

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

		TTF 20
		190363
Manufacturer		tecalor
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+++
Rated heating output under average climate conditions for medium-temperature applications (P rated)	kW	20
Rated heating output under average climate conditions for low-temperature applications (P rated)	kW	22
Seasonal space heating energy efficiency under average climate conditions for medium-temperature applications ( $\eta$ s)	%	131
Seasonal space heating energy efficiency under average climate conditions for low-temperature applications ( $\eta$ s)	%	192
Annual energy consumption under average climate conditions for medium-temperature applications (QHE)	kWh/a	11988
Annual energy consumption under average climate conditions for low-temperature applications (QHE)	kWh/a	8904
Sound power level, indoor	dB(A)	59
Rated heating output under colder climate conditions for medium-temperature applications (P rated)	kW	25
Rated heating output under colder climate conditions for low-temperature applications (P rated)	kW	27
Rated heating output under warmer climate conditions for medium-temperature applications (P rated)	kW	20
Rated heating output under warmer climate conditions for low-temperature applications (P rated)	kW	22
Seasonal space heating energy efficiency under colder climate conditions for medium-temperature applications ( $\eta$ s)	%	137
Seasonal space heating energy efficiency under colder climate conditions for low-temperature applications ( $\eta$ s)	%	201
Seasonal space heating energy efficiency under warmer climate conditions for medium-temperature applications ( $\eta$ s)	%	128
Seasonal space heating energy efficiency under warmer climate conditions for low-temperature applications ( $\eta$ s)	%	188
Annual energy consumption under colder climate conditions for medium-temperature applications (QHE)	kWh/a	17067
Annual energy consumption under colder climate conditions for low-temperature applications (QHE)	kWh/a	12535
Annual energy consumption under warmer climate conditions for medium-temperature applications (QHE)	kWh/a	7884
Annual energy consumption under warmer climate conditions for low-temperature applications (QHE)	kWh/a	5871
Sound power level, outdoor	dB(A)	59



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# tecalor

TTF 20

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	190363
Manufacturer	tecalor
Seasonal space heating energy efficiency under average climate conditions for low-temperature applications (Ŋs)	% 192
Temperature control class	VII
Contribution of temperature control to space heating energy efficiency	% 4
Space heating energy efficiency of package under average climate conditions	% 135
Space heating energy efficiency of package under colder climate conditions	% 141
Space heating energy efficiency of package under warmer climate conditions	% 132
Value of differential between space heating energy efficiency under average climate conditions and that under colder climate conditions	%
Value of differential between space heating energy efficiency under warmer climate conditions and that under average climate conditions	% 3
Energy efficiency class, space heating under average climate conditions, low-temperature applications	A+++
Space heating energy efficiency class of package under average climate conditions	A++

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

		TTF 20
Manufacturer		
Heat source		Sole
With auxiliary heater		
Combination heater with heat pump		
Rated heating output under colder climate conditions for medium- temperature applications (P rated)	kW	25
Rated heating output under average climate conditions for medium- temperature applications (P rated)	kW	20
Rated heating output under warmer climate conditions for medium- temperature applications (P rated)	kW	20
Tj = -7 °C heating output, partial load range under colder climate conditions (Pdh)	kW	20,7
Tj = -7 °C heating output, partial load range under average climate conditions (Pdh)	kW	20,2
Tj = 2 °C heating output, partial load range under colder climate conditions (Pdh)	kW	21,0
Tj = 2 °C heating output, partial load range under average climate conditions (Pdh)	kW	20,7
Tj = 2 °C heating output, partial load range under warmer climate conditions (Pdh)	kW	20,1
Tj = 7 °C heating output, partial load range under colder climate conditions (Pdh)	kW	21,3
Tj = 7 °C heating output, partial load range under average climate conditions (Pdh)	kW	21,0
Tj = 7 °C heating output, partial load range under warmer climate conditions (Pdh)	kW	20,5
Tj = 12 °C heating output, partial load range under colder climate conditions (Pdh)	kW	21,5
Tj = 12 °C heating output, partial load range under average climate conditions (Pdh)	kW	21,3
Tj = 12 °C heating output, partial load range under warmer climate conditions (Pdh)	kW	21,1
Tj = dual mode temperature under colder climate conditions (Pdh)	kW	20,5
Tj = dual mode temperature under average climate conditions (Pdh)	kW	20,1
Tj = dual mode temperature under warmer climate conditions (Pdh)	kW	20,1
Tj = operating temperature limit under colder climate conditions (Pdh)	kW	20,1
Tj = operating temperature limit under average climate conditions (Pdh)	kW	20,1
Tj = operating temperature limit under warmer climate conditions (Pdh)	kW	20,1
For air source heat pumps: Tj = -15 °C (if TOL< -20 °C) (Pdh)  Dual mode temperature under colder climate conditions (Tbiv)	kW °C	
Dual mode temperature under average climate conditions (Tbiv)	°C	-10
Dual mode temperature under warmer climate conditions (Tbiv)	°C	
Seasonal space heating energy efficiency under colder climate conditions for medium-temperature applications (ηs)	%	137
Seasonal space heating energy efficiency under average climate conditions for medium-temperature applications (ηs)	%	131
Seasonal space heating energy efficiency under warmer climate conditions for medium-temperature applications (ηs)	%	128
Tj = -7 °C COP, partial load range under colder climate conditions (COPd)		3,46
Tj = -7 °C COP, partial load range under average climate conditions (COPd)		2,96
Tj = 2 °C COP, partial load range under colder climate conditions (COPd)		3,87
Tj = 2 °C COP, partial load range under average climate conditions (COPd)		3,48
Tj = 2 °C COP, partial load range under warmer climate conditions (COPd)		2,84
Tj = 7 °C COP, partial load range under colder climate conditions (COPd)		4,26
Tj = 7 °C COP, partial load range under average climate conditions (COPd)		3,88
Tj = 7 °C COP, partial load range under warmer climate conditions (COPd)		3,24

Ti = 12 °C COP, partial load range under warmer climate conditions (COPd)  Tj = dual mode temperature under colder climate conditions (COPd)  Tj = dual mode temperature under average climate conditions (COPd)  Tj = dual mode temperature under warmer climate conditions (COPd)  Tj = dual mode temperature limit under warmer climate conditions (COPd)  Tj = operating temperature limit under colder climate conditions (COPd)  Tj = operating temperature limit under average climate conditions (COPd)  Tj = operating temperature limit under average climate conditions (COPd)  Tj = operating temperature limit under warmer climate conditions (COPd)  Tj = operating temperature limit under warmer climate conditions (COPd)  For air source heat pumps: Tj = -15 °C (if TOL< -20 °C) (COPd)  Operating temperature limit of heating water under average climate conditions (WTOL)  Power consumption, off-mode (Poff)  W  Operating temperature limit of heating water under average climate on the conditions (WTOL)  Power consumption, off-mode (Poff)  W  To Power consumption, thermostat off-mode (PTO)  W  To Power consumption, thermostat off-mode (PTO)  W  To Power consumption, operating state, with crankcase heating (PCK)  W  To Power consumption, operating state, with crankcase heating (PCK)  Rated heating output of auxiliary heater under average climate conditions (PSUP)  Type of energy supply, auxiliary heater  Output control  Sound power level, outdoor  dB(A)  59  Sound power level, outdoor  dB(A)  59  Sound power level, indoor  Annual energy consumption under colder climate conditions for medium-temperature applications (OHE)  Annual energy consumption under average climate conditions for medium-temperature applications (OHE)	$T_{\rm J} = 12$ °C COP, partial load range under colder climate conditions (COPd)		4,60
Tj = dual mode temperature under colder climate conditions (COPd)  Tj = dual mode temperature under average climate conditions (COPd)  Tj = dual mode temperature under average climate conditions (COPd)  Tj = dual mode temperature limit under average climate conditions (COPd)  Tj = operating temperature limit under colder climate conditions (COPd)  Tj = operating temperature limit under average climate conditions (COPd)  Tj = operating temperature limit under average climate conditions (COPd)  Tj = operating temperature limit under warmer climate conditions (COPd)  Tj = operating temperature limit of heating water under average climate conditions (COPd)  Poarting temperature limit of heating water under average climate conditions (WTOL)  Power consumption, off-mode (Poff)  W  Operating temperature limit of heating water under average climate conditions (WTOL)  Power consumption, off-mode (Poff)  W  To Power consumption, standby state (PSB)  W  To Power consumption, standby state (PSB)  W  To Power consumption, operating state, with crankcase heating (PCK)  W  Type of energy supply, auxiliary heater under average climate conditions (PSUP)  Type of energy supply, auxiliary heater under average climate conditions (PSUP)  Type of energy supply, auxiliary heater under average climate conditions for delum-temperature applications (OHE)  Annual energy consumption under colder climate conditions for medium-temperature applications (OHE)  Annual energy consumption under average climate conditions for medium-temperature applications (OHE)  Annual energy consumption under average climate conditions for medium-temperature applications (OHE)  Annual energy consumption under average climate conditions for medium-temperature applications (OHE)	,		436,00
Tj = dual mode temperature under average climate conditions (COPd)  Tj = dual mode temperature under warmer climate conditions (COPd)  Tj = operating temperature limit under colder climate conditions (COPd)  Tj = operating temperature limit under average climate conditions (COPd)  Tj = operating temperature limit under average climate conditions (COPd)  Tj = operating temperature limit under average climate conditions (COPd)  Tj = operating temperature limit under warmer climate conditions (COPd)  For air source heat pumps: Tj = -15 °C (if TOL < -20 °C) (COPd)  Operating temperature limit of heating water under average climate conditions (WTOL)  Power consumption, off-mode (Poff)  Power consumption, off-mode (Poff)  Power consumption, thermostat off-mode (PTO)  Power consumption, standby state (PSB)  W  Ty  Power consumption, operating state, with crankcase heating (PCK)  Rated heating output of auxiliary heater under average climate conditions (PSUP)  Type of energy supply, auxiliary heater under average climate  Coutput control  Sound power level, outdoor  Annual energy consumption under colder climate conditions for medium-temperature applications (QHE)  Annual energy consumption under average climate conditions for medium-temperature applications (QHE)  Annual energy consumption under average climate conditions for medium-temperature applications (QHE)  Annual energy consumption under average climate conditions for medium-temperature applications (QHE)	,		4,03
Tj = dual mode temperature under warmer climate conditions (COPd)  Tj = operating temperature limit under colder climate conditions (COPd)  2,84  Tj = operating temperature limit under average climate conditions (COPd)  Tj = operating temperature limit under warmer climate conditions (COPd)  Tj = operating temperature limit under warmer climate conditions (COPd)  For air source heat pumps: Tj = -15 °C (if TOL < -20 °C) (COPd)  Operating temperature limit of heating water under average climate conditions (WTOL)  Power consumption, off-mode (Poff)  Power consumption, off-mode (Poff)  Power consumption, thermostat off-mode (PTO)  Power consumption, standby state (PSB)  Power consumption, operating state, with crankcase heating (PCK)  Rated heating output of auxiliary heater under average climate conditions (PSUP)  Type of energy supply, auxiliary heater  Output control  Sound power level, outdoor  Sound power level, outdoor  Annual energy consumption under colder climate conditions for medium-temperature applications (QHE)  Annual energy consumption under average climate conditions for medium-temperature applications (QHE)  Annual energy consumption under average climate conditions for medium-temperature applications (QHE)  Annual energy consumption under average climate conditions for medium-temperature applications (QHE)	Tj = dual mode temperature under colder climate conditions (COPd)		3,24
Tj = operating temperature limit under colder climate conditions (COPd) Tj = operating temperature limit under average climate conditions (COPd) Tj = operating temperature limit under warmer climate conditions (COPd) Tj = operating temperature limit under warmer climate conditions (COPd) Tj = operating temperature limit under warmer climate conditions (COPd) Tj = operating temperature limit of heating water under average climate conditions (WTOL) Operating temperature limit of heating water under average climate conditions (WTOL) Power consumption, off-mode (Poff) W To Power consumption, thermostat off-mode (PTO) Power consumption, standby state (PSB) W To Power consumption, operating state, with crankcase heating (PCK) W Taked heating output of auxiliary heater under average climate conditions (PSUP) Type of energy supply, auxiliary heater Output control Gest Sound power level, outdoor Sound power level, outdoor Sound power level, indoor Annual energy consumption under colder climate conditions for medium-temperature applications (OHE) Annual energy consumption under average climate conditions for medium-temperature applications (OHE) Annual energy consumption under average climate conditions for medium-temperature applications (OHE) Annual energy consumption under average climate conditions for medium-temperature applications (OHE) Annual energy consumption under average climate conditions for medium-temperature applications (OHE)	Tj = dual mode temperature under average climate conditions (COPd)		2,84
Tj = operating temperature limit under average climate conditions (COPd)  Tj = operating temperature limit under warmer climate conditions (COPd)  For air source heat pumps: Tj = -15 °C (if TOL< -20 °C) (COPd)  Operating temperature limit of heating water under average climate conditions (WTOL)  Power consumption, off-mode (Poff)  Power consumption, off-mode (Poff)  Power consumption, thermostat off-mode (PTO)  Power consumption, standby state (PSB)  Power consumption, operating state, with crankcase heating (PCK)  Rated heating output of auxiliary heater under average climate conditions (PSUP)  Type of energy supply, auxiliary heater under average climate  Coutput control  Sound power level, outdoor  Annual energy consumption under colder climate conditions for medium-temperature applications (QHE)  Annual energy consumption under average climate conditions for medium-temperature applications (QHE)  Annual energy consumption under average climate conditions for medium-temperature applications (QHE)  Annual energy consumption under average climate conditions for medium-temperature applications (QHE)	Tj = dual mode temperature under warmer climate conditions (COPd)		2,84
Tj = operating temperature limit under warmer climate conditions (COPd)  For air source heat pumps: Tj = -15 °C (if TOL< -20 °C) (COPd)  Operating temperature limit of heating water under average climate conditions (WTOL)  Power consumption, off-mode (Poff)  Power consumption, thermostat off-mode (PTO)  Power consumption, standby state (PSB)  Power consumption, operating state, with crankcase heating (PCK)  Rated heating output of auxiliary heater under average climate conditions (PSUP)  Type of energy supply, auxiliary heater  Output control  Sound power level, outdoor  Sound power level, indoor  Annual energy consumption under colder climate conditions for medium-temperature applications (QHE)  Annual energy consumption under average climate conditions for medium-temperature applications (QHE)  Annual energy consumption under average climate conditions for medium-temperature applications (QHE)  Annual energy consumption under average climate conditions for medium-temperature applications (QHE)  Annual energy consumption under average climate conditions for medium-temperature applications (QHE)	Tj = operating temperature limit under colder climate conditions (COPd)		2,84
For air source heat pumps: Tj = -15 °C (if TOL< -20 °C) (COPd)  Operating temperature limit of heating water under average climate conditions (WTOL)  Power consumption, off-mode (Poff)  Power consumption, thermostat off-mode (PTO)  Power consumption, standby state (PSB)  Power consumption, operating state, with crankcase heating (PCK)  Rated heating output of auxiliary heater under average climate conditions (PSUP)  Type of energy supply, auxiliary heater  Output control  Sound power level, outdoor  Sound power level, indoor  Annual energy consumption under colder climate conditions for medium-temperature applications (QHE)  Annual energy consumption under average climate conditions for medium-temperature applications (QHE)  Annual energy consumption under average climate conditions for medium-temperature applications (QHE)  Annual energy consumption under average climate conditions for medium-temperature applications (QHE)  Annual energy consumption under average climate conditions for medium-temperature applications (QHE)  Annual energy consumption under average climate conditions for medium-temperature applications (QHE)  Annual energy consumption under average climate conditions for medium-temperature applications (QHE)	, , , , , , , , , , , , , , , , , , , ,		2,84
Operating temperature limit of heating water under average climate conditions (WTOL)  Power consumption, off-mode (Poff)  Power consumption, thermostat off-mode (PTO)  Power consumption, thermostat off-mode (PTO)  Power consumption, standby state (PSB)  Power consumption, operating state, with crankcase heating (PCK)  Rated heating output of auxiliary heater under average climate conditions (PSUP)  Type of energy supply, auxiliary heater  Output control  Sound power level, outdoor  Sound power level, indoor  Annual energy consumption under colder climate conditions for medium-temperature applications (QHE)  Annual energy consumption under average climate conditions for medium-temperature applications (QHE)  Annual energy consumption under warmer climate conditions for medium-temperature applications (QHE)  Annual energy consumption under warmer climate conditions for medium-temperature applications (QHE)  Annual energy consumption under warmer climate conditions for medium-temperature applications (QHE)	, , , , , , , , , , , , , , , , , , , ,		2,84
conditions (WTOL)  Power consumption, off-mode (Poff)  Power consumption, thermostat off-mode (PTO)  Power consumption, standby state (PSB)  Power consumption, operating state, with crankcase heating (PCK)  Rated heating output of auxiliary heater under average climate conditions (PSUP)  Type of energy supply, auxiliary heater  Output control  Sound power level, outdoor  Sound power level, outdoor  Annual energy consumption under colder climate conditions for medium-temperature applications (QHE)  Annual energy consumption under average climate conditions for medium-temperature applications (QHE)  Annual energy consumption under average climate conditions for medium-temperature applications (QHE)  Annual energy consumption under average climate conditions for medium-temperature applications (QHE)  Annual energy consumption under warmer climate conditions for medium-temperature applications (QHE)	For air source heat pumps: Tj = -15 °C (if TOL< -20 °C) (COPd)		2,84
Power consumption, thermostat off-mode (PTO)  Power consumption, standby state (PSB)  Power consumption, operating state, with crankcase heating (PCK)  Rated heating output of auxiliary heater under average climate conditions (PSUP)  Type of energy supply, auxiliary heater  Output control  Sound power level, outdoor  Sound power level, indoor  Annual energy consumption under colder climate conditions for medium-temperature applications (QHE)  Annual energy consumption under average climate conditions for medium-temperature applications (QHE)  Annual energy consumption under average climate conditions for medium-temperature applications (QHE)  Annual energy consumption under warmer climate conditions for medium-temperature applications (QHE)		°C	60
Power consumption, standby state (PSB)  Power consumption, operating state, with crankcase heating (PCK)  Rated heating output of auxiliary heater under average climate conditions (PSUP)  Type of energy supply, auxiliary heater  Output control  Sound power level, outdoor  Sound power level, indoor  Annual energy consumption under colder climate conditions for medium-temperature applications (QHE)  Annual energy consumption under average climate conditions for medium-temperature applications (QHE)  Annual energy consumption under warmer climate conditions for medium-temperature applications (QHE)  Annual energy consumption under warmer climate conditions for medium-temperature applications (QHE)	Power consumption, off-mode (Poff)	W	0
Power consumption, operating state, with crankcase heating (PCK)  Rated heating output of auxiliary heater under average climate conditions (PSUP)  Type of energy supply, auxiliary heater  Output control  Sound power level, outdoor  Sound power level, indoor  Annual energy consumption under colder climate conditions for medium-temperature applications (QHE)  Annual energy consumption under warmer climate conditions for medium-temperature applications (QHE)  Annual energy consumption under warmer climate conditions for medium-temperature applications (QHE)  Annual energy consumption under warmer climate conditions for	Power consumption, thermostat off-mode (PTO)	W	7
Rated heating output of auxiliary heater under average climate conditions (PSUP)  Type of energy supply, auxiliary heater  Output control  Sound power level, outdoor  Sound power level, indoor  Annual energy consumption under colder climate conditions for medium-temperature applications (QHE)  Annual energy consumption under average climate conditions for medium-temperature applications (QHE)  Annual energy consumption under warmer climate conditions for medium-temperature applications (QHE)  Annual energy consumption under warmer climate conditions for medium-temperature applications (QHE)	Power consumption, standby state (PSB)	W	7
conditions (PSUP)  Type of energy supply, auxiliary heater  Output control  Sound power level, outdoor  Sound power level, indoor  Annual energy consumption under colder climate conditions for medium-temperature applications (QHE)  Annual energy consumption under average climate conditions for medium-temperature applications (QHE)  Annual energy consumption under average climate conditions for medium-temperature applications (QHE)  Annual energy consumption under warmer climate conditions for medium-temperature applications (QHE)	Power consumption, operating state, with crankcase heating (PCK)	W	74
Output control  Sound power level, outdoor  Sound power level, indoor  Annual energy consumption under colder climate conditions for medium-temperature applications (QHE)  Annual energy consumption under average climate conditions for medium-temperature applications (QHE)  Annual energy consumption under average climate conditions for medium-temperature applications (QHE)  Annual energy consumption under warmer climate conditions for		kW	0,0
Sound power level, outdoor  Sound power level, indoor  Annual energy consumption under colder climate conditions for medium-temperature applications (QHE)  Annual energy consumption under average climate conditions for medium-temperature applications (QHE)  Annual energy consumption under average climate conditions for medium-temperature applications (QHE)  Annual energy consumption under warmer climate conditions for	Type of energy supply, auxiliary heater		elektrisch
Sound power level, indoor  Annual energy consumption under colder climate conditions for medium-temperature applications (QHE)  Annual energy consumption under average climate conditions for medium-temperature applications (QHE)  Annual energy consumption under average climate conditions for medium-temperature applications (QHE)  Annual energy consumption under warmer climate conditions for	Output control		fest
Annual energy consumption under colder climate conditions for medium-temperature applications (QHE)  Annual energy consumption under average climate conditions for medium-temperature applications (QHE)  Annual energy consumption under warmer climate conditions for MWh/a	Sound power level, outdoor	dB(A)	59
medium-temperature applications (QHE)  Annual energy consumption under average climate conditions for medium-temperature applications (QHE)  Applied energy consumption under warmer climate conditions for	Sound power level, indoor	dB(A)	59
medium-temperature applications (QHE)  Appual energy consumption under warmer climate conditions for	3, 1	kWh/a	17067
Appual energy consumption under warmer climate conditions for		kWh/a	11988
medium-temperature applications (QHE)  kWh/a  kWh/a  7884	Annual energy consumption under warmer climate conditions for medium-temperature applications (QHE)	kWh/a	7884
Flow rate on heat source side m³/h 5	Flow rate on heat source side	m³/h	5