

May 21, 2015

## Magic-Pak® Single Package Vertical Unit Regulations

Allied Air Enterprises receives a variety of questions regarding the regulatory requirements that affect Magic-Pak. We have drafted this document to cover current applicable standards. All M-Series™ (MGE, MHP and MCE), as well as all V-Series™ (HWC and EWC) are within the scope of this communication.

### Current Classification:

Magic-Pak products are classified as commercial equipment, not residential equipment. They are categorized as Single Package Vertical (SPV) Units within AHRI's 390 commercial listing. Within AHRI 390, Magic-Pak equipment is certified in both heating thermal efficiency (TE), cooling energy efficiency ratio (EER), and heat pump heating coefficient of performance (COP). Magic-Pak products fall under the ASHRAE 90.1 guidelines that specify cooling requirements (see chart below). Here are links to the AHRI directory of listings.

SPV AC: <http://www.ahridirectory.org/ahriDirectory/pages/spva/defaultSearch.aspx>

SPV HP: <http://www.ahridirectory.org/ahriDirectory/pages/spvh/defaultSearch.aspx>

Please keep in mind the version of ASHRAE 90.1 will vary state-to-state. If your state has not adopted the 2013 version of ASHRAE 90.1, the efficiency requirements will be different depending on the revision currently in use.

## Energy Standard - ASHRAE 90.1

		2010 Edition <sup>[1] [2]</sup>		2013 Edition <sup>[1]</sup>		
		Replacement or New Construction		Replacement <sup>[3]</sup>		New Construction <sup>[4]</sup>
				≤ 30,000 Btu/hr Capacity	> 30,000 and ≤ 36,000 Btu/hr Capacity	
SPVU Minimum Efficiency Requirement	AC	9.0 EER		9.2 EER	9.0 EER	10.0 EER
	HP	9.0 EER / 3.0 COP		9.2 EER / 3.0 COP	9.0 EER / 3.0 COP	10.0 EER / 3.0 COP
Applicable Magic-Pak™ Product	V-Series™	**HWC4-09 ~ 1 to 2.5 ton [-1 or -2 Rev ] HWC8(R/N)**09 ~ 1 to 2.5 ton HWC9N**11 ~ 1 to 2.5 ton **EWC4-09 ~ 1 to 2.5 ton [-1 or -2 Rev ] EWC**09 ~ 1 to 2.5 ton EWC**11 ~ 1 to 2 ton		**HWC4-09 ~ 1 to 2 ton [-2 Rev ONLY ] HWC8(R/N)**09 ~ 1 to 2.5 ton HWC9N**11 ~ 1 to 2.5 ton **EWC4-09 ~ 1 to 2 ton [-2 Rev ONLY ] EWC**09 ~ 1 to 2.5 ton EWC**11 ~ 1 to 2 ton		HWC9N**11 ~ 1 to 2 ton          EWC**11 ~ 1 to 2 ton
	M-Series™	MGE / MCE / MHP4-09 ~ 1 to 3 ton MGE / MCE / MHP4-10 ~ 1.5 to 2.5 ton		MGE / MCE / MHP4-10 ~ 1.5 to 2.5 ton		MGE / MCE / MHP4-10 ~ 1.5 to 2.5 ton

[1] Verify edition of ASHRAE 90.1 adopted by municipality having jurisdiction at installation location.

[2] Products which satisfy 2010 Minimum Efficiency Requirements also satisfy 2007 and earlier editions of ASHRAE 90.1.

[3] Maximum allowed capacity for replacement (space constrained) product is 36,000 Btu/hr.

[4] SPVU equipment as defined in ASHRAE 90.1 with capacities < 65,000 Btu/hr.