

Luna Duo-tec MP/MP+ 35-110 kW



- Modulation ratio 1:9 (1:7 mod. 1.35) better efficiency and noiseless operation
- High efficiency full modulating circulating pump (Luna Duo-tec MP+ models)
- Sealed chamber insulation
- Compact dimensions
- Cascade installations (up to 16 boilers)
- 0-10 V control for each boiler or for the cascade system
- Hydraulic accessories to install from 2 to 6 boilers in cascade
- Forced flue solutions for vertical and horizontal configurations

⁽¹⁾ mod. MP+ - Products with nominal output > 70 kW are not subjected to energy labelling according to ErP regulation

Outputs from 35 to 110 kW

Hydraulic system

- Modulating pump included in the boiler (Luna Duo-tec MP models)
- High efficiency full modulating pump with enhanced head pump (Luna Duo-tec MP+ models)
- System to prevent pump sticking operating every 24 hours
- Flow and return NTC sensors
- Water tray for condensate drain from supply air duct

Thermoregulation system

- Built-in climatic regulation (outdoor sensor supplied as optional)
- Mixed zones systems (high and low temperatures) installation option
- Cascade system installation option (up to 16 boilers)
- NTC sensor for DHW cylinder control option
- Heating and DHW timers integrated in the control panel

Control system

- Full electronic anti-frost device
- Electronic thermometer
- Central heating pressure gauge
- Flow over-temperature thermostat

		Heating only					
		MP+ 1.35	MP+ 1.50	MP+ 1.60	MP+ 1.70	MP+ 1.90	MP+ 1.110
Maximum heat input (heating)	kW	34,8	46,3	56,6	66,9	87,4	104,9
Minimum heat input	kW	5,1	5,1	6,3	7,4	9,4	11,4
Rated heat output <i>Prated</i>	kW	34	45	55	65	85	102
Useful heat output at rated heat output and high temperature regime* <i>P_u</i>	kW	33,8	45	55	65	85	102
Useful heat output at 30% of rated heat output and low temperature regime** <i>P_u</i>	kW	11,2	14,9	18,2	21,5	28,2	33,8
Seasonal space heating energy efficiency class		A	A	A	A	-	-
Seasonal space heating energy efficiency <i>η_s</i>	%	92	92	92	93	-	-
Useful efficiency at rated heat output and high temperature regime* <i>η_L</i>	%	87,7	87,7	87,6	87,6	87,7	87,6
Useful efficiency at 30% of rated heat output and low temperature regime** <i>η_L</i>	%	97	97,1	96,8	96,5	96,8	96,8
Efficiency <i>P_h</i> (lower calorific value) - average temperature 70 °C	%	97,3	97,3	97,3	97,3	97,3	97,3
Efficiency 30% (lower calorific value) - return temperature 30 °C	%	107,7	107,8	107,4	107,1	107,8	107,4
NOx emissions	mg/kWh	29	29	31	31	31	22
Minimum working temperature	°C	-5	-5	-5	-5	-5	-5
Heating temperature range	°C	25-80	25-80	25-80	25-80	25-80	25-80
Minimum pressure heating circuit	bar	0,5	0,5	0,5	0,5	0,5	0,5
Maximum pressure heating circuit	bar	4	4	4	4	4	4
Coaxial flue system	ø mm	80/125	80/125	80/125	80/125	110/160	110/160
Dual flue system	ø mm	80	80	80	80	110	110
Maximum flue mass flow rate	kg/s	0,016	0,021	0,026	0,031	0,040	0,047
Minimum flue mass flow rate	kg/s	0,002	0,002	0,003	0,004	0,005	0,005
Maximum flue temperature	°C	76	80	80	74	70	70
Dimensions (h x l x p)	mm	766x450x377		766x450x505		952x600x584	
Net weight	kg	40	40	40	50	83	93
Gas type		Natural gas/LPG					
Power consumption	W	180	230	230	230	275	320
Auxiliary electrical power consumption - Full load <i>elmax</i>	kW	0,070	0,080	0,095	0,095	0,130	0,165
Auxiliary electrical power - Partial load <i>elmin</i>	kW	0,020	0,020	0,020	0,020	0,017	0,018
Auxiliary electrical power - Stand-by <i>P_{SB}</i>	kW	0,003	0,003	0,003	0,003	0,003	0,003
Sound power level, indoor <i>L_{WA}</i> ***	dB	58	62	59	62	-	-
Grade of protection		IPX5D	IPX5D	IPX5D	IPX5D	IPX5D	IPX5D

*High temperature regime: 60°C return temperature at heater inlet and 80°C flow temperature at heater outlet

**Low temperature: 30°C return temperature (at heater inlet)

***Data not required for boilers with nominal output > 70 kW