

MEPFlow Peak Heating & Cooling Loads

Illustrative two-room office - not for construction

Generated: 10 September 2026 - illustrative example

Calculation method: ASHRAE RTS | 2025 ASHRAE Handbook-Fundamentals, Chapter 18

Calculation completeness: all 2 rooms have current calculated results.

Engineering review: PASS | 0 blocking, 0 warning(s).

Project assumptions

Weather mode: Engineer-entered custom design day

Location: Illustrative two-room office | Source: Teaching assumptions, not local design weather

Coordinates: 49.920, -97.230 | Elevation: 239.0 m | UTC offset: -6

Winter design DB: -20.0 deg C | Summer DB/WB: 30.0 / 20.0 deg C

North rotation: 0.0 deg | Heating/Cooling safety: 0.0% / 0.0%

Supply air assumptions: cooling 13.0 deg C, heating 35.0 deg C

Outdoor-air authority: Engineer-entered room rates | Method: People component + area component

Outdoor-air loads use engineer-entered people and area rates. MEPFlow does not currently derive or certify these rates from ASHRAE 62.1 or another ventilation standard.

Project load summary

Rooms: 2 | Calculated: 2 | Traced area: 80.0 m2

Block heating: 4.1 kW

Coincident cooling: 4.4 kW at Jul 21, 16:00 LST

Sum of room cooling peaks: 4.5 kW

Engineering input review

No deterministic input-consistency issues are currently reported.

Review checks are consistency checks only and do not constitute code/standard compliance certification.

Room schedule

West office | 40.0 m2 | 4 occupant(s)

Setpoints: 21.0 / 24.0 deg C | Cooling RH: 50%

Outdoor air: 22.00 L/s design | people 10.00 L/s + area 12.00 L/s | engineer-entered

Heating: 2.0 kW | Cooling sensible/latent/total: 2.1 kW / 305 W / 2.4 kW

Heating airflow: 123 L/s | Cooling airflow: 166 L/s | Peak: Jul 21, 16:00 LST

East office | 40.0 m2 | 4 occupant(s)

Setpoints: 21.0 / 24.0 deg C | Cooling RH: 50%

Outdoor air: 22.00 L/s design | people 10.00 L/s + area 12.00 L/s | engineer-entered

Heating: 2.0 kW | Cooling sensible/latent/total: 1.8 kW / 305 W / 2.1 kW

Heating airflow: 123 L/s | Cooling airflow: 138 L/s | Peak: Jul 21, 11:00 LST

Calculation engine warnings

No calculation warnings are currently reported by the Peak Loads engine.

MEPFlow report output summarizes the current project inputs and deterministic calculation results. Review assumptions, consistency checks and results before design issue.