

SAMPLE PACKET · COVER

Energy & HVAC design packet

A redacted-style mock of what a Full package delivery looks like. **Every name, address, plan and number in this packet is fictional** and made up for illustration. It is not a calculation for a real house, not an official form, and not for permit use.

PROJECT (FICTIONAL)	
Project	The Sample Residence
Address	0000 Illustrative Way, Example City, FL 00000
Owner	Pat Example
Builder	Example Homes LLC
Jurisdiction	Example County, FL
Plans	Sample plan set A1–A6, rev 0
Scope	New single-family, 1 story, 3 bed / 2 bath
Conditioned area	2,150 sq ft
HVAC systems	1
Package	Full package (energy + Manual J, S & D)

CONTENTS	
Cover and project data	1
Energy compliance summary (performance method), summary-style	2
Manual J load summary	3
Manual S equipment and Manual D duct summary	4
IN A REAL DELIVERY	
A real packet carries the full reports from the calculation software, the code-required compliance forms for the permit, and the inputs used. This sample shows the layout and the summary pages only.	
SEAL	
None. Sealed calcs are a separate package; samples never show a seal.	

SUMMARY-STYLE ILLUSTRATION OF A PERFORMANCE-METHOD RESULT · NOT FORM R405

Energy compliance summary

This page summarizes a performance-method result in our own layout. It is **not** Form R405 and does not reproduce it. A real delivery includes the official compliance form generated by the approved software.

REFERENCE DESIGN (ILLUSTRATIVE)	PROPOSED DESIGN (ILLUSTRATIVE)	E-RATIO (ILLUSTRATIVE)	RESULT (ILLUSTRATIVE)
58.2 energy units	47.1 energy units	0.81 proposed ÷ reference	PASS fictional house



ENVELOPE AND SYSTEMS INPUTS (FICTIONAL)

Walls	8 in. CBS block, R-5 interior insulation
Ceiling	R-38 blown, vented attic
Windows	312 sq ft · U-0.32 · SHGC 0.25
Doors	Insulated steel, 2 doors
Floor	Slab-on-grade, uninsulated
Infiltration	4.5 ACH50 (blower-door test target)
Ducts	In attic, R-8, leakage test target
Cooling	Heat pump, 2.5 tons nominal, SEER2 15.2
Heating	Same heat pump, HSPF2 7.8
Water heating	Heat-pump water heater, 50 gal
Orientation	Front faces south

MANDATORY ITEMS (ILLUSTRATIVE CHECKLIST)

- ☐ Air barrier and insulation inspection checklist attached
- ☐ Duct leakage test required at final
- ☐ Blower-door test required at final
- ☐ Programmable thermostat
- ☐ Equipment efficiency labels match inputs

PREPARED BY
Florida Load Calcs (sample). No seal in samples.

ROOM-BY-ROOM LOADS · ALL VALUES ILLUSTRATIVE

Manual J load summary

TOTAL COOLING	SENSIBLE COOLING	HEATING	DESIGN AIRFLOW
25,800	21,700	16,700	970
Btuh	Btuh · latent 4,100 · SHR 0.84	Btuh	CFM

DESIGN CONDITIONS (ILLUSTRATIVE)

Outdoor cooling	92 °F db / 77 °F wb
Indoor cooling	75 °F · 50% RH
Outdoor heating	42 °F
Indoor heating	70 °F
Daily range	Medium

SENSIBLE COOLING BY ROOM (BTUH)

Living		5,600
Kitchen / dining		4,300
Owner suite		3,500
Owner bath		1,100
Bedroom 2		2,100
Bedroom 3		1,900
Bath 2		600
Laundry / hall		1,400

Bar color is relative load within this house (teal low → coral high).

ROOM LOADS (FICTIONAL HOUSE)

ROOM	AREA SQ FT	SENSIBLE BTUH	LATENT BTUH	HEATING BTUH	CFM
Living	520	5,600	900	4,100	260
Kitchen / dining	400	4,300	1,100	2,900	200
Owner suite	320	3,500	450	2,700	165
Owner bath	130	1,100	250	1,000	55
Bedroom 2	170	2,100	250	1,700	100
Bedroom 3	160	1,900	250	1,600	90
Bath 2	70	600	150	600	30
Laundry / hall	380	1,400	300	1,200	70
Ducts, infiltration, ventilation	—	1,200	450	900	—
Total	2,150	21,700	4,100	16,700	970

EQUIPMENT SELECTION AND DUCT DESIGN · ALL VALUES ILLUSTRATIVE

Manual S & D summary

MANUAL S · SELECTED EQUIPMENT (GENERIC, ILLUSTRATIVE)

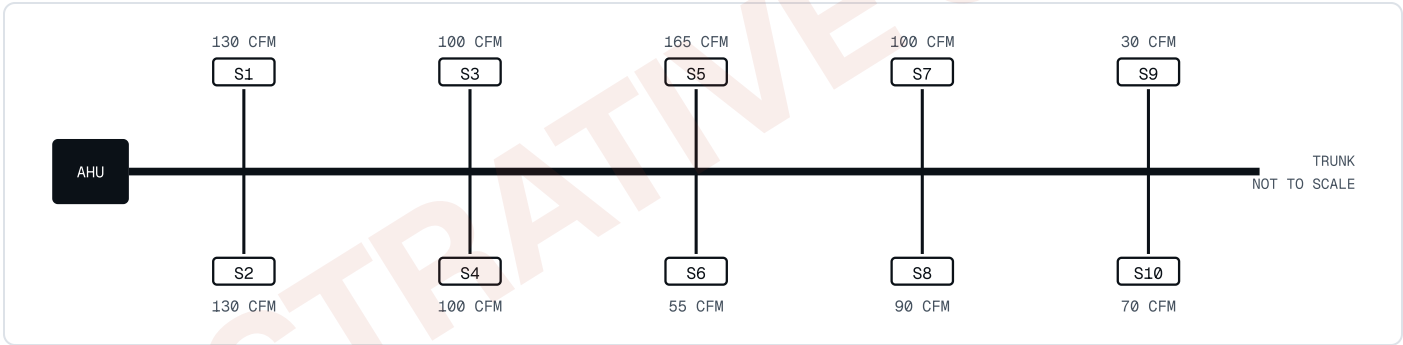
	LOAD	EQUIPMENT AT DESIGN	COVERAGE
Total cooling	25,800	28,400	110%
Sensible	21,700	21,900	101%
Latent	4,100	6,500	159%
Heating	16,700	24,000	144%

Generic split heat pump, 2.5 tons nominal, with 5 kW auxiliary heat. Capacities are made-up "at design condition" values for illustration. Real selections use the manufacturer's expanded performance data and are checked against Manual S sizing limits.

MANUAL D · DESIGN PARAMETERS (ILLUSTRATIVE)

Design airflow	970 CFM
External static (blower)	0.50 in. wc
Component losses	0.30 in. wc
Available static	0.20 in. wc
Total effective length	210 ft
Design friction rate	0.095 in. / 100 ft
Return	1 central grille, 20 × 25 in.

SUPPLY LAYOUT (SCHEMATIC)



SUPPLY RUN SCHEDULE (FICTIONAL HOUSE)

RUN	ROOM	CFM	FLEX
S1	Living A	130	7 in.
S2	Living B	130	7 in.
S3	Kitchen / dining A	100	6 in.
S4	Kitchen / dining B	100	6 in.
S5	Owner suite	165	8 in.
S6	Owner bath	55	5 in.
S7	Bedroom 2	100	6 in.
S8	Bedroom 3	90	6 in.
S9	Bath 2	30	4 in.
S10	Laundry / hall	70	5 in.

Total supply: **970 CFM** across 10 runs. Sizes are illustrative.