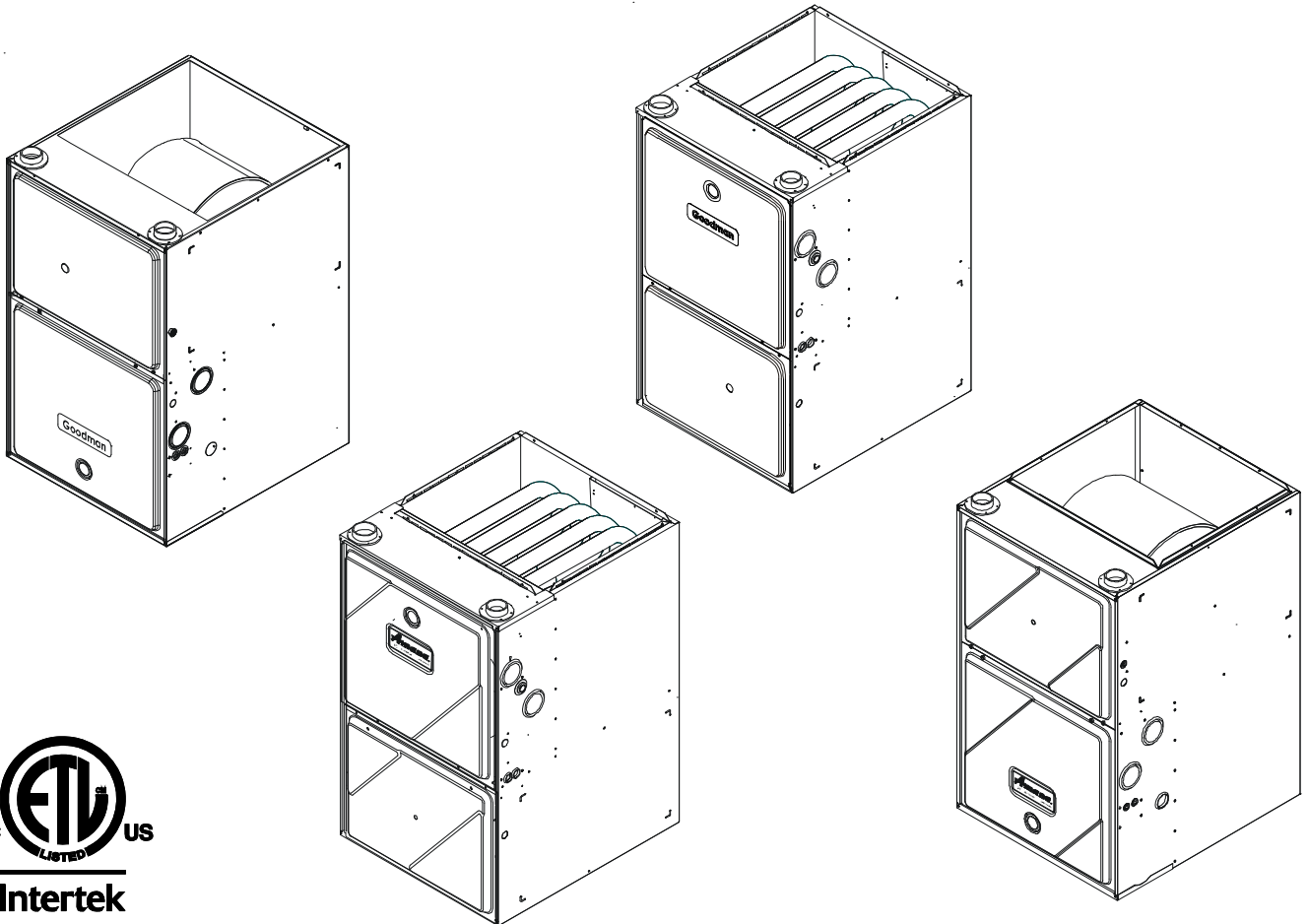


TECHNICAL MANUAL



*CVC96/*MVC96 96% Gas Furnace Units

- Refer to Service Manual RS6612010 for installation, operation, and troubleshooting information.
- Refer to the appropriate Parts Catalog for part number information.
- Models listed on page 3.



This manual is to be used by qualified, professionally trained HVAC technicians only. Goodman does not assume any responsibility for property damage or personal injury due to improper service procedures performed by an unqualified person.

RT6612032
August 2014

PRODUCT IDENTIFICATION

The model and manufacturing number are used for positive identification of component parts used in manufacturing. Please use these numbers when requesting service or parts information.

	*	M	V	C	9	6	0	6	0	3	B	N	A	A
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Brand	G - Goodman A - Amana													Minor Revision A - Initial Release B - 1st Revision
Configuration	M - Upflow/Horizontal C - Downflow/Horizontal K - Dedicated Upflow D - Dedicated Downflow													Major Revision A - Initial Release B - 1st Revision
Motor	V - Variable Speed ECM /ComfortNet E - Multi-Speed ECM S - Single Speed													NOx N - Low Nox
Gas Valve	M - Modulating V - 2 Stage H - Convertible 2 Stage S - Single Stage													Cabinet Width A - 14" B - 17.5" C - 21" D - 24.5"
AFUE	96 - 96% AFUE													Maximum CFM 2 - 800 CFM 3 - 1200 CFM 4 - 1600 CFM 5 - 2000 CFM
MBTU/h	40 - 40,000 60 - 60,000 80 - 80,000 100 - 100,000 120 - 120,000													

WARNING

HIGH VOLTAGE!

Disconnect ALL power before servicing or installing this unit. Multiple power sources may be present. Failure to do so may cause property damage, personal injury or death.

WARNING

Goodman will not be responsible for any injury or property damage arising from improper service or service procedures. If you install or perform service on this unit, you assume responsibility for any personal injury or property damage which may result. Many jurisdictions require a license to install or service heating and air conditioning equipment.

WARNING

Installation and repair of this unit should be performed ONLY by individuals meeting the requirements of an "entry level technician", at a minimum, as specified by the Air-Conditioning, Heating, and Refrigeration Institute (AHRI). Attempting to install or repair this unit without such background may result in product damage, personal injury or death.

PRODUCT IDENTIFICATION

The model and manufacturing number are used for positive identification of component parts used in manufacturing. Please use these numbers when requesting service or parts information.

*CVC960403BNAA
*CVC960603BNAA
*CVC960804CNAA
*CVC961005CNAA
*CVC961205DNAA
*MVC960403BNAA
*MVC960603BNAA
*MVC960803BNAA
*MVC960804CNAA
*MVC961005CNAA
*MVC961205DNAA



The United States Environmental Protection Agency ("EPA") has issued various regulations regarding the introduction and disposal of refrigerants introduced into this unit. Failure to follow these regulations may harm the environment and can lead to the imposition of substantial fines. These regulations may vary by jurisdiction. Should questions arise, contact your local EPA office.



Do not connect or use any device that is not design certified by Goodman for use with this unit. Serious property damage, personal injury, reduced unit performance and/or hazardous conditions may result from the use of such non-approved devices.



To prevent the risk of property damage, personal injury, or death, do not store combustible materials or use gasoline or other flammable liquids or vapors in the vicinity of this appliance.

FURNACE SPECIFICATIONS

	*MVC96 0403BNA	*MVC96 0603BNA	*MVC96 0803BNA	*MVC96 0804CNA	*MVC96 1005CNA	*MVC96 1205DNA
Heating Data						
High Fire Input ¹	40,000	60,000	80,000	80,000	100,000	120,000
High Fire Output ¹	38,400	57,600	76,800	76,800	96,000	115,200
Low-Fire Steady-State Input ¹	28,000	42,000	56,000	56,000	70,000	84,000
Low-Fire Steady-State Output ¹	26,880	40,320	53,760	53,760	67,200	80,640
AFUE ²	96	96	96	96	96	96
Temperature Rise Range (°F)	35 - 65	20 - 50	35 - 65	25 - 55	35 - 65	35 - 65
Vent Diameter ³	2" - 3"	2" - 3"	2" - 3"	2" - 3"	2" - 3"	2" - 3"
No. of Burners	2	3	4	4	5	6
Circulator Blower						
Available AC @ 0.5" ESP	1.5 - 3	1.5 - 3	1.5 - 3	1.5 - 4	2 - 5	2 - 5
Size (D x W)	10" x 8"	11" x 8"	11" x 8"	11" x 10"	11" x 10"	11" x 11"
Horsepower @ 1075 RPM	½	½	½	¾	1	1
Speed	VS ECM	VS ECM	VS ECM	VS ECM	VS ECM	VS ECM
Filter Size (in²)						
Permanent	341	731	683	853	853	1,024
Disposable	171	366	341	427	427	512
Electrical Data						
Min. Circuit Ampacity ⁴	7.8	7.8	7.8	10.6	14.4	14.4
Max. Overcurrent Device (amps) ⁵	15	15	15	15	20	20
Shipping Weight (lbs)						
	114	117	120	141	143	156

¹ Natural Gas BTU/h

² DOE AFUE based upon Isolated Combustion System (ICS)

³ Installer must supply one or two PVC pipes: one for combustion air (optional) and one for the flue outlet (required). Vent pipe must be either 2" or 3" in diameter, depending upon furnace input, number of elbows, length of run and installation (1 or 2 pipes). The optional Combustion Air Pipe is dependent on installation/code requirements and must be 2" or 3" diameter PVC.

⁴ Minimum Circuit Ampacity = (1.25 x Circulator Blower Amps) + ID Blower amps. Wire size should be determined in accordance with National Electrical Codes. Extensive wire runs will require larger wire sizes.

⁵ Maximum Overcurrent Protection Device refers to maximum recommended fuse or circuit breaker size. May use fuses or HACR-type circuit breakers of the same size as noted.

Notes

- All furnaces are manufactured for use on 115 VAC, 60 Hz, single-phase electrical supply.
- Gas Service Connection ½" FPT
- Important: Size fuses and wires properly and make electrical connections in accordance with the National Electrical Code and/or all existing local codes.
- For bottom return: Failure to unfold flanges may reduce airflow by up to 18%. This could result in performance and noise issues.
- For servicing or cleaning, a 24" front clearance is required. Unit connections (electrical, flue and drain) may necessitate greater clearances than the minimum clearances listed above. In all cases, accessibility clearance must take precedence over clearances from the enclosure where accessibility clearances are greater.

FURNACE SPECIFICATIONS

	*CVC96 0403BNA	*CVC96 0603BNA	*CVC96 0804CNA	*CVC96 1005CNA	*CVC96 1205DNA
Heating Data					
High Fire Input ¹	40,000	60,000	80,000	100,000	120,000
High Fire Output ¹	38,400	57,600	76,800	96,000	115,200
Low-Fire Steady-State Input ¹	28,000	42,000	56,000	70,000	84,000
Low-Fire Steady-State Output ¹	26,880	40,320	53,760	67,200	80,640
AFUE ²	96	96	96	96	96
Temperature Rise Range (°F)	20 - 50	35 - 65	25 - 55	45 - 75	35 - 65
Vent Diameter ³	2" - 3"	2" - 3"	2" - 3"	2" - 3"	2" - 3"
No. of Burners	2	3	4	5	6
Circulator Blower					
Available AC @ 0.5" ESP	1.5 - 3	1.5 - 3	1.5 - 4	2 - 5	2 - 5
Size (D x W)	10" x 8"	11" x 8"	11" x 10"	11" x 10"	11" x 11"
Horsepower @ 1075 RPM	½	½	¾	1	1
Speed	VS ECM	VS ECM	VS ECM	VS ECM	VS ECM
Filter Size (in²)					
Permanent	488	512	853	711	1,024
Disposable	244	256	427	356	512
Electrical Data					
Min. Circuit Ampacity ⁴	7.8	7.8	10.6	14.4	14.4
Max. Overcurrent Device (amps) ⁵	15	15	15	20	20
Shipping Weight (lbs)					
	116	119	143	145	158

¹ Natural Gas BTU/h

² DOE AFUE based upon Isolated Combustion System (ICS)

³ Installer must supply one or two PVC pipes: one for combustion air (optional) and one for the flue outlet (required). Vent pipe must be either 2" or 3" in diameter, depending upon furnace input, number of elbows, length of run and installation (1 or 2 pipes). The optional Combustion Air Pipe is dependent on installation/code requirements and must be 2" or 3" diameter PVC.

⁴ Minimum Circuit Ampacity = (1.25 x Circulator Blower Amps) + ID Blower amps. Wire size should be determined in accordance with National Electrical Codes. Extensive wire runs will require larger wire sizes.

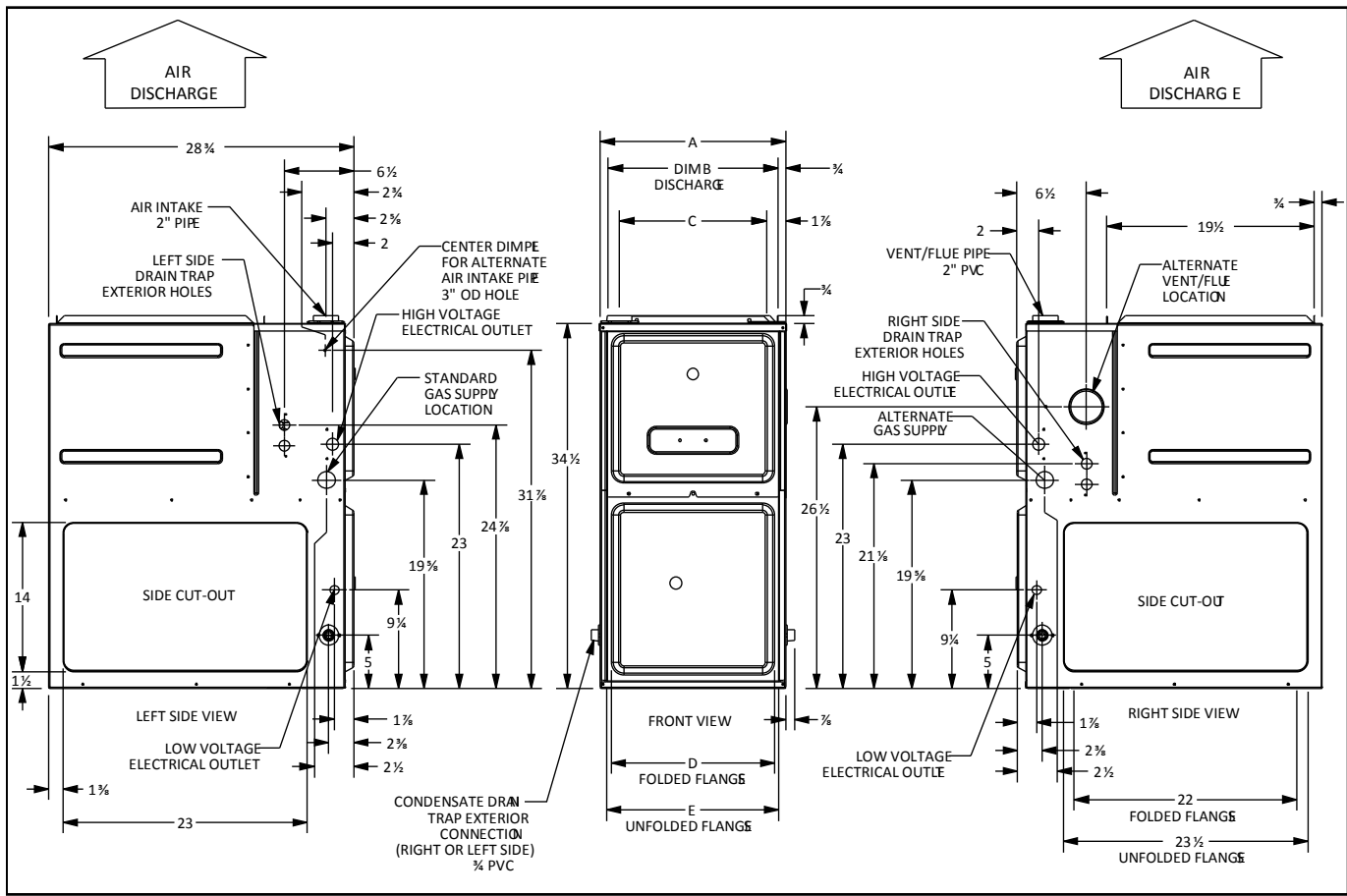
⁵ Maximum Overcurrent Protection Device refers to maximum recommended fuse or circuit breaker size. May use fuses or HACR-type circuit breakers of the same size as noted.

Notes

- All furnaces are manufactured for use on 115 VAC, 60 Hz, single-phase electrical supply.
- Gas Service Connection ½" FPT
- Important: Size fuses and wires properly and make electrical connections in accordance with the National Electrical Code and/or all existing local codes.
- For bottom return: Failure to unfold flanges may reduce airflow by up to 18%. This could result in performance and noise issues.
- For servicing or cleaning, a 24" front clearance is required. Unit connections (electrical, flue and drain) may necessitate greater clearances than the minimum clearances listed above. In all cases, accessibility clearance must take precedence over clearances from the enclosure where accessibility clearances are greater.

PRODUCT DIMENSIONS

DM96VC



Model	A	B	C	D	E
*MVC960403BNA	17 1/2"	16"	13 3/8"	12 1/8"	13 3/8"
*MVC960603BNA	17 1/2"	16"	13 3/8"	12 1/8"	13 3/8"
*MVC960803BNA	17 1/2"	16"	13 3/8"	12 1/8"	13 3/8"
*MVC960804CNA	21"	19 1/2"	17 3/8"	16"	17 1/2"
*MVC961005CNA	21"	19 1/2"	17 3/8"	16"	17 1/2"
*MVC961205DNA	24 1/2"	23"	20 3/8"	19 3/8"	20 3/8"

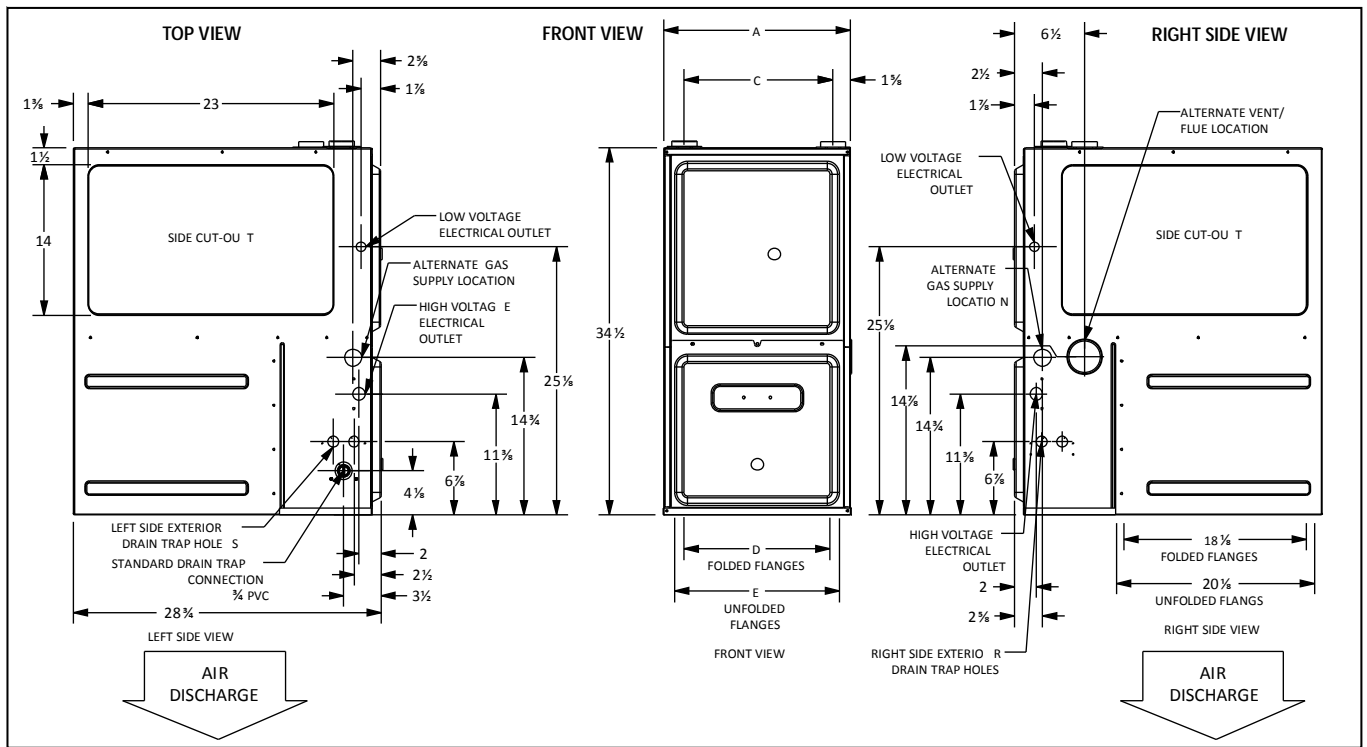
Minimum Clearances to Combustible Materials

Position	Sides	Rear	Front	Bottom	Flue	Top
Upflow	0"	0"	3"	C	0"	1"
Horizontal	6"	0"	3"	C	0"	6"

C = If placed on combustible floor, the floor MUST be wood ONLY.

PRODUCT DIMENSIONS

DC96VC



Model	A	B	C	D	E
*CVC960403BNA	17 1/2"	14 3/8"	14"	14 1/2"	16"
*CVC960603BNA	17 1/2"	14 3/8"	14"	14 1/2"	16"
*CVC960804CNA	21"	18 3/8"	17 1/2"	18"	19 1/2"
*CVC961005CNA	21"	18 3/8"	17 1/2"	18"	19 1/2"
*CVC961205DNA	24 1/2"	21 3/8"	21"	21 1/2"	23"

Minimum Clearances to Combustible Materials

Position	Sides	Rear	Front	Bottom	Flue	Top
Downflow	0"	0"	3"	NC	0"	1"
Horizontal	6"	0"	3"	C	0"	6"

C = If placed on combustible floor, the floor MUST be wood ONLY.

NC = For installation on non-combustible floors only. A combustible floor sub-base must be used for installations on combustible flooring.

BLOWER PERFORMANCE SPECIFICATIONS

***MVC960403BNA**
Cooling Speed
(@ .1" - .8" w.c. ESP)

Tap	Adjust	High-Stage CFM	Low-Stage CFM
A	Minus 10%	536	363
	Minus 5%	566	383
	Normal	596	403
	Plus 5%	626	423
	Plus 10%	656	443
B	Minus 10%	716	474
	Minus 5%	756	501
	Normal	796	527
	Plus 5%	836	553
	Plus 10%	876	580
C	Minus 10%	877	608
	Minus 5%	925	641
	Normal	974	675
	Plus 5%	1,023	709
	Plus 10%	1,071	743
D	Minus 10%	1,073	723
	Minus 5%	1,132	763
	Normal	1,192	803
	Plus 5%	1,252	843
	Plus 10%	1,311	883

***MVC960403BNA**
Heating Speed
(@ .1" - .5" w.c. ESP; Rise Range: 35 - 65°F)

Tap	Adjust	High-Stage CFM	Low-Stage CFM	Rise (°F)
A	Minus 10%	445	380	n/a
	Minus 5%	469	401	n/a
	Normal	494	422	n/a
	Plus 5%	519	443	n/a
	Plus 10%	543	464	65
B	Minus 10%	498	424	n/a
	Minus 5%	525	447	n/a
	Normal	553	471	64
	Plus 5%	581	495	61
	Plus 10%	608	518	58
C	Minus 10%	541	469	n/a
	Minus 5%	571	495	62
	Normal	601	521	59
	Plus 5%	631	547	56
	Plus 10%	661	573	54
D	Minus 10%	608	517	58
	Minus 5%	642	545	55
	Normal	676	574	53
	Plus 5%	710	603	50
	Plus 10%	744	631	48

***MVC960603BNA**
Cooling Speed
(@ .1" - .8" w.c. ESP)

Tap	Adjust	High-Stage CFM	Low-Stage CFM
A	Minus 10%	539	358
	Minus 5%	569	378
	Normal	599	398
	Plus 5%	629	418
	Plus 10%	659	438
B	Minus 10%	735	501
	Minus 5%	776	529
	Normal	817	557
	Plus 5%	858	585
	Plus 10%	899	613
C	Minus 10%	906	626
	Minus 5%	957	661
	Normal	1,007	696
	Plus 5%	1,057	731
	Plus 10%	1,108	766
D	Minus 10%	1,091	729
	Minus 5%	1,151	770
	Normal	1,212	810
	Plus 5%	1,273	851
	Plus 10%	1,333	891

***MVC960603BNA**
Heating Speed
(@ .1" - .5" w.c. ESP; Rise Range: 20 - 50°F)

Tap	Adjust	High-Stage CFM	Low-Stage CFM	Rise (°F)
A	Minus 10%	858	600	n/a
	Minus 5%	905	634	n/a
	Normal	953	667	n/a
	Plus 5%	1,001	700	n/a
	Plus 10%	1,048	734	n/a
B	Minus 10%	953	666	n/a
	Minus 5%	1,006	703	n/a
	Normal	1,059	740	50
	Plus 5%	1,112	777	48
	Plus 10%	1,165	814	46
C	Minus 10%	1,042	727	n/a
	Minus 5%	1,100	768	48
	Normal	1,158	808	46
	Plus 5%	1,216	848	44
	Plus 10%	1,274	889	42
D	Minus 10%	1,134	793	47
	Minus 5%	1,197	837	45
	Normal	1,260	881	42
	Plus 5%	1,323	925	40
	Plus 10%	1,386	969	38

Notes

- All furnaces ship as high speed for cooling. Installer must adjust blower speed as needed.
- For most jobs, about 400 CFM per ton when cooling is desirable.
- Do not operate above .5" w.c. ESP in heating mode. Operating CFM between .5" and .8" w.c. is tabulated for cooling purposes only.

BLOWER PERFORMANCE SPECIFICATIONS

***MVC960803BNA**
Cooling Speed
(@ .1" - .8" w.c. ESP)

Tap	Adjust	High-Stage CFM	Low-Stage CFM
A	Minus 10%	566	363
	Minus 5%	598	383
	Normal	629	403
	Plus 5%	660	423
	Plus 10%	692	443
B	Minus 10%	725	486
	Minus 5%	766	513
	Normal	806	540
	Plus 5%	846	567
	Plus 10%	887	594
C	Minus 10%	921	635
	Minus 5%	972	670
	Normal	1,023	705
	Plus 5%	1,074	740
	Plus 10%	1,125	776
D	Minus 10%	1,107	737
	Minus 5%	1,169	778
	Normal	1,230	819
	Plus 5%	1,292	860
	Plus 10%	1,353	901

***MVC960803BNA**
Heating Speed
(@ .1" - .5" w.c. ESP; Rise Range: 35 - 65°F)

Tap	Adjust	High-Stage CFM	Low-Stage CFM	Rise (°F)
A	Minus 10%	1,082	770	n/a
	Minus 5%	1,142	812	62
	Normal	1,202	855	59
	Plus 5%	1,262	898	56
	Plus 10%	1,322	941	54
B	Minus 10%	1,184	831	60
	Minus 5%	1,250	877	57
	Normal	1,316	923	54
	Plus 5%	1,382	969	51
	Plus 10%	1,448	1,015	49
C	Minus 10%	1,250	930	57
	Minus 5%	1,320	981	54
	Normal	1,389	1,033	51
	Plus 5%	1,458	1,085	49
	Plus 10%	1,528	1,136	47
D	Minus 10%	1,256	957	57
	Minus 5%	1,326	1,010	54
	Normal	1,396	1,063	51
	Plus 5%	1,466	1,116	49
	Plus 10%	1,536	1,169	46

***MVC960804CNA**
Cooling Speed
(@ .1" - .8" w.c. ESP)

Tap	Adjust	High-Stage CFM	Low-Stage CFM
A	Minus 10%	710	462
	Minus 5%	750	487
	Normal	789	513
	Plus 5%	828	539
	Plus 10%	868	564
B	Minus 10%	870	594
	Minus 5%	919	627
	Normal	967	660
	Plus 5%	1,015	693
	Plus 10%	1,064	726
C	Minus 10%	1,064	712
	Minus 5%	1,123	751
	Normal	1,182	791
	Plus 5%	1,241	831
	Plus 10%	1,300	870
D	Minus 10%	1,238	822
	Minus 5%	1,306	867
	Normal	1,375	913
	Plus 5%	1,444	959
	Plus 10%	1,513	1,004

***MVC960804CNA**
Heating Speed
(@ .1" - .5" w.c. ESP; Rise Range: 25 - 55°F)

Tap	Adjust	High-Stage CFM	Low-Stage CFM	Rise (°F)
A	Minus 10%	1,082	780	n/a
	Minus 5%	1,142	824	n/a
	Normal	1,202	867	n/a
	Plus 5%	1,262	910	n/a
	Plus 10%	1,322	954	54
B	Minus 10%	1,184	845	n/a
	Minus 5%	1,250	892	n/a
	Normal	1,316	939	54
	Plus 5%	1,382	986	51
	Plus 10%	1,448	1,033	49
C	Minus 10%	1,250	914	n/a
	Minus 5%	1,320	965	54
	Normal	1,389	1,016	51
	Plus 5%	1,458	1,067	49
	Plus 10%	1,528	1,118	47
D	Minus 10%	1,256	969	n/a
	Minus 5%	1,326	1,023	54
	Normal	1,396	1,077	51
	Plus 5%	1,466	1,131	49
	Plus 10%	1,536	1,185	46

Notes

- All furnaces ship as high speed for cooling. Installer must adjust blower speed as needed.
- For most jobs, about 400 CFM per ton when cooling is desirable.
- Do not operate above .5" w.c. ESP in heating mode. Operating CFM between .5" and .8" w.c. is tabulated for cooling purposes only.

BLOWER PERFORMANCE SPECIFICATIONS

***MVC961005CNA**
Cooling Speed
(@ .1" - .8" w.c. ESP)

Tap	Adjust	High-Stage CFM	Low-Stage CFM
A	Minus 10%	738	508
	Minus 5%	779	536
	Normal	820	564
	Plus 5%	861	592
	Plus 10%	902	620
B	Minus 10%	1,020	706
	Minus 5%	1,076	745
	Normal	1,133	784
	Plus 5%	1,190	823
	Plus 10%	1,246	862
C	Minus 10%	1,318	884
	Minus 5%	1,391	933
	Normal	1,464	982
	Plus 5%	1,537	1,031
	Plus 10%	1,610	1,080
D	Minus 10%	1,562	1,133
	Minus 5%	1,649	1,196
	Normal	1,736	1,259
	Plus 5%	1,823	1,322
	Plus 10%	1,910	1,385

***MVC961005CNA**
Heating Speed
(@ .1" - .5" w.c. ESP; Rise Range: 35 - 65°F)

Tap	Adjust	High-Stage CFM	Low-Stage CFM	Rise (°F)
A	Minus 10%	1,636	1,130	54
	Minus 5%	1,727	1,193	51
	Normal	1,818	1,256	49
	Plus 5%	1,909	1,319	47
	Plus 10%	2,000	1,382	44
B	Minus 10%	1,683	1,163	53
	Minus 5%	1,777	1,227	50
	Normal	1,870	1,292	48
	Plus 5%	1,964	1,357	45
	Plus 10%	2,057	1,421	43
C	Minus 10%	1,719	1,184	52
	Minus 5%	1,815	1,250	49
	Normal	1,910	1,316	47
	Plus 5%	2,006	1,382	44
	Plus 10%	2,101	1,448	42
D	Minus 10%	1,761	1,222	50
	Minus 5%	1,859	1,290	48
	Normal	1,957	1,358	45
	Plus 5%	2,055	1,426	43
	Plus 10%	2,153	1,494	41

***MVC961205DNA**
Cooling Speed
(@ .1" - .8" w.c. ESP)

Tap	Adjust	High-Stage CFM	Low-Stage CFM
A	Minus 10%	780	492
	Minus 5%	824	520
	Normal	867	547
	Plus 5%	910	574
	Plus 10%	954	602
B	Minus 10%	1,044	748
	Minus 5%	1,102	789
	Normal	1,160	831
	Plus 5%	1,218	873
	Plus 10%	1,276	914
C	Minus 10%	1,320	918
	Minus 5%	1,394	969
	Normal	1,467	1,020
	Plus 5%	1,540	1,071
	Plus 10%	1,614	1,122
D	Minus 10%	1,719	1,150
	Minus 5%	1,815	1,214
	Normal	1,910	1,278
	Plus 5%	2,006	1,342
	Plus 10%	2,101	1,406

***MVC961205DNA**
Heating Speed
(@ .1" - .5" w.c. ESP; Rise Range: 35 - 65°F)

Tap	Adjust	High-Stage CFM	Low-Stage CFM	Rise (°F)
A	Minus 10%	1,702	1,196	63
	Minus 5%	1,796	1,263	59
	Normal	1,891	1,329	56
	Plus 5%	1,986	1,395	54
	Plus 10%	2,080	1,462	51
B	Minus 10%	1,746	1,226	61
	Minus 5%	1,843	1,294	58
	Normal	1,940	1,362	55
	Plus 5%	2,037	1,430	52
	Plus 10%	2,134	1,498	50
C	Minus 10%	1,771	1,251	60
	Minus 5%	1,870	1,321	57
	Normal	1,968	1,390	54
	Plus 5%	2,066	1,460	52
	Plus 10%	2,165	1,529	49
D	Minus 10%	1,825	1,296	58
	Minus 5%	1,927	1,368	55
	Normal	2,028	1,440	53
	Plus 5%	2,129	1,512	50
	Plus 10%	2,231	1,584	48

Notes

- All furnaces ship as high speed for cooling. Installer must adjust blower speed as needed.
- For most jobs, about 400 CFM per ton when cooling is desirable.
- Do not operate above .5" w.c. ESP in heating mode. Operating CFM between .5" and .8" w.c. is tabulated for cooling purposes only.

BLOWER PERFORMANCE SPECIFICATIONS

***CVC960403BNA**
Cooling Speeds
(@ .1" - .8" w.c. ESP)

Tap	Adjust	High-Stage CFM	Low-Stage CFM
A	Minus 10%	590	404
	Minus 5%	622	427
	Normal	655	449
	Plus 5%	688	471
	Plus 10%	721	494
B	Minus 10%	726	512
	Minus 5%	767	541
	Normal	807	569
	Plus 5%	847	597
	Plus 10%	888	626
C	Minus 10%	898	644
	Minus 5%	948	680
	Normal	998	716
	Plus 5%	1,048	752
	Plus 10%	1,098	788
D	Minus 10%	1,086	769
	Minus 5%	1,147	811
	Normal	1,207	854
	Plus 5%	1,267	897
	Plus 10%	1,328	939

***CVC960403BNA**
Heating Speed
(@ .1" - .5" w.c. ESP; Rise Range: 20 - 50°F)

Tap	Adjust	High-Stage CFM	Low-Stage CFM	Rise (°F)
A	Minus 10%	861	614	41
	Minus 5%	909	648	39
	Normal	957	682	37
	Plus 5%	1,005	716	35
	Plus 10%	1,053	750	34
B	Minus 10%	953	675	37
	Minus 5%	1,006	713	35
	Normal	1,059	750	34
	Plus 5%	1,112	788	32
	Plus 10%	1,165	825	31
C	Minus 10%	1,040	738	34
	Minus 5%	1,097	779	32
	Normal	1,155	820	31
	Plus 5%	1,213	861	29
	Plus 10%	1,271	902	28
D	Minus 10%	1,126	799	32
	Minus 5%	1,188	844	30
	Normal	1,251	888	28
	Plus 5%	1,314	932	27
	Plus 10%	1,376	977	26

***CVC960603BNA**
Cooling Speeds
(@ .1" - .8" w.c. ESP)

Tap	Adjust	High-Stage CFM	Low-Stage CFM
A	Minus 10%	590	390
	Minus 5%	623	411
	Normal	656	433
	Plus 5%	689	455
	Plus 10%	722	476
B	Minus 10%	711	487
	Minus 5%	751	514
	Normal	790	541
	Plus 5%	830	568
	Plus 10%	869	595
C	Minus 10%	875	617
	Minus 5%	923	652
	Normal	972	686
	Plus 5%	1,021	720
	Plus 10%	1,069	755
D	Minus 10%	1,076	725
	Minus 5%	1,135	766
	Normal	1,195	806
	Plus 5%	1,255	846
	Plus 10%	1,315	887

***CVC960603BNA**
Heating Speed
(@ .1" - .5" w.c. ESP; Rise Range: 35 - 65°F)

Tap	Adjust	High-Stage CFM	Low-Stage CFM	Rise
A	Minus 10%	844	618	63
	Minus 5%	891	653	60
	Normal	938	687	57
	Plus 5%	985	721	54
	Plus 10%	1,032	756	52
B	Minus 10%	855	676	62
	Minus 5%	903	713	59
	Normal	950	751	56
	Plus 5%	998	789	53
	Plus 10%	1,045	826	51
C	Minus 10%	887	733	60
	Minus 5%	937	773	57
	Normal	986	814	54
	Plus 5%	1,035	855	52
	Plus 10%	1,085	895	49
D	Minus 10%	893	787	60
	Minus 5%	942	830	57
	Normal	992	874	54
	Plus 5%	1,042	918	51
	Plus 10%	1,091	961	49

Notes

- All furnaces ship as high speed for cooling. Installer must adjust blower speed as needed.
- For most jobs, about 400 CFM per ton when cooling is desirable.
- Do not operate above .5" w.c. ESP in heating mode. Operating CFM between .5" and .8" w.c. is tabulated for cooling purposes only.

BLOWER PERFORMANCE SPECIFICATIONS

***CVC960804CNA**
Cooling Speeds
(@ .1" - .8" w.c. ESP)

Tap	Adjust	High-Stage CFM	Low-Stage CFM
A	Minus 10%	753	500
	Minus 5%	795	528
	Normal	837	556
	Plus 5%	879	584
	Plus 10%	921	612
B	Minus 10%	920	643
	Minus 5%	971	678
	Normal	1,022	714
	Plus 5%	1,073	750
	Plus 10%	1,124	785
C	Minus 10%	1,085	754
	Minus 5%	1,146	796
	Normal	1,206	838
	Plus 5%	1,266	880
	Plus 10%	1,327	922
D	Minus 10%	1,328	892
	Minus 5%	1,401	941
	Normal	1,475	991
	Plus 5%	1,549	1,041
	Plus 10%	1,623	1,090

***CVC960804CNA**
Heating Speed
(@ .1" - .5" w.c. ESP; Rise Range: 45 - 75°F)

Tap	Adjust	High-Stage CFM	Low-Stage CFM	Rise
A	Minus 10%	1,111	800	n/a
	Minus 5%	1,172	845	n/a
	Normal	1,234	889	n/a
	Plus 5%	1,296	933	55
	Plus 10%	1,357	978	52
B	Minus 10%	1,193	850	n/a
	Minus 5%	1,259	897	n/a
	Normal	1,325	944	54
	Plus 5%	1,391	991	51
	Plus 10%	1,458	1,038	49
C	Minus 10%	1,298	917	55
	Minus 5%	1,370	968	52
	Normal	1,442	1,019	49
	Plus 5%	1,514	1,070	47
	Plus 10%	1,586	1,121	45
D	Minus 10%	1,375	961	52
	Minus 5%	1,452	1,015	49
	Normal	1,528	1,068	47
	Plus 5%	1,604	1,121	n/a
	Plus 10%	1,681	1,175	n/a

***CVC961005CNA**
Cooling Speeds
(@ .1" - .8" w.c. ESP)

Tap	Adjust	High-Stage CFM	Low-Stage CFM
A	Minus 10%	706	472
	Minus 5%	745	498
	Normal	784	524
	Plus 5%	823	550
	Plus 10%	862	576
B	Minus 10%	970	670
	Minus 5%	1,024	707
	Normal	1,078	744
	Plus 5%	1,132	781
	Plus 10%	1,186	818
C	Minus 10%	1,249	834
	Minus 5%	1,319	881
	Normal	1,388	927
	Plus 5%	1,457	973
	Plus 10%	1,527	1,020
D	Minus 10%	1,589	1,067
	Minus 5%	1,678	1,126
	Normal	1,766	1,185
	Plus 5%	1,854	1,244
	Plus 10%	1,943	1,304

***CVC961005CNA**
Heating Speed
(@ .1" - .5" w.c. ESP; Rise Range: 45 - 75°F)

Tap	Adjust	High-Stage CFM	Low-Stage CFM	Rise
A	Minus 10%	1,583	1,088	56
	Minus 5%	1,671	1,149	53
	Normal	1,759	1,209	51
	Plus 5%	1,847	1,269	48
	Plus 10%	1,935	1,330	46
B	Minus 10%	1,617	1,124	55
	Minus 5%	1,707	1,187	52
	Normal	1,797	1,249	49
	Plus 5%	1,887	1,311	47
	Plus 10%	1,977	1,374	45
C	Minus 10%	1,656	1,149	54
	Minus 5%	1,748	1,213	51
	Normal	1,840	1,277	48
	Plus 5%	1,932	1,341	46
	Plus 10%	2,024	1,405	44
D	Minus 10%	1,693	1,170	53
	Minus 5%	1,787	1,235	50
	Normal	1,881	1,300	47
	Plus 5%	1,975	1,365	45
	Plus 10%	2,069	1,430	n/a

Notes

- All furnaces ship as high speed for cooling. Installer must adjust blower speed as needed.
- For most jobs, about 400 CFM per ton when cooling is desirable.
- Do not operate above .5" w.c. ESP in heating mode. Operating CFM between .5" and .8" w.c. is tabulated for cooling purposes only.

BLOWER PERFORMANCE SPECIFICATIONS

*CVC961205DNA
Cooling Speeds
(@ .1" - .8" w.c. ESP)

Tap	Adjust	High-Stage CFM	Low-Stage CFM
A	Minus 10%	769	486
	Minus 5%	811	513
	Normal	854	540
	Plus 5%	897	567
	Plus 10%	939	594
B	Minus 10%	1,011	783
	Minus 5%	1,067	827
	Normal	1,123	870
	Plus 5%	1,179	914
	Plus 10%	1,235	957
C	Minus 10%	1,259	900
	Minus 5%	1,329	950
	Normal	1,399	1,000
	Plus 5%	1,469	1,050
	Plus 10%	1,539	1,100
D	Minus 10%	1,624	1,112
	Minus 5%	1,714	1,173
	Normal	1,804	1,235
	Plus 5%	1,894	1,297
	Plus 10%	1,984	1,359

*CVC961205DNA
Heating Speed
(@ .1" - .5" w.c. ESP; Rise Range: 35 - 65°F)

Tap	Adjust	High-Stage CFM	Low-Stage CFM	Rise
A	Minus 10%	1,570	1,156	n/a
	Minus 5%	1,657	1,220	64
	Normal	1,744	1,284	61
	Plus 5%	1,831	1,348	58
	Plus 10%	1,918	1,412	56
B	Minus 10%	1,644	1,179	65
	Minus 5%	1,736	1,245	61
	Normal	1,827	1,310	58
	Plus 5%	1,918	1,376	56
	Plus 10%	2,010	1,441	53
C	Minus 10%	1,674	1,215	64
	Minus 5%	1,767	1,283	60
	Normal	1,860	1,350	57
	Plus 5%	1,953	1,418	55
	Plus 10%	2,046	1,485	52
D	Minus 10%	1,726	1,249	62
	Minus 5%	1,822	1,319	59
	Normal	1,918	1,388	56
	Plus 5%	2,014	1,457	53
	Plus 10%	2,110	1,527	51

Notes

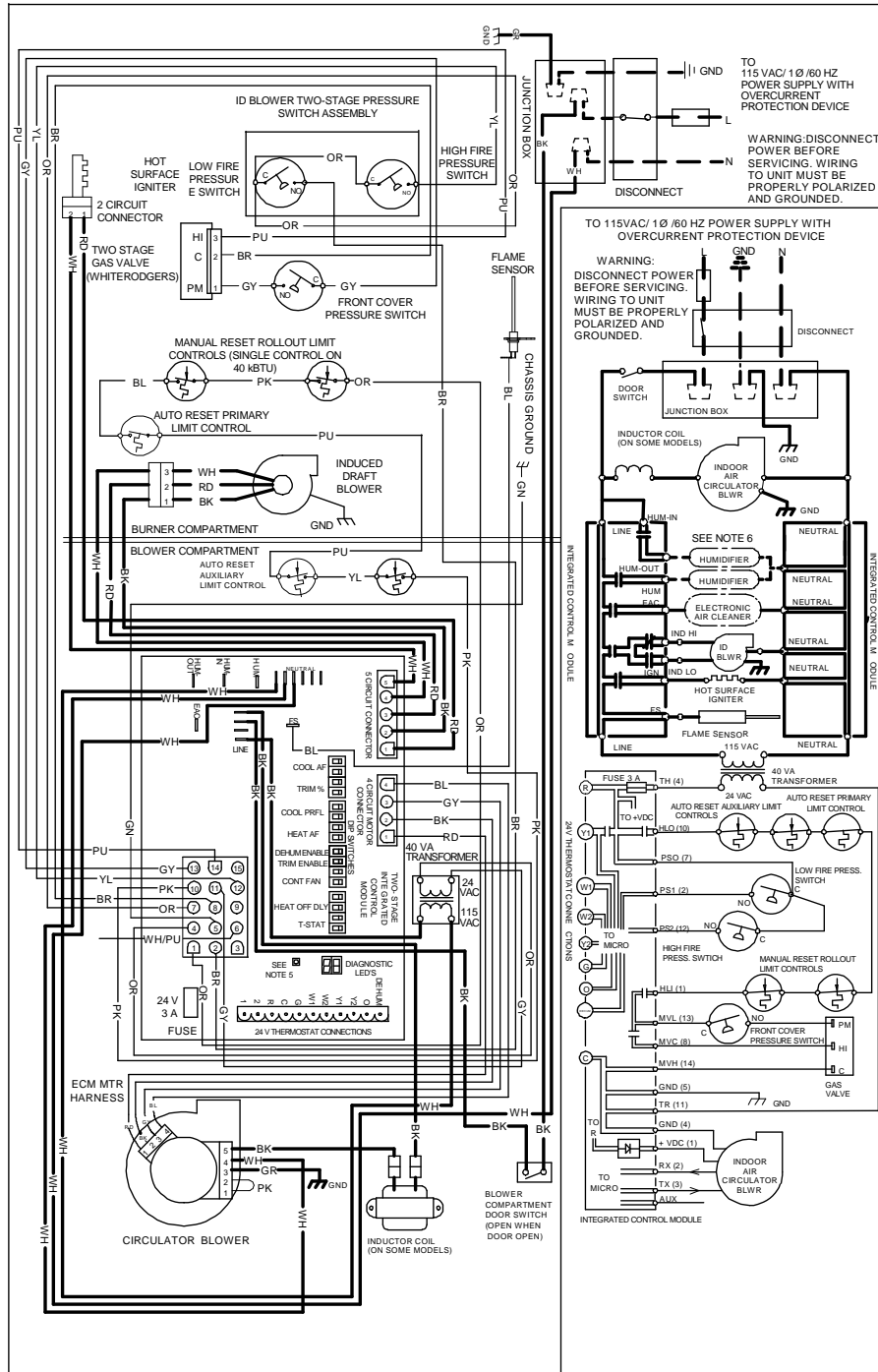
- All furnaces ship as high speed for cooling. Installer must adjust blower speed as needed.
- For most jobs, about 400 CFM per ton when cooling is desirable.
- Do not operate above .5" w.c. ESP in heating mode. Operating CFM between .5" and .8" w.c. is tabulated for cooling purposes only.



WARNING

HIGH VOLTAGE!
DISCONNECT ALL POWER BEFORE SERVICING OR INSTALLING THIS UNIT. MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.
















- NOTES:**
1. SET HEAT ANTICIPATOR ON ROOM THERMOSTAT AT 6.7 AMPS.
 2. MANUFACTURER'S SPECIFIED REPLACEMENT PARTS MUST BE USED WHEN SERVICING.
 3. IF ANY OF THE ORIGINAL WIRE AS SUPPLIED WITH THE FURNACE MUST BE REPLACED, IT MUST BE REPLACED WITH WIRING MATERIAL HAVING A TEMPERATURE RATING OF AT LEAST 100°C. USE COPPER CONDUCTORS ONLY.
 4. UNIT MUST BE PERMANENTLY GROUNDED AND CONFORM TO N.E.C. AND LOCAL CODES.
 5. TO RECALL THE LAST 6 FAULTS, MOST RECENT TO LEAST RECENT, DEPRESS SWITCH FOR MORE THAN 2 SECONDS WHILE IN STANDBY (NO THERMOSTAT INPUTS).
 6. HUMIDIFIER INSTALLATION OPTIONS: USE HUM TERMINAL TO RUN HUMIDIFIER DURING HEAT CALL (COMMUNICATING OR LEGACY MODES). USE HUM-IN AND HUM-OUT TERMINALS TO RUN HUMIDIFIER DURING HEAT CALL (COMMUNICATING MODE OR LEGACY MODE) OR INDEPENDENTLY FROM HEAT CALL (COMMUNICATING MODE ONLY - SETUP IS DONE WITHIN COMMUNICATING THERMOSTAT)



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<p>COLOR CODES:</p> <p>PK PINK BR BROWN WH WHITE BL BLUE GY GRAY RD RED YL YELLOW OR ORANGE PU PURPLE GN GREEN BK BLACK</p>	<p>LOW VOLTAGE (24V) ———</p> <p>LOW VOLTAGE FIELD — — —</p> <p>HI VOLTAGE (115V) ———</p> <p>HI VOLTAGE FIELD — — —</p> <p>JUNCTION </p> <p>TERMINAL </p> <p>INTERNAL TO INTEGRATED CONTROL </p> <p>PLUG CONNECTION </p>	<p>EQUIPMENT GND </p> <p>FIELD GND </p> <p>FIELD SPLICE </p> <p>SWITCH (TEMP.) </p> <p>IGNITER </p> <p>SWITCH (PRESS.) </p> <p>OVERCURRENT PROT. DEVICE </p>
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Wiring is subject to change. Always refer to the wiring diagram on the unit for the most up-to-date wiring.