

Standard Table: *energy quantities*

Name/Acronym		Corresponding Name in D3.1	Description	Reference	Type of data	Unit	Reference to other sheets
Energy_Quantity_Related_To_Conditioned_Space		-	energy referred to building conditioned space	-	-	-	-
<i>is</i>	Building_Heat_Transfer	<i>building heat transfer</i> [new]	heat flow rate due to the difference between the temperature in the conditioned space and the temperature of the environment at the other side (in the case of transmission) or the supply air temperature (in the case of ventilation).	EN ISO 13790*	real	J Wh kWh/m ² ō .	-
<i>is</i>	Heat_Transfer_By_Transmission	<i>heat transfer by transmission</i> [new]	heat flow rate due to thermal transmission through the envelope of a building	EN ISO 13790*	real	J Wh kWh/m ² ō .	-
<i>is</i>	Heat_Transfer_By_Ventilation	<i>heat transfer by ventilation</i> [new]	heat flow rate due to air entering a conditioned space, either by infiltration or ventilation	EN ISO 13790*	real	J Wh kWh/m ² ō .	-
<i>is</i>	Building_Heat_Gain	<i>building heat gains</i> [new]	heat generated within, or entering into, the conditioned space from heat sources other than energy intentionally utilized for heating, cooling or domestic hot water preparation	EN ISO 13790	real	J Wh kWh/m ² ō .	-
<i>is</i>	Solar_Heat_Gain	<i>solar heat gains</i> [new]	heat provided by solar radiation entering, directly or indirectly (after absorption in building elements), into the building through windows, opaque walls and roofs, or passive solar devices such as sunspaces, transparent insulation and solar walls	EN ISO 13790	real	J Wh kWh/m ² ō .	-
<i>is</i>	Internal_Heat_Gain	<i>internal heat gains</i> [new]	heat provided within the building by occupants (sensible metabolic heat) and by appliances such as domestic appliances, office equipment, etc., other than energy intentionally provided for heating, cooling or hot water preparation	EN ISO 13790	real	J Wh kWh/m ² ō .	-
<i>is</i>	Energy_Need	<i>energy need</i> [new]	heat to be delivered to or extracted from a conditioned space to maintain the intended temperature conditions during a given period of time or heat to be delivered to the needed amount of domestic hot water to raise its temperature from the cold network temperature to the prefixed delivery temperature at the delivery point	ISO TR 16344 EN 15603	real	J Wh kWh/m ² ō .	-
<i>has</i>	Duration	-	time interval to which the value refers	-	string	-	"TIME"
Energy_Quantity_Related_To_Technical_Building_System		-	energy referred to the technical building systems	-	-	-	-
<i>is</i>	System_Thermal_Loss	<i>system thermal loss</i> [new]	thermal loss from a technical building system for heating, cooling, domestic hot water, humidification, dehumidification or ventilation that does not contribute to the useful output of the system	ISO TR 16344 EN 15603	real	J Wh kWh/m ² ō .	-
<i>is</i>	Recovered_System_Thermal_Loss	<i>recovered system thermal loss</i> [new]	part of the recoverable system thermal loss which has been recovered to lower either the energy need for heating or cooling or the energy use of the heating or cooling system	ISO TR 16344 EN 15603	real	J Wh kWh/m ² ō .	-
<i>is</i>	System_Energy_Input	<i>system energy input</i> [new]	energy entering the technical building system	-	real	J Wh kWh/m ² ō .	-
<i>is</i>	Auxiliary_Energy	<i>auxiliary energy</i>	electrical energy used by technical building systems for heating, cooling, ventilation and/or domestic water to support energy transformation to satisfy energy needs	ISO TR 16344 EN 15603 CEN/TR 15615	real	J Wh kWh/m ² ō .	-
<i>has</i>	Duration	-	time interval to which the value refers	-	string	-	"TIME"
Energy_Consumption_And_Energy_Saving_Related_To_Building_Services		-	energy referred to building services	-	-	-	-

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<i>is</i>	Energy_Demand	<i>energy demand</i>	requirement for a quantity of energy by an energy using system at a given instant or averaged over any designated interval of time	ISO/IEC CD 13273-1	string	-	-
<i>is</i>	Energy_Consumption	-	quantity of energy applied	ISO/IEC CD 13273-1	string	-	-
<i>is</i>	Energy_Saving	-	reduction of energy consumption following implementation of an end-use action intended to improve energy performance	ISO/IEC CD 13273-1	string	-	-
<i>has</i>	Energy_Quantity_And_Emission	-	-	-	-	-	-
<i>is</i>	Delivered_Energy	<i>delivered energy</i>	energy, expressed per energy carrier, supplied to the technical building systems through the system boundary, to satisfy the uses taken into account (heating, cooling, ventilation, domestic hot water, lighting, appliances etc.) or to produce electricity	ISO TR 16344 EN 15603	real	J Wh kWh/m ² ō .	-
<i>is</i>	Final_Energy	<i>final energy</i>	the total purchased energy (fossil, electric) excluding renewables consumed to achieve the required building performance and comfort over a given period of time	ISO TR 16344	real	J Wh kWh/m ² ō .	-
<i>is</i>	Exported_Energy	<i>exported energy</i>	energy, expressed per energy carrier, delivered by the technical building systems through the system boundary and used outside the system boundary	ISO TR 16344 EN 15603	real	J Wh kWh/m ² ō .	-
<i>is</i>	Primary_Energy	<i>primary energy</i>	energy that has not been subjected to any conversion or transformation process	ISO TR 16344 EN 15603 ISO/IEC CD 13273-1	real	J Wh kWh/m ² ō .	-
<i>is</i>	Produced_Renewable_Energy	<i>produced renewable energy</i>	energy produced by technical building systems using renewable energy sources, which are not depleted by extraction	ISO TR 16344*	real	J Wh kWh/m ² ō .	-
<i>is</i>	Produced_Renewable_Thermal_Energy	<i>produced renewable thermal energy</i>	thermal energy produced by technical building systems using renewable energy sources, which are not depleted by extraction	ISO TR 16344*	real	J Wh kWh/m ² ō .	-
<i>is</i>	Produced_Renewable_Electrical_Energy	<i>produced renewable electrical energy</i>	electrical energy produced by technical building systems using renewable energy sources, which are not depleted by extraction	ISO TR 16344*	real	J Wh kWh/m ² ō .	-
<i>is</i>	CO2_Emissions	<i>CO₂ emissions</i>	for a given energy carrier, quantity of CO ₂ emitted to the atmosphere	ISO TR 16344* EN 15603* CEN/TR 15615*	real	g ō .	-
<i>has</i>	Energy_Carrier	<i>energy carrier</i>	substance or phenomenon that can be used to produce mechanical work or heat or to operate a process	ISO TR 16344 — ISO- 43600—ISO/IEC DIS 13273-1	string	-	-
<i>is</i>	Electricity	-	-	-	string	-	-
<i>is</i>	Natural_Gas	-	-	-	string	-	-
<i>is</i>	Buthane	-	-	-	string	-	-
<i>is</i>	Propane	-	-	-	string	-	-
<i>is</i>	LPG	-	-	-	string	-	-
<i>is</i>	Heat	-	-	-	string	-	-
<i>is</i>	Gasoil	-	-	-	string	-	-
<i>is</i>	Fuel_Oil	-	-	-	string	-	-
<i>is</i>	Coal	-	-	-	string	-	-
<i>is</i>	Mix	-	-	-	string	-	-

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has	Emission_Coefficient	<i>emission coefficient</i>	for a given energy carrier, quantity of pollutant emitted to the atmosphere per unit of energy	-	real	g/kWh ō .	-
	has	Emission_Coefficient_Reference_Year	-	reference year for an emission coefficient	-	integer	-
	has	Emission_Coefficient_Application_Field	-	application field of the emission coefficient	-	string	-
		is	Emission_Coefficient_Energy_Production	-	-	string	-
		is	Emission_Coefficient_Energy_Consumption	-	-	string	-
	is	CO2_Emission_Coefficient	<i>CO₂ emission coefficient</i>	for a given energy carrier, quantity of CO ₂ emitted to the atmosphere per unit of energy	ISO TR 16344* EN 15603* CEN/TR 15615*	real	g/kWh ō .
	is	CH4_Emission_Coefficient	<i>CH₄ emission coefficient [new]</i>	for a given energy carrier, quantity of CH ₄ emitted to the atmosphere per unit of energy	-	real	g/kWh ō .
	is	N2O_Emission_Coefficient	<i>N₂O emission coefficient [new]</i>	for a given energy carrier, quantity of N ₂ O emitted to the atmosphere per unit of energy	-	real	g/kWh ō .
	is	SO2_Emission_Coefficient	<i>SO₂ emission coefficient [new]</i>	for a given energy carrier, quantity of SO ₂ emitted to the atmosphere per unit of energy	-	real	g/kWh ō .
	is	NOx_Emission_Coefficient	<i>NO_x emission coefficient [new]</i>	for a given energy carrier, quantity of NO _x emitted to the atmosphere per unit of energy	-	real	g/kWh ō .
has	Energy_Source	<i>energy source</i>	material, natural resource or technical system from which energy can be extracted or recovered either directly or by means of energy conversion	ISO/IEC DIS 13273-1	string	-	-
	is	Not-Renewable_Energy_Source	-	energy source depleted by extraction	ISO/IEC DIS 13273-1	string	-
		is	Fossil_Fuel	-	-	string	-
			is	Natural_Gas	-	-	string
			is	Oil	-	-	string
			is	Coal	-	-	string
		is	Nuclear	-	-	string	-
	is	Renewable_Energy_Source	-	energy source not depleted by extraction and naturally replenished at a rate faster that it is extracted	ISO/IEC DIS 13273-1	string	-
		is	Solar_Energy	-	renewable energy harnessed by exploiting radiation of the sun that is received over the surface of the earth	ISO/IEC DIS 13273-2	string
		is	Wind_Energy	-	renewable energy harnessed by converting kinetic energy present in wind motion into mechanical energy	ISO/IEC DIS 13273-2	string
		is	Hydro_Energy	-	renewable energy harnessed by the conversion of kinetic energy of flowing or falling water	ISO/IEC DIS 13273-2	string
		is	Geothermal_Energy	-	renewable energy harnessed from within the earth's crust, usually in the form of hot water, steam or heat	ISO/IEC DIS 13273-2	string
			is	Shallow_Geothermal_Energy	-	ground source energy, or geothermal energy extracted from soil at a low or moderate temperatures in the form of heat	ISO/IEC DIS 13273-2
			is	Hydrothermal_Energy	-	geothermal energy extracted from surface or underground water at low or moderate temperatures	ISO/IEC DIS 13273-2
			is	Hot_Dry_Rock_Thermal_Energy	-	geothermal energy harnessed in the form of heat residing in impermeable, crystalline rock	ISO/IEC DIS 13273-2
		is	Biomass	-	renewable energy source in the form of material of biological origin excluding material embedded in geological formations or transformed to fossilized material	ISO/IEC DIS 13273-2	string
has	Share_Energy_Mix_Electricity	-	the amount of energy source used to produce electricity	-	real	-	-

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Name/Acronym		Corresponding Name in D3.1	Description	Reference	Type of data	Unit	Reference to other sheets
<i>has</i>	Energy_Service	<i>energy services</i>	related to the services provided by the technical building systems and by appliances to provide the indoor climate condition, illumination and other services related to the use of the building	UNI TR 16344* EN 15603*	string	-	-
<i>is</i>	Space_Heating	<i>space heating</i>	process of heat supply for thermal comfort	UNI TR 16344 EN 15603	string	-	-
<i>is</i>	Space_Cooling	<i>space cooling</i>	process of heat extraction for thermal comfort	UNI TR 16344 EN 15603	string	-	-
<i>is</i>	Domestic_Hot_Water	<i>domestic hot water</i>	process of heat supply to raise the temperature of the cold water to the intended delivery temperature	UNI TR 16344* EN 15603*	string	-	-
<i>is</i>	Ventilation	<i>ventilation</i>	process of supplying or removing air by natural or mechanical means to or from a space	UNI TR 16344 EN 15603	string	-	-
<i>is</i>	Lighting	<i>lighting</i>	process of supplying the necessary illumination	UNI TR 16344 EN 15603	string	-	-
<i>is</i>	Electrical_Appliances	<i>other services</i>	services supplied by energy consuming appliances	UNI TR 16344 EN 15603	string	-	-
<i>is</i>	Cooking	<i>cooking [new]</i>	process of food preparation	-	string	-	-
<i>has</i>	Duration	-	time interval to which the value refers	-	string	-	"TIME"
Energy_Indicator		-	indicator of building energy performance	-	-	-	-
<i>is</i>	Energy_Performance_Indicator	<i>energy performance indicator [new]</i>	energy rating divided by conditioned area	EN 15217	real	kWh/m ²	-
<i>is</i>	Renewable_Energy_Sources_Coverage	<i>RES coverage</i>	the ratio of the energy demand covered by renewable energy sources to the total energy required by an energy service	-	real	%	-
<i>is</i>	Estimated_SAP	-		SAP			-
<i>has</i>	Energy_Service	<i>energy services</i>	related to the services provided by the technical building systems and by appliances to provide the indoor climate condition, illumination and other services related to the use of the building	UNI TR 16344* EN 15603*	string	-	-