

2GPE CVM E-power

DOMESTIC PRESSURISATION



Inverter controlled units with two vertical multi-stage pumps.

TYPICAL APPLICATIONS

GPE pressurisation units have the following applications:

- Water supply to building service distribution systems
- Generic industrial water supply
- Irrigation for gardens, parks and sports facilities

UNIT EQUIPMENT

- Two CVM series pumps with 2-pole self-ventilating asynchronous motor, efficiency class IE2 for three-phase motors starting from 0.75 kW with E-power series INVERTER
- Control unit: pumps equipped with inverters for modulating control
- Automatic INVERTER control of each pump with frequency variation at constant pressure, electronic controller display
- Corrosion resistant materials for all components in contact with fluids
- Galvanised steel base
- Galvanised steel manifolds (AISI 304, AISI 316 available on request). The manifolds are dimensioned in relation to the total hydraulic output of the pressurisation system
- Intake/delivery shut-off valves on each pump
- Delivery side check valve
- Delivery side pressure gauge
- Protection against water supply failure
- Equipped for connection to delivery side accumulation tank
- Circuit breaker panel with two thermal cutouts

INVERTER CONTROL UNIT

- Installation on line
- Mounting position: any
- Fittings: 1"¼ male
- Power voltage: Single-phase 230V
- Output voltage (pump): three-phase 230V
- Phase current: max 10 A
- Maximum pump power: 2.2 kW
- Output frequency: 5 - 60 Hz
- Display: 2 digit alphanumeric
- Protection rating: IP 65
- Operating temperature: 5 - 40 °C
- Pressure setpoint: 0.3 - 8 bar
- Max overpressure: 12 bar
- Electrical safety: EN60730
- Electromagnetic compatibility: EN61000 (specific standards declared in CE certificate)
- Protections:
 - Dry run
 - Over/under voltage
 - Short circuit
 - Over current
 - Over temperature
 - Insufficient pressure
 - Sensor failure



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TECHNICAL FEATURES

APPLICATION RANGE

- Maximum operating pressure: 11 bar
- Max fluid temperature: 40°C
- MEI > 0.4

For further information, refer to the Data Books available on www.ebara-europe.com

PUMP MATERIALS

- Cast iron pump body and motor mount
- AISI 304 external jacket
- Impeller and diffuser in PPE + glass fibre reinforced PS
- Stages in PPE + glass fibre reinforced PS/PTFE
- AISI 416 shaft

MOTOR SPECIFICATIONS

- Motors IE2 from 0.75 kW
- Self-ventilated asynchronous 2-pole motor
- Insulation Class F
- Protection rating IP44
- Three-phase voltage 230/400V ±10% 50Hz
- Permanently inserted capacitor and incorporated thermo-amprometric protection device with automatic rearm for single-phase motor

ADVANTAGES

- Energy saving: the controller modulates the pump rate in relation to system demand, better than direct in-line connection to the mains supply
- Better, faster response regulation
- Reduced hammering due to gradual startup and shutdown
- Improved heating, A/C and pressurisation system comfort
- Reduced startup current
- Pumps switched at each startup
- Speed modulation of both pumps for optimal regulation

ACCESSORIES

- Membrane accumulation tank: depending on installation conditions

CONSIGNMENT

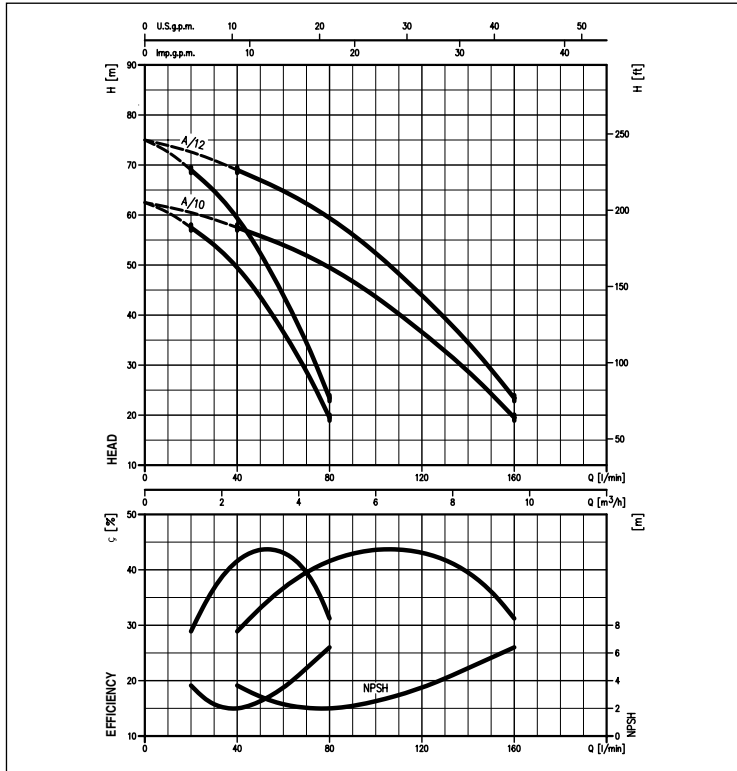
- Pressurisation system ready for hookup, factory assembled and tested for operation and hermetic seal
- Packaging
- Installation, user and maintenance instructions



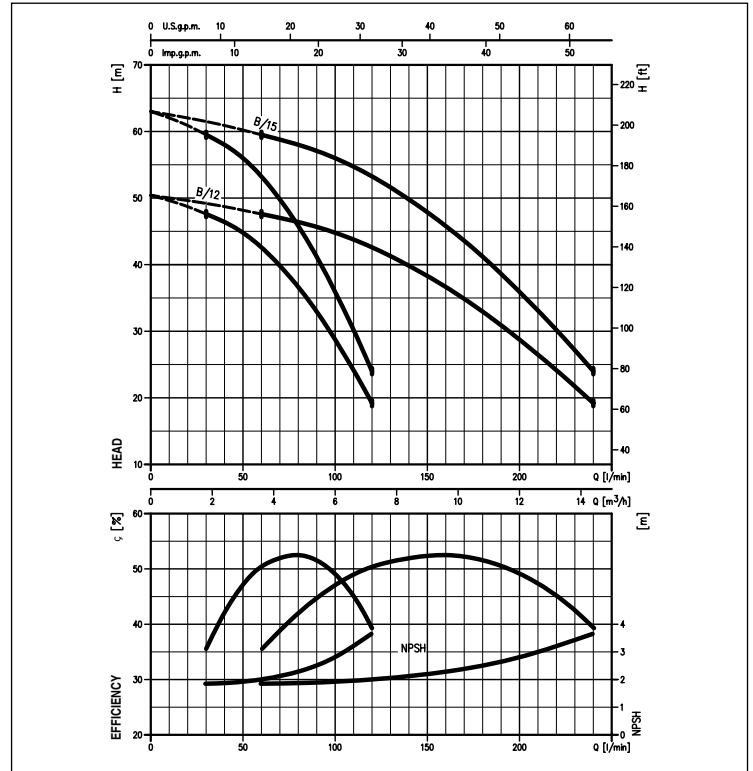
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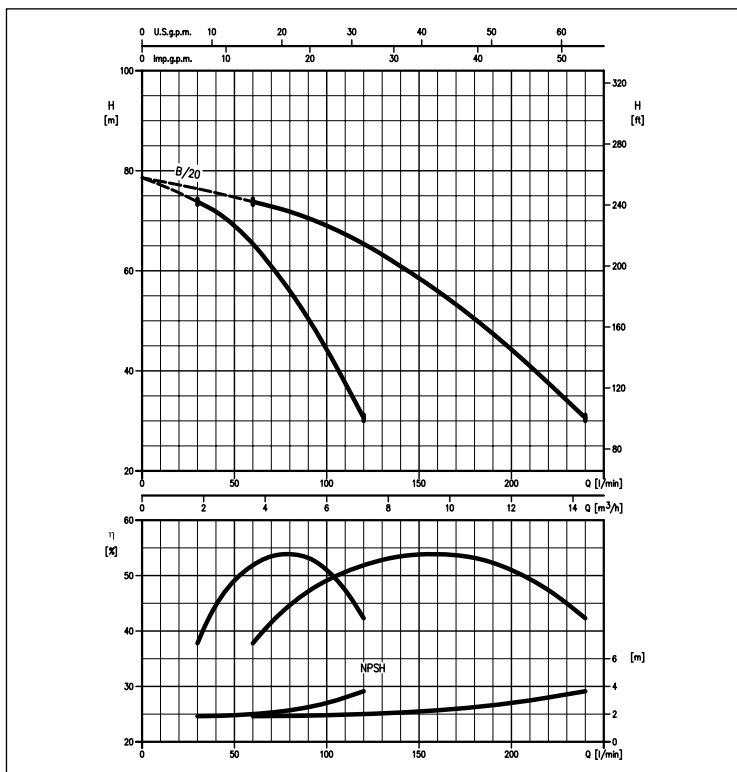
PERFORMANCE CURVES for 2GPE CVM A 10 - A 12 - A 15 series
(ISO 9906 Annex A)



PERFORMANCE CURVES for 2GPE CVM B 12 - B 15 series
(ISO 9906 Annex A)



PERFORMANCE CURVES for 2GPE CVM B 20 series
(ISO 9906 Annex A)



The indicated characteristics do not include the pressure drops in the valves and lines
The indicated NPSH is a laboratory value related to the pump alone

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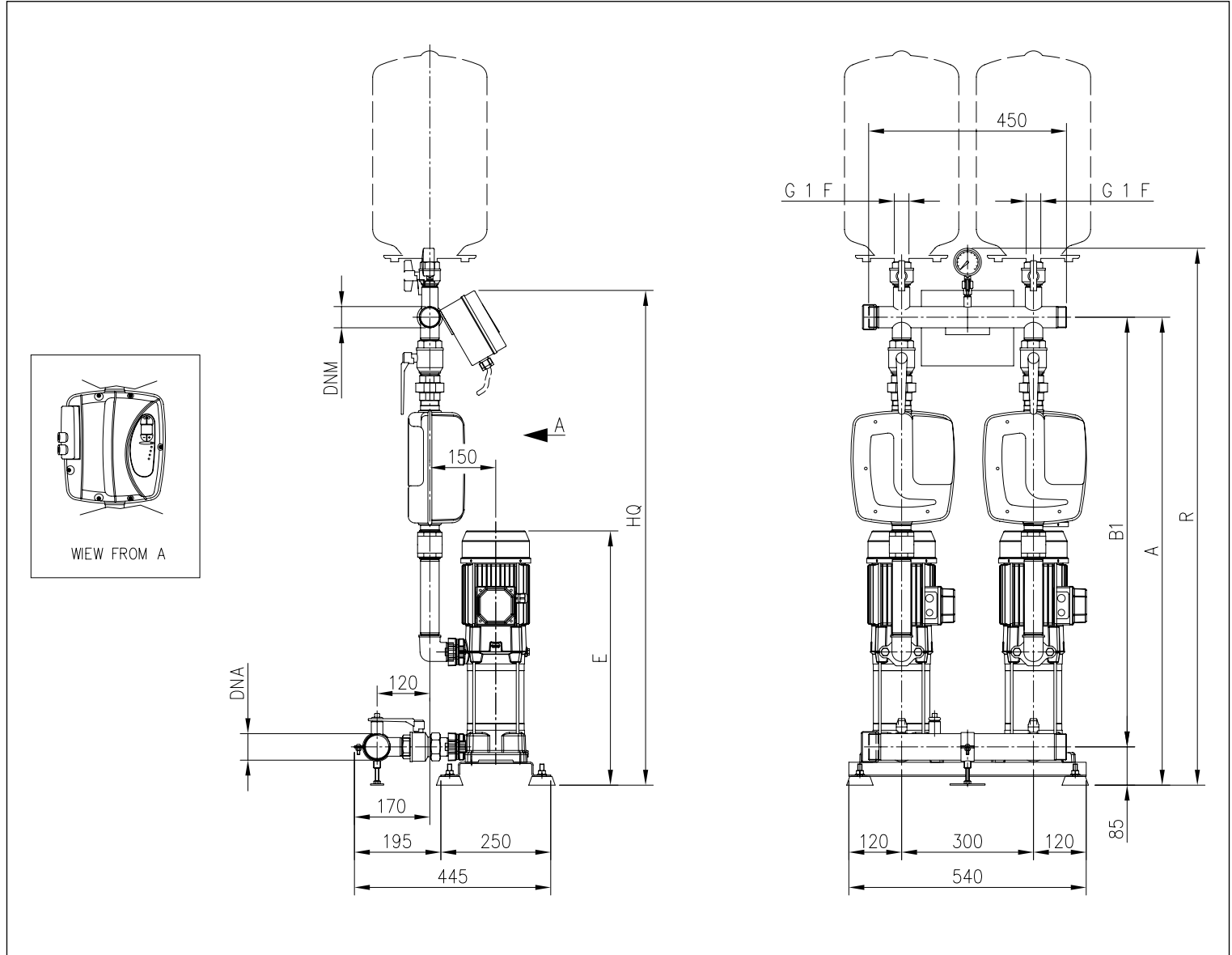
TABLE OF PERFORMANCE AND ELECTRICAL DATA FOR TWO PUMPS RUNNING SIMULTANEOUSLY

Model	[kW]	Max absorption [A] Three-phase 230V	Q = Flow rate							
			l/min m ³ /h	40 2.4	60 3.6	80 4.8	100 6	120 7.2	160 9.6	200 12
			H = Head [m]							
2GPE CVM A/10 E -PW	0.75+0.75	5.8	57.5	54.0	49.5	43.5	36.6	19.5	-	-
2GPE CVM A/12 E -PW	0.9+0.9	8.6	69.0	65.0	59.5	52.5	44.0	23.4	-	-
2GPE CVM B/12 E-PW	0.9+0.9	8.6	-	48.0	46.8	45.0	42.6	36.6	28.8	19.6
2GPE CVM B/15 E-PW	1.1+1.1	8.6	-	60.5	58.5	56.2	53.3	45.8	36.0	24.5
2GPE CVM B/20 E-PW	1.5+1.5	12.6	-	74.0	72.0	69.0	65.5	56.0	44.5	30.6

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DIMENSIONS



DIMENSION CHART

Model	Dimensions [mm]								Weight [kg]
	A	B1	DNA	DNM	E	HQ	R		
2GPE CVM A/10 E-PW	960	875	G 2"	G 1 1/2"	505	1025	1140	52	
2GPE CVM A/12 E-PW	985	900	G 2"	G 1 1/2"	540	1050	1165	55	
2GPE CVM B/12 E-PW	935	850	G 2"	G 1 1/2"	490	1000	1115	53	
2GPE CVM B/15 E-PW	960	875	G 2"	G 1 1/2"	515	1025	1140	54	
2GPE CVM B/20 E-PW	985	900	G 2"	G 1 1/2"	580	1050	1165	64	

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