



**TOWN OF MERRIMAC
INSPECTIONAL SERVICES
2 School Street, Merrimac, MA. 01860
(978) 346-0525**

Massachusetts Residential IECC Energy Performance Testing Certificate

House Address: _____ Permit #: _____ Date: _____
 Permit holder: _____ Phone: _____

I. Building Envelope Air Leakage (mandatory):

Blower door test (Mandatory)

Testing company: _____ Phone: _____

Tester Name (print): _____ Signature: _____ Date: _____

BPI or HERS Rater certification number: BPI no: _____ HERS Rater no: _____

Test Result:

Fan Flow at 50 Pascals = _____ CFM50 Total Conditioned Volume = _____ ft³

ACH50 = CFM50 x 60 / Volume = _____ ACH50 (must be ≤ 3.0 ACH50)

Visual Inspection (Mandatory)

- Air Barrier and Insulation Installation checklist completed, signed and included with this certificate.

II. Heating and Cooling System Duct Leakage

- All portions of the ducts are located entirely within the building thermal envelope. Testing is not required*.

Duct leakage test

Testing company: _____ Phone: _____

Tester Name (print): _____ Signature: _____ Date: _____

BPI or HERS Rater certification number: BPI no: _____ HERS Rater no: _____

Total duct leakage test (choose 1):

- Rough-in w/ air handler (must be ≤ 4.0 CFM/100 ft²) Rough-in w/o air handler (must be ≤ 3.0 CFM/100 ft²)
 Post construction (must be ≤ 4.0 CFM/100 ft²)

Test Result:

System 1:

Fan Flow at 25 Pascals (CFM25) _____ CFM Conditioned Floor Area (CFA) served by system = _____ ft²

CFM25 / CFA x 100 = _____ CFM/100 ft²

System 2 (if present):

Fan Flow at 25 Pascals (CFM25) _____ CFM Conditioned Floor Area (CFA) served by system = _____ ft²

CFM25 / CFA x 100 = _____ CFM/100 ft²

*Note: When following the Energy Rating Index (ERI) path, a leakage to outdoors test is required per RESNET standards.



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III. Whole-house Ventilation System Airflow Test

Verifier:

Testing company: _____ Phone: _____

Tester Name (print): _____ Signature: _____ Date: _____

BPI or HERS Rater certification number: BPI no: _____ HERS Rater no: _____

Required airflow (Q):

Infiltration credit portion of equation is optional

$$Q = .03 \times CFA + 7.5 \times (N_{br} + 1) - 0.052 \times Q_{50} \times S \times WSF$$

Required inputs:

CFA = Conditioned Floor Area = _____ ft²

N_{br} = Number of bedrooms = _____

Optional inputs:

Q₅₀ = Blower door test result = _____ CFM50

S = Building height factor = _____

WSF = Weather and shielding factor = _____

Stories above grade plane	1	2	3
S	1.00	1.32	1.55

County	WSF
Barnstable	0.60
Berkshire	0.52
Bristol	0.54
Dukes	0.59
Essex	0.58
Franklin	0.52
Hampden	0.49
Hampshire	0.59
Middlesex	0.55
Nantucket	0.61
Norfolk	0.52
Plymouth	0.53
Suffolk	0.66
Worcester	0.59

Required airflow (Q) = _____ CFM

Tested airflow = _____ CFM
(must be ≥ required airflow)

Fan controlled to operate continuously

Fan efficacy:

In-line fan (max 2.8 CFM/W)

Bathroom/utility room fan: 10-89 CFM (max 1.4 CFM/W)

Bathroom/utility room fan: 90+ CFM (max 2.8 CFM/W)

HVI-Rated fan efficacy = _____ CFM/W

IV. Qualified Performance Testing Providers:

Find qualified performance testers at:

<http://nehers.org/find-hers-rater>

<http://www.resnet.us/directory/search>

<https://bpi.org/locator-tool/find-a-contractor>