

YOU GOT TO GRANT IT TO GRANSA



**HORIZONTAL
& VERTICAL
MULTISTAGE
PUMPS - 50 Hz**

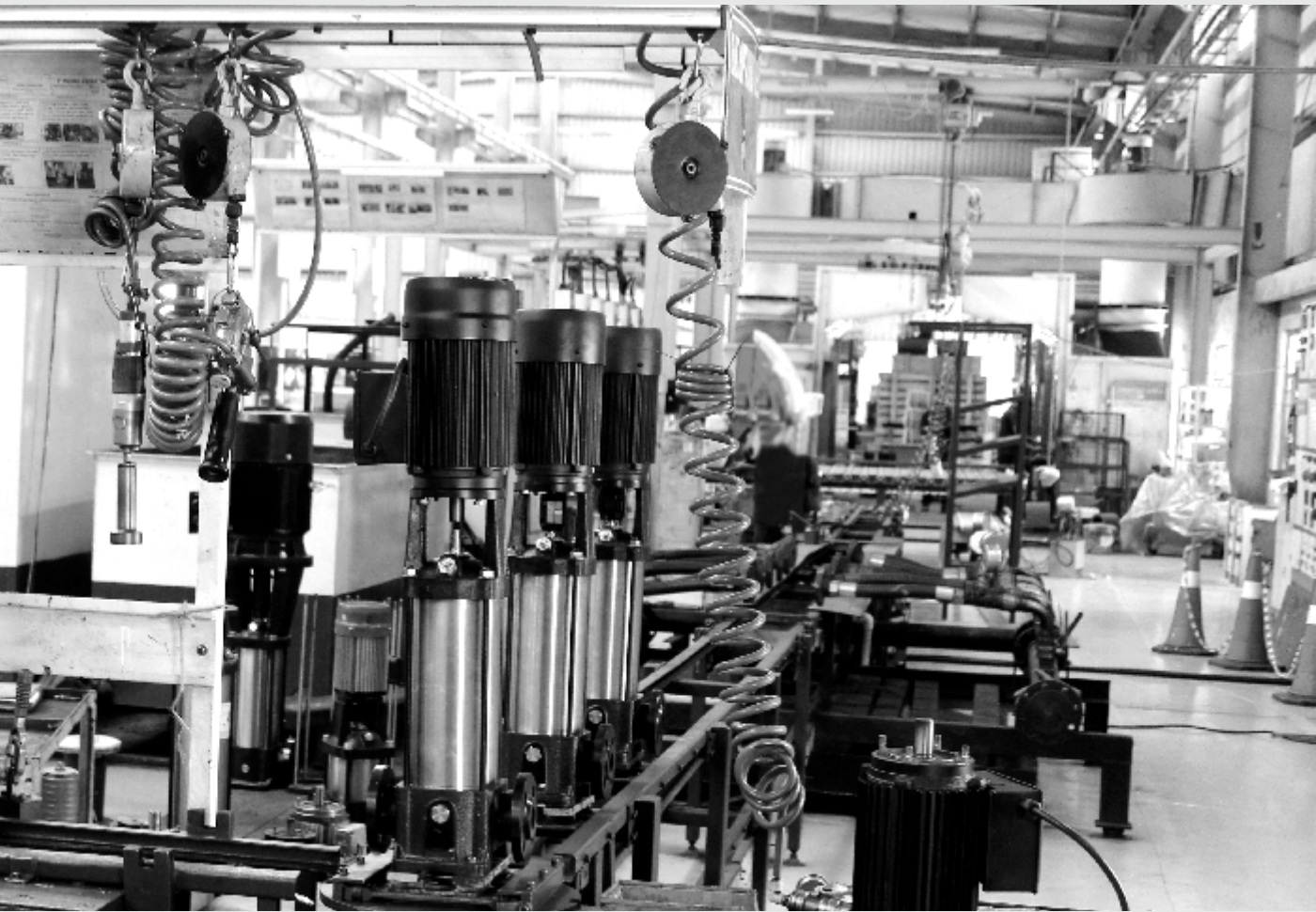
COMPANY PROFILE



YOU GOT TO GRANT IT TO GRANSA

First things first. Gransa is not your run-of-the-mill pump. It is the best there is. Period. In fact it is much more than just pumps. It is a movement. A revolution that can bring about change in the way we look at pumping technology. Gransa incorporates inspired design with new generation technology to ensure perfection at every level. Aesthetically pleasing with its sleek hi-tech looks, every Gransa pump is a marvel of workmanship and design and technologically superior. Functionally, Gransa is in a class all its own. The performance parameters are legendary and would leave you awe struck. It is not for nothing that it is said: you got to grant it to Gransa!

The Gransa quality edge comes from our collective attitude that will not compromise, will not accept second best, will not take no for an answer and will not rest until the perfect solution is found. Every single product bears the imprint of this commitment. Right from sourcing raw material to the finished product every step is



monitored both online and offline till it meets our exacting standards. We know that there is a lot riding on the quality of the raw material used in the manufacture of the pump. That is why we invest more time and money in sourcing the finest raw material available to give you a pump that is perfect in all respects. Another area where our pumps score is in energy efficiency. In these days of depleting energy resources, we believe that it is imperative that power saving should be central to your buying decision.

The fact that the manufacturing facilities are quite extensive and state of the art makes a big difference. The infrastructure is one of the best in the world - CI foundry, fully mechanized and Steel automated Foundry, world class R&D facilities with flow dynamic software, ISO 9001 & 14001 Certified production environment, highly skilled and qualified hands and more. All contributing to a production capacity of over 1 million pumps per annum.

The range is extensive. Applications include irrigation, domestic, civil construction, de-watering, Fire fighting, HVAC, Industrial etc. Our 4" to 8" borehole submersible pumps meet NEMA standards.

Gransa, in keeping with its reputation as a global brand has a wide network across strategic locations worldwide with an extensive dealer presence and service support centers.

VERTICAL MULTISTAGE PUMPS

GV-SERIES - 50HZ

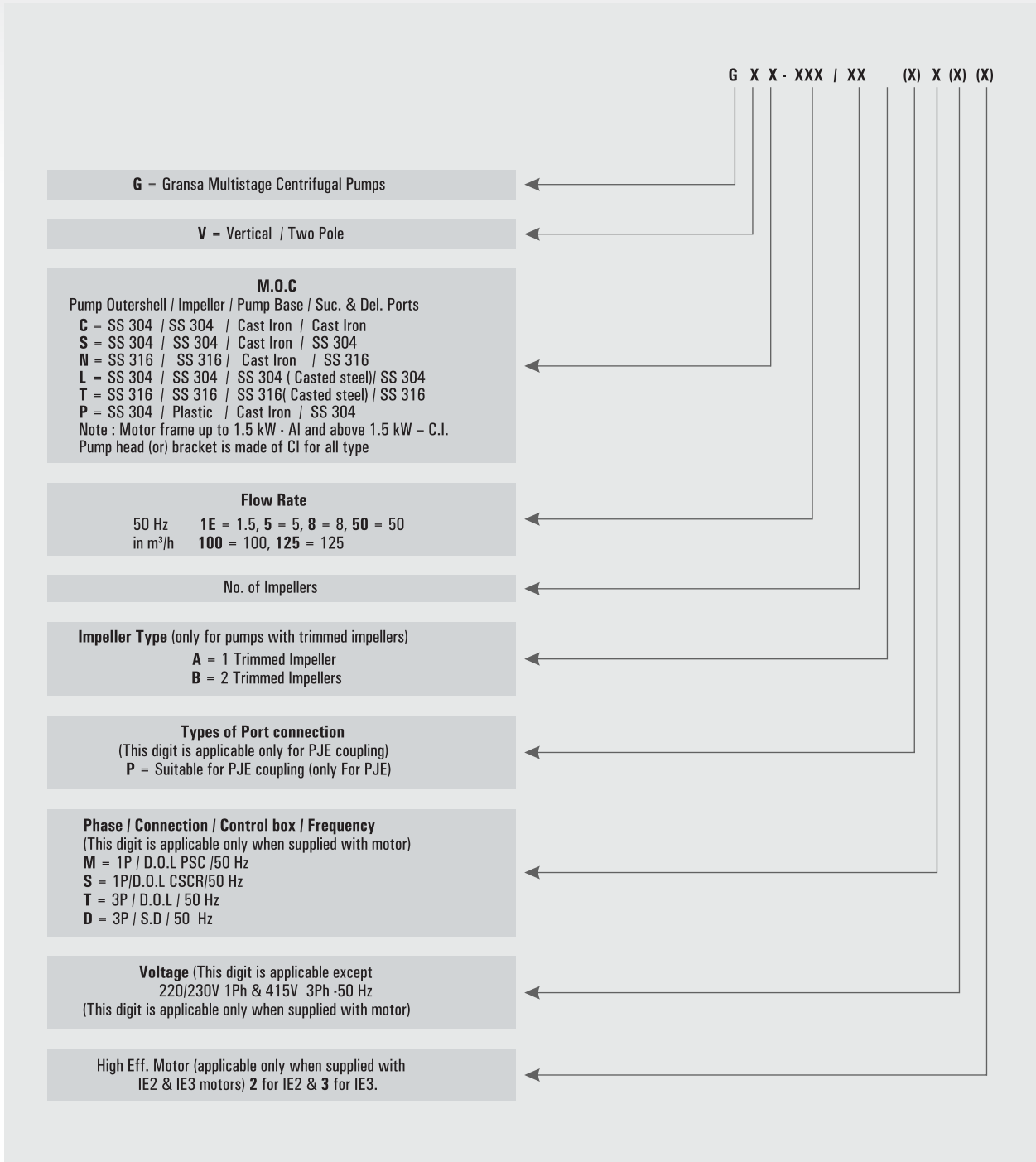
Gransa GV series vertical inline pumps are of multi stage, non-self-priming pump with radial suction and radial discharge port. These pumps are designed to meet high pumping requirements in terms of performance, efficiency & reliability which include different sizes of pumps that are customized to suit the specific requirement of the customer. All wetted parts are made of corrosion free stainless steel which ensure durability of pumps. The inline construction offers simplified piping work and major saving on floor space compared to other type of pumps. These pumps are offered with standard motors and IE2/IE3 motors can be supplied on request. Thermal over load protector(TOP) is incorporated in all single phase motors to safe guard the winding in overload/low voltage operations. The mounting dimensions are of IEC standard and NEMA standard also can be supplied on request.

Applications : | Pressure boosting units | Industrial water supply | Fire fighting systems | High pressure water supply | Irrigation | Reverse osmosis systems | Water treatment plants | Boiler feeding | HVAC | Mining | Food processing industry.
Features : | High operating efficiency | Precise parts for hygiene | Good suction lift and operating pressure | Dynamically balanced rotating parts | Balanced and rigid construction.



G E N E R A L I N F O R M A T I O N

IDENTIFICATION



VERTICAL MULTISTAGE PUMPS

TECHNICAL DATA

| | |
|-----------------------|--|
| Power Range | 0.37 to 110 kW |
| Versions | Single Phase 230V, 50Hz, A.C. Supply (0.37 - 2.2kW) (Permanent Split Capacitor - PSC & CSCR) Incorporated with TOP. Three Phase 380-415V, 50Hz, A.C. Supply (0.37-110kW) |
| Speed | 2900 rpm |
| Insulation class | 'F' (Optional 'B') |
| Sealing | Mechanical seal - Cartridge type |
| Type of Duty | S1 (continuous) |
| Degree of protection | IP 55 (Optional IP44 / IP54) |
| Flange Standard | DIN |
| Pipe Connection | DN 25, DN 32, DN 40, DN 50, DN 65, DN 80, DN 100, DN 125 & DN 150 |
| Flange type | PJE / Round |
| Direction of Rotation | Anti-clockwise viewed from driving end |

OPERATION LIMITS

| | |
|----------------------------------|-------------------|
| Maximum suction lift | 7 m |
| Maximum Liquid temperature | - 15°C to + 120°C |
| Maximum Ambient Temperature | 40°C |
| Maximum Operating Pressure range | 32 bar |

PERFORMANCE RANGE

| | |
|----------------------|-----------------------|
| Maximum Nominal Flow | 200 m ³ /h |
| Maximum Head | 320 m |

PERFORMANCE CURVE CONDITIONS

The conditions below apply to the curves in all the pages.

Curve tolerance are according to ISO 9906, Grade 3B.

The performance are taken at rated voltage & speed that are only indicative.

Actual discharge depends on availability of water in well / tank, height of water column from the suction pipe end.

The measurements were made with airless water at 20°C. When pumping liquids with a density higher than of water, motors with correspondingly higher outputs must be used.

The bold curves indicate the recommended performance range.

Pipe friction losses have not been included in the performance curves & performance tables.

G E N E R A L I N F O R M A T I O N

MATERIALS OF CONSTRUCTION

| Part Name | Type - C | Type - S | Type - N |
|---|-----------------|------------------------------------|------------------------------------|
| Pump Outer Shell | SS 304 | SS 304 | SS 316 |
| Pump Head | C.I. | Upto 20m ³ /h - C.I | Upto 20m ³ /h - C.I. |
| | | Above 32m ³ /h - SS 304 | Above 32m ³ /h - SS 316 |
| Pump Head Cover | NA | SS 304* | SS 316* |
| Pump Head Stool (Only for 32m ³ /h & above) | C.I. | C.I. | C.I. |
| Pump Base | C.I. / D.I.* | SS 304 | SS 316 |
| Base Plate | NA | C.I. | C.I. |
| Impeller | SS 304 | SS 304 | SS 316 |
| ** Mechanical Seal | SiC / SiC / FKM | SiC / SiC / FKM | SiC / SiC / FKM |
| *** Bush | SiC / SiC | SiC / SiC | SiC / SiC |
| Diffuser (Chamber) | SS 304 | SS 304 | SS 316 |
| Pump Shaft | SS 304 / 431 | SS 304 / 431 | SS 316/329 |
| Wearing Ring | Teflon | Teflon | Teflon |
| Flange | C.I. | SS 304 | SS 316 |
| Neck Ring | SS 304 | SS 304 | SS 316 |
| "O" Ring | EPDM / FKM | EPDM / FKM | EPDM / FKM |
| Coupling | M.S / C.I. | M.S / C.I. | M.S / C.I. |
| Split Cone | SS 304 | SS 304 | SS 316 |
| Split Cone Nut | SS 304 | SS 304 | SS 316 |

** Optional Mechanical Seal MOCs

TC / TC / FKM

SiC / SiC / EPDM

TC / CARBON / EPDM

TC / TC / EPDM

*** Optional Bush MOC

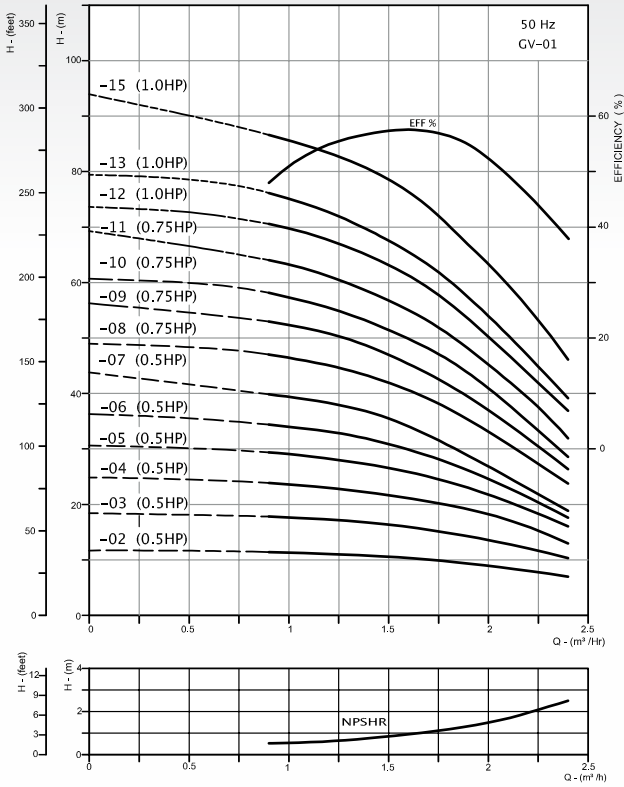
TC / TC

SiC - Silicon Carbide, TC - Tungsten Carbide, FKM - Fluoroelomer (VITON), EPDM - Ethylene Propylene Diene Monomer

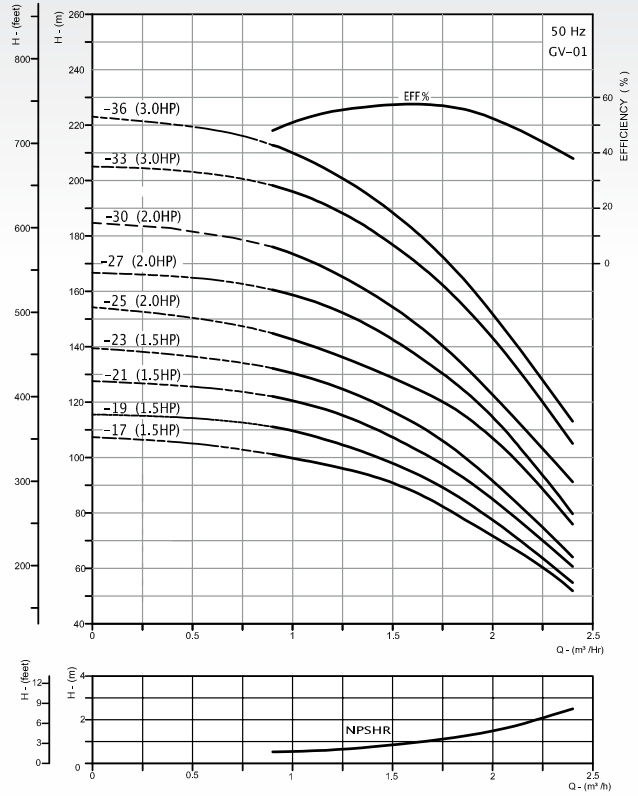
VERTICAL MULTISTAGE PUMPS

PERFORMANCE CURVES

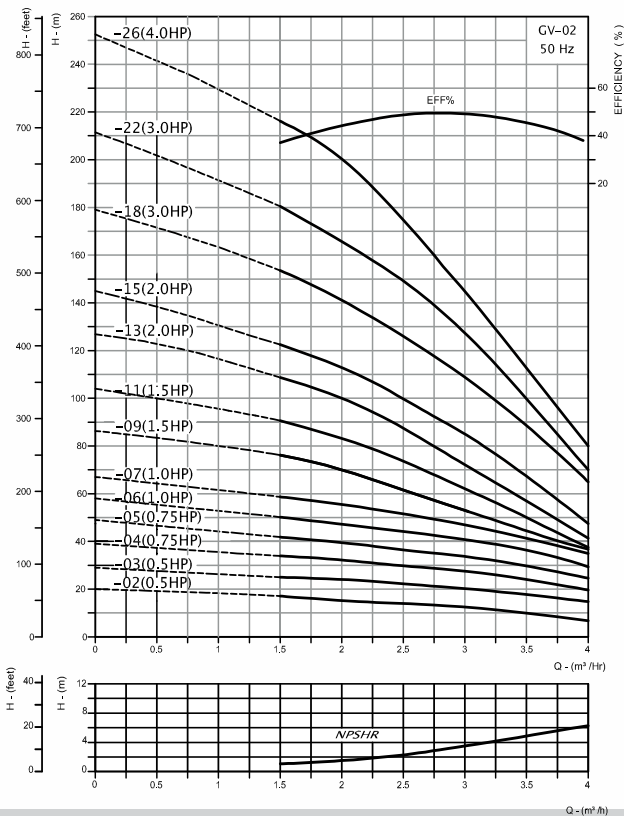
GV - 01



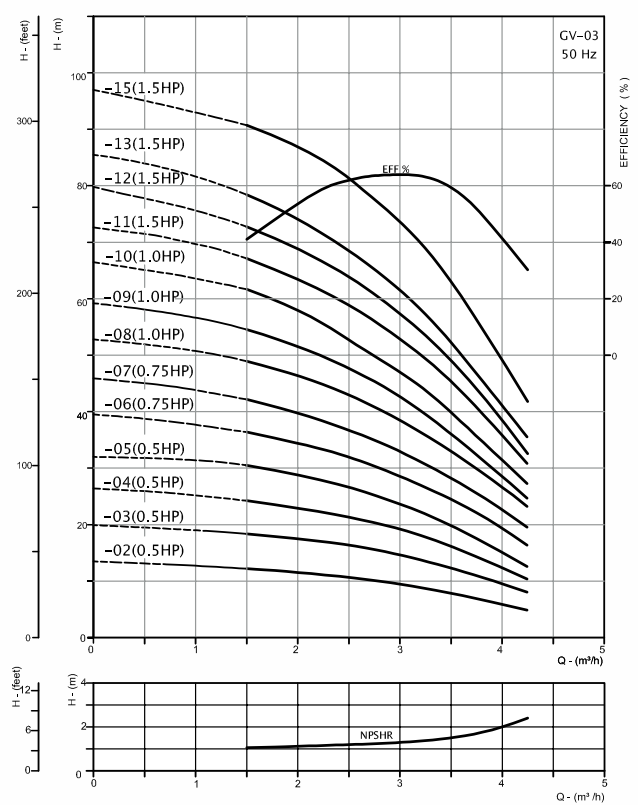
GV - 01



GV - 02



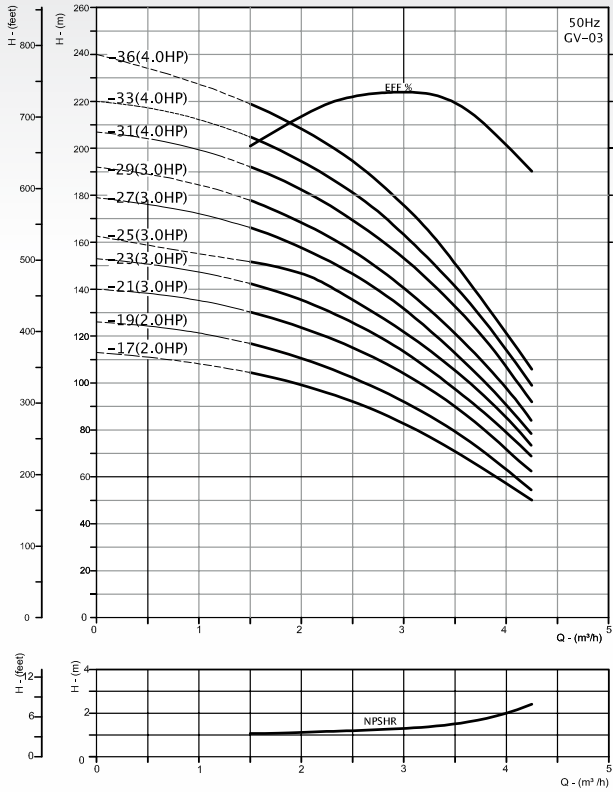
GV - 03



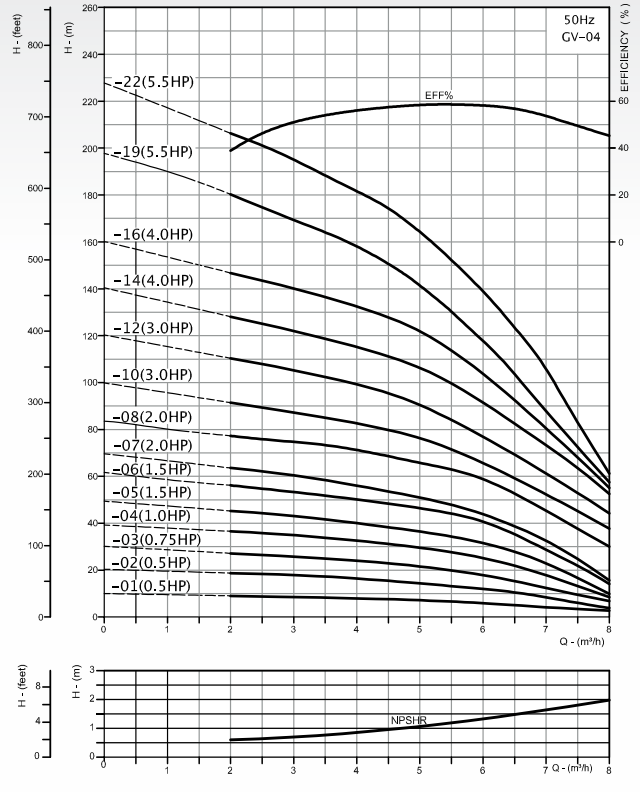
GENERAL INFORMATION

PERFORMANCE CURVES

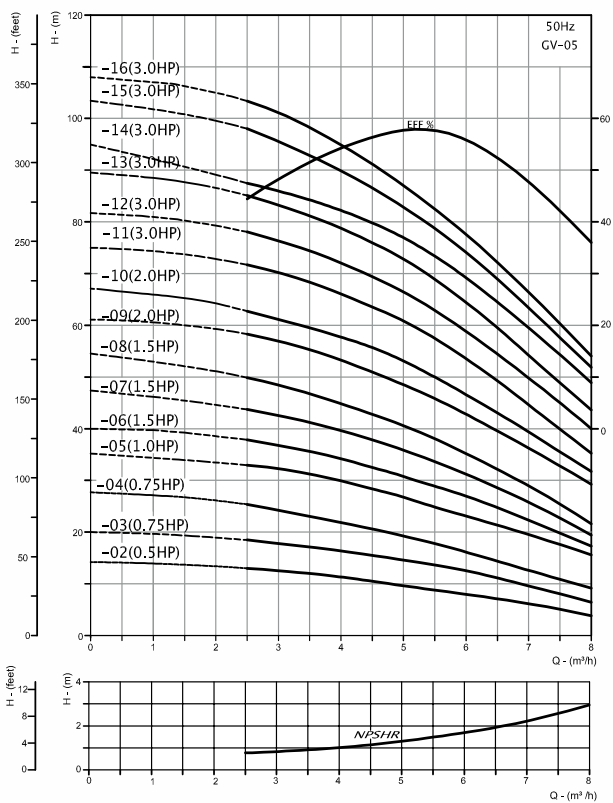
GV - 03



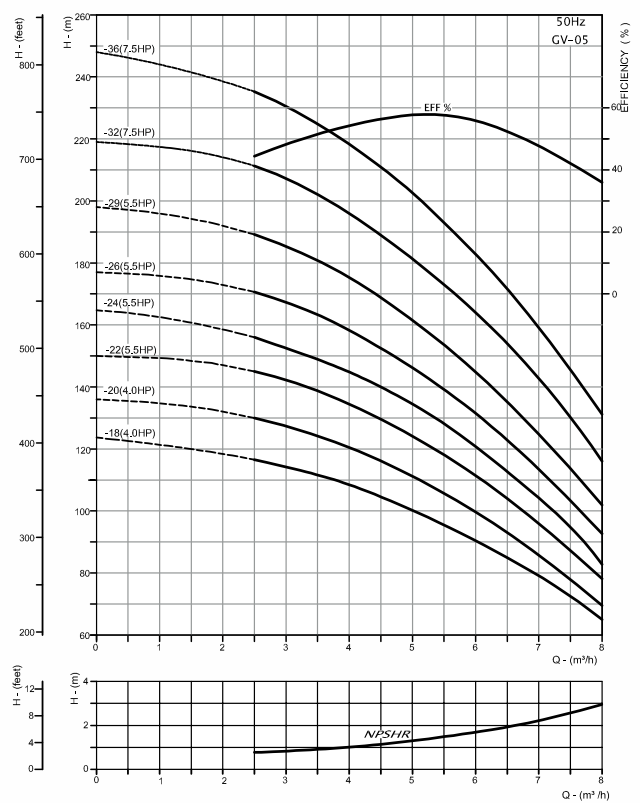
GV - 04



GV - 05



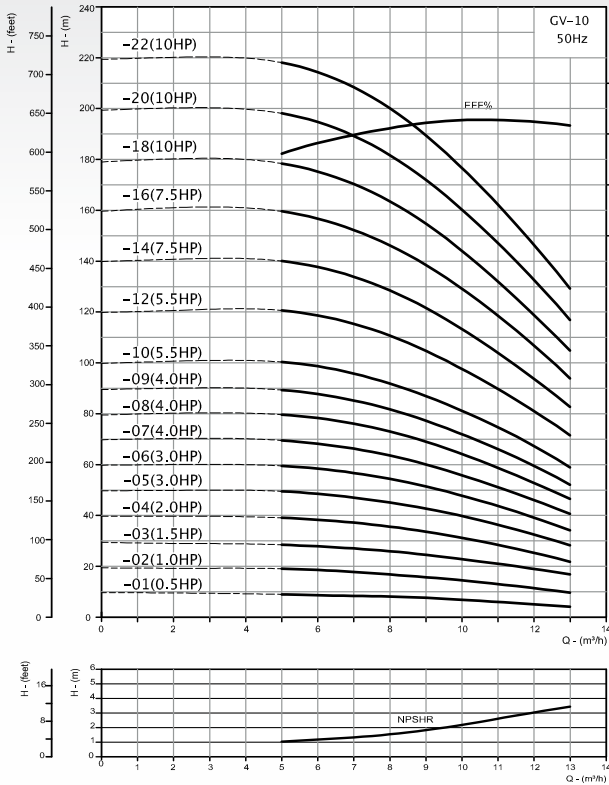
GV - 05



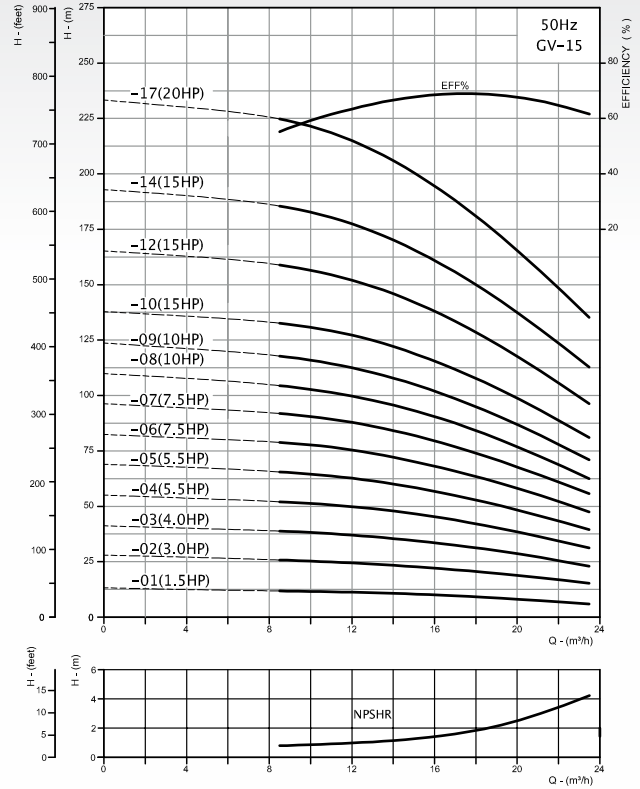
VERTICAL MULTISTAGE PUMPS

PERFORMANCE CURVES

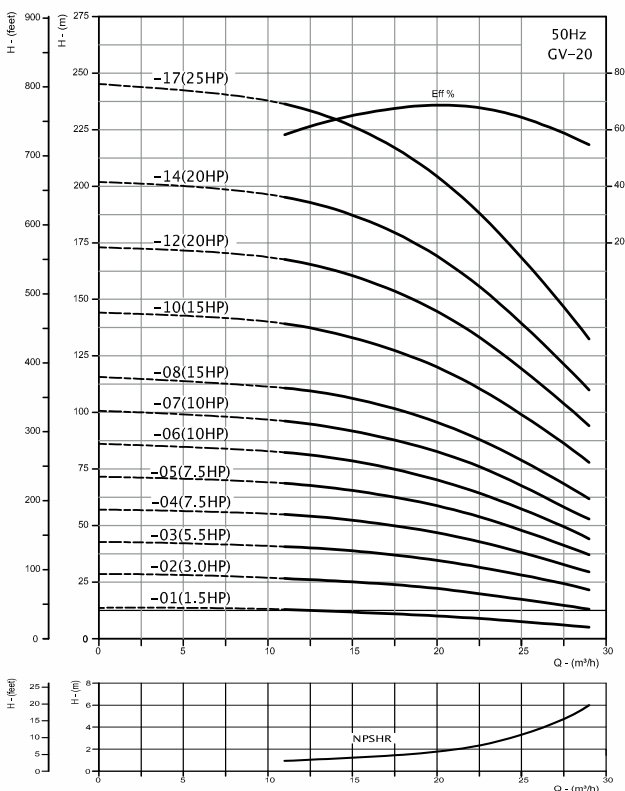
GV - 10



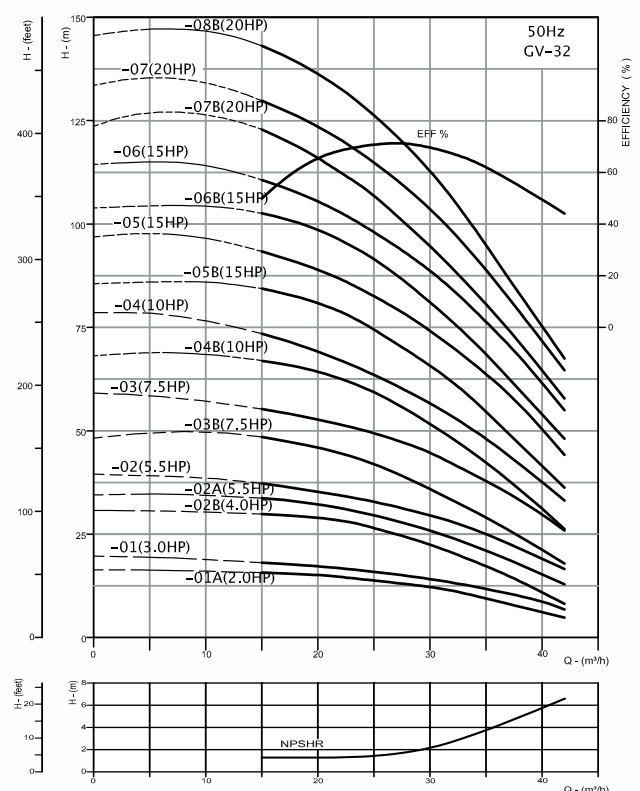
GV - 15



GV - 20



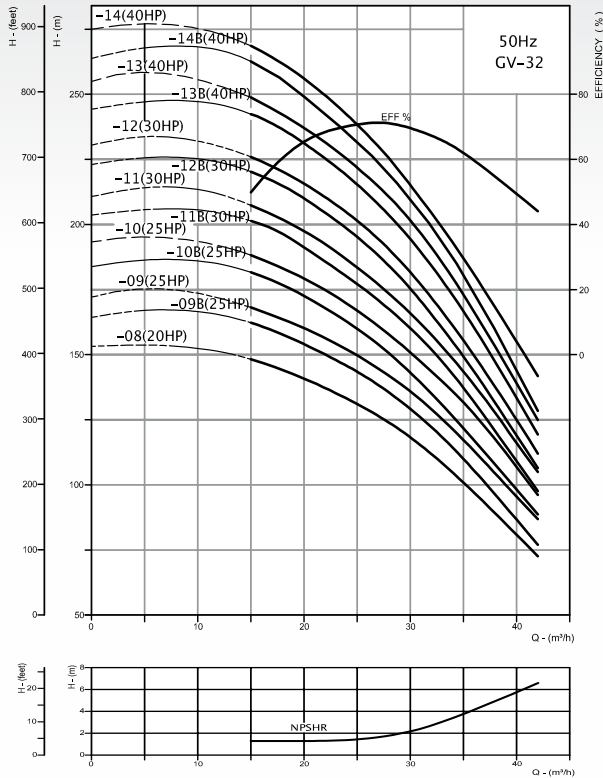
GV - 32



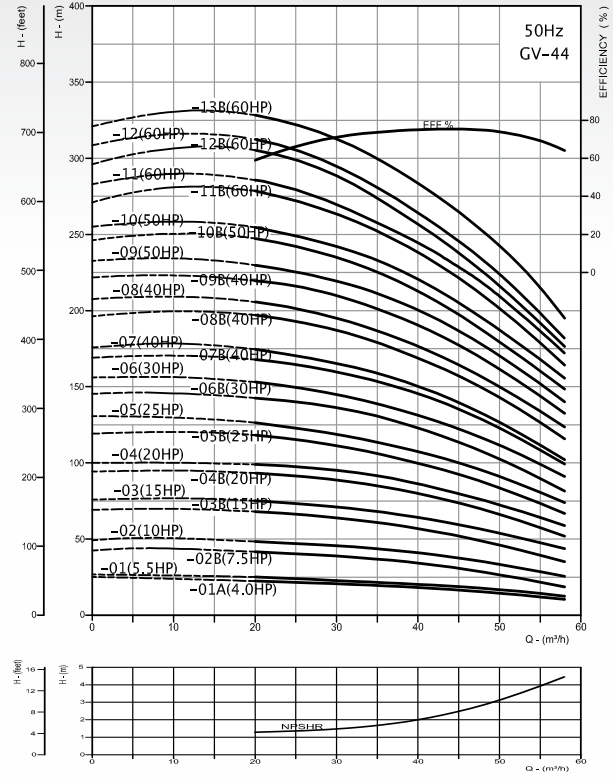
GENERAL INFORMATION

PERFORMANCE CURVES

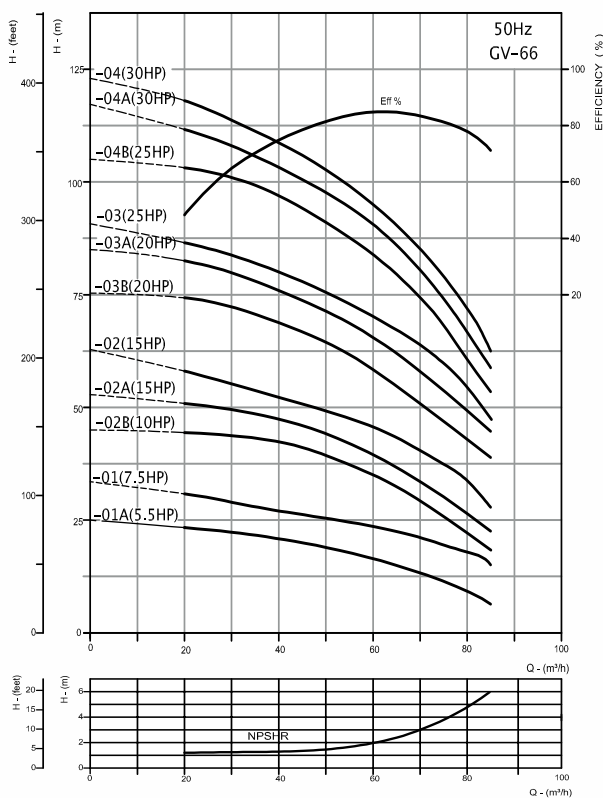
GV - 32



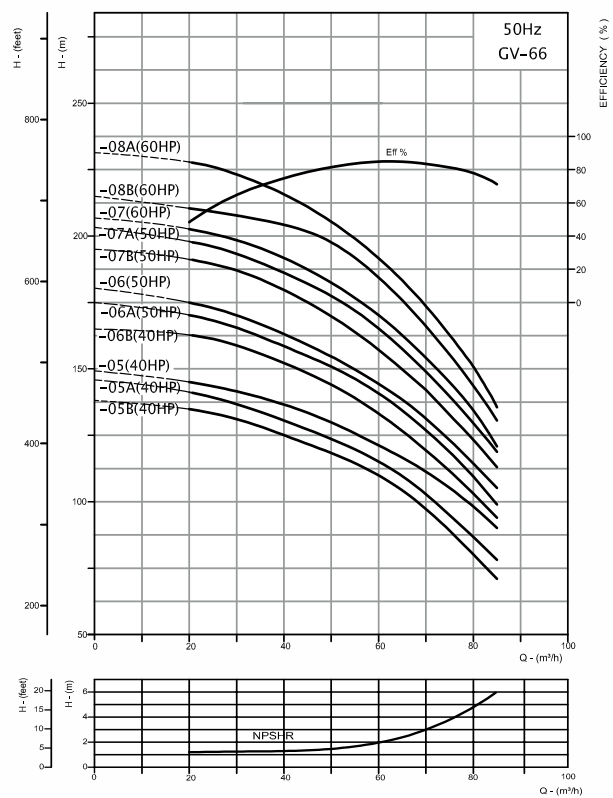
GV - 44



GV - 66



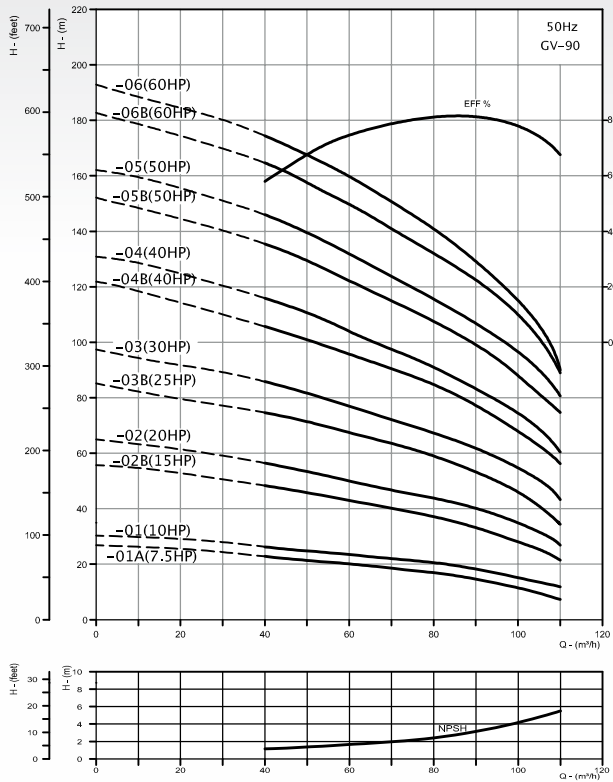
GV - 66



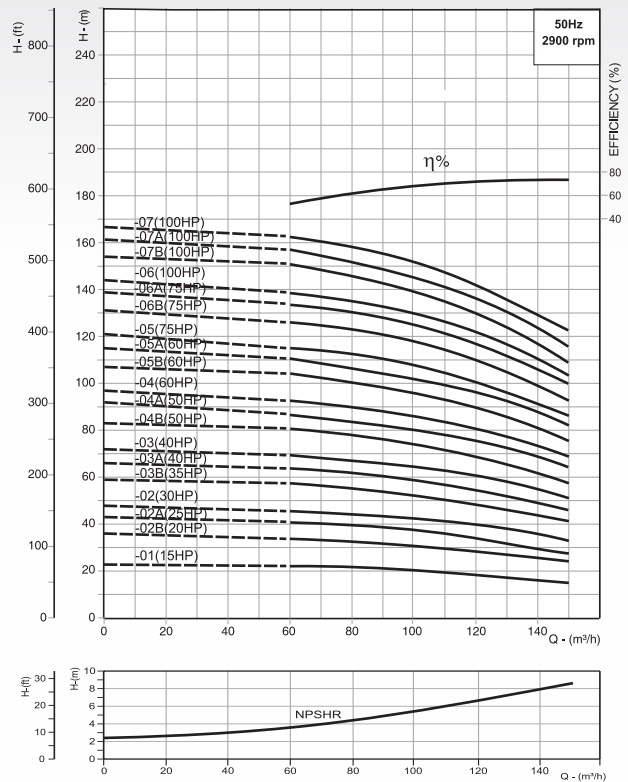
VERTICAL MULTISTAGE PUMPS

PERFORMANCE CURVES

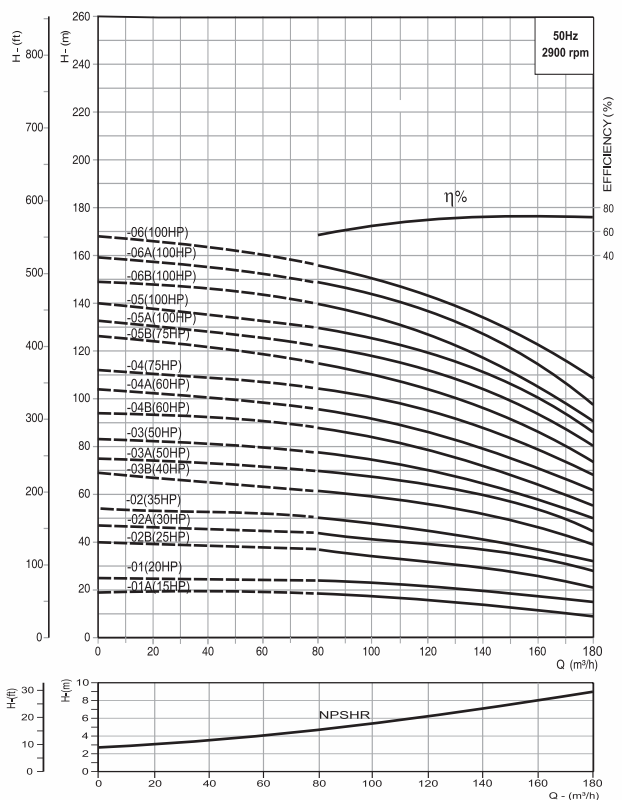
GV - 90



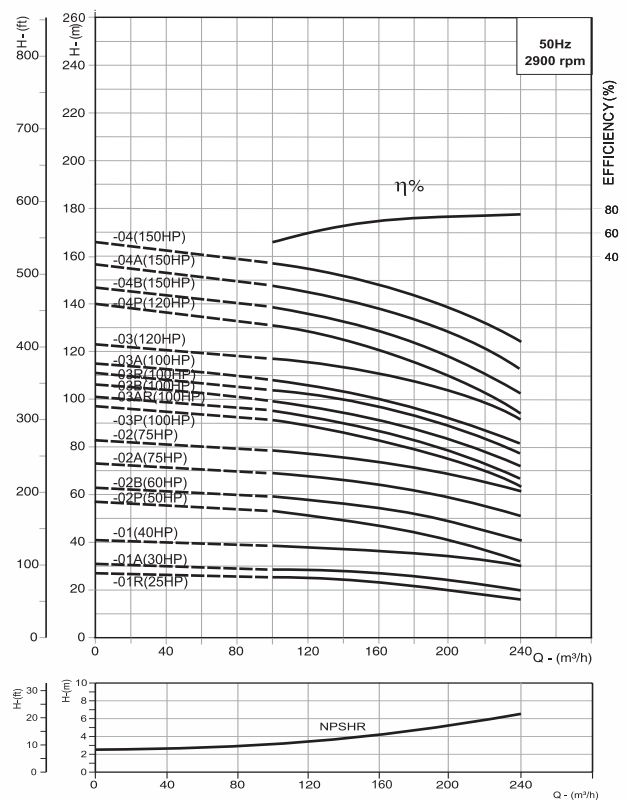
GV - 120



GV - 150



GV - 200



HORIZONTAL MULTISTAGE PUMPS

GH-SERIES - 50HZ

Gransa GH series horizontal inline pumps are of multi stage, non-self-priming pump with axial suction and radial discharge port. These pumps are designed to meet high pumping requirements in terms of performance, efficiency & reliability which include different sizes of pumps that are customized to suit the specific requirement of the customer. All wetted parts are made of corrosion free stainless steel which ensure durability of pumps. These pumps are powered by a totally enclosed fan cooled AC induction motors suitable for continuous duty. Thermal over load protector(TOP) is incorporated in all single phase motors to safe guard the winding in overload/low voltage operation.

Features : | High Operating efficiency | Precise parts for hygiene | Good suction lift and operating pressure | Dynamically balanced rotating parts | Balanced and rigid construction | Inbuilt thermal overload protector in all single phase pumps.

Applications : | Residential & Industrial Pressure Boosting | Small farms | Washing systems | Industrial water supply | HVAC | Reverse Osmosis systems | Food processing industries.



IDENTIFICATION

| | |
|--|--------------|
| G = Gransa Multistage Centrifugal Pump | G |
| Horizontal Multistage / Two pole | H |
| M.O.C Impeller / Diffuser / Pump Casing & Bracket / Pump Base S = SS 304 / SS 304 / Cast Iron / M.S L = SS 304 / SS 304 / Cast Steel 304 / M.S N = SS 316 / SS 316 / Cast Steel 316 / M.S P = Noryl / Noryl / Cast Iron / M.S B = SS 304 / Noryl / Cast Iron / M.S | X |
| Flow Rate IE = 1.5, 5=5, 8=8, 50=50, 100=100, 125=125 Note : To include decimal values in the nominal flow from 0.1 to 0.8 alphabets A to H are used. | . XXX |
| No. of Impellers | - XX |
| M = 1 Phase - PSC / 50Hz S = 1 Phase - CSCR/50Hz T = 3 Phase - DOL / 50Hz D = 3 Phase - SD/50Hz | X X |
| Voltage This digit is applicable except 220/230 V 1PH & 415 V 3 PH/50Hz | X X |

Note: To include decimal values in the nominal flow from 0.1 to 0.8 alphabets A to H are used

G E N E R A L I N F O R M A T I O N

TECHNICAL DATA

| | |
|-----------------------|---|
| Power Range | : 0.22 to 2.2kW |
| Speed | : 2900 rpm |
| Degree of protection | : IP 54 |
| Insulation class | : B (Optional F) |
| Versions | : Single Phase 220 / 240V, 50Hz, A.C. Supply (Permanent Split Capacitor-PSC) Incorporated with thermal protector. Three Phase 380 / 415V |
| Sealing | : Mechanical seal |
| Direction of rotation | : Counter clockwise viewed from driving end |
| Type of Duty | : S1 (continuous) |
| Nom. Suc. x Del. Size | : 1" x 1" ; 1½" x 1¼", 1½" x 1½" |

MATERIAL OF CONSTRUCTION

| | |
|-----------------------|----------------------|
| Motor Frame | Aluminum |
| Pump Casing & Bracket | S.S. 304 / Cast Iron |
| Base Plate | Mild Steel |
| Shaft | S.S. 410 |
| Impeller | S.S. 304 |
| Diffuser | S.S. 304 |
| Sealing | Mechanical Seal |

PUMPED LIQUIDS

| | |
|-------------------------------|--|
| a) Temperature | 90°C (max.) |
| b) Permissible amount of sand | 25 gm / m ³ (max.) |
| c) Chlorine ion density | 500 ppm (max.) |
| d) Allowable solids | 3000 ppm (max.) |
| e) Specific gravity | 1.004 (max.) |
| f) Hardness (Drinking water) | 300 (max.) |
| g) Viscosity | 1.75 x 10 ⁻⁶ m ² / Sec. (max.) |
| h) Turbidity | 50 ppm silica scale (max.) |
| i) pH | 6.5 to 8.5 |

OPERATING LIMITS

| | | |
|-----------------------------|---|----------------|
| Maximum Liquid Temperature | : 90°C | |
| Maximum Ambient Temperature | : 40°C | |
| Maximum Operating Pressure | : 0.55 Mpa (5.5 bar) | |
| Max. Operating Pressure | 1 mpa (10bar) | 0.6 mpa (6bar) |
| GH-2E & 5 | 0°C to 40°C | 41°C to 90°C |
| GH-8 & 12 | 0°C to 55°C | 56°C to 90°C |
| Min. Inlet pressure | : As per NPSH Curve + Safety Margin 1metre. | |
| Max. Inlet pressure | : Limited by max. operating pressure. | |

PERFORMANCE CURVE CONDITIONS

The conditions below apply to the curves in all the pages.

Curve tolerance are according to ISO 9906, Grade 3B.

The performance are taken at rated voltage & speed that are only indicative.

Actual discharge depends on availability of water in well / tank, height of water column from the suction pipe end.

The measurements were made with airless water at 20°C. When pumping liquids specific gravity differs, motors with correspondingly higher outputs must be used.

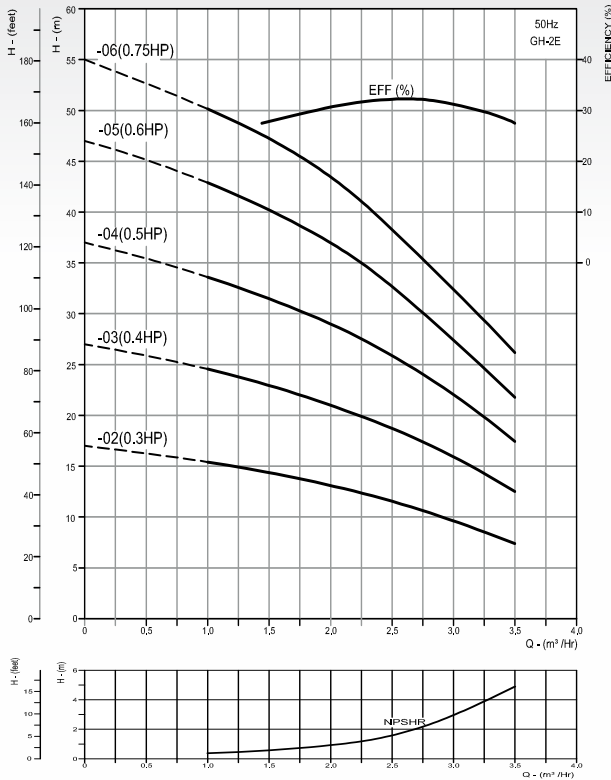
The bold curves indicate the recommended performance range.

Pipe friction losses have not been included in the performance curves & performance tables.

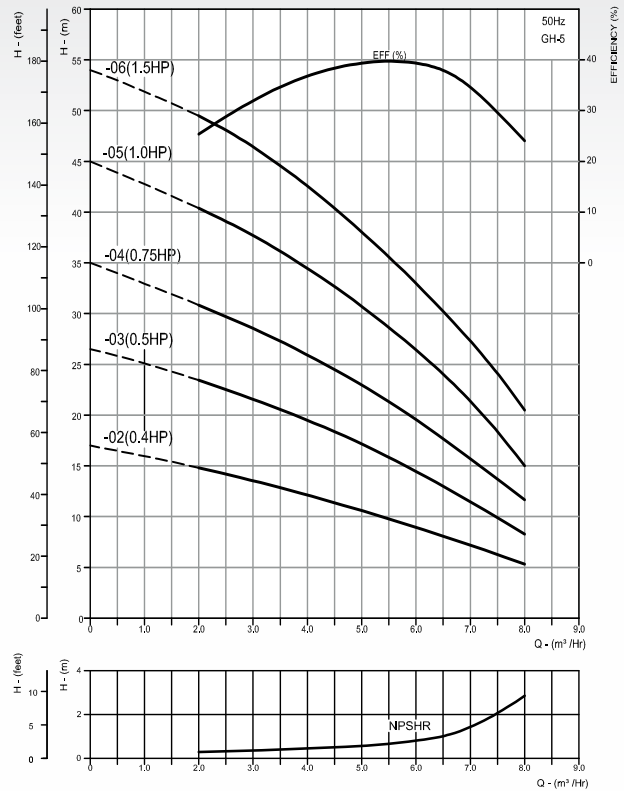
HORIZONTAL MULTISTAGE PUMPS

PERFORMANCE CURVES

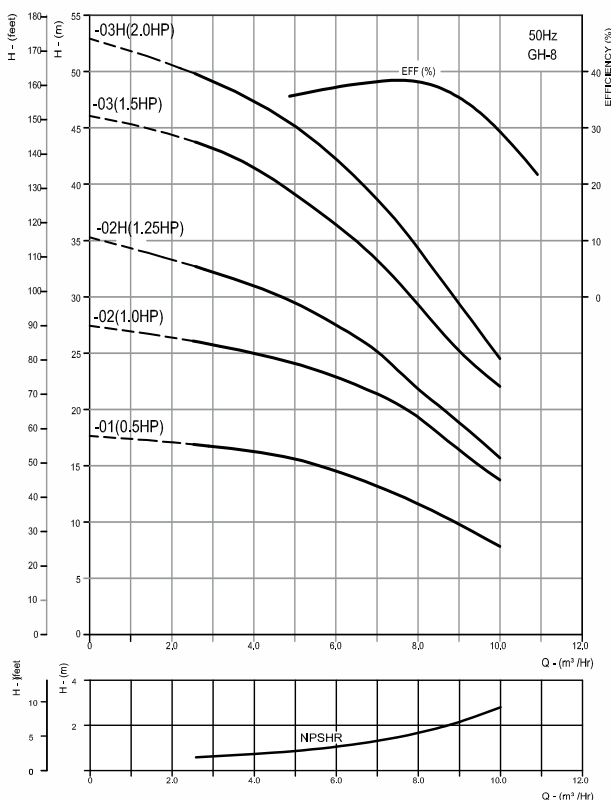
GH - 02



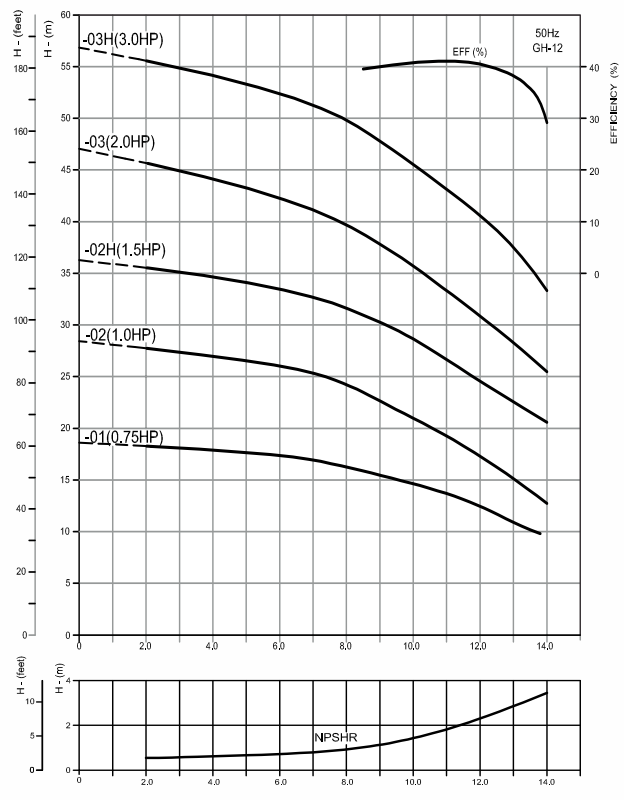
GH - 05



GH - 08



GH - 12



Vision & Mission

To lead from the front and set the standard in providing fluid management solutions across a wide spectrum of industries across the globe. To make the world a better place by embracing viable, sustainable technologies and processes and enlightened business practices. Our experience, expertise, the quality of our people and, of course, our strong customer orientation would be factors that would leverage our efforts to achieve our ends and fulfil our avowed commitment to all our stakeholders.



Saravanampatti, Coimbatore

India - 641035.

Email: sales@gransaglobal.com www.gransaglobal.com