

Key to Fields for F280-12 Formset version 24.10

Field	Title	Description	Example
1	Drawings issued for	Client/company the heat loss gain calculations were performed for	John Doe Construction
2	Project number	Client/job code for the use of the issuer of the Heat Loss Gain Calculations	0402-96
BUILDING LOCATION		project location & identifying information	
3	Model	Code or name designated to a plan set	Craftsman- Walkout- Option 2
4	Address	Municipal designated location of the project	496 Fake Street
5	City & Province	City (county, township, etc.) and province the project is located in	Toronto, Ontario
6	Site	Name of the development area the project is located in	Fakewood Heights
7	Lot	Numbered land parcel within the site	Lot 16, Phase II
8	Postal Code	Canada Post assigned postal code for the address	M6J 2P9
COMPLIANCE		Key Results for Code Compliance	
aw,ar	Type	Whole House or Room x Room	check boxes
bi,bm	Units	Imperial or metric	check boxes
c	Minimum Heating Capacity	Minimum Heating Capacity as per F280-12 Sentences 5.3.1. and 5.3.2.	34,962 btuh or 10.25 KW
d	Nominal Cooling Capacity	Nominal Cooling Capacity as per F280-12 Sentence 6.3.1.	26, 412 btuh or 7.74 KW
e	Minimum Cooling Capacity	Minimum Cooling capacity as per F280-12 sentences 6.3.2 and 6.3.5.	21,130 btuh or 6.19 KW
f	Maximum Cooling Capacity	Maximum Cooling Capacity as per F280-12 sentence 6.3.3 and 6.3.4.	33,016 btuh or 9.68 KW
ATTACHED DOCUMENTS		Description of documents which make up the full package	
g	Design Summary	The Design Summary (1 page) is always attached as page 2.	check box
h	Room x Room Results	The Rooms by Room results page(s)). Room x Room results page(s)) are not required for Whole House	check box
i	Other Attached Documents	A list of documents which are referenced by and support the F280-12 Calculation	Plans, Window & Door Schedules & specifications, insulation details, effective insulation value calculations etc.
j	Notes	Notes relevant to the project submittal	Assumed Bonus Room is unconditioned

CALCULATIONS BASED ON		The assumptions and data the heat loss gain calculation is based on	
9	Dimensional information based on	Source of the component sizing data for the heat loss gain calculation	Anybody Design. Dwgs Dated 21/Feb/2024
10	Attachment	Building connection to another building's conditioned space	Detached, left/right/mid, top/bottom/mid
11	Number of stories	Floor levels in the building -- Indicate if basement is included	2 + basement
12	Weather location	Weather data location selected in the heat loss gain calculations	Toronto
13	Ventilated?	Was the building's ventilation included in the heat loss gain calculation	Included
14	HRV/ERV	Is an HRV or ERV used for the ventilation of the building?	Yes--Blowhard Cyclone 2WA
15	ASE %	Apparent Sensible Recovery efficiency % of the HRV or ERV at -25 °C if an HRV or ERV is used	55%
15a	ATRE %	Adjusted Total Recovery Efficiency % of the HRV or ERV if an HRV or ERV is used	23%
16	Front facing	Direction the front of the building faces	Northeast
17	Assumed?	Front facing direction indicated is based on plans or worst case scenario	Yes/No
18	Air tightness	Air leakage rate from a test (ACH50 and ELA10) or one of the standard Air-Tightness Categories	Test= ACH50 & ELA10 Loose (Pre 1945) ACH50 = 10.35 Average (1946-1960) ACH50 = 4.55 Present (1961-) ACH50 = 3.57 Energy tight ACH50 = 1.5
19	Assumed?	Actual test results are preferred over assumptions	Yes/No
20	Wind exposure, Site	Site Wind Exposure based on standard categories	Open sea, fetch > 5 km, Mud flats, no vegetation, Open flat terrain, grass, Low crops, x/H > 20, High crops, scattered obstacles, Parkland, bushes, x/H ~ 10, Suburban, forest, City centre
20a	Wind sheltering	Wind sheltering based on standard categories	No local shielding, Light local shielding, Heavy, Very heavy, Complete (by large buildings)
21	Internal shading	Window coverings based on the standard shading categories	No Shading, Light-translucent shading, Opaque Reflective shading

21a	Assumed?	Whether or not the internal shading is assumed	Yes/No
22	Occupants	Number of persons that the calculations accounts as being in the building on a daily basis	4
22a	Assumed?	Whether or not the number of occupants is assumed	Yes/No
23	Units	Measurement system used for results reporting	Check-Box, Imperial or metric
HEATING DESIGN CONDITIONS		Data used for winter (heating season) calculations	
24	Outdoor temperature	Design data for exterior winter conditions	-18 °C (0 °F)
25	Indoor temperature	Design data for interior winter conditions	22 °C (71.6 °F)
26	Mean soil temperature	Design data for exterior soil 1.5 m below grade in winter conditions	10 °C (50 °F)
26a	Soil Conductivity	Soil Conductivity based on standard categories	Normal: dry sand, loam, clay, High: moist soil
26b	Water Table Depth	Local Conditions	Shallow: 5-7m (16-23ft), Normal: 7-10m (23-33ft), Deep: >10m (>33ft)
26c	Slab Fluid Temperature	Average temperature of the working fluid used to heat the slab	40-45°C (104-113 °F) if heated, blank if not heated
COOLING DESIGN CONDITIONS		Data used for summer (cooling season) calculations	
27	Outdoor temperature	Design data for exterior summer conditions	31 °C (87 °F)
28	Indoor temperature	Design data for interior summer conditions	24 °C (75.2 °F)
29	ST _{range}	Summer mean daily temperature range	7 °C (45 °F)
30	Latitude	Degrees north of the equator	43.65°
ABOVE GRADE WALLS		All walls dividing exterior and interior space above ground level	
31,32,33	Style A, B & C	Framing elements w/spacing, Cavity & continuous insulation, interior & exterior finish	2x6 @ 24" cc w/R24 Batt & R10 Continuous, Drywall, Brick
BELOW GRADE WALLS		Walls dividing exterior and interior space below ground level	
34,35,36	Style A, B & C	Framing elements w/spacing, Cavity & continuous insulation, interior & exterior finish	8" Normal Concrete, R12 insulation Blanket, no interior finish
FLOORS ON SOIL		Below-grade floor dividing interior and exterior	
37,38,39	Style A, B & C	Floor Structure, Insulation Value & Position, perimeter Thermal break status	4" Normal Concrete, R10 continuous Insulation below, No Thermal Break
CEILINGS		Ceiling area above conditioned space dividing interior and exterior	
40,41,42	Style A, B & C	Framing elements w/spacing, Cavity & continuous insulation, interior finish	2x4 Wood truss 24" cc w/ R60 Blown Insulation, Drywall
EXPOSED FLOORS		Floor below conditioned space dividing interior and exterior	

43,44,45	Style A, B & C	Framing elements w/spacing, Cavity & continuous insulation, interior finish	2x8 @ 16" cc, R30 Batt, carpet Floor
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DOORS		Areas within walls to allow passage to/from interior	
46,47,48	Style A, B & C	Type, thickness & insulation. Report glazing as Window type	1-5/8" Steel polyurethane insulated
WINDOWS		Glass within walls & doors (including sliding patio doors)	
49,50,51	Style A, B & C	Number of panes, frame, spacing, glazing type, fill, spacer, R-value, U-value, and SHGC.	Dbl/ low-E/ argon/ insul spacer/13mm/ vinyl/SHGC 0.47
SKYLIGHTS		Glass within ceiling and other upward facing glass	
52,53,54	Style A, B & C	Facing, angle, frame, size, glazing type, R-value, U-value, and SHGC.	South, 4/12, aluminum, double low-E/SHGC 0.47
CALCULATIONS PERFORMED BY		Individual/Company performing the calculations	
55	Name	The individual who performed the calculation	Joe Smith
56	Company	Company associated with individual who performed the calculation	Smith HLG Corp.
57	Address	Street/Postal address of the company/ individual performing the calculation	42 Imaginary Street
58	City & Province	City (county township etc.) and province of company/ individual	Somewhere, Ontario
59	Postal code	Postal code for the company/ individual address	B4L 2Z1
60	Phone	Telephone number for company/ individual	(888) 555-4321
61	Fax	Fax number for company/ individual	(888) 555-1234
62	E-mail	e-mail address for company/ individual	Joe@SmithHLG.ca
ATTESTATION		Attestation by Individual taking responsibility for calculations	
63	Attestation	Attestation by p[erson who takes responsibility for the work and is appropriately qualified	Joe Smith
64	Accreditation refence #1	reference Number or Code to a an accreditation that the responsible individual holds	BCIN # 6921
65	Accreditation refence #1	reference Number or Code to a an accreditation that the responsible individual holds	HVAC-DC # 2401
66	Issued Date & Purpose	The date that the documents are issued and the purpose of issuance	21 Feb/24, Permit
67	Re-Issued Date & Purpose	The date that the documents are re-issued and the purpose of issuance	26 Feb/24, revision #1
68	Stamp	Stamp, Qualification facsimile or other mark and signature (may be digital) of Qualified person taking responsibility	<i>Signature</i>
SOFTWARE		Information & Verification Statement buy Software Author	
69	Software Info	Standard Verification Statement (see right column) plus identification of the software author including contact info, when site etc	<i>This software has been verified by HVAC Designers of Canada in accordance with section 8 of CSA F280-12 revised March 2023.</i>

ROOM by ROOM		Calculation results	
70	Room Number	Sequential Number of the unique room for which a loss and gain is calculated.	1
71	Room name	Name of Unique room for which a loss and gain is calculated	Kitchen
72	Heating	Total room heat loss for the room as per CSA F280-12 sentence 5.2.6.	836 btuh
73	Cooling	Total room heat gain for the room as per CSA F280-12 sentence 6.2.9.. If the value does not include latent gain, then the latent gain is to be shown in cell 76	792 btuh
74	ventilation Loss	if the Ventilation loss is calculated separately and not included in the individual room losses, then it is to listed here	1,842 btuh
75	Latent gain	if the latent heat gain is calculated separately and not included in the individual room gains, then it is to be included here.	2,412 btuh or as Multiplier, 1.3

Starting Version = 24.07

24.08 Keycode 26c changed to "Average temperature of the working fluid used to heat the slab"

24.09 Skipped Version

24.10 Whole House Check Box code as "aw", previously coded as "a" for both
Room by Room Check Box coded as "ar"

Added Keycode "21a", whether or not the internal shading is assumed.

Imperial Units Check Box code as "bi", previously coded as "b" for both

Metric Units Check Box coded as "bm"