, 16, 20
MHK20B	20kW with Circuit Breaker	

*C - Constant or V - Variable

1 N = No circuit breaker

1 C = Circuit breaker

Blower Performance

Air Handler Model	Energized Thermostat Terminal	Control Board Tap	CFM @ ESP. in W.C.							
			.10	.20	.30	.40	.50	.60	.70	.80
MMBV08BE	Y1	A	710	690	680	690	690	690	690	690
		B	560	560	560	570	560	560	570	570
		C	490	490	500	500	500	500	490	490
		D	430	430	430	430	440	440	440	440
	Y1 / Y2	A	1010	980	970	980	980	980	980	970
		B	800	800	800	810	800	800	810	810
		C	700	700	710	710	710	710	700	700
		D	610	610	620	620	630	630	630	630
	G	A	510	490	480	490	490	490	490	490
		B	400	400	400	410	400	400	410	410
		C	350	350	360	360	360	360	350	350
		D	310	310	310	310	320	320	320	320
MMBV12BE	Y1	A	850	860	860	870	880	880	880	880
		B	710	720	730	740	740	750	730	730
		C	620	600	600	600	610	600	610	610
		D	500	480	470	470	460	450	440	420
	Y1 / Y2	A	1,220	1,220	1,210	1,210	1,210	1,210	1,200	1,200
		B	1,000	1,010	1,040	1,040	1,040	1,040	1,040	1,020
		C	820	820	830	830	840	840	840	840
		D	650	640	640	650	650	660	660	640
	G	A	640	620	640	640	640	640	630	630
		B	570	560	560	550	560	550	520	520
		C	510	500	490	480	470	460	440	430
		D	470	450	440	410	400	400	390	380
MMBV16CE	Y1	A	1,130	1,120	1,120	1,110	1,100	1,090	1,080	1,070
		B	990	970	960	950	940	920	910	910
		C	850	830	810	790	780	750	740	710
		D	690	660	650	620	610	580	560	530
	Y1 / Y2	A	1,680	1,660	1,640	1,620	1,610	1,610	1,610	1,600
		B	1,440	1,400	1,400	1,400	1,390	1,380	1,380	1,360
		C	1,230	1,220	1,210	1,210	1,200	1,180	1,170	1,160
		D	1,000	990	980	980	960	950	950	940
	G	A	800	790	760	750	720	710	680	660
		B	680	670	650	630	610	580	550	520
		C	580	540	510	480	460	430	390	370
		D	480	430	390	410	400	400	400	400

Blower Performance

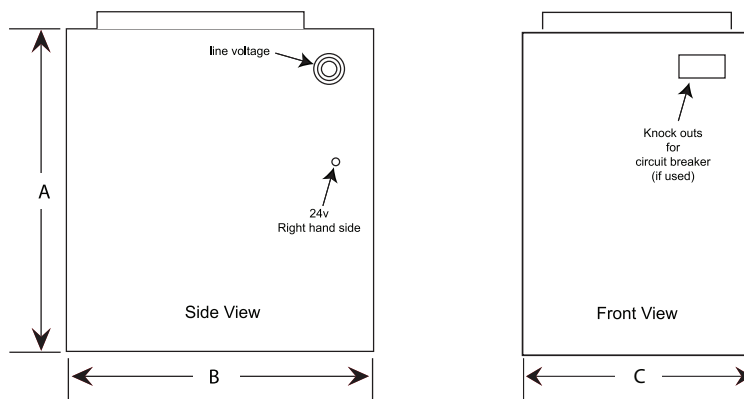
Air Handler Model	Energized Thermostat Terminal	Control Board Tap	CFM @ ESP. in W.C.							
			.10	.20	.30	.40	.50	.60	.70	.80
MMBV20DE	Y1	A	1,250	1,230	1,210	1,180	1,140	1,100	1,070	1,050
		B	1,120	1,100	1,080	1,040	990	970	940	930
		C	980	950	900	860	840	820	810	800
		D	860	810	760	740	720	710	700	680
	Y1 / Y2	A	1,840	1,830	1,810	1,790	1,780	1,760	1,730	1,690
		B	1,640	1,640	1,620	1,610	1,600	1,570	1,540	1,490
		C	1,390	1,380	1,370	1,360	1,322	1,296	1,255	1,220
		D	1,210	1,190	1,180	1,140	1,100	1,040	1,030	1,000
	G	A	910	870	830	790	770	760	740	730
		B	840	790	740	710	710	690	680	660
		C	740	690	640	640	620	610	600	590
		D	680	610	580	570	560	550	530	500

Notes: Humidistat will reduce colling airflow by 10% in high humidity.
 Adjust tap (+) will increase airflow by 10%, while tap (-) will decrease airflow by 12%
 Adjust tap test will cause the motor to run at 70% of full airflow. Use this for troubleshooting only.
 At the start of a call for cooling, there is a blower delay of 1 minute.

Dimensions (in.)

Unit Size	A	B	C	Supply Duct Opening		Return Duct Opening	
				Depth	Width	Depth	Width
MMBV08BE	25	21	17-1/2	16-1/2	15-1/2	19-1/2	16
MMBV12BE	25	21	17-1/2	16-1/2	15-1/2	19-1/2	16
MMBV16CE	26	21	21	16-1/2	19	19-1/2	19-1/2
MMBV20DE	26	21	24-1/2	16-1/2	22-1/2	19-1/2	23

Optional line voltage on top or right side of blower.



All specifications and illustrations subject to change without notice and without incurring obligations.

MRCOOL
EQUIPMENT LIMITED WARRANTY
APPLIES IN U.S.A. AND CANADA ONLY
FAILURE TO MAINTAIN YOUR EQUIPMENT WILL VOID THIS WARRANTY

COVERED EQUIPMENT

The following heating and cooling equipment is covered by the Limited Warranty,
Condensing Units: MAC16
Heat Pumps: MHP15
Gas Furnaces: MGM95, MGD95, MGM80, MGD80
Electric Furnace: MMBV
Evaporator Coils: MCH, MCV
Air Handlers: MAH
Package Equipment: MPG, MPC, MPH

PARTS and COMPRESSOR COVERAGE

The covered equipment and covered parts and compressor are warranted by MRCOOL for a period of five (5) years from the date of the original installation, when installed in a residential application (which includes homes, duplexes, apartments and condominiums). The covered equipment and covered parts are warranted for a period of one (1) year and compressor is warranted for five (5) years by MRCOOL from the date of the original installation, when installed in non-residential applications. If, during this period, a covered component fails because of a manufacturing defect, MRCOOL will provide a free replacement part to the owner through a licensed service contractor utilizing an MRCOOL distributor. You must pay shipping charges and all other costs of warranty service. MRCOOL will not pay labor involved in diagnostic calls or in removing, repairing, servicing or replacing parts. Such cost may be covered by a separate warranty provided by the installer.

HEAT EXCHANGER COVERAGE

All covered heat exchangers are warranted by MRCOOL for a period of twenty (20) years from the date of original installation in a residential application. Heat exchangers in all non-residential applications are warranted for a period of ten (10) years.

NOTE: In the event that a component covered by this warranty is no longer available, MRCOOL, at its option, through a established MRCOOL distributor, will provide a free suitable substitute component or will allow a credit toward the purchase of an equivalent new MRCOOL product (at the current suggested distributor's cost). If the date of original installation cannot be verified, the warranty period will be deemed to begin six (6) months after the date of manufacture.

EXCLUDED COMPONENTS

The following components are not covered by this warranty: cabinets, cabinet pieces, air filters, driers, refrigerant, refrigerant line sets, belts, wiring, fuses, oil nozzles, unit accessories and any parts not affecting unit operation.

CARE OF EQUIPMENT

Your new MRCOOL unit must be properly installed, operated and maintained in accordance with the unit installation, operation and maintenance instructions provided with each MRCOOL unit. Failure to provide maintenance per MRCOOL instructions will void this warranty.

WARRANTY PROCEDURE

When service or warranty parts are required:

- 1. Call your local licensed service dealer or contractor
2. If the installing dealer is unable to provide warranty service, check online at https://mrcool.com/warranty.
3. Be prepared to furnish the following information:
a. Complete model and serial number
b. Proof of required periodic maintenance, installation date and location.
c. An accurate description of the problem

WARRANTY LIMITATIONS

- 1. All installation must be in compliance with applicable laws, regulations, codes, and ordinances.
2. Products purchased over the internet or through other electronic means must be installed by a qualified installer and the installation must adhere to the Quality Installation protocols of the Air Conditioning Contractors of America (ACCA), and these products must be registered with the manufacturer within 60 days of installation for the warranty to be in place.
3. This warranty is void if the covered equipment is removed from the original installation site.
4. This warranty does not cover damage or defect resulting from:
a. Flood, wind, fire, lightning, mold, or installation and operation in a corrosive atmosphere, or otherwise in contact with corrosive materials (chlorine, fluorine, salt, recycled waste water, urine, fertilizers, or other damaging substances or chemicals). Accident, or neglect or unreasonable use or operation of the equipment including operation of electrical equipment at voltages other than the range specified on the unit nameplate (includes damages caused by brownouts).
b. Modification, change or alteration of the equipment, except as directed in writing by MRCOOL.
c. Operation with system components (indoor unit, outdoor unit and refrigerant control devices) which are not an AHRI match or meet the specifications recommended by MRCOOL.
d. Operation of furnaces with return air temperatures of less than 60°F (16°C) or operation of a furnace field installed downstream from a cooling coil.
e. Use of contaminated or refrigerant not compatible with the unit.

The installation of replacement parts under the terms of this warranty does not extend the original warranty period.

MRCOOL makes no express warranties other than the warranty specified above. All implied warranties, including the implied warranties of merchantability and fitness for a particular purpose, are excluded to the extent to a period legally permissible. Should such exclusion or limitation of the warranty be unenforceable, such implied warranties are in any event limited to a period of one (1) year. Liability for incidental and consequential damages is excluded. Some states do not allow limitation of incidental damages, so the limitations or exclusions may not apply to you. MRCOOL will not pay electricity or fuel costs, or increases in electricity or fuel costs, for any reason whatsoever, including additional or unusual use of supplemental electric heat. This warranty does not cover lodging expenses or labor charges.

MRCOOL shall not be liable for any default or delay in performance under this warranty caused by any contingency beyond its control. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

NOTE TO CUSTOMER

Please complete information below and retain this warranty for your records and future reference.

Outside Unit Model Number: _____ Serial Number: _____ Installed Date: _____
Furnace / Air Handler: _____ Serial Number: _____ Installed Date: _____
Indoor Coil Model Number: _____ Serial Number: _____ Installed Date: _____
Installing Company Name: _____ Phone: _____
Installing Company Address: _____ State/Province: _____ Zip/Postal Code: _____



LIMITED EXTENDED PARTS WARRANTY

MRCOOL LLC ("MRCOOL") provides its air conditioning and heating products with a standard five-year parts warranty. This limited extended parts warranty is in addition to and is intended to supplement MRCOOL's standard 5-year parts warranty. As such, this limited extended warranty provides for a total of 10 years of limited warranty coverage (Standard 5-Year Limited Parts Warranty plus Additional 5-Year Limited Extended Parts warranty).

EXTENDED COVERAGE -

PARTS/COMPRESSORS

The covered equipment and parts are warranted by MRCOOL for a total of 10 YEARS (standard 5 Year Limited Parts Warranty) from installation, except as provided below.

HEAT EXCHANGERS

The covered residential heating equipment's heat exchanger is warranted by MRCOOL for a Limited Lifetime (standard 20 Year Limited Warranty) from date of original installation, except as provided below.

This warranty applies only to the original purchaser of the unit and cannot be transferred. If during this period, a covered part fails because of a defect in materials or workmanship under normal use and maintenance, MRCOOL will provide a free replacement part to the purchaser through a MRCOOL dealer or other licensed service contractor through an authorized MRCOOL distributor. The purchaser must pay shipping costs, including labor, of the warranty service.

EXCLUDED COMPONENTS -

The following components are expressly not covered by this limited warranty: cabinets, cabinet pieces, air filters, driers, refrigerant, refrigerant line sets, belts, wiring, fuses, oil nozzles, and unit accessories, R-22 compressors, and any parts not affecting unit operation.

COVERAGE REQUIREMENTS -

1. The unit is a MRCOOL branded unit;
2. The unit is installed in a residential application, which is an owner-occupied single-family residence. No commercial applications are allowed;
3. The unit is properly registered at <https://mrcool.com/warranty> with MRCOOL within 60-days after the original date of installation or occupancy. To register, follow the directions and complete the online warranty registration at <https://mrcool.com/warranty>. For customer inquiries, contact MRCOOL at 270-366-0457 ext. 301 or <https://mrcool.com/contact>.
4. The unit is part of a complete AHRI matched system and installed by a state certified or licensed contractor in accordance with the unit installation, operation, and maintenance instructions provided with the unit.
5. Coils and air handlers are covered only when they are branded MRCOOL and are purchased and installed as a system along with a qualifying unit. (Third party coils are not covered).
6. Installation takes place on or after October 3, 2008.
7. Installation is in compliance with applicable laws, regulations, codes, and ordinances.

If this extended warranty does not apply, then parts are warranted for the standard warranty period of 5 YEARS and all heat exchangers for 20 YEARS. If the standard warranty periods differ from the original warranty certificate, the periods stated on the original warranty certificate apply.

This limited extended warranty does not apply to, and no warranty is offered by MRCOOL, on any unit ordered over the internet. Proof of purchase may be required.

Any part replaced pursuant to this limited extended warranty is warranted only for the unexpired portion of the limited extended warranty term applying to the original part. The installation of replacement parts under the terms of this limited extended warranty does not extend the warranty period.

This limited extended warranty is an extension of MRCOOL's standard warranty. ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ON THIS PRODUCT IS LIMITED IN DURATION TO THE TERM OF THIS LIMITED EXTENDED WARRANTY. Some states and provinces do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

MRCOOL SHALL IN NO EVENT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO EXTRA UTILITY EXPENSES OR DAMAGES TO PROPERTY. Some states and provinces do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

MRCOOL is not responsible for:

1. Damage or repairs required as a result of flood, fire, wind, lightning strike (to the home or unit), corrosive atmosphere, contact with corrosive material (chlorine, fluorine, salt, recycled waste water, fertilizers or other damaging substances) or other conditions beyond the control of MRCOOL;
2. Use of parts, accessories, or refrigerant not compatible with the unit;
3. Modification, change or alteration of the unit, except as expressly directed in writing by MRCOOL;
4. Improper use, accident, neglect or unreasonable use or operation of the unit, including operation of electrical equipment at voltages other than the range specified on the unit nameplate;
5. Operation with system parts (indoor unit, outdoor unit and refrigerant control devices) which are not AHRI matched or do not meet the specifications recommended by MRCOOL;
6. Damage or repairs required as a consequence of faulty or installation or application;
7. Normal maintenance as described in the installation and operating manual, such as cleaning of coils, filter cleaning and/or replacement and lubrication; and
8. Changes in the appearance or sound of the unit that do not affect its performance.

The parties intend this writing as a final expression of their agreement with respect to warranties. MRCOOL makes no other warranty beyond that which is expressly contained in this writing.

MRCOOL shall not be liable for any default or delay in performance under this warranty caused by any contingency beyond its control, including the unavailability of replacement parts.

This warranty gives you specific legal rights, and you may also have other rights that vary from state to state or province to province.

Steps for getting replacement parts under this limited extended warranty:

If you suspect a defect in your equipment, please contact the installer of the unit to obtain assistance. If unsuccessful, please contact a MRCOOL dealer or distributor in your area. If unable to obtain local assistance, refer to MRCOOL's website (<https://mrcool.com/warranty>) or contact MRCOOL at 270-366-0457 ext. 301 or <https://mrcool.com/contact>.

1 Excludes residents of states or provinces where registration requirements are prohibited, such as California and Quebec. Residents of these states or provinces may either register as noted above or provide proof of when the unit was purchased and installed, such as an original invoice from the contractor with the Owner's name, address, purchase date, serial and model number.