

# CHV

Vertical multistage centrifugal pumps  
50 Hz



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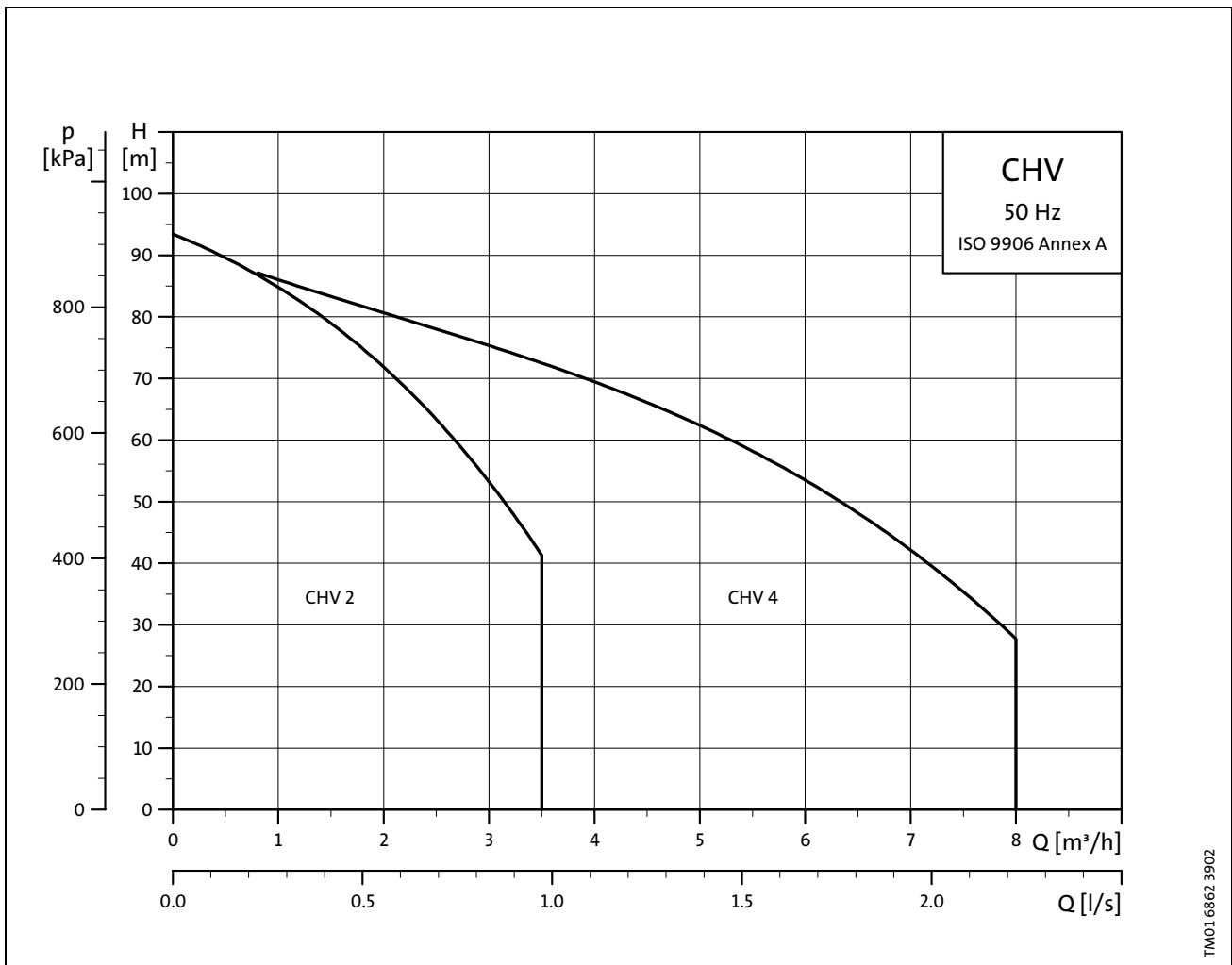
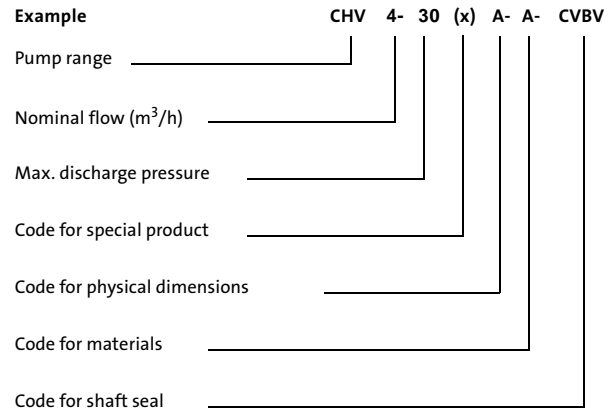
## Applications

The CHV range of compact, vertical, multistage centrifugal pumps are designed for a wide range of applications in domestic and industrial systems.

Typical applications for CHV are:

- Liquid transfer
- Pressure boosting
- Domestic water supply
- Cooling systems
- Air-conditioning systems
- Horticultural irrigation

## Type key



## Pumped liquids

Thin, clean, non-aggressive and non-explosive liquids without solid particles or fibres.

## Operating conditions

Liquid temperature range: 0°C to +90°C.

Max. ambient temperature: +55°C.

Maximum operating pressure depends on the temperature of the pumped liquid, see table:

Max. operating pressure	1.2 MPa (12 bar)	0.6 MPa (6 bar)
CHV 2 CHV 4	0°C to 40°C	41°C to 90°C

Min. inlet pressure: According to NPSH curve + a safety margin of 0.5 m.

Max. inlet pressure: Limited by max. operating pressure.

## Pump

The CHV pump is a non self-priming, vertical, centrifugal pump with a maintenance-free mechanical shaft seal and extended pump/motor shaft.

The pump has suction port at the bottom and discharge port at the top of the pump.

The chambers as well as all movable parts in contact with the pumped liquid are made of corrosion-proof material.

FKM O-rings are standard.

For pipe connections, see table.

Connections	CHV 2	CHV 4
Suction port	Rp 1	Rp 1½
Discharge port	Rp 1	Rp 1
Drain port, priming port	Rp 3/8	Rp 3/8

## Motor

The pump is coupled with a Grundfos motor, which is a totally enclosed, fan-cooled squirrel-cage motor.

Nominal speed: 2900 rpm

Enclosure class: IP 54

Insulation class: F

Standard voltages: 1 x 220- 40 V,  
3 x 220-240/380-415 V.

Single-phase motors have a built-in thermal overload protection.

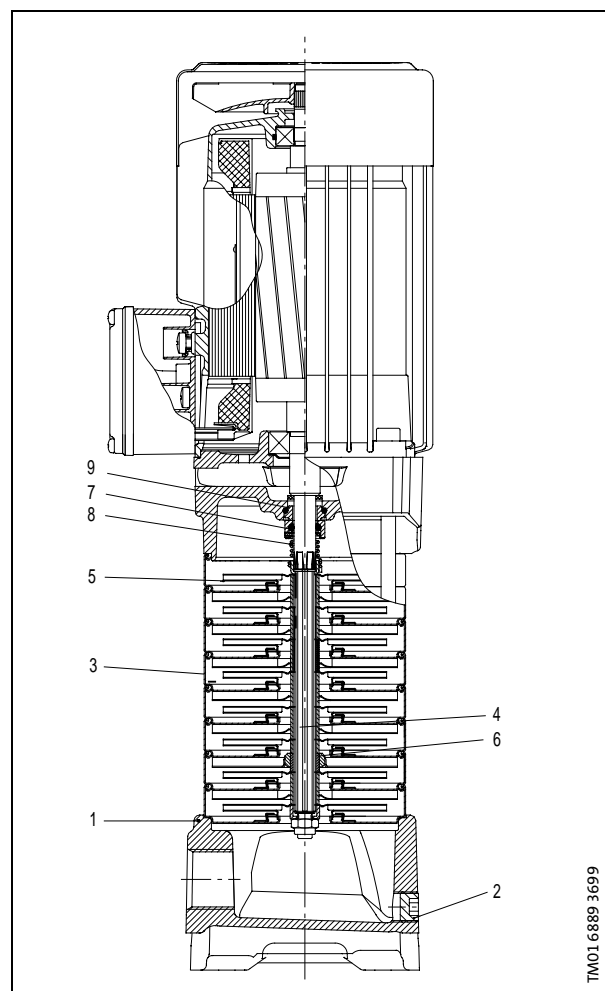
Three-phase motors must be connected to an external motor protection according to local regulations.

## Materials

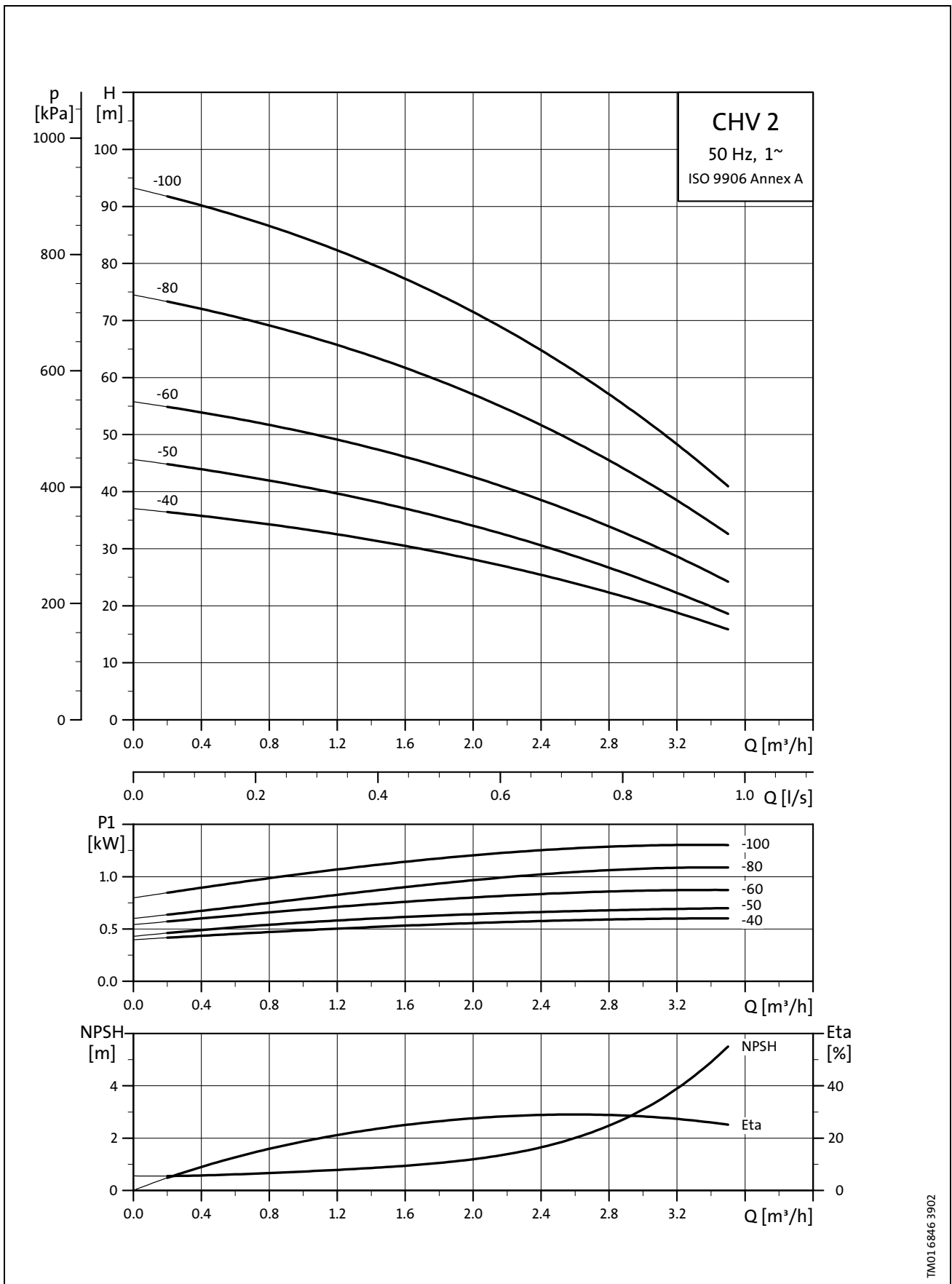
The position no. refer to the sectional drawing below.

Pos. no.	Pump component	Material	DIN W.-Nr.
1	Suction chamber	Cast iron	EN-JL1030
2	Drain plug	Steel	1.0718
3	Chamber	Stainless steel	1.4301
4	Pump shaft	Stainless steel	1.4057
5	Impeller	Stainless steel	1.4301
6	Bearing	Tungsten carbide	1.4401
7	Shaft seal faces	Carbon/ceramics	
8	Spring	Stainless steel	1.4310
9	Discharge chamber	Cast iron	EN-JL1030
	O-rings	FKM	

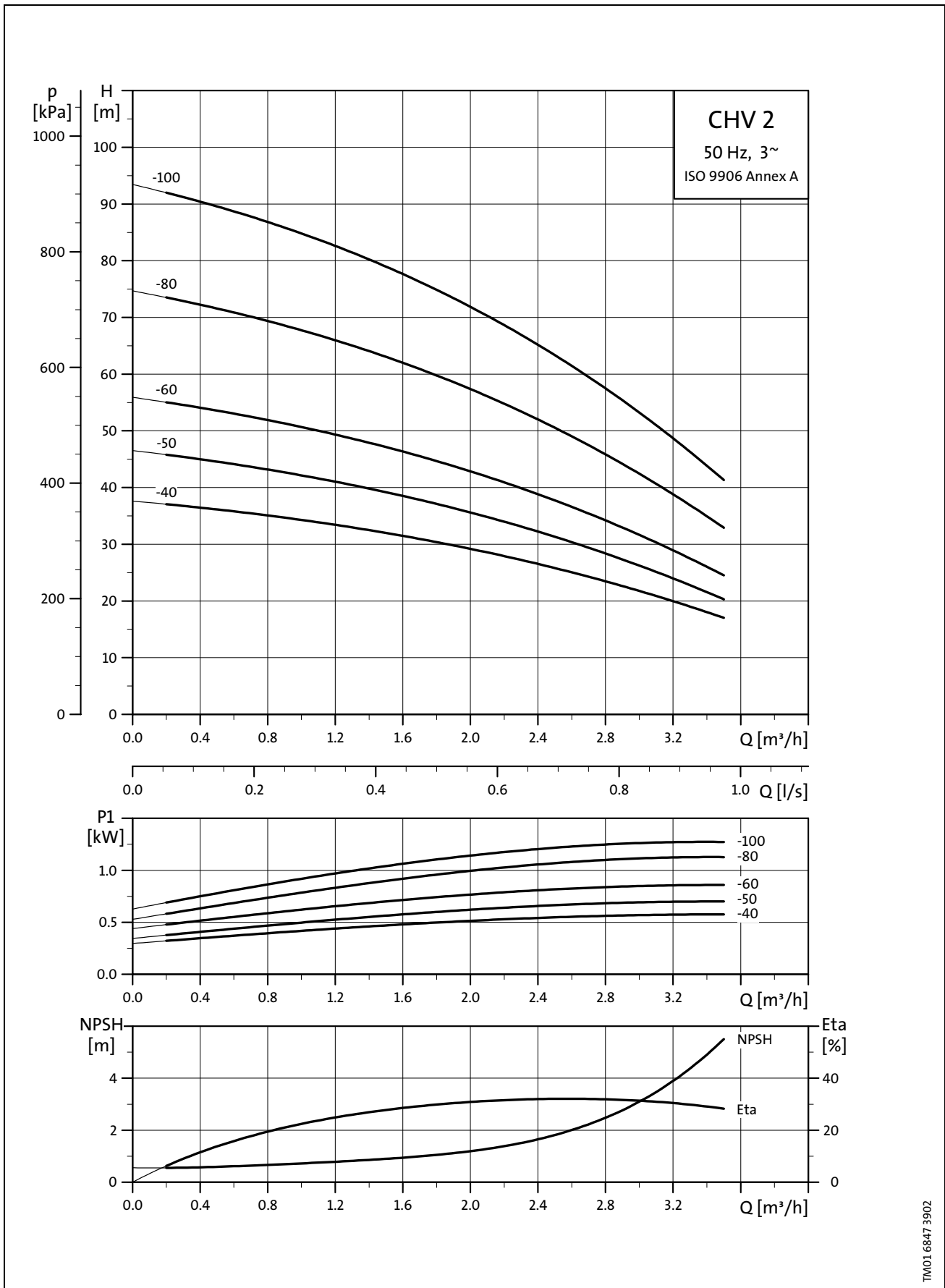
## Sectional drawing



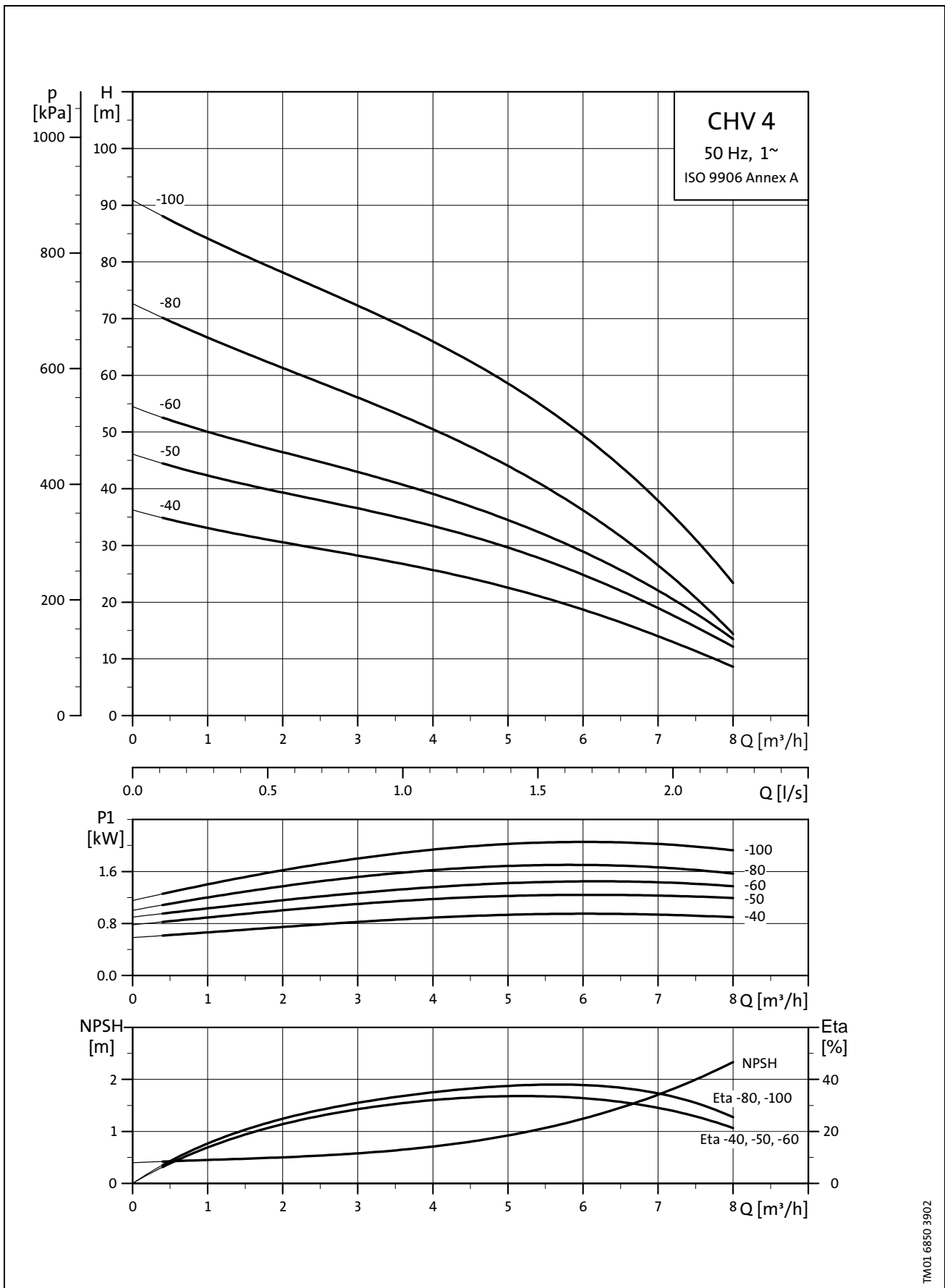
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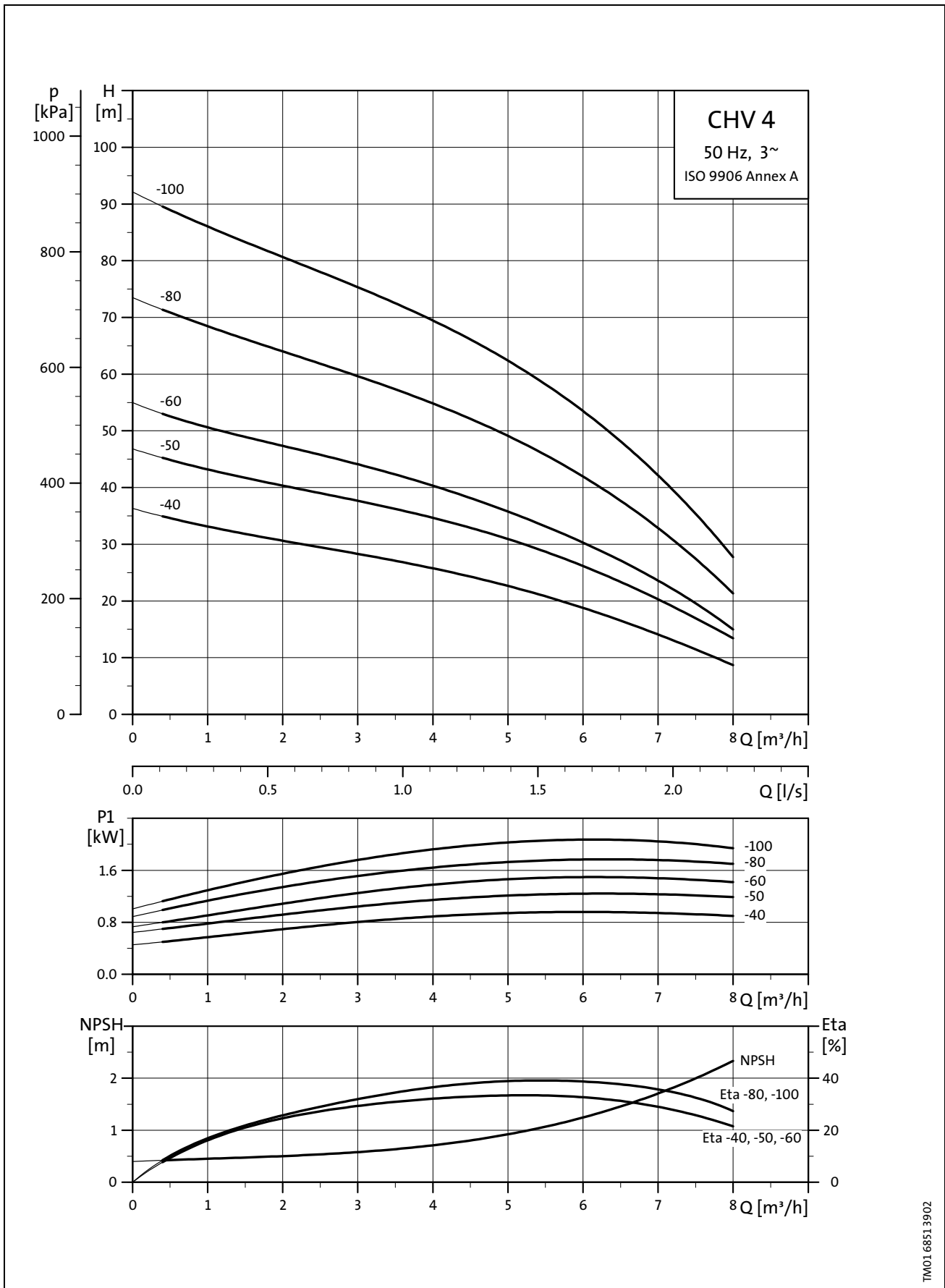
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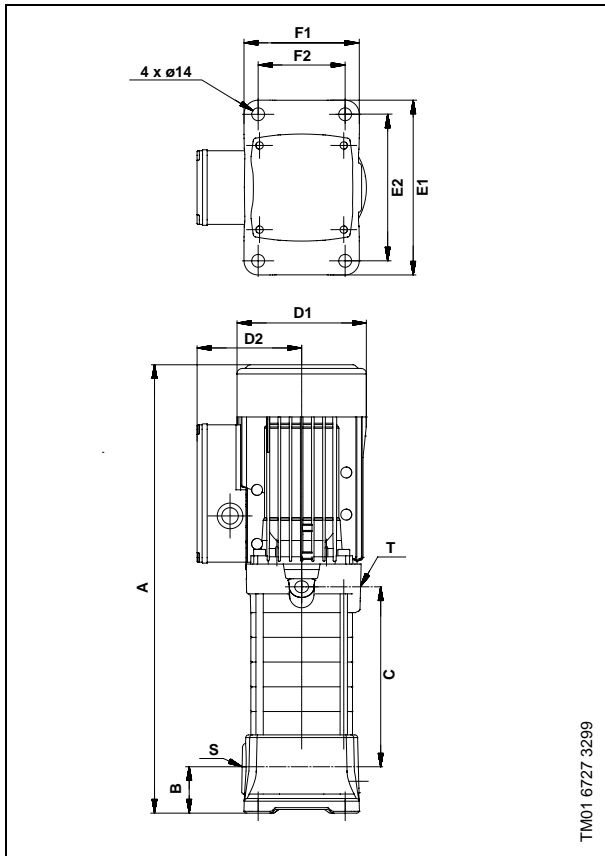


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## Dimensions and weights



## Electrical data

### CHV 2

Pump type	P <sub>1</sub> [W]		I <sub>1/1</sub> [A]	
	1 x 220-240 V	3 x 220-240/ 380-415 V	1 x 220-240 V	3 x 220-240/ 380-415 V
CHV 2-40	600	580	3.0	1.8/1.1
CHV 2-50	700	700	3.4	2.2/1.3
CHV 2-60	900	870	4.1	2.6/1.5
CHV 2-80	1090	1120	4.9	3.5/2.0
CHV 2-100	1300	1270	6.2	4.1/2.4

### CHV 4

Pump type	P <sub>1</sub> [W]		I <sub>1/1</sub> [A]	
	1 x 220-240 V	3 x 220-240/ 380-415 V	1 x 220-240 V	3 x 220-240/ 380-415 V
CHV 4-40	950	960	4.4	2.9/1.7
CHV 4-50	1240	1240	6.0	4.0/2.3
CHV 4-60	1450	1500	6.9	4.7/2.7
CHV 4-80	1700	1770	8.2	6.2/3.6
CHV 4-100	2050	2070	9.7	6.8/3.9

### CHV 2

Pump type	A [mm]	B [mm]	C [mm]	D1 [mm]	D2		E1 [mm]	E2 [mm]	F1 [mm]	F2 [mm]	S	T	Net weight [kg]		Gross weight [kg]		Ship. vol. [m <sup>3</sup> ]
					1~	3~							1~	3~			
					[mm]	[mm]							[mm]	[mm]			
CHV 2-40	395	50	131	146	114	107	191	160	126	95	Rp 1	Rp 1	12.2	12.0	13.3	13.1	0.0375
CHV 2-50	413		149										12.5	12.3	13.5	13.4	
CHV 2-60	431		167	13.4	13.3								14.5	14.3			
CHV 2-80	500		204	15.2	14.9								16.3	16.0			
CHV 2-100	537		240	17.2	16.9								18.3	18.0			

### CHV 4

Pump type	A [mm]	B [mm]	C [mm]	D1 [mm]	D2		E1 [mm]	E2 [mm]	F1 [mm]	F2 [mm]	S	T	Net weight [kg]		Gross weight [kg]		Ship. vol. [m <sup>3</sup> ]
					1~	3~							1~	3~			
					[mm]	[mm]							[mm]	[mm]			
CHV 4-40	431	50	167	146	114	107	191	160	126	95	Rp 1¼	Rp 1	13.1	12.9	14.2	14.0	0.0375
CHV 4-50	491		194	142	132								16.1	15.8	17.2	16.9	
CHV 4-60	518		221	178	139								16.5	16.2	17.6	17.3	
CHV 4-80	641		276	22.1	21.7								23.3	23.0	0.0463		
CHV 4-100	695		330	24.5	22.5								25.7	23.7			





V7 15 47 31 10 02	<b>GB</b>
Repl. V7 15 47 31 02 01	

Subject to alterations.