

DIN EN 15316-4-4:2007-10 (E)

Heating systems in buildings - Method for calculation of system energy requirements and system efficiencies - Part 4-4: Heat generation systems, building-integrated cogeneration systems

Contents		Page
Foreword		3
Introduction		5
1	Scope	6
2	Normative references	6
3	Terms and definitions	6
4	Symbols and abbreviations	9
5	CHP system calculation	10
5.1	System boundaries	10
5.2	Auxiliary energy consumption	10
5.3	Recoverable system thermal loss	10
5.4	Calculation period	10
5.5	Available methodologies	10
5.6	Fractional contribution method	11
5.6.1	Annual heat output of the cogeneration installation	11
5.6.2	Annual fuel input for the cogeneration installation	12
5.6.3	Annual system thermal loss of the cogeneration installation	12
5.6.4	Annual electricity output of the cogeneration installation	13
5.7	Annual load profile method	13
5.7.1	General approach	13
5.7.2	Determining the energy performance for full range of load conditions for the cogeneration unit	13
5.7.3	Determining the annual load profile for the cogeneration unit	14
5.7.4	Annual heat output of the cogeneration installation	15
5.7.5	Annual fuel input for the cogeneration installation	16
5.7.6	Electricity output of the cogeneration installation	16
5.7.7	Annual average thermal efficiency of the cogeneration installation	16
5.7.8	Annual system thermal loss of the cogeneration installation	16
	Annex A (informative) Share of preferential CHP systems	18
	Annex B (informative) Efficiency of building integrated cogeneration units	19
	Annex C (informative) Example: Annual load profile method	20
C.1	Cogeneration unit specifications (load-performance curve)	20
C.2	Building heat demand profile	21
C.3	Combining cogeneration unit specifications (load performance curve) and the annual load profile	21
C.4	Energy rating	22
	Bibliography	24