Embodied Carbon Calculator: Basic Report

(CIBSE TM65 Digital Tool)

If Section A of the 'Input' tab is correctly completed, the results will be shown here.
Please complete all purple and yellow cells.
If you would like to assist CIBSE in building knowledge on the embodied carbon of products used in building services, please complete as directed, name this file as instructed in the 'Introduction and Instructions' tab, and email this file to embodiedcarbon@cibse.org.

Basic report for [S4-710]S-Quad Optical Heat Detector as manufactured by Honeywell

Basic calculation		Notes/source
Date of assessment	09/06/25	*Form "dd/mm/yy"*
Name of assessor and assessor organisation	Self Assessment	
Contact email address of assessor	sustainabilitycoe.ba@honeywell.com	

Product information		
Type of product	Fire Alarm Devices	
Capacity of equipment/size (kW; m^3; litre; etc.)	m^3	
Product weight (kg)	0.17 kg	
Material % breakdown for at least 95% of the product weight? (Y/N)	Y	
Product service life (years)	14 Years	
If refrigerant based, type of refrigerant used and GWP	No refrigerant, 0 kgCO2e	
Refrigerant charge (kg)	0.00 kg	
Product complexity category	Category 1	*See CIBSE TM65 Table 4.3*

Embodied carbon results (kg CO_2e) — without refrigerant leakage		
A1: Material extraction (original product)	7 kgCO2e	
A1: Material extraction (components that are replaced in B3)	1 kgCO2e	
A1-A4, B3, C2-C4: Total embodied carbon with scale-up and buffer factor (excluding refrigerant leakage)	14 kgCO2e	

Embodied carbon result (kg CO_2e) — refrigerant leakage only		
B1 (refrigerant leakage during use) + C1 (refrigerant leakage at end of life)	0 kgCO2e	*TM65 leakage Type 2*

Embodied carbon result with 'basic' calculation method (kg CO2e) — total		
Result of 'basic' calculation method	14 kgCO2e	

Assumptions		
A1: Material carbon coefficient source	CIBSE TM65, Table 2.1	*E.g: Source = CIBSE TM65, Table 2.1*
B1: Refrigerant annual leakage rate (%)	CIBSE TM65, Table 4.4 Type 2	*E.g: Source = CIBSE TM65, Table 4.4 type 2*
C1: Refrigerant end of life recovery rate (%)	CIBSE TM65, Table 4.4 Type 2	*E.g: Source = CIBSE TM65, Table 4.4 type 2*
B3: Materials replaced as part of repair (%)	CIBSE TM65, Table 2.1	*E.g: Source = CIBSE TM65, Table 2.1*

Details	
Please provide any relevant details	***** Final result of 'basic' calculation method 13.8763 kgCO2e Note: Due to CIBSE Calculator limitation the result field displays the rounded off values,please refer here for accurate results

Information disclosure	Select Yes if you agree	Notes
I consent to CIBSE's use of the data contained in this form for research purposes, on the condition that all identifying information is removed from any published output.	No	
I consent to CIBSE's use of the data contained in this form in order to establish an embodied carbon database for products used in building services.	No	