



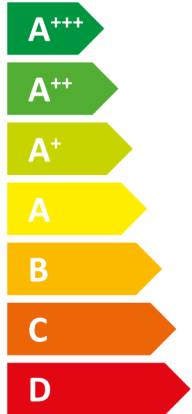
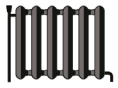
ENERG

енергия · ενεργεια



tecalor

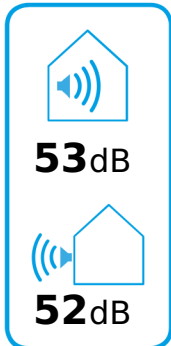
THZ 5.1 IBC topline



**A++**



**A**



2019

811/2013

**Product datasheet: Combination heater to Regulation (EU) No 811/2013 (S.I. 2019 No. 539 / Programme 2)**

		THZ 5.1 IBC topline
		190945
Manufacturer		tecator
Load profile		XL
Space heating energy efficiency class under average climate conditions, medium-temperature applications		A++
Energy efficiency class, space heating under average climate conditions, low-temperature applications		A++
Energy efficiency class, DHW heating under average climate conditions		A
Rated heating output under average climate conditions for medium-temperature applications (P rated)	kW	5
Rated heating output under average climate conditions for low-temperature applications (P rated)	kW	6
Annual energy consumption under average climate conditions for medium-temperature applications (QHE)	kWh/a	3433
Annual energy consumption under average climate conditions for low-temperature applications (QHE)	kWh/a	2643
Annual power consumption under average climate conditions (AEC)	kWh	1676,000
Seasonal space heating energy efficiency under average climate conditions for medium-temperature applications ( $\eta_s$ )	%	128
Seasonal space heating energy efficiency under average climate conditions for low-temperature applications ( $\eta_s$ )	%	168
Energy efficiency, DHW heating ( $\eta_{wh}$ ), under average climate conditions	%	102
Sound power level, indoor	dB(A)	53
Option for operation only at off-peak times		-
Rated heating output under colder climate conditions for medium-temperature applications (P rated)	kW	5
Rated heating output under colder climate conditions for low-temperature applications (P rated)	kW	5
Rated heating output under warmer climate conditions for medium-temperature applications (P rated)	kW	3
Rated heating output under warmer climate conditions for low-temperature applications (P rated)	kW	3
Annual energy consumption under colder climate conditions for medium-temperature applications (QHE)	kWh/a	4228
Annual energy consumption under colder climate conditions for low-temperature applications (QHE)	kWh/a	3320
Annual energy consumption under warmer climate conditions for medium-temperature applications (QHE)	kWh/a	1134
Annual energy consumption under warmer climate conditions for low-temperature applications (QHE)	kWh/a	772
Annual power consumption under colder climate conditions (AEC)	kWh	2042,000
Annual power consumption under warmer climate conditions (AEC)	kWh	1183,000
Seasonal space heating energy efficiency under colder climate conditions for medium-temperature applications ( $\eta_s$ )	%	115
Seasonal space heating energy efficiency under colder climate conditions for low-temperature applications ( $\eta_s$ )	%	155
Seasonal space heating energy efficiency under warmer climate conditions for medium-temperature applications ( $\eta_s$ )	%	141
Seasonal space heating energy efficiency under warmer climate conditions for low-temperature applications ( $\eta_s$ )	%	207
Seasonal space heating energy efficiency under warmer climate conditions for low-temperature applications ( $\eta_s$ )	%	84
Energy efficiency, DHW heating ( $\eta_{wh}$ ), warmer climates	%	145
Sound power level, outdoor	dB(A)	52



ENERG  
енергия · ενέργεια



tecalor

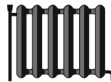
THZ 5.1 IBC topline



A<sup>++</sup>



A



A<sup>+++</sup>

A<sup>++</sup>

A<sup>+</sup>

A

B

C

D

E

F

G

A<sup>++</sup>

+



+



+



+



A<sup>+++</sup>

A<sup>++</sup>

A<sup>+</sup>

A

B

C

D

E

F

G

A

		THZ 5.1 IBC topline
		190945
Manufacturer		tecalor
Seasonal space heating energy efficiency under average climate conditions for medium-temperature applications ( $\eta_s$ )	%	128
Temperature control class		VI
Contribution of temperature control to space heating energy efficiency	%	4
Space heating energy efficiency of package under average climate conditions	%	132
Space heating energy efficiency of package under colder climate conditions	%	107
Space heating energy efficiency of package under warmer climate conditions	%	153
Value of differential between space heating energy efficiency under average climate conditions and that under colder climate conditions	%	13
Value of differential between space heating energy efficiency under warmer climate conditions and that under average climate conditions	%	13
Space heating energy efficiency class under average climate conditions, medium-temperature applications		A++
Space heating energy efficiency class of package under average climate conditions		A++
Energy efficiency class, DHW heating under average climate conditions		A
Load profile		XL

		THZ 5.1 IBC topline
		190945
Manufacturer		tecalor
Heat source		Luft
Low temperature heat pump		x
With auxiliary heater		x
Combination heater with heat pump		x
Rated heating output under colder climate conditions for medium-temperature applications (P rated)	kW	5
Rated heating output under average climate conditions for medium-temperature applications (P rated)	kW	5
Rated heating output under warmer climate conditions for medium-temperature applications (P rated)	kW	3
Tj = -7 °C heating output, partial load range under colder climate conditions (Pdh)	kW	5,3
Tj = -7 °C heating output, partial load range under average climate conditions (Pdh)	kW	4,9
Tj = 2 °C heating output, partial load range under colder climate conditions (Pdh)	kW	3,3
Tj = 2 °C heating output, partial load range under average climate conditions (Pdh)	kW	3,0
Tj = 2 °C heating output, partial load range under warmer climate conditions (Pdh)	kW	6,9
Tj = 7 °C heating output, partial load range under colder climate conditions (Pdh)	kW	2,8
Tj = 7 °C heating output, partial load range under average climate conditions (Pdh)	kW	2,2
Tj = 7 °C heating output, partial load range under warmer climate conditions (Pdh)	kW	4,5
Tj = 12 °C heating output, partial load range under colder climate conditions (Pdh)	kW	3,2
Tj = 12 °C heating output, partial load range under average climate conditions (Pdh)	kW	3,2
Tj = 12 °C heating output, partial load range under warmer climate conditions (Pdh)	kW	3,2
Tj = dual mode temperature under colder climate conditions (Pdh)	kW	5,3
Tj = dual mode temperature under average climate conditions (Pdh)	kW	4,9
Tj = dual mode temperature under warmer climate conditions (Pdh)	kW	6,9
Tj = operating temperature limit under colder climate conditions (Pdh)	kW	3,3
Tj = operating temperature limit under average climate conditions (Pdh)	kW	4,6
Tj = operating temperature limit under warmer climate conditions (Pdh)	kW	6,9
For air source heat pumps: Tj = -15 °C (if TOL< -20 °C) (Pdh)	kW	4,1
Dual mode temperature under colder climate conditions (Tbiv)	°C	-7
Dual mode temperature under average climate conditions (Tbiv)	°C	-7
Dual mode temperature under warmer climate conditions (Tbiv)	°C	2
Seasonal space heating energy efficiency under colder climate conditions for medium-temperature applications (ηs)	%	115
Seasonal space heating energy efficiency under average climate conditions for medium-temperature applications (ηs)	%	128
Seasonal space heating energy efficiency under warmer climate conditions for medium-temperature applications (ηs)	%	141
Tj = -7 °C COP, partial load range under colder climate conditions (COPd)		2,52
Tj = -7 °C COP, partial load range under average climate conditions (COPd)		2,24
Tj = 2 °C COP, partial load range under colder climate conditions (COPd)		3,50
Tj = 2 °C COP, partial load range under average climate conditions (COPd)		3,13
Tj = 2 °C COP, partial load range under warmer climate conditions (COPd)		2,50
Tj = 7 °C COP, partial load range under colder climate conditions (COPd)		4,56
Tj = 7 °C COP, partial load range under average climate conditions (COPd)		4,19
Tj = 7 °C COP, partial load range under warmer climate conditions (COPd)		3,28
Tj = 12 °C COP, partial load range under colder climate conditions (COPd)		5,59
Tj = 12 °C COP, partial load range under average climate conditions (COPd)		5,32
Tj = 12 °C COP, partial load range under warmer climate conditions (COPd)		4,98
Tj = dual mode temperature under colder climate conditions (COPd)		2,52
Tj = dual mode temperature under average climate conditions (COPd)		2,24
Tj = dual mode temperature under warmer climate conditions (COPd)		2,50
Tj = operating temperature limit under colder climate conditions (COPd)		1,61
Tj = operating temperature limit under average climate conditions (COPd)		2,08
Tj = operating temperature limit under warmer climate conditions (COPd)		2,50
For air source heat pumps: Tj = -15 °C (if TOL< -20 °C) (COPd)		2,05
Operating temperature limit under colder climate conditions (TOL)	°C	-22
Operating temperature limit under average climate conditions (TOL)	°C	-10
Operating temperature limit under warmer climate conditions (TOL)	°C	2
Operating temperature limit of heating water under colder climate conditions (WTOL)	°C	63
Operating temperature limit of heating water under average climate conditions (WTOL)	°C	60

Operating temperature limit of heating water under warmer climate conditions (WTOL)	°C	75
Power consumption, off-mode (Poff)	W	19
Power consumption, thermostat off-mode (PTO)	W	15
Power consumption, standby state (PSB)	W	19
Power consumption, operating state, with crankcase heating (PCK)	W	2
Rated heating output of auxiliary heater under colder climate conditions (PSUP)	kW	2,4
Rated heating output of auxiliary heater under average climate conditions (PSUP)	kW	0,8
Rated heating output of auxiliary heater under warmer climate conditions (PSUP)	kW	3,5
Type of energy supply, auxiliary heater		elektrisch
Output control		veränderlich
Sound power level, outdoor	dB(A)	52
Sound power level, indoor	dB(A)	53
Annual energy consumption under colder climate conditions for medium-temperature applications (QHE)	kWh/a	4228
Annual energy consumption under average climate conditions for medium-temperature applications (QHE)	kWh/a	3433
Annual energy consumption under warmer climate conditions for medium-temperature applications (QHE)	kWh/a	1134
Load profile		XL
Daily power consumption under average climate conditions (QELEC)	kWh	6,350
Annual power consumption under colder climate conditions (AEC)	kWh	2042,000
Annual power consumption under average climate conditions (AEC)	kWh	1676,000
Annual power consumption under warmer climate conditions (AEC)	kWh	1183,000
Seasonal space heating energy efficiency under warmer climate conditions for low-temperature applications ( $\eta_s$ )	%	84
Energy efficiency, DHW heating ( $\eta_{wh}$ ), under average climate conditions	%	102
Energy efficiency, DHW heating ( $\eta_{wh}$ ), warmer climates	%	145