Heating
Technical Data

D2TND-A4A

> D2TND012A4AA
> D2TND018A4AA
> D2TND024A4AA
> D2TND028A4AA
> D2TND035A4AA

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1 Features

Supremely compact gas condensing heating only boiler

- Very compact unit and flexible in use: possible to install in nearly all room conditions (inside the house as well as outside) thanks to freeze protection for water piping
- Easy to service: all parts are accessible by only removing the front panel
- High heating efficiency up to 108%
- High modulating range 1:8 : the capacity is adapted based on the required heat load of the house from 3 to 24 kW
- Combine it with solar heating for even better energy efficiency

Online controller via app

2 Specifications

2-1 Technical Specifications					D2TND012A4A	D2TND018A4A	D2TND024A4A	D2TND028A4A	D2TND035A4A
Central heating	Heat input Qn (net calorific value)	Nom	Min/ Max	kW	2.9/11.2	2.9/17.0	2.9/23.5	4.8/27	4.8/34
	Heat input Qn (gross calorific value)	Nom	Min/ Max	kW	3.2/12.4	3.2/18.9	3.2/26.1	5.3/30	5.3/37.8
	Output Pn at 80/ 60°C	Min-Nom		kW	2.8-10.9	2.8-16.6	2.8-22.8	4.6-26.3	4.6-33.2
	Output Pnc at 50/ 30°C	Min-Nom		kW	3.1-12.0	3.1-18.0	3.1-24.0	5.2-28.2	5.2-35
	Output at 37/30°C	Nom		kW	3.7	5.6	7.6	8.8	11.1
	Factory setting	Output	Nom	kW	12	18	24	28	35
	Water pressure (PMS)	Max		bar	3				
	Water temperature	Max		°C	100				
	Efficiency	Net calorific value-Gross calorific value		%	98.6-87.8	98.2-87.4	97.9-87.3	---	
	Efficiency full load heat input	Net calorific value		%	97.5	97.1	96.9	97.5	97.6
		Gross calorific value		%	87.8	87.4	87.3	87.8	
	Efficiency part load 30% Qa	Net calorific value		%	109.5	109.1	108.7	108.9	108.7
		Gross calorific value		%	98.6	98.3	97.9	98.1	97.9
	Operation range	Min		°C	30				
		Max		°C	80				
	Water at 37/30				-				
Heat losses	Heat loss thermal downtime losses EN 15502-1				-			0.0650	
	Stand-by boiler Ps			kW	0.057			0.0650	
Domestic hot water	Heat input (net calorific value) Qnw	Nom	Min-Max	kW	2.9-11.2	2.9-17.0	2.9-23.5	4.8-29.5	4.8-34
	Heat input (gross calorific value) Qnw	Nom	Min-Max	kW	3.2-12.4	3.2-18.1	3.2-26.1	5.3-32.7	5.3-37.7
	Domestic hot water threshold			l/min	-			2.5	
	Temperature	Max-Factory setting		°C	60-50				
	Operation range	Min		°C	35				
		Max		°C	60				

2 Specifications

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Gas	Supply pressure	Belgium		G20 (20 mbar), G25 (25 mbar), G31 (37 mbar)			G20 (20 mbar) / G25 (25 mbar) / G31 (37 mbar)	
		Denmark		-				
		Estonia		G20 (20 mbar) / G31 (37 mbar)				
		Finland		-				
		France		G20 (20 mbar) / G25 (25 mbar) / G31 (37 mbar)				
		Germany		-			G20 (20 mbar) / G25 (20 mbar) / G31 (30 mbar) / G31 (37 mbar) / G31 (50 mbar)	
		Greece		G20 (20 mbar) / G31 (37 mbar)				
		Italy		G20 (20 mbar) / G31 (37 mbar)				
		Latvia		G20 (20 mbar) / G31 (37 mbar)				
		Lithuania		G20 (20 mbar) / G31 (37 mbar)				
		Luxembourg		-				
		Netherlands		-				
		Norway		-				
		Poland		G20 (20 mbar) / G31 (37 mbar)				
		Portugal		G20 (20 mbar) / G31 (37 mbar)				
		Spain		G20 (20 mbar) / G31 (37 mbar)				
		Sweden		-				
		Turkey		-			G20 (20 mbar) / G31 (37 mbar)	
		United Kingdom		G20 (20 mbar) / G31 (37 mbar)				
	Category	Belgium		II2E+3P				
		Denmark		-				
		Estonia		II2H3P				
		Finland		-				
		France		II2E+3P				
		Germany		-			II2ELL3P	
		Greece		II2H3P				
		Italy		II2H3P				
		Latvia		II2H3P				
		Lithuania		II2H3P				
		Luxembourg		-				
		Netherlands		-				
		Norway		-				
		Poland		II2E3P				
		Portugal		II2H3P				
		Spain		II2H3P				
		Sweden		-				
		Turkey		-			II2H3P	
		United Kingdom		II2H3P				
	Consumption (G20)	Min-Max	m³/h	0.31-1.18	0.31-1.80	0.31-2.48	0.511-2.89	0.511-3.63
	Consumption (G25)	Min-Max	m³/h	0.36-1.38	0.36-2.09	0.36-2.89	0.59-3.32	0.59-4.19
	Consumption (G30)	Min	m³/h	-				
		Max	m³/h	-				
	Consumption (G31)	Min-Max	m³/h	0.12-0.46	0.12-0.69	0.12-0.96	0.2-1.1	0.2-1.38
	NOx class			6				
	NOx level (G20)		mg/kWh	10	18	22	36.3	35.5
Supply air	Connection		mm	100				
	Concentric			Yes				

2 Specifications

2-1 Technical Specifications				D2TND012A4A	D2TND018A4A	D2TND024A4A	D2TND028A4A	D2TND035A4A
Flue gas	Temperature	Max	°C	90			76.4	81.7
	Connection		mm	60				
	Length 2x DN80	Max	m	125			44	
	Length DN60/100	Max	m	11			7.5	
	Length DN80/125	Max	m	44			34	
	Mass flow (G20)	Max	kg/h	38.7			44.5	55.7
	Mass flow (G25)	Max	kg/h	-			39.3	49.6
	Mass flow (G31)	Max	kg/h	36.0			43.3	54.7
	Condensate drain hose		DN	20.0				
			inch	0.79				
Space heating	General	Prated	kW	11	16	23	26.3	33.2
		P1 (Usefull heat output at 30% of rated heat output and low-temp regime)	kW	3.9	5.6	7.7	8.8	11.1
		P4 (Useful heat output at rated heat output and high-temp regime)	kW	10.8	16.4	22.8	26.3	33.2
		ηs (Seasonal space heating efficiency)	%	93				
		η1 (Useful efficiency at 30% of rated heat output and low-temp regime)	%	98.6	98.2	97.9	98.1	97.9
		η4 (Useful efficiency at rated heat output and high-temp regime)	%	87.8	87.4	87.3	87.8	87.9
		Seasonal space heating eff. class		A				
		Qhe Annual energy consumption (final energy)	kWh	9,281	13,790	19,648	13,292	16,260
		Qhe Annual energy consumption (GCV)	Gj	33.612	49.644	70.731	47.85	58.54
	Auxiliary electricity consumption	elmax (at full load)	kW	0.013	0.020	0.027	0.0360	0.0550
		elmin (at part load)	kW	0.009		0.010		0.0110
		Psb (Standby mode)	kW	0.004			0.0030	
	Other	NOx emission	mg/kWh	10	18	22	35.5	36.3
		ηson (seasonal space heating energy eff. in active mode)	%	93				
		Pstby (standby heat loss)	kW	0.057			0.0650	
Domestic hot water heating	General	ηwh (water heating efficiency)	%	-				
Casing	Colour			Titanium White (Ral9003)				
	Material			Sheet metal			Powder painted galvanised steel plate	

2 Specifications

2-1 Technical Specifications					D2TND012A4A	D2TND018A4A	D2TND024A4A	D2TND028A4A	D2TND035A4A
Dimensions	Unit	Height	Casing	mm	590			690	
			Minimum installation height	mm	970.0			-	
		Width		mm	400			440	
		Depth		mm	256			295	
	Packed unit	Height		mm	350			790	
		Width		mm	490			525	
		Depth		mm	680			385	
Weight	Unit	Empty		kg	27			36	
		Full		kg	27			37.5	
	Boiler	Empty		kg	26.5			-	
	Packed unit	Empty		kg	31			39	
Packing	Material				Carton				
	Weight			kg	4.5			3	
Boiler	Water volume			l	-			1.5	
Tank	Psbsol			W/K	-				
	Vbu (Solar, BUH)			l	-				
Heat exchanger	Quantity				1				
	Body material				Aluminium				
	Domestic hot water	Quantity			1			-	
		Tube material			Stainless steel			-	
3-way valve	Type				-			Stepper Motor	
Pump	Type				Grundfos UPM3 15-75 CHB				
	Nr of speeds				PWM				
	Power input			W	60				
	Maximum pumping height			m	7.5				
Gas valve	Type				Electronic				
Expansion vessel	Volume			l	8			10	
	Max. water pressure			bar	3				
	Pre pressure			bar	1				
Fan motor	Type				-			AC Motor	
Water circuit - Domestic hot water side	Piping connections	Cold water in / Hot water out		inch	-			3/4" (male)	
		Diameter		mm	19.0			18	
Piping connections	Water inlet heat exchanger diameter			inch	-			G 3/4" (female)	
				mm	-			18	
	Water outlet heat exchanger diameter			mm	-			18	
Sound power level	Nom.			dBA	42	46	49	49.61	52.83
General	Supplier/ Manufacturer details	Name and address			Daikin Europe N.V. - Zandvoordestraat 300, 8400 Oostende, Belgium				
		Name or trademark			Daikin Europe N.V.				
	Product description	Model identifier			D2TND012	D2TND018	D2TND024	-	
		Condensing boiler			Yes				
		Low-temperature boiler			No				
		B1 boiler			No				
		Cogeneration space heater			No				
		Combination heater			No				
		Combination heater is able to work only during off-peak hours			No				
	LW(A) Sound power level (according to EN14825)	Indoor		dB(A)	42	46	49	49.61	52.83
	Supplementary heater	Type of energy input			-			Gas	
Control systems	Class of temperature control				-				
	Contribution to seasonal space heating efficiency			%	-				

2 Specifications

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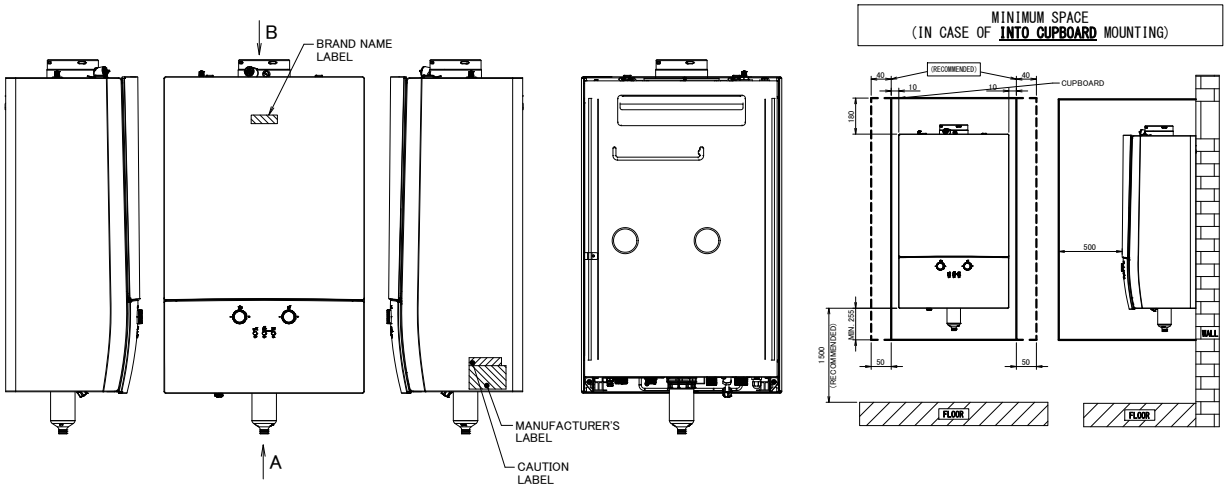
Water circuit - Central heating	Piping connections diameter		inch	3/4" (male)				
			mm	19			18	
	Piping material			-			Cu	
	Pressure	Heating Max.	bar	3				
	Safety valve		bar	3				
	Air purge valve			Yes				
	Drain valve / fill valve			Yes			No	
	Shut off valve			Yes				

2-2 Electrical Specifications			D2TND012A4A	D2TND018A4A	D2TND024A4A	D2TND028A4A	D2TND035A4A
Pump	Type		-			Modulating Pump	
Power supply	Phase/Frequency/Voltage/Voltage range	V	1~/50/230				
IP class	IP		IPX5D				
Electrical power consumption	Max.	W	86			92	112
	Standby	W	3.5			2.7	
Sensor	Storage tank sensor		-			Yes	

3 Dimensional drawings

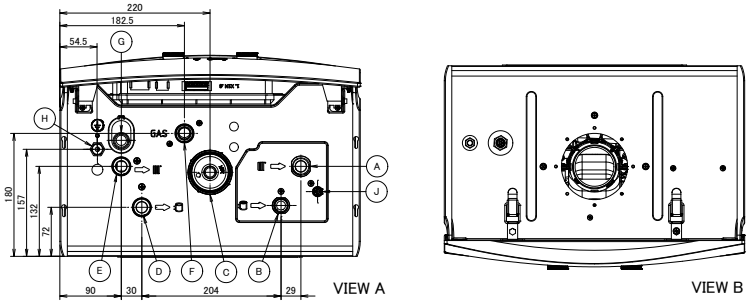
3 - 1 Dimensional Drawings

D2TND-A4A



BOTTOM CONNECTIONS :

- Ⓐ CENTRAL HEATING INLET CONNECTION (3/4″)
- Ⓑ STORAGE TANK INLET CONNECTION (1/2″)
- Ⓒ CONDENSATE TRAP DISCHARGE
- Ⓓ STORAGE TANK OUTLET CONNECTION (1/2″)
- Ⓔ CENTRAL HEATING OUTLET CONNECTION (3/4″)
- Ⓕ GAS PIPE CONNECTION (3/4″)
- Ⓖ SAFETY VALVE DISCHARGE
- Ⓗ POWER CABLE
- Ⓙ DRAIN VALVE



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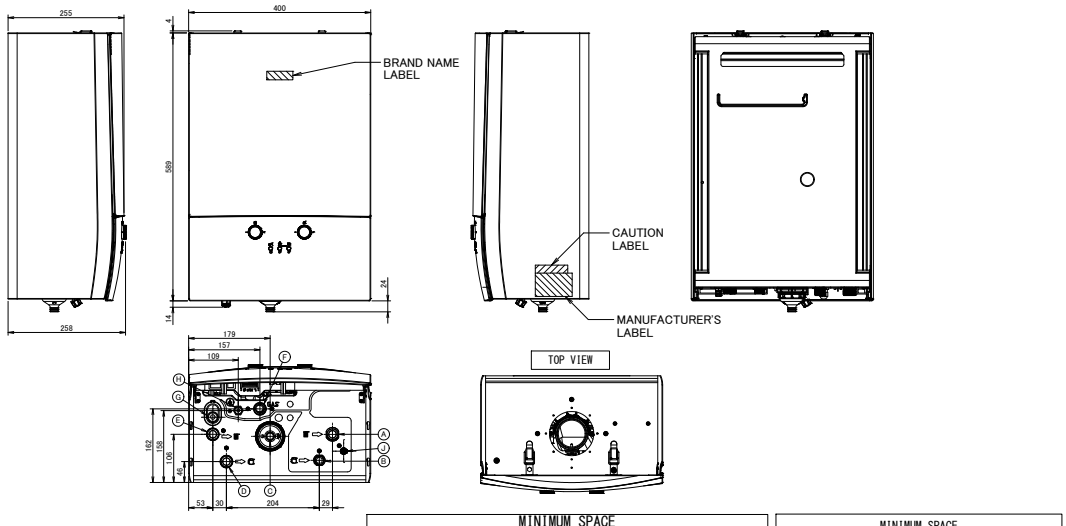

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