

Closed-coupled Pump

# Etachrom BC

50 Hz - 60 Hz

## Type Series Booklet



## Standardised / Close-coupled Pumps

### Close-coupled Pumps

## Etachrom BC



### Operating data

Operating properties

Characteristic		Value	
		50 Hz	60 Hz
Flow rate	Q	Up to 250 m <sup>3</sup> /h [69.4 l/s]	Up to 184 m <sup>3</sup> /h [51 l/s]
Head	H	Up to 108 m	Up to 107 m
Operating temperature	t	-30 °C to +110 °C	
Operating pressure	p	Up to 12 bar <sup>1)</sup>	

### Designation

**Example: Etachrom BC 50-160 C10**

Key to the designation

Code	Description
Etachrom	Type series
B	Close-coupled design
C	Casing material
C	CrNiMo steel 1.4571
50	Nominal discharge nozzle diameter [mm]
160	Nominal impeller diameter [mm]
C10	Seal code of the mechanical seal
C5	Q1Q1M1GG
C9	U3U3VGG
C10	Q1Q1X4GG
C11	BQ1EGG

### Applications

- Water supply systems
- Fire-fighting systems
- Spray irrigation systems
- Irrigation systems
- Drainage systems
- Hot-water heating systems
- Air-conditioning systems

### Fluids handled

Pump for handling clean or aggressive fluids not chemically and mechanically aggressive to the pump materials.

- Drinking water
- Service water
- High-temperature hot water
- Cooling water
- 0.4 to 1.4 mg/l free chlorine and max. 0.6 mg/l combined chlorine; pH value 6.9 to 7.7; water hardness TH 10° to 30° Salt content up to 7 g/l
- Fire-fighting water
- Condensate
- Oil

### Design details

#### Design

- Annular casing pump
- Close-coupled design
- Back pull-out design
- Horizontal installation
- Single-stage
- Dimensions and ratings to EN 733
- Rigid connection between pump and motor
- Pump and motor on a common shaft

#### Pump casing

- Annular casing with welded-on or bolted-on pump feet
- Replaceable casing wear rings

#### Drive

- KSB IEC frame standardised IE2 motor (from 0.75 kW)
- Design V1 ≤ 4 kW
- Design V15 > 4 kW
- Winding 50 Hz: 220-240 V / 380-420 V up to 2.20 kW; 380-420 V / 660-725 V from 3.00 kW
- Winding 60 Hz: 440-480 V
- IP55 enclosure
- Thermal class F
- 3 PTC thermistors

<sup>1)</sup> The sum of inlet pressure and shut-off head must not exceed the value indicated.

### Shaft seal

- Standardised mechanical seal to EN 12756

### Pump sizes 65-250/..., 80-200/..., 80-250/...

- Shaft equipped with a replaceable shaft sleeve in the shaft seal area

### Bearings

- Radial ball bearings in the motor housing
- Grease lubrication

### Automation

Automation options:

- Hyamaster
- PumpDrive
- PumpMeter

### Materials

Overview of available materials

Component	Material
Annular casing	Chrome nickel molybdenum steel 1.4571
Discharge cover	Chrome nickel molybdenum steel 1.4571
Impeller <sup>2)</sup>	Chrome nickel molybdenum steel 1.4571
Casing wear rings	Chrome nickel molybdenum steel 1.4571
Shaft	Chrome nickel molybdenum steel 1.4571
Drive lantern	Grey cast iron JL 1040 <sup>3)</sup>

### Product benefits

- Maintenance-free mechanical seal ensures operating reliability
- Easy to dismantle due to back pull-out design; no need to remove the pump casing from the piping
- Optimised hydraulic components for high efficiency help reduce energy consumption

### Product Information as per Regulation No. 547/2012 (for Water Pumps with a Maximum Shaft Power of 150 kW) Implementing "Ecodesign" Directive 2009/125/EC

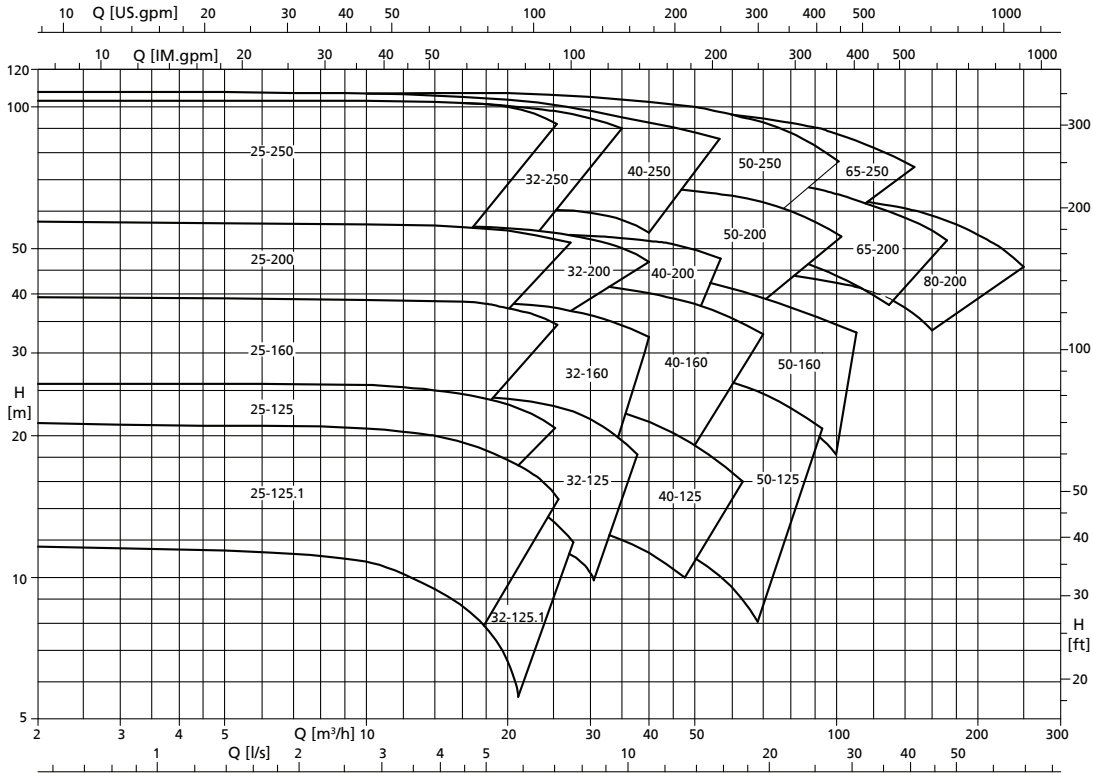
- Minimum efficiency index: see data sheet
- The benchmark for most efficient water pumps is MEI  $\geq$  0.70.
- Year of construction: see data sheet
- Manufacturer's name or trade mark, commercial registration number and place of manufacture: see data sheet or order documentation
- Product's type and size identifier: see data sheet
- Hydraulic pump efficiency (%) with trimmed impeller: see data sheet

- Pump performance curves, including efficiency characteristics: see documented characteristic curve
- The efficiency of a pump with a trimmed impeller is usually lower than that of a pump with full impeller diameter. Trimming of the impeller will adapt the pump to a fixed duty point, leading to reduced energy consumption. The minimum efficiency index (MEI) is based on the full impeller diameter.
- Operation of this water pump with variable duty points may be more efficient and economic when controlled, for example, by the use of a variable speed drive that matches the pump duty to the system.
- Information relevant for disassembly, recycling or disposal at end of life: see installation/operating manual
- Information on benchmark efficiency or benchmark efficiency graph for MEI = 0.7 (0.4) for the pump based on the model shown in the Figure are available at: <http://www.europump.org/efficiencycharts>

2) Impeller of sizes 50-200, 65-200, 80-200 and those of nominal diameter 250: chrome nickel molybdenum cast steel 1.4408  
3) GJL-250 to EN 1561

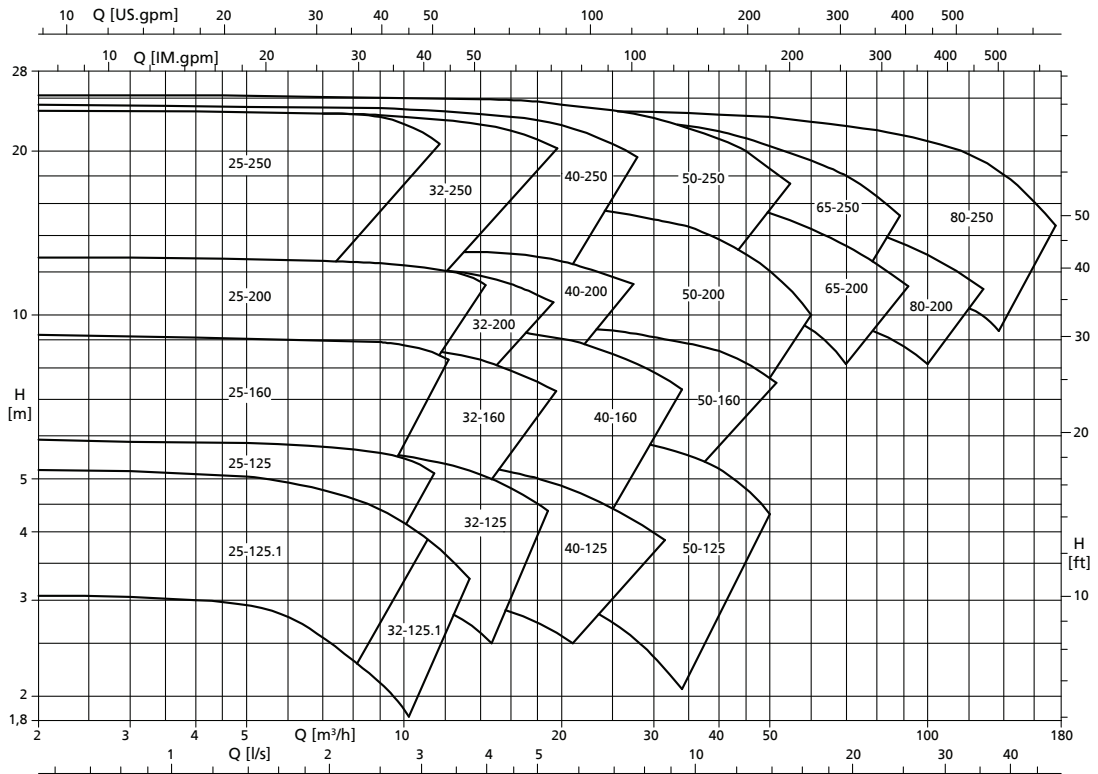
Selection charts

Etachrom BC,  $n = 2900 \text{ min}^{-1}$



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Etachrom BC,  $n = 1450 \text{ min}^{-1}$



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