

NOCCHI CPS 10 ELECTRONIC FREQUENCY CONVERTER

EASY TO INSTALL, LOW ENERGY CONSUMPTION, COMPACT SIZE

CPS is an electronic device designed to vary the frequency of an electric pump. It is incorporated directly on the motor to enable control of the speed to provide the utility with a constant pressure even in the event of changes in water demands. CPS offers a compact, essential, reliable and practical solution, also designed to ensure the utmost comfort and benefits when applied in the sectors of irrigation, greenhouses, light industry, fountains and water features.

The system comprises an electric pump and electronic control system (inverter) to ensure that pressure is kept constant in the system, reducing or increasing the speed of motor rotation on the electric pump as required. When the system pressure falls below the set threshold, the module starts

up the pump to restore the set point pressure; the pump rotation speed varies according to water demand and therefore increases speed on requests for increased quantities, through to the maximum setting. On decrease in water demand, the pump speed is decreased through to the minimum setting, after which, if no further decreases in pressure occur (i.e. new water demands) the pump is stopped on standby until a new cycle starts.



APPLICATIONS

- Pressure booster systems
- Water supply
- Industry
- Construction
- Washing

PROTECTION DEVICES

- Dry-running
- Current overload
- Electronics overheating
- Anti-freeze via external device

TECHNICAL SPECIFICATIONS

- Power supply voltage: inverter 1x230 Vac \pm 10 %.
- Inverter output voltage: 3x230 Vac \pm 10 %
- Maximum nominal power: 1.5 Kw
- Input frequency: 50/60 Hz + 3%
- Maximum nominal output current: 6.5 Amp
- Protection rating IP55 (if installed on motors with protection rating of IP55 or higher)
- Ambient temperature from +0°C to +40°C
- Waveform: sinusoidal
- Inlet filter compliant with EMC directive
- Pressure transducer 0 - 5 Volt - 0 - 10 Bar
- Set-point 2
- Interface connectivity: RS 485 serial port
- 3 optional contacts (external set-point, alarm, system disable)

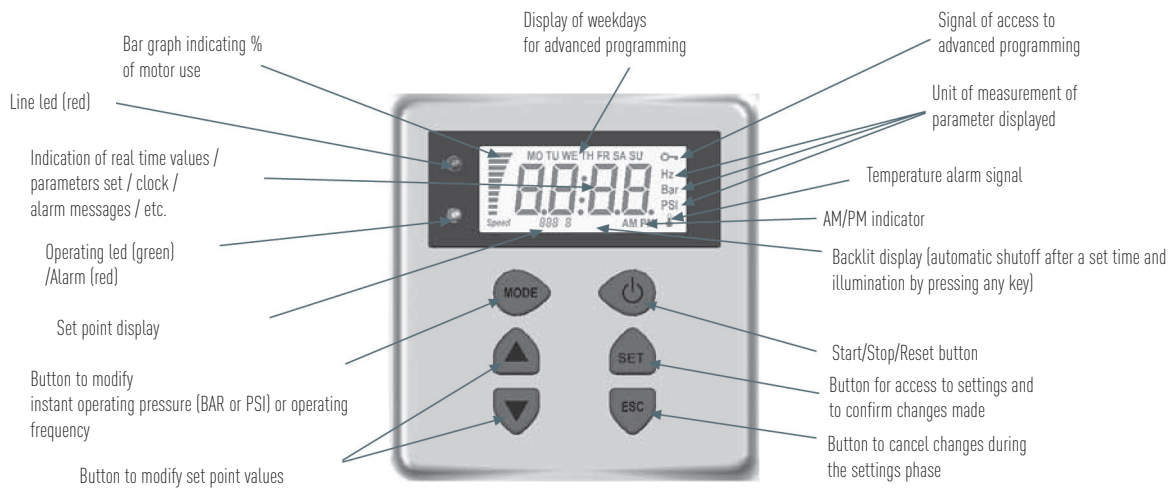
NOCCHI CPS 10

ELECTRONIC FREQUENCY CONVERTER

VERSIONS AVAILABLE

| VERTICAL | HORIZONTAL | SELF-PRIMING |
|--------------------------|--------------------------|--------------------------|
| CPS10/VLR 2B-60 A | CPS10/MULTINOX-VE 200/80 | CPS10/MULTINOX-XC 120/45 |
| CPS10/VLR 2B-110 A | CPS10/DHI 4-50 | CPS10/MULTINOX-XC 120/60 |
| CPS10/VLR 4-80 A | CPS10/DHI 2-70 | CPS10/JET 1000 |
| CPS10/VLR 8-40 A | CPS10/DHR 4-50 | CPS10/MULTINOX-A 200/40 |
| CPS10/VLR 4-100 A | CPS10/DHR 9-40 | CPS10/MULTINOX-A 200/65 |
| CPS10/MULTINOX-VE 200/65 | CPS10/DHR 9-60 | CPS10/MULTINOX-A 200/80 |
| CPS10/MULTINOX-VE 200/40 | CPS10/MULTINOX-XC 80/48 | |

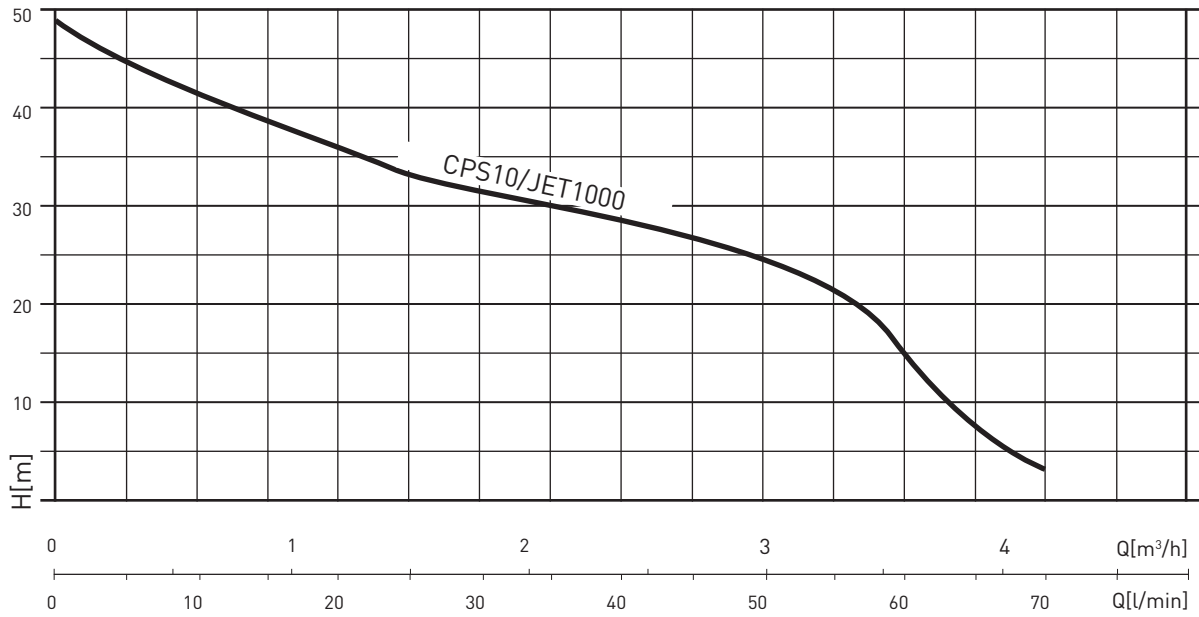
CONTROL PANEL



NOCCHI CPS10/JET

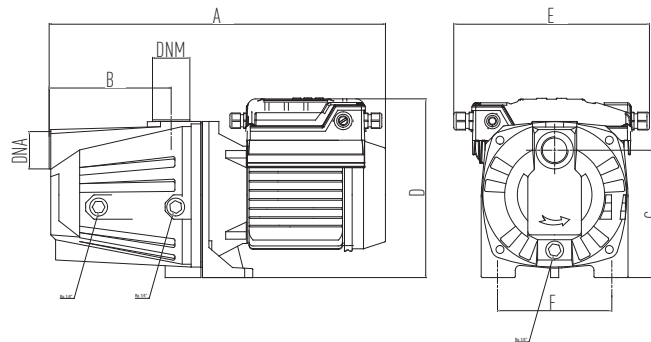
ELECTRONIC FREQUENCY CONVERTER

HYDRAULIC PERFORMANCE



PERFORMANCE TABLE

| MODEL | P2 | | Volt | In (A) | Q | L/min | 0 | 5 | 20 | 30 | 40 | 50 | 60 | 70 |
|----------------|------|----|---------|--------|-------------------|-------|----|-----|-----|-----|-----|----|-----|-----|
| | HP | kW | | | | m³/h | 0 | 0.3 | 1.2 | 1.8 | 2.4 | 3 | 3.6 | 4.2 |
| CPS10/JET 1000 | 1.36 | 1 | 1 - 230 | 6.5 | m.c.a./ m.w.c. | 49 | 45 | 36 | 32 | 28 | 25 | 15 | 15 | 3 |



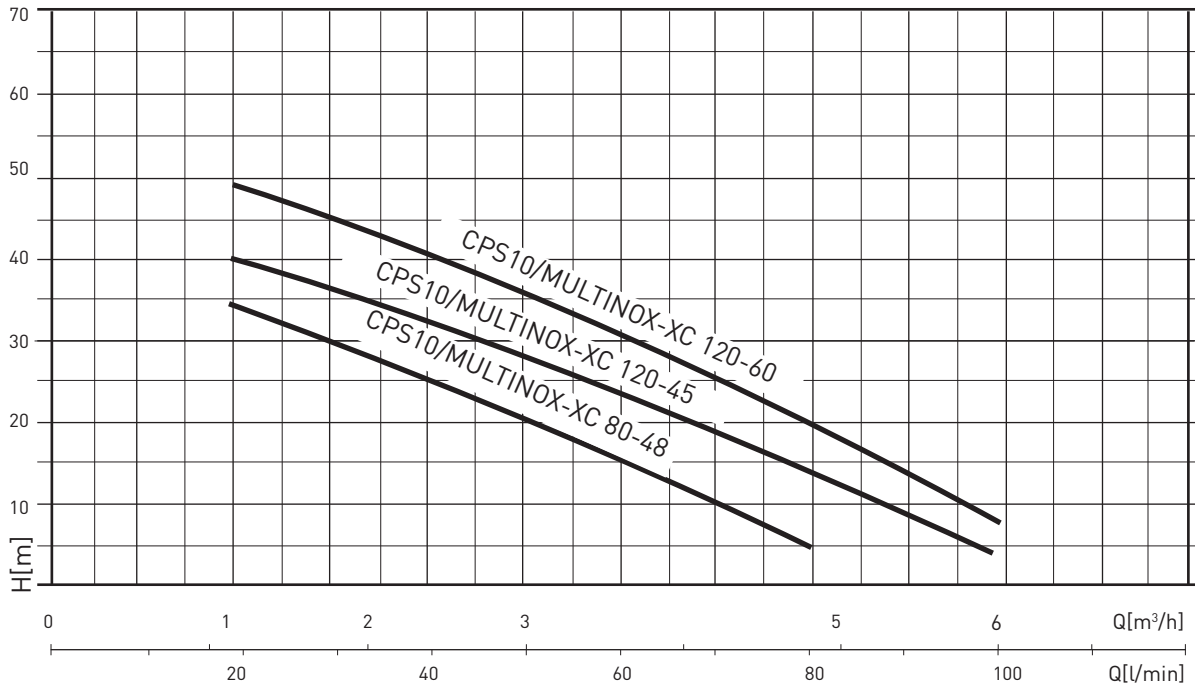
OVERALL DIMENSIONS AND WEIGHTS

| MODEL | Dimensions (mm) | | | | | | | Weight kg |
|----------------|-----------------|-----|-----|-----|-----|-----|-----|--------------|
| | A | B | C | D | E | DNA | DNM | |
| CPS10/JET 1000 | 400 | 147 | 160 | 260 | 195 | 1" | 1" | 20.8 |

NOCCHI CPS10/MULTINOX XC

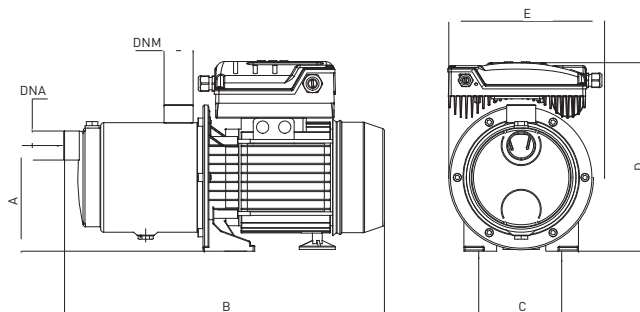
ELECTRONIC FREQUENCY CONVERTER

HYDRAULIC PERFORMANCE



PERFORMANCE TABLE

| MODEL | P2 | | Volt | In (A) | Q | L/min | 0 | 20 | 40 | 60 | 80 | 100 |
|--------------------------|------|------|---------|--------|---------------|-------|----|-----|-----|-----|-----|-----|
| | HP | kW | | | | m³/h | 0 | 1.2 | 2.4 | 3.6 | 4.8 | 6 |
| CPS10/MULTINOX-XC 80/48 | 0.75 | 0.55 | 1 - 230 | 5.1 | m.c.a./m.w.c. | 40 | 34 | 25 | 15 | 4 | | |
| CPS10/MULTINOX-XC 120/45 | 1.1 | 0.85 | 1 - 230 | 8.1 | | 46 | 40 | 33 | 24 | 14 | 3 | |
| CPS10/MULTINOX-XC 120/60 | 1.2 | 0.9 | 1 - 230 | 8 | | 55 | 49 | 42 | 32 | 20 | 7 | |



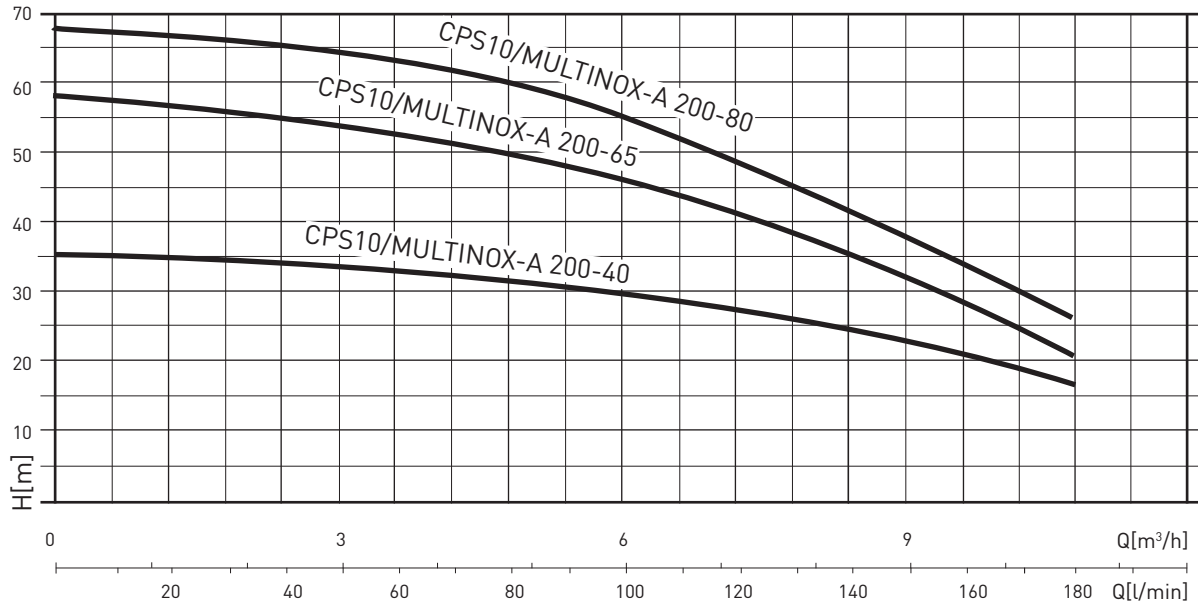
OVERALL DIMENSIONS AND WEIGHTS

| MODEL | Dimensions (mm) | | | | | | | Weight kg |
|--------------------------|-----------------|-----|----|-----|-----|-----|-----|-----------|
| | A | B | C | D | E | DNA | DNM | |
| CPS10/MULTINOX-XC 80/48 | 129 | 348 | 99 | 215 | 250 | 1" | 1" | 9.5 |
| CPS10/MULTINOX-XC 120/45 | 129 | 370 | 99 | 215 | 250 | 1" | 1" | 11.5 |
| CPS10/MULTINOX-XC 120/60 | 129 | 392 | 99 | 215 | 250 | 1" | 1" | 12.5 |

NOCCHI CPS10/MULTINOX-A

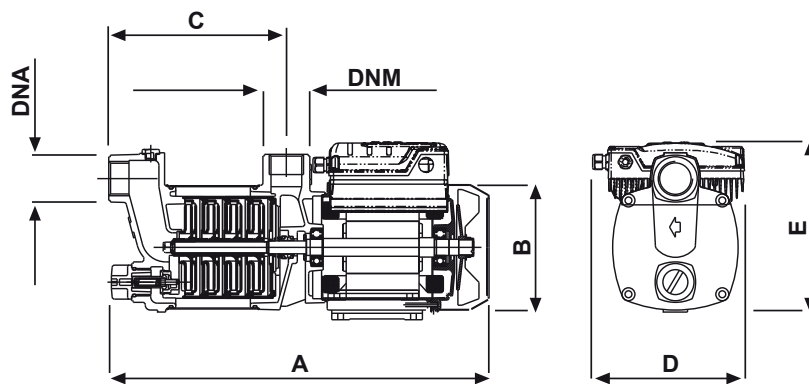
ELECTRONIC FREQUENCY CONVERTER

HYDRAULIC PERFORMANCE



PERFORMANCE TABLE

| MODEL | P2 | | Volt | In (A) | Q | L/min | 0 | 20 | 60 | 100 | 140 | 180 |
|---------------------------|-----|------|---------|--------|---------------|-------|------|------|------|------|------|------|
| | HP | kW | | | | m³/h | 0 | 1.2 | 3.6 | 6 | 8.4 | 10.8 |
| CPS10/MULTINOX - A 200/40 | 1.5 | 1.1 | 1 ~ 230 | 8.7 | m.c.a./m.w.c. | 35 | 33.7 | 32.1 | 27.6 | 21.5 | 13.1 | |
| CPS10/MULTINOX - A 200/65 | 1.9 | 1.4 | 1 ~ 230 | 14.4 | | 58 | 56.1 | 53.4 | 46 | 35.8 | 21.8 | |
| CPS10/MULTINOX - A 200/80 | 2.5 | 1.75 | 1 ~ 230 | 15.5 | | 68 | 67.3 | 64.1 | 55.2 | 42.9 | 26.2 | |



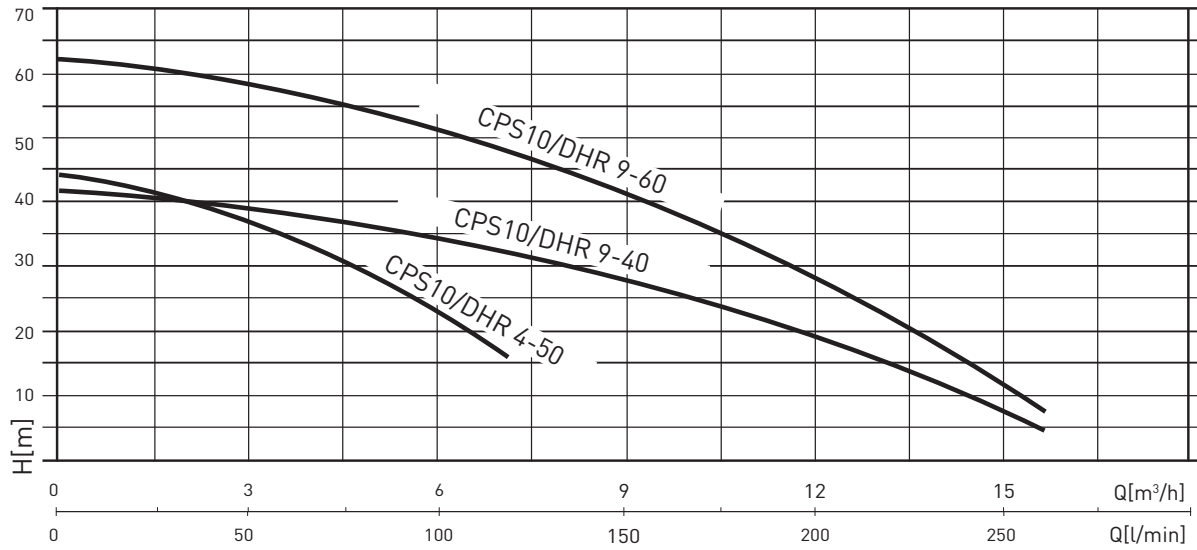
OVERALL DIMENSIONS AND WEIGHTS

| MODEL | Dimensions (mm) | | | | | | | Weight kg |
|---------------------------|-----------------|-----|-----|-----|-----|--------|--------|-----------|
| | A | B | C | D | E | DNA | DNM | |
| CPS10/MULTINOX - A 200/40 | 441 | 170 | 188 | 232 | 225 | 1" 1/4 | 1" 1/4 | 21.2 |
| CPS10/MULTINOX - A 200/65 | 497 | 170 | 243 | 232 | 225 | 1" 1/4 | 1" 1/4 | 24 |
| CPS10/MULTINOX - A 200/80 | 525 | 170 | 270 | 232 | 245 | 1" 1/4 | 1" 1/4 | 26 |

NOCCHI CPS10/DHR

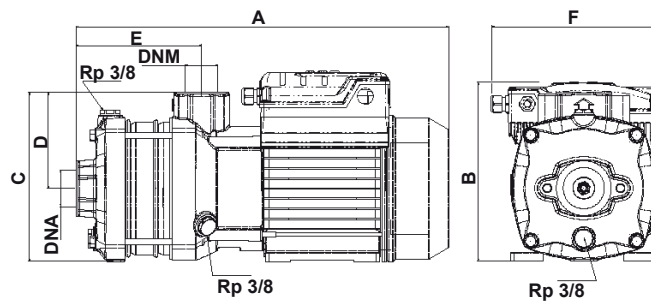
ELECTRONIC FREQUENCY CONVERTER

HYDRAULIC PERFORMANCE



PERFORMANCE TABLE

| MODEL | P2 | | Volt | In (A) | Q | L/min | 0 | 40 | 60 | 80 | 100 | 120 | 160 | 200 | 240 | 260 |
|----------------|------|-----|---------|--------|---------------|-------|------|----|-----|-----|-----|-----|-----|-----|-----|------|
| | HP | kW | | | | | m³/h | 0 | 2.4 | 3.6 | 4.8 | 6 | 7.2 | 9.6 | 12 | 14.4 |
| CPS10/DHR 4-50 | 1.5 | 0.9 | 1 - 230 | 9.1 | m.c.a./m.w.c. | 44 | 39 | 35 | 30 | 24 | 17 | | | | | |
| CPS10/DHR 9-40 | 1.74 | 1.3 | 1 - 230 | 12.5 | | 41.5 | 40 | 39 | 38 | 35 | 33 | 27 | 19 | 10 | 5 | |
| CPS10/DHR 9-60 | 2.4 | 1.8 | 1 - 230 | 15.8 | | 62 | 60 | 58 | 56 | 52 | 49 | 40 | 29 | 14 | 6 | |



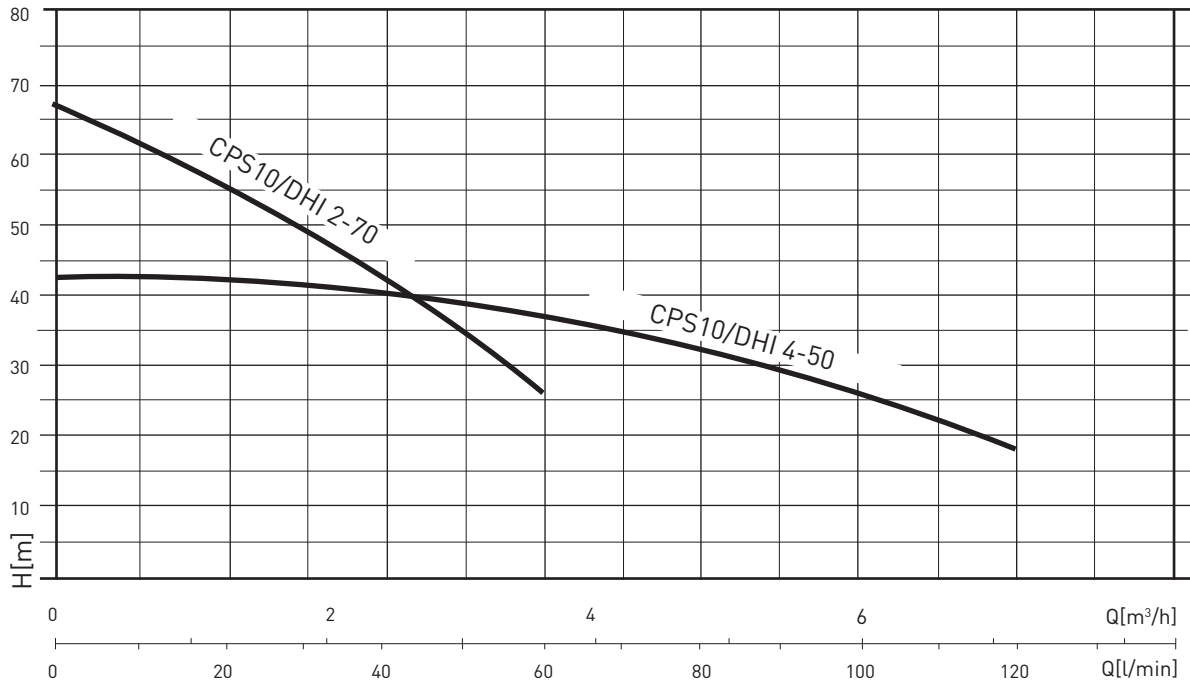
OVERALL DIMENSIONS AND WEIGHTS

| MODEL | Dimensions (mm) | | | | | | | | Weight kg |
|----------------|-----------------|-----|-----|-----|-----|-----|--------|--------|-----------|
| | A | B | C | D | E | F | DNA | DNM | |
| CPS10/DHR 4-50 | 445 | 225 | 155 | 65 | 190 | 232 | 1" 1/4 | 1" | 18 |
| CPS10/DHR 9-40 | 408 | 215 | 185 | 105 | 137 | 232 | 1" 1/4 | 1" 1/4 | 21.1 |
| CPS10/DHR 9-60 | 468 | 215 | 185 | 105 | 198 | 232 | 1" 1/2 | 1" 1/4 | 26 |

NOCCHI CPS10/DHI

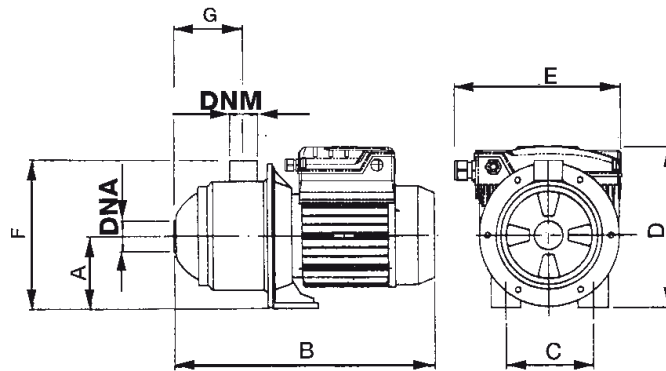
ELECTRONIC FREQUENCY CONVERTER

HYDRAULIC PERFORMANCE



PERFORMANCE TABLE

| MODEL | P2 | | Volt | In (A) | Q | L/min | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 80 | 100 | 120 |
|----------------|------|-----|---------|--------|-------------------|-------|----|-----|-----|-----|-----|----|-----|-----|-----|-----|
| | HP | kW | | | | m³/h | 0 | 0.6 | 1.2 | 1.8 | 2.4 | 3 | 3.6 | 4.8 | 6 | 7.2 |
| CPS10/DHI 2-70 | 1.25 | 0.9 | 1 ~ 230 | 10.6 | m.c.a./ m.w.c. | 68 | 63 | 57 | 50 | 43 | 35 | 26 | | | | |
| CPS10/DHI 4-50 | 1.25 | 0.9 | 1 ~ 230 | 10.6 | | 43 | | | | 42 | 39 | 36 | 33 | 27 | 18 | |



OVERALL DIMENSIONS AND WEIGHTS

| MODEL | Dimensions (mm) | | | | | | | | | Weight kg |
|----------------|-----------------|-----|-----|-----|-----|-----|-----|--------|--------|-----------|
| | A | B | C | D | E | F | G | DNA | DNM | |
| CPS10/DHI 2-70 | 105 | 460 | 141 | 245 | 232 | 235 | 135 | 1" 1/4 | 1" 1/4 | 17.4 |
| CPS10/DHI 4-50 | 105 | 460 | 141 | 245 | 232 | 235 | 135 | 1" 1/4 | 1" 1/4 | 17.4 |