

COMIST...

From 688 to 3878 kW

Conform to:
E.M.C. Directive 89/336/CEE
L.V. Directive 73/23/CEE
Reference standard: EN676

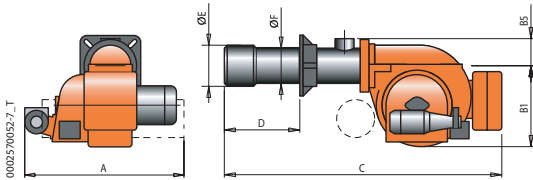


TECHNICAL AND FUNCTIONAL CHARACTERISTICS

- Alternate natural gas/light oil burner.
- Two-stage operation (high/low flame).
- Air-gas mixing at blast-pipe and high pressure mechanical atomisation of fuel using nozzle.
- Ability to obtain optimal combustion values by regulating combustion air and blast-pipe.
- Maintenance facilitated by the fact that the mixing unit and the atomisation unit can be removed without having to remove the burner from the boiler.
- Air flow regulation for first and second stage by means of electric servomotor with pause closure of gate to prevent any heat dispersion to flue.
- Valves tightness control device compliant with European standard EN676.
- Prepared for automatic fuel switching.
- Equipped with one flange and one insulating seal for boiler fastening, 2 flexible hoses, one line filter and 3 nozzles.

CONSTRUCTION CHARACTERISTICS

- The burner consists of:
- Combustion air intake with air flow adjustment device.
 - Sliding boiler coupling flange to adapt the head protrusion to the various types of boilers.
 - Air pressure switch to ensure the presence of combustion air.
 - Gear pump with pressure regulator, fuel stop-cock valve and safety valve.
 - Atomisation unit with nozzle-closing pin.
 - Automatic control and command equipment for the burner, compliant with European standard EN298.
 - Flame detection by UV photo-electric cell.
 - On-board terminal box and separate control panel comprising stop/go switch,
- 1st/2nd stage selector, fuel change switch and operation, block and fuel indicators.
- Terminal block for the electrical and thermostatic connections to the burner and to control the second stage of working.
 - Electrical protection rating IP40.
- To be ordered separately:
- Gas train complete with operation and safety valve, valves tightness control, minimum pressure switch, pressure regulator and gas filter.



Model	A mm	B1 mm	B5 mm	C mm	D mm	E mm	F mm
COMIST 180	875	450	151	1700	330 ÷ 540	260	245
COMIST 250	1025	580	166	1750	320 ÷ 500	320	273
COMIST 300	1025	580	166	1750	320 ÷ 500	320	273

Thermal output kW	Model	Part no.	Max visc. °E at 20°C	Electrical supply	Motor kW	Size of packaging L x P x H mm	Weight kg	Notes
Frequency 50 Hz								
688 ÷ 1981	COMIST 180	55060010	1,5	3N AC 50Hz 400V	3,0 + 0,55	1730 x 1030 x 880	244	4) 8)
1127 ÷ 3380	COMIST 250	55110010	1,5	3N AC 50Hz 400V	7,5 + 0,75	2030 x 1210 x 990	330	4) 8)
1304 ÷ 3878	COMIST 300	55160010	1,5	3N AC 50Hz 400V	7,5 + 0,75	2030 x 1210 x 990	330	4) 8)
Frequency 60 Hz								
688 ÷ 1981	COMIST 180	55065410	1,5	3N AC 60Hz 400V	3,5 + 0,65	1730 x 1030 x 880	244	4) 8)
1127 ÷ 3380	COMIST 250	55115410	1,5	3N AC 60Hz 400V	9,0 + 1,30	2030 x 1210 x 990	330	4) 8)
1304 ÷ 3878	COMIST 300	55165410	1,5	3N AC 60Hz 400V	9,0 + 1,30	2030 x 1210 x 990	330	4) 8)

The working field of the burner, as expressed in the "Thermal output kW" column, depends on the characteristics of the gas train it works with (see burner/train match diagram).

Dual fuel burner accessories

Line filter - Flex hoses - Nozzles - Boiler coupling kit

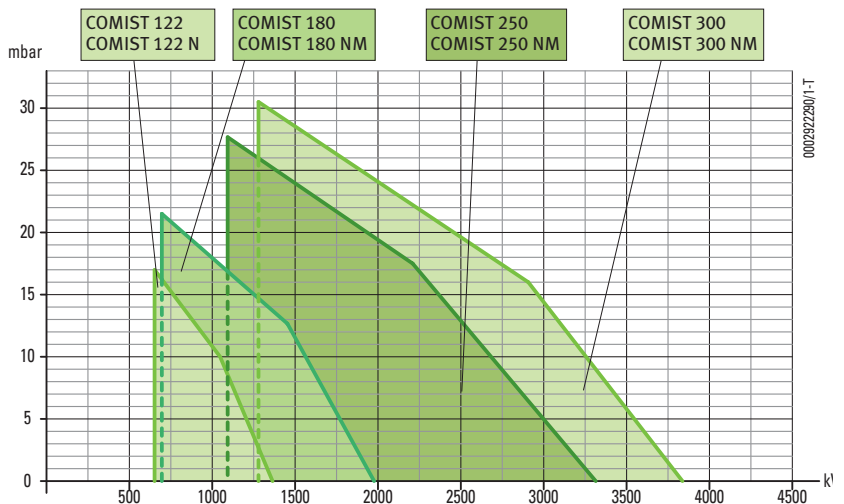
Notes

- Equipped with automatic device for air closing.
 - Where gas pressure at the safety valve is less than 12mbar, replace the minimum pressure switch with a GW50 pressure switch.
 - Regulator and filter are supplied separately: both must be ordered.
 - Can be used for automatic fuel switching.
- CTV) Gas train with Valve Tightness Control.
**) Maximum gas inlet pressure at pressure regulator in CE version, at gas train for EXP version.

Net calorific value:

Natural gas: $H_i = 35,80 \text{ MJ/m}^3 = 8550 \text{ kcal/m}^3$,
at reference conditions of 0°C, 1013 mbar;

Light oil: $H_i = 42,70 \text{ MJ/kg} = 10200 \text{ kcal/kg}$.

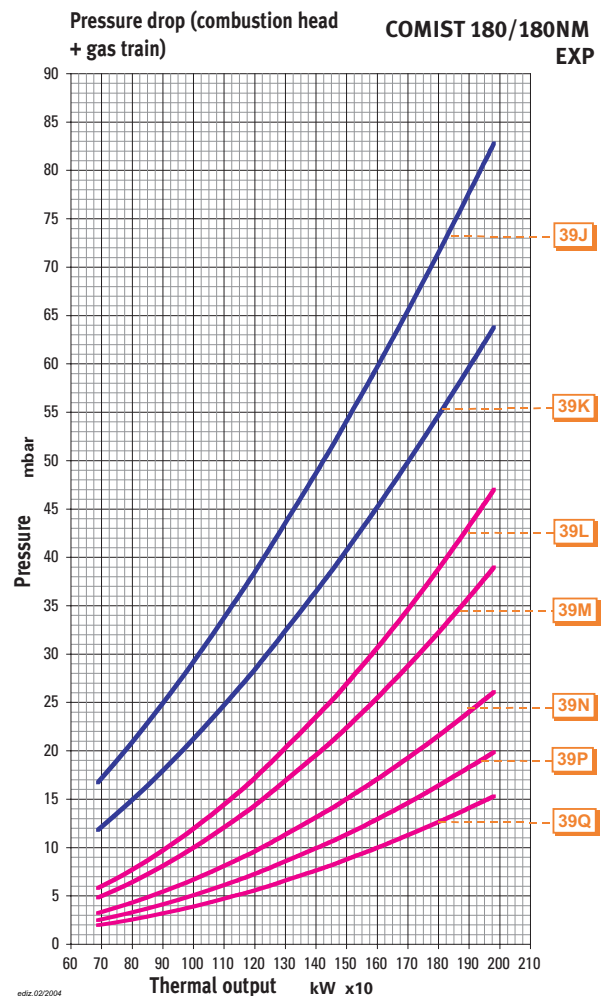
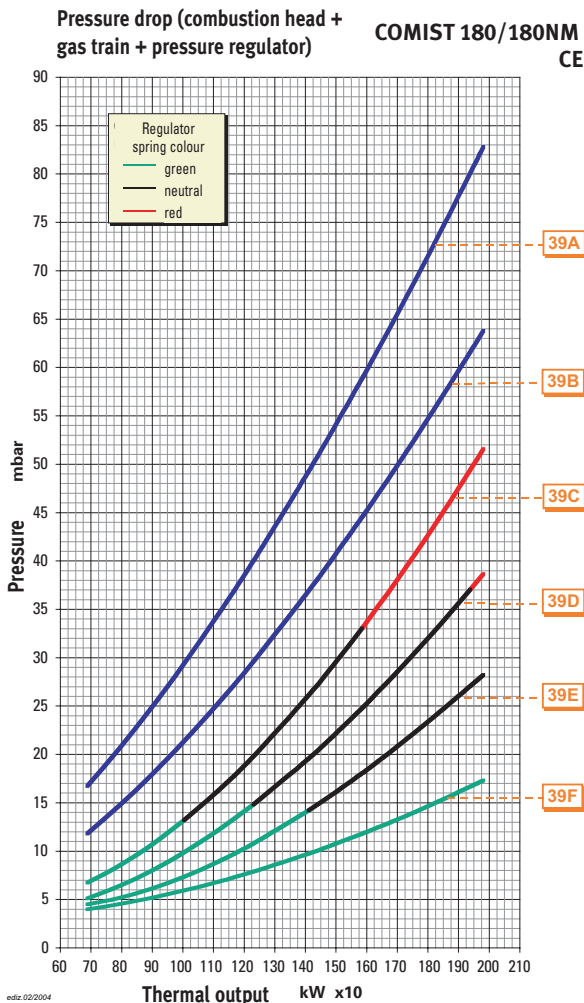


Burner/gas train match

CE gas train version complies with EN676, EXP gas train version is for extra-European markets

Burner model	Gas type	Version	Curve on graph	Execution	P.Max** mbar	Gas train Part no.	Regulator		Gas filter Part no.	Burner gas/train adapter Part no.	Pic.	Notes	
							with incorporated filter Part no.	without filter Part no.					
COMIST 180	NATURAL GAS	CE	39A	CTV	360	19990454	Included		–	96000011	B2		
			39B	CTV	360	19990455	Included		–	96000012	B2		
			39C	CTV	500	19990459	97390700		–	96000012	B4	6)	
			39D	CTV	500	19990461	97390700		–	–	B5	6)	
			39E	CTV	500	19990463	97390710		–	96005004	B5		
			39F	CTV	500	19990465		97390720	97439999	96005004	B5	7)	
		EXP	39J		360	19990404		Included		–	96000011	B2	
				CTV	360	19990454		Included		–	96000011	B2	
			39K		360	19990405		Included		–	96000012	B2	
				CTV	360	19990455		Included		–	96000012	B2	
			39L		140	19990456		–	–	96000012	BE4	6)	
				CTV	140	19990457		–	–	96000012	BE4	6)	
			39M		140	19990458		–	–	96000012	BE4	6)	
				CTV	140	19990459		–	–	96000012	BE4	6)	
			39N		140	19990460		–	–	–	BE5	6)	
				CTV	140	19990461		–	–	–	BE5	6)	
			39P		140	19990462		–	–	96005004	BE5		
				CTV	140	19990463		–	–	96005004	BE5		
39Q		140	19990464		–	–	96005004	BE5					
	CTV	140	19990465		–	–	96005004	BE5					

To choose the correct gas train please refer to the information on page 10.
For information on the structure, composition, and size of the gas train please refer to the diagrams on page 234.



Burner/gas train match

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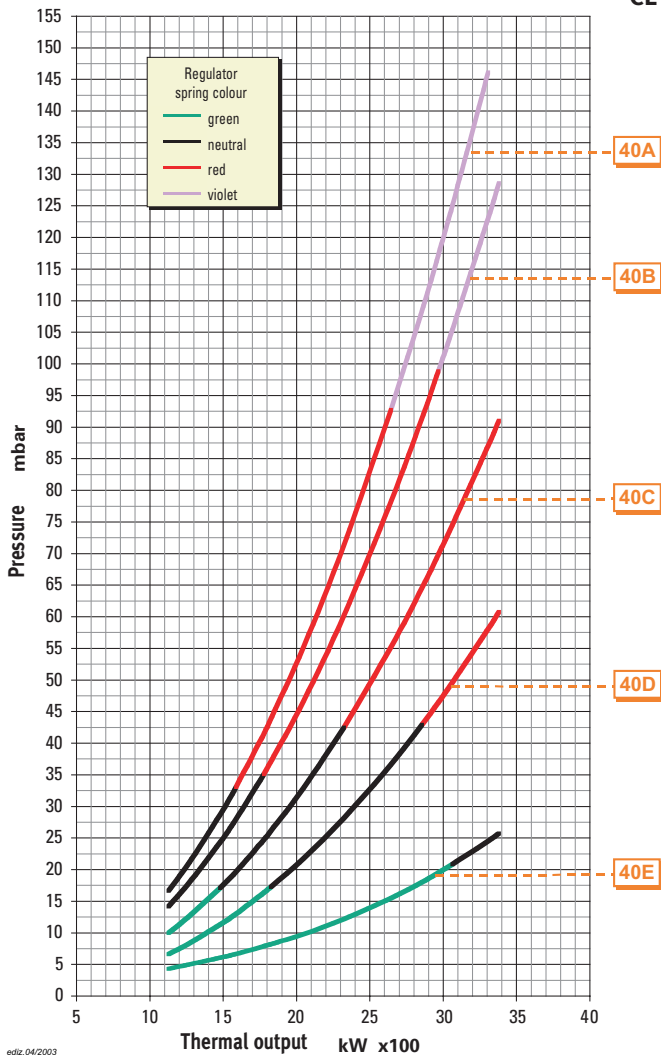
Burner model	Gas type	Version	Curve on graph	Execution	P.Max** mbar	Gas train Part no.	with incorporated filter Part no.	Regulator without filter Part no.	Gasd filter Part no.	Burner gas/train adapter Part no.	Pic.	Notes	
COMIST 250	NATURAL GAS	CE	40A	CTV	500	19990457	97390700		-	-	B4	6)	
			40B	CTV	500	19990459	97390700		-	-	B4	6)	
			40C	CTV	500	19990461	97390700			96005003	B5	6)	
			40D	CTV	500	19990463	97390710			96005004	B5		
			40E	CTV	500	19990465			97390720	97439999	96005004	B5	7)
			40J		140	19990456						BE4	6)
			40K	CTV	140	19990457						BE4	6)
	EXP	GAS	EXP	40L		140	19990458					BE4	6)
				40K	CTV	140	19990459					BE4	6)
				40L		140	19990460				96005003	BE5	6)
					CTV	140	19990461				96005003	BE5	6)
				40M		140	19990462				96005004	BE5	
					CTV	140	19990463				96005004	BE5	
				40N		140	19990464				96005004	BE5	
	CTV	140	19990465				96005004	BE5					

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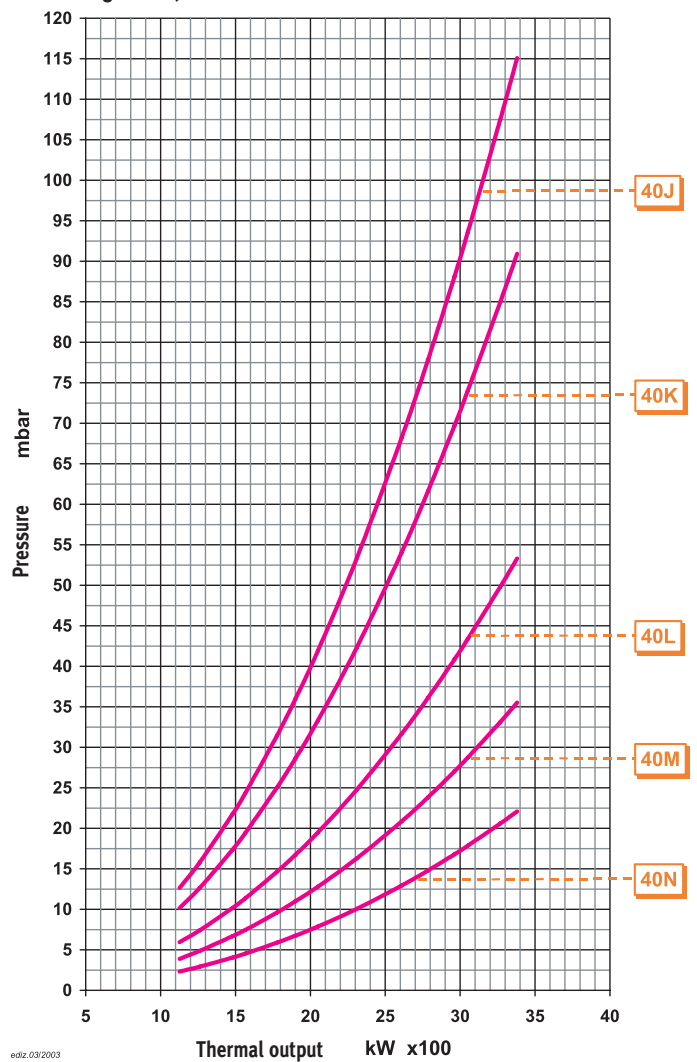
Pressure drop (combustion head + gas train + pressure regulator)

COMIST 250/250NM CE



Pressure drop (combustion head + gas train)

COMIST 250/250NM EXP



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Burner/gas train match

CE gas train version complies with EN676, EXP gas train version is for extra-European markets

Burner model	Gas type	Version	Curve on graph	Execution	P.Max** mbar	Gas train Part no.	Regulator		Gasd filter Part no.	Burner gas/train adapter Part no.	Pic.	Notes
							with incorporated filter Part no.	without filter Part no.				
COMIST 300	NATURAL GAS	CE	41A	CTV	500	19990457	97390700		–	96000012	B4	6)
			41B	CTV	500	19990459	97390700	–	96000012	B4	6)	
			41C	CTV	500	19990461	97390700	–	–	B5	6)	
			41D	CTV	500	19990463	97390710	–	–	96005004	B5	
			41E	CTV	500	19990465	–	97390720	97439999	96005004	B5	7)
		EXP	41J	CTV	140	19990456	–	–	–	96000012	BE4	6)
			41K	CTV	140	19990458	–	–	–	96000012	BE4	6)
	GAS	EXP	41L	CTV	140	19990460	–	–	–	96000012	BE4	6)
			41M	CTV	140	19990462	–	–	–	96000012	BE4	6)
			41N	CTV	140	19990464	–	–	–	96000012	BE4	6)
		EXP	41I	CTV	140	19990457	–	–	–	96000012	BE4	6)
			41J	CTV	140	19990458	–	–	–	96000012	BE4	6)
			41K	CTV	140	19990459	–	–	–	96000012	BE4	6)
			41L	CTV	140	19990460	–	–	–	96000012	BE4	6)

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