Internal comfort

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Internal comfort

1.- Z01_OFFICES - SOUTH
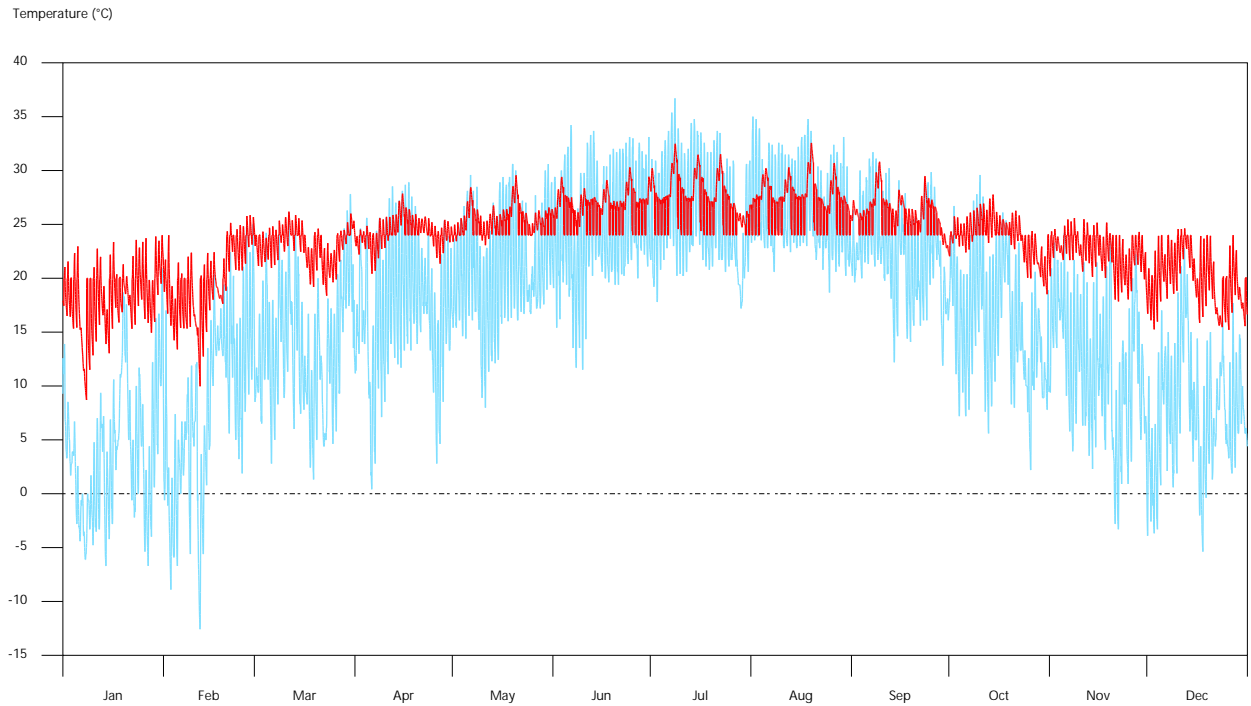
Temperature (°C)

■ Outdoor temperature
■ Temperature of the indoor air of the zone

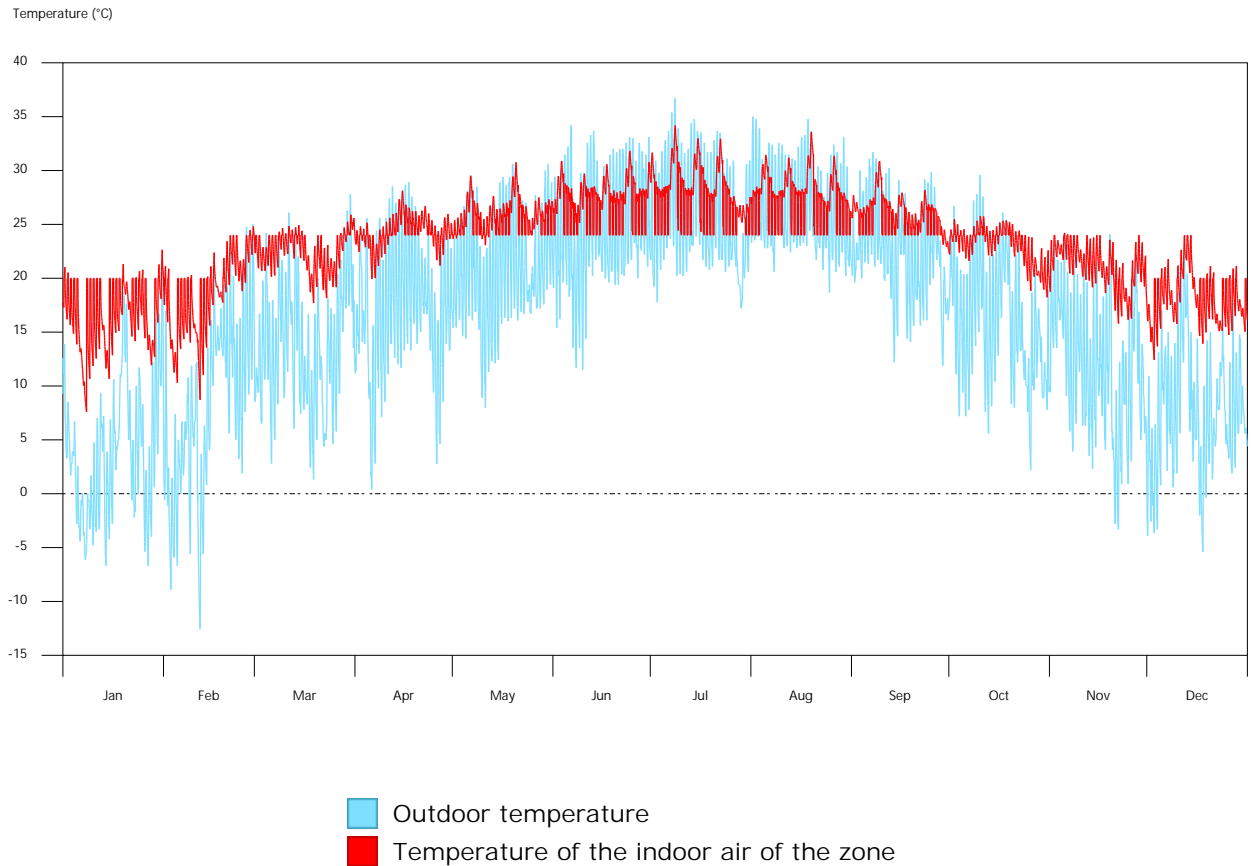|	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Maximum comfort temperature (-)													
$T_{in,max}$ (°C)	24.00	25.86	26.18	27.85	29.55	30.29	32.48	32.56	30.81	27.77	25.59	24.63	32.56
$T_{int} > T_{max,comf}$ (Hour)	-	-	-	-	-	-	-	-	-	-	-	-	0
$T_{int} > T_{max,comf}$ (Hour/People)	-	-	-	-	-	-	-	-	-	-	-	-	0
Minimum comfort temperature (-)													
$T_{in,min}$ (°C)	8.70	9.97	18.38	20.42	23.07	24.00	24.00	24.00	22.38	18.52	17.85	15.21	8.70
$T_{int} < T_{min,comf}$ (Hour)	-	-	-	-	-	-	-	-	-	-	-	-	0
$T_{int} < T_{min,comf}$ (Hour/People)	-	-	-	-	-	-	-	-	-	-	-	-	0
Unmet load hours*													
Heating (Hour)	4.00	3.00	--	--	--	--	--	--	--	--	--	--	7.00
Heating (Hour/People)	4.00	3.00	--	--	--	--	--	--	--	--	--	--	7.00
Cooling (Hour)	--	--	--	--	2.00	23.00	49.00	44.00	7.00	--	--	--	125.00
Cooling (Hour/People)	--	--	--	--	2.00	23.00	49.00	44.00	7.00	--	--	--	125.00

*Number of hours in which the air temperature of the spaces of the zone lies outside the range of the setpoint heating or cooling temperatures, with a margin greater than 0.2 °C for heating and 0.2 °C for cooling.

where:

T_{int}: Temperature of the indoor air of the zone, °C.

$T_{in,max}$: Maximum temperature of the indoor air of the zone, °C.

$T_{in,min}$: Minimum temperature of the indoor air of the zone, °C.

$T_{max,comf}$: Maximum comfort temperature, °C.

$T_{min,comf}$: Minimum comfort temperature, °C.

Internal comfort

2.- Z02_OFFICES - NORTH

Temperature (°C)

■ Outdoor temperature
■ Temperature of the indoor air of the zone

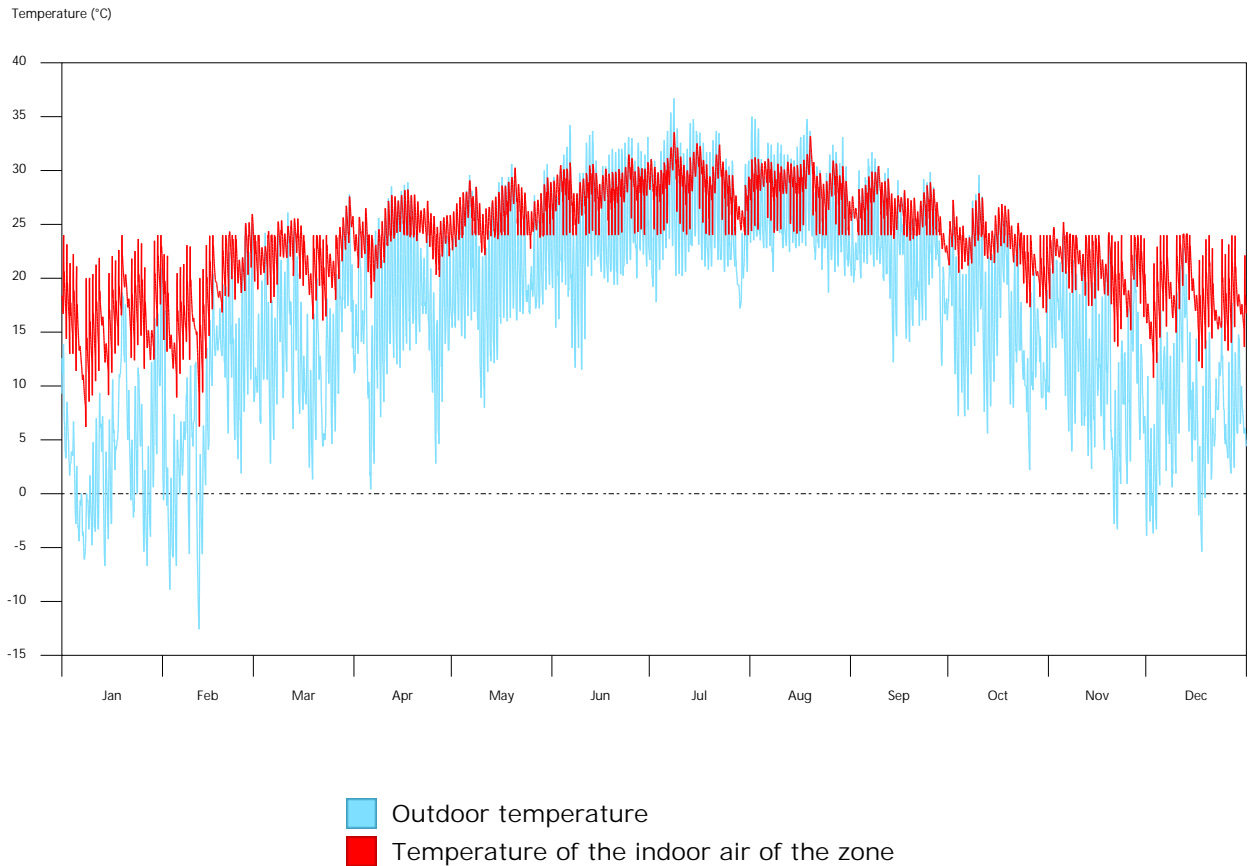|	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Maximum comfort temperature (-)													
$T_{in,max}$ (°C)	22.64	24.80	25.89	28.13	30.75	31.82	34.17	33.57	30.88	25.78	24.20	24.00	34.17
$T_{int} > T_{max,comf}$ (Hour)	-	-	-	-	-	-	-	-	-	-	-	-	0
$T_{int} > T_{max,comf}$ (Hour/People)	-	-	-	-	-	-	-	-	-	-	-	-	0
Minimum comfort temperature (-)													
$T_{in,min}$ (°C)	7.60	8.72	17.70	19.93	23.07	24.00	24.00	24.00	22.56	18.24	15.79	12.43	7.60
$T_{int} < T_{min,comf}$ (Hour)	-	-	-	-	-	-	-	-	-	-	-	-	0
$T_{int} < T_{min,comf}$ (Hour/People)	-	-	-	-	-	-	-	-	-	-	-	-	0
Unmet load hours*													
Heating (Hour)	7.00	3.00	--	--	--	--	--	--	--	--	--	1.00	11.00
Heating (Hour/People)	7.00	3.00	--	--	--	--	--	--	--	--	--	1.00	11.00
Cooling (Hour)	--	--	--	--	2.00	23.00	46.00	37.00	4.00	--	--	--	112.00
Cooling (Hour/People)	--	--	--	--	2.00	23.00	46.00	37.00	4.00	--	--	--	112.00

*Number of hours in which the air temperature of the spaces of the zone lies outside the range of the setpoint heating or cooling temperatures, with a margin greater than 0.2 °C for heating and 0.2 °C for cooling.

where:

T_{int}:   Temperature of the indoor air of the zone, °C.

$T_{in,max}$:   Maximum temperature of the indoor air of the zone, °C.

$T_{in,min}$:   Minimum temperature of the indoor air of the zone, °C.

$T_{max,comf}$:   Maximum comfort temperature, °C.

$T_{min,comf}$:   Minimum comfort temperature, °C.

Internal comfort

3.- ZO3_CAFETERIA

Temperature (°C)

■ Outdoor temperature
■ Temperature of the indoor air of the zone

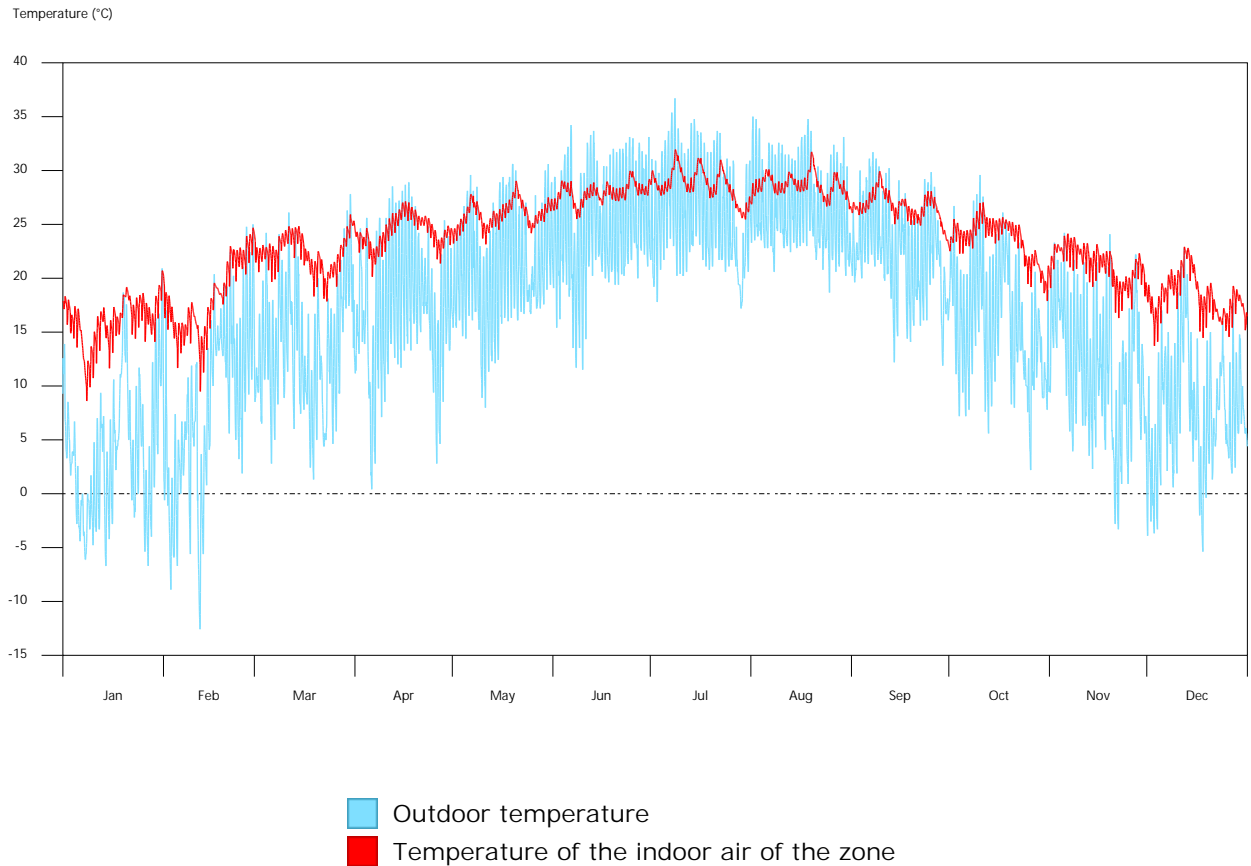|	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Maximum comfort temperature (-)													
$T_{in,max}$ (°C)	24.00	25.95	27.58	28.23	30.26	31.48	33.55	33.19	30.41	27.88	25.21	24.15	33.55
$T_{int} > T_{max,comf}$ (Hour)	-	-	-	-	-	-	-	-	-	-	-	-	0
$T_{int} > T_{max,comf}$ (Hour/People)	-	-	-	-	-	-	-	-	-	-	-	-	0
Minimum comfort temperature (-)													
$T_{in,min}$ (°C)	6.20	6.24	16.08	18.15	22.15	24.00	24.00	24.00	22.12	16.82	13.67	10.77	6.20
$T_{int} < T_{min,comf}$ (Hour)	-	-	-	-	-	-	-	-	-	-	-	-	0
$T_{int} < T_{min,comf}$ (Hour/People)	-	-	-	-	-	-	-	-	-	-	-	-	0
Unmet load hours*													
Heating (Hour)	4.00	2.00	--	--	--	--	--	--	--	--	--	--	6.00
Heating (Hour/People)	4.00	2.00	--	--	--	--	--	--	--	--	--	--	6.00
Cooling (Hour)	--	--	--	--	1.00	29.00	39.00	49.00	2.00	--	--	--	120.00
Cooling (Hour/People)	--	--	--	--	1.00	29.00	39.00	49.00	2.00	--	--	--	120.00

*Number of hours in which the air temperature of the spaces of the zone lies outside the range of the setpoint heating or cooling temperatures, with a margin greater than 0.2 °C for heating and 0.2 °C for cooling.

where:

T_{int}: Temperature of the indoor air of the zone, °C.

$T_{in,max}$: Maximum temperature of the indoor air of the zone, °C.

$T_{in,min}$: Minimum temperature of the indoor air of the zone, °C.

$T_{max,comf}$: Maximum comfort temperature, °C.

$T_{min,comf}$: Minimum comfort temperature, °C.

Internal comfort

4.- Z04_UNCONDITIONED

Temperature (°C)

■ Outdoor temperature
■ Temperature of the indoor air of the zone

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Maximum comfort temperature (-)													
$T_{in,max}$ (°C)	20.71	24.69	25.91	27.13	29.04	29.96	31.94	31.73	29.93	27.03	24.13	22.91	31.94
$T_{int} > T_{max,comf}$ (Hour)	-	-	-	-	-	-	-	-	-	-	-	-	0
$T_{int} > T_{max,comf}$ (Hour/People)	-	-	-	-	-	-	-	-	-	-	-	-	0
Minimum comfort temperature (-)													
$T_{in,min}$ (°C)	8.61	9.50	17.85	20.14	23.15	25.50	25.47	26.42	23.09	17.89	16.31	13.73	8.61
$T_{int} < T_{min,comf}$ (Hour)	-	-	-	-	-	-	-	-	-	-	-	-	0
$T_{int} < T_{min,comf}$ (Hour/People)	-	-	-	-	-	-	-	-	-	-	-	-	0
Unmet load hours*													
Heating (Hour)	--	--	--	--	--	--	--	--	--	--	--	--	0
Heating (Hour/People)	--	--	--	--	--	--	--	--	--	--	--	--	0
Cooling (Hour)	--	--	--	--	--	--	--	--	--	--	--	--	0
Cooling (Hour/People)	--	--	--	--	--	--	--	--	--	--	--	--	0

*Number of hours in which the air temperature of the spaces of the zone lies outside the range of the setpoint heating or cooling temperatures, with a margin greater than 0.2 °C for heating and 0.2 °C for cooling.

where:

T_{int}: Temperature of the indoor air of the zone, °C.
$T_{in,max}$: Maximum temperature of the indoor air of the zone, °C.
$T_{in,min}$: Minimum temperature of the indoor air of the zone, °C.
$T_{max,comf}$: Maximum comfort temperature, °C.
$T_{min,comf}$: Minimum comfort temperature, °C.