

DIN EN 17888-2:2024-11 (E)

Thermal performance of buildings - In situ testing of building test structures - Part 2: Steady-state data analysis for aggregate heat loss test

Contents		Page
European foreword		3
Introduction		4
1	Scope	5
2	Normative references	5
3	Terms, definitions and symbols	5
3.1	Terms and definitions	5
3.2	Symbols	7
4	Principle	9
5	Uncertainty	9
6	Input data	10
6.1	Raw data	10
6.2	Irregularities and gaps in the data	10
6.3	Cleaning data	11
6.4	Filtering (averaging)	11
6.5	Checking averaged data	12
7	Data analysis	12
7.1	General	12
7.2	Simple linear regression using the Siviour method	13
7.3	Multiple linear regression (MLR) techniques	14
7.3.1	General	14
7.4	Validation: residuals analysis	14
7.5	Normality of residuals	14
7.6	Autocorrelation test	15
8	Test report	16
8.1	General	16
8.2	Data on the measured building/ structure	17
8.3	Description of the experimental set-up	17
8.4	Conditions during measurement	17
8.5	Data pre-processing	18
8.6	Aggregate heat transfer coefficient and associated uncertainties estimation	18
8.7	Supplementary and supporting measurements	19
Annex A (normative) Limitations and sources of errors		20
Annex B (normative) Process for estimating experimental uncertainty		24
Annex C (normative) Data analysis methods		30
Annex D (informative) Example of building heat loss test data analysis		39
Annex E (informative) Practical recommendations		49
Bibliography		51