

Технически данни

позиция	Description		
	признак	Unit	Value
	Allgemeine Daten		
	Страна на разполагане	-	Bulgaria
	Location	-	indoors
	Assembly and operating conditions	-	free of frost, dust as well as dripping water; for boundary conditions see Technical Information TI024
	Височина за монтиране над стандартното нулево ниво	m	106
	Ambient temperature min.	°C	5
	Ambient temperature max.	°C	40
	Voltage	V	400
	Voltage fluctuations max. (+/-)	%	5
	Neutral conductor	-	yes
	Earth connection	-	yes
	Frequency	Hz	50
	Max. frequency fluctuations (+/-)	%	1
	Direct switching up to	kW	5,5
	Deviations from the aforementioned values are listed, if necessary, in the following product descriptions.	-	-

позиция	Description	Unit	Value
	признак		
01	Steam boiler plant		
	Топлоносител	-	Saturated steam
	Capacity system boundary (at indicated make-up water/condensate temperatures and average volumes)	kg/h	3 000
	Water chemical operation of the boiler	-	containing salt
	Water quality	-	acc. to Operating Manual "Directive water condition" B002
	Fuel	-	Gas / Natural gas L
	Fuel standard	-	DVGW G260
	Net calorific value (rated to 0 °C / 1013 mbar) (+/-2%)	kWh/Nm³	8,50
	All thermal data (fuel gas) refer to an excess of air lambda of		1,10
	Gas flow pressure on gas regulation module inlet (+ 5% / - 0%)	mbar	300
	gas temperature	°C	15,00
01.01	UNIVERSAL steam boiler CSB		
	Boiler type	-	5 200
	Series	-	CSB
	Steam capacity (nominal load)	kg/h	3 195
	Максимално допустимо работно свръхналягане	bar	10,0
	Trip pressure safety valve	bar	10,0
	средно работно свръхналягане	bar	8,0
	Trip pressure safety pressure limiter	bar	9,5
	Cold water test pressure	bar	18,50
	Nominal heating area	m²	63,00
	ТЕМПЕРАТУРА НА ЗАХРАНВАЩАТА ВОДА	°C	90
	Operation side	-	Отдясно
	Category (DGRL)	-	IV
01.01.01	Boiler and equipment		
	Water content up to low-water	l	4 000
	Water content up to HW	l	4 681,74
	Water content full	l	5 730
	Steam capacity from and at 212 °F	kg/h	3 388
	Gross thermal capacity (nominal load)	kW	2 125
	Efficiency gas	%	94,6
	calculation of efficiency (gas)	-	косвен метод базиран на EN12953 част 11
	Total burner capacity (gas)	kW	2 246

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	Norm volume flow fuel (gas)	m ³ /h	264
	Radiation loss gas (TI 005)	%	0,66
	Norm volume flow moist smoke gas (gas)	m ³ /h	2 617
	Mass flow moist smoke gas (gas)	kg/h	3 248
	Приблизителни загуби на отработени газове (според. EN 12953 част 11) (газ)	%	4,7
	Flue gas temperature approx. (gas)	°C	131
	Furnace volume load (gas)	MW/m ³	1,3
	Heating surface on burner side	m ²	61,7
	Blowdown rate taken into account in design	%	5,00
	Total resistance on heating gas side of boiler in operation with gas (based on altitude)	mbar	5,40
	Total resistance on heating gas side includes	-	Boiler with ECO
	Maximum permissible local flue gas pressure at the limit of supply	mbar	0,00
	Minimum permissible local flue gas pressure at the limit of supply	mbar	-1,00
	Transportation weight boiler body approx.	kg	8 672
	Total weight boiler body (full) approx. +/- 2%	kg	14 407
	Material of insulation cladding	-	ALU Stucco
	Insulation thickness min.	mm	100
	Mounting place terminal box	-	Boiler front - top left (10 o'clock position)
01.01.02	Flue gas heat exchanger ECO 1		
	Cold water test pressure	bar	56,00
	Outlet direction of flue gas connection	-	to top
	Thermal capacity of economizer in operation with gas	kW	110
	Flue gas temperature approx. (gas)	°C	131
	Heating surface ECO	m ²	58
	Water outlet temperature (gas)	°C	120
	Resistance on water side	mbar	52
	Insulation thickness min.	mm	100
01.01.03	Команден шкаф на котела		
	Extra space in the boiler control panel	%	20
	Width control panel	mm	1 000
	Height control panel	mm	760
	Depth control panel	mm	300
	Control panel design	-	Wall assembly (boiler control panel)
	Installed load	kW	10,71

позиция	Description	Unit	Value
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	Maximum site protection must be	A	40,00
	Maximum short-circuit strength at the feed of each control Cabinet	kA	10,00
	Display size Touch Panel	-	9"
	Cable harness feeder at the boiler (o'clock)	-	12
	Cable harness length	m	10,00
	Total weight control panel	kg	118,00
01.01.04	Gas firing		
	Emission evaluation according to	-	EN 267/676
	Temperature of aspirated air	°C	25,00
	Burner brand	-	Weishaupt
	Type of control (gas)	-	Continuous modulating
	Assembly side of gas fitting	-	Отдясно
	Type of burner	-	monobloc
	Type designation burner	-	WM-G30/1-A ZM-LN
	Turn down ratio burner (gas)	-	6,40
	Rated capacity engine(s) (electrical)	kW	7,50
	Sound pressure level of each individual component of the firing system (without sound insulation)	db(A)	84
	Weight burner	kg	159
	Separate medium for ignition	-	not required
01.01.05	Gas regulation module		
	Assembly side of gas fitting	-	Отдясно
	Gas flow pressure at inlet of gas regulation module	mbar	300
	Max. possible standard volume flow	m³/h	512
	Nominal diameter gas shut-off valve	DN	50
	Max. permissible gas flow pressure of the gas regulation module (max. safeguarding pressure of gas transfer station)	mbar	500
	Operating/transport weight gas regulation module +/- 4%	kg	17,43
01.01.06	Pump module PM		
	мин. съществуваща височина на подаването	mm	1 000
	Type of control feed pump	-	Continuous with frequency-controlled pump
01.01.06.01	Pump module		
	Cable length boiler control cabinet - feed pump module	m	20,00
	Pump manufacturer	-	Grundfos
	Type designation feed pump	-	CRE 3-29 XK
	Rated capacity engine(s) (electrical)	kW	2,20

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	Dispatch weight pump module +/- 4%	kg	128
	Operating weight pump module +/- 2%	kg	136
01.02	Water service module WSM-T		
	Supply steam pressure	bar	8,00
	Steam supply line safeguarded at	bar	10,00
	Supply steam pressure	-	own boiler
	Design temperature (deaeration)	°C	90
	Deaeration capacity	kg/h	3 073
	Designed for a system performance of	kg/h	3 195
	Tank material	-	steel (St.37)
	Material of insulation cladding	-	ALU Stucco
	Минимална изолационна дебелина	mm	100,00
	Cold water test pressure	bar	2,00
	Water content (in operation)	l	2 100
	Width control panel	mm	500
	Height control panel	mm	500
	Depth control panel	mm	210
	Control panel design	-	Wall assembly (boiler control panel)
	Connected power - control panel of feed water treatment	kW	0,8
	Maximum site protection must be	A	6,00
	Maximum short-circuit strength at the feed of each control Cabinet	kA	10,00
	Mass flow of oxygen-free condensate (average flow)	kg/h	180
	Mass flow of oxygen-free condensate (minimum flow)	kg/h	0
	Temperature of oxygen-free condensate	°C	165
	Pressure of oxygen-free condensate	bar	7,50
	Mass flow of oxygenic condensate (average flow)	kg/h	1 500
	Mass flow of oxygenic condensate (minimum flow)	kg/h	0
	Temperature of oxygenic condensate	°C	90
	Pressure of oxygenic condensate	bar	1,00
	Mass flow heating-up steam	kg/h	201
	Mass flow make-up water	kg/h	1 573
	Make-up water temperature min.	°C	10
	Min. required make-up water pressure	bar	1,00
	Maximum supply pressure for make-up water	bar	6,00
	Type of expansion and cooling	-	BEM 450
	Size (total content) of the expansion vessel	l	450

позиция	Description		
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	Temperature cooling water	°C	10,00
	Size (total content) of the dosing tank	l	75
	Type WSM	-	WSM-T 5,0
	Tank size (total volume)	l	3 000
	Content feed water tank	l	3 000,00
	Dispatch weight WSM	kg	1 596
	Operating weight WSM +/- 2%	kg	3 789
	Maximum weight WSM +/- 2%	kg	5 004