

ISO 18292:2011-04 (E)

Energy performance of fenestration systems for residential buildings - Calculation procedure

Contents		Page
Foreword		iv
Introduction		v
1	Scope	1
2	Normative references	1
3	Terms and definitions	2
4	Symbols and units	3
5	Principle	4
5.1	Introduction	4
5.2	Heating energy performance	5
5.3	Cooling energy performance	5
6	Methodology and basic equations	6
6.1	General	6
6.2	The fenestration energy performance for heating	9
6.3	The fenestration energy performance for cooling	9
6.4	The heat balance elements	10
6.5	Assessment of the solar control potential of the rated fenestration system	12
7	Climate data	13
7.1	Introduction	13
7.2	External air temperature	13
7.3	Solar radiation	13
7.4	Wind speed	13
8	Basic thermal and solar-optical fenestration properties	14
8.1	Introduction	14
8.2	Thermal transmittance, U-value	14
8.3	Total solar energy transmittance or solar factor, g-value	14
8.4	Daylight potential	14
8.5	Air infiltration (air permeability) and ventilation	15
9	Reference building	16
9.1	Introduction	16
9.2	Overview of data	17
10	Assessment report	17
Annex A (informative) Explanation of gain/loss utilization factor method used in ISO 13790 for the fenestration system energy balance equation		18
Annex B (informative) Assessment of the solar control potential of the rated fenestration system ...		23
Annex C (informative) Example of the calculation of PE, H,w and PE, C,w using a monthly method .		26
Bibliography		32