

Solids Handling Vortex
Electric Motor Driven
Submersible Pump

SF Series[®]

VARIOUS PATENTS APPLY

Models
SFV4E SFEV4E
SFV4E-X SFEV4E-X

Size 4"



APPROVED
X-PROOF MOTORS FOR CLASS I,
DIV. 1, GROUPS C&D LOCATIONS
(X-Proof Version Only)

The Gorman-Rupp SF Series[®] vortex pumps provide superior pumping efficiency while maintaining a 3-inch (76,2 mm) spherical solids passage.

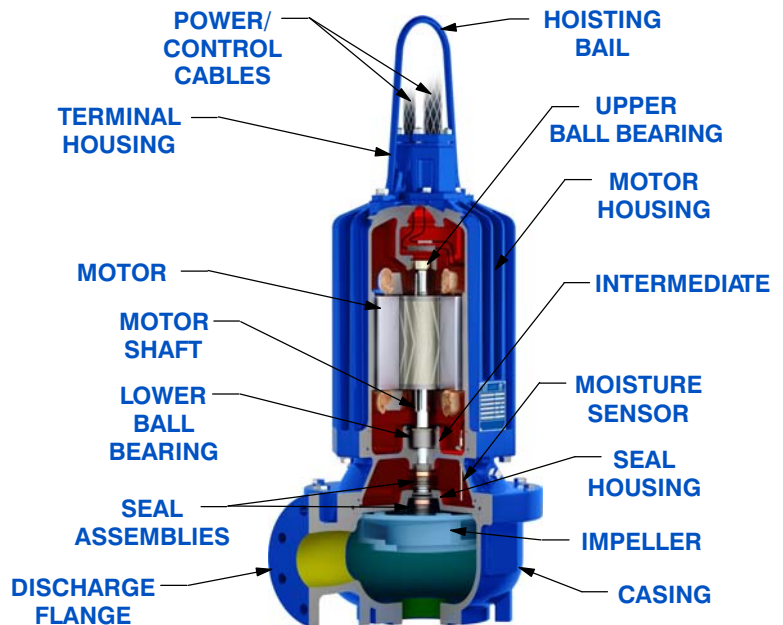
Key Features:

- NEMA premium efficiency motors
- Vortex pump technology
- Press-fit motor with finned motor housing provides superior motor cooling, even in a submersed state, resulting in increased motor life
- NEMA Class H motor insulation
- Direct wired power cable leads
- Standard moisture detection in both the seal and motor chambers
- Factory Mutual (FM) Approved for Class I, Division I, Group C and D Haz Loc Applications (X-Proof Model)



Optional Accessories:

- G-R Hard Iron Impeller
- Control Panel (Consult [SF Series Motor Data Reference](#) for Customer-Supplied Control Panel)
- Submersible Transducer or Ball Type Float Switches
- Slide Rail Installation Components
 - Guide shoe ^w/Rubber Seal
 - Base Elbow and Rail Brackets
- Trash Stand Installation Components
 - Trash Stand
 - Discharge Elbow



TYPICAL VORTEX CROSS-SECTION



GORMAN-RUPP PUMPS

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PUMP DETAILS

Pump Model	SFV4E SFV4EX SFEV4E SFEV4E-X	
Agency Approvals	Consult Factory	
Discharge Flange	4" ANSI w/ Flat Face	
Impeller Type	Vortex	
Impeller Material	Ductile Iron	
Spherical Solids Handling	3" (76 mm) Non-Deformable Diameter	
Motor Housing (Including Seal Plate and Intermediate)	Gray Iron 30	
Pump Casing	Gray Iron 30	
Motor Shaft/Shaft Sleeve	17-4 PH Stainless Steel	
O-Rings	Buna-N and Fluorocarbon (DuPont Viton® or Equivalent)	
Bearings: Type/Lubrication	Upper	Single Row Ball/Permanent Lubrication
	Lower	Double Row Ball/Permanent Lubrication
External Hardware	303/304 Stainless Steel	
External Surface Protection	Epoxy Paint	
Seal Type	Tandem, Mechanical, Oil Lubricated Upper, Self-Lubricated Lower	
Sealing Faces: Rotating/Stationary	Upper	Carbon/Ceramic
	Lower	Silicon Carbide/Silicon Carbide
Seal Elastomers	Buna-N Upper, Fluorocarbon (DuPont Viton® or Equivalent) Lower	
Max. Liquid Temperature	104°F (40°C)	

MOTOR DETAILS

Speed	60 Hz, 1750 RPM	
Motor Design	Inverter-Duty Rated, Air-Filled Enclosure, Squirrel Cage, Induction Start	
Motor Efficiency Rating	NEMA Premium Efficiency (IEC IE3)	
Insulation	Class H, Rated 356°F (180°C)	
Max. Submergence	65 Feet (20 Meters)	
Min. Submergence	1/2 Motor Covered	
Max. Starts per Hour	10	
Max. Rated Output Power	30.0 HP (22,4 kW)	
Amp Draw @ Max. Rated Power: Full Load/ Locked Rotor	230V/3P	73.2/492.0
	460V/3P	36.6/246.0
	575V/3P	29.3/197.0
NEMA Motor Code	H	
Service Factor	1.15	
Efficiency: 100%/75%/50% Load	90%/91%/90%	
Power Factor: 100%/75%/50% Load	0.83/0.78/0.67	
Field Connection	Across-the-Line	
Moisture Sensor	Single Probe Monitoring Both Seal and Motor Chambers	
Thermal Overload	One Thermostat per Phase, Self-Resetting	

CABLE DETAILS

Power Cable	Voltage	230/460V	575V
	No. Cables/Conductors per	1/6	1/6
	Gauge	(3) 4 AWG PWR & (3) 8 AWG GND/GC	(3) 8 AWG PWR & (3) 10 AWG GND/GC
	Type/Material	GGC/CPE	GGC/CPE
Control Cable	Nominal Cable O.D.	1.19" (30,2mm)	0.91" (23,1 mm)
	No. Cables/Conductors per	1/4	
	Gauge	14 AWG	
	Type/Material	SOOW/CPE	
	Nominal Cable O.D.	0.61" (15,5 mm)	
Length	32 Feet (10 Meters) Standard, 164 Feet (50 Meters) Maximum		



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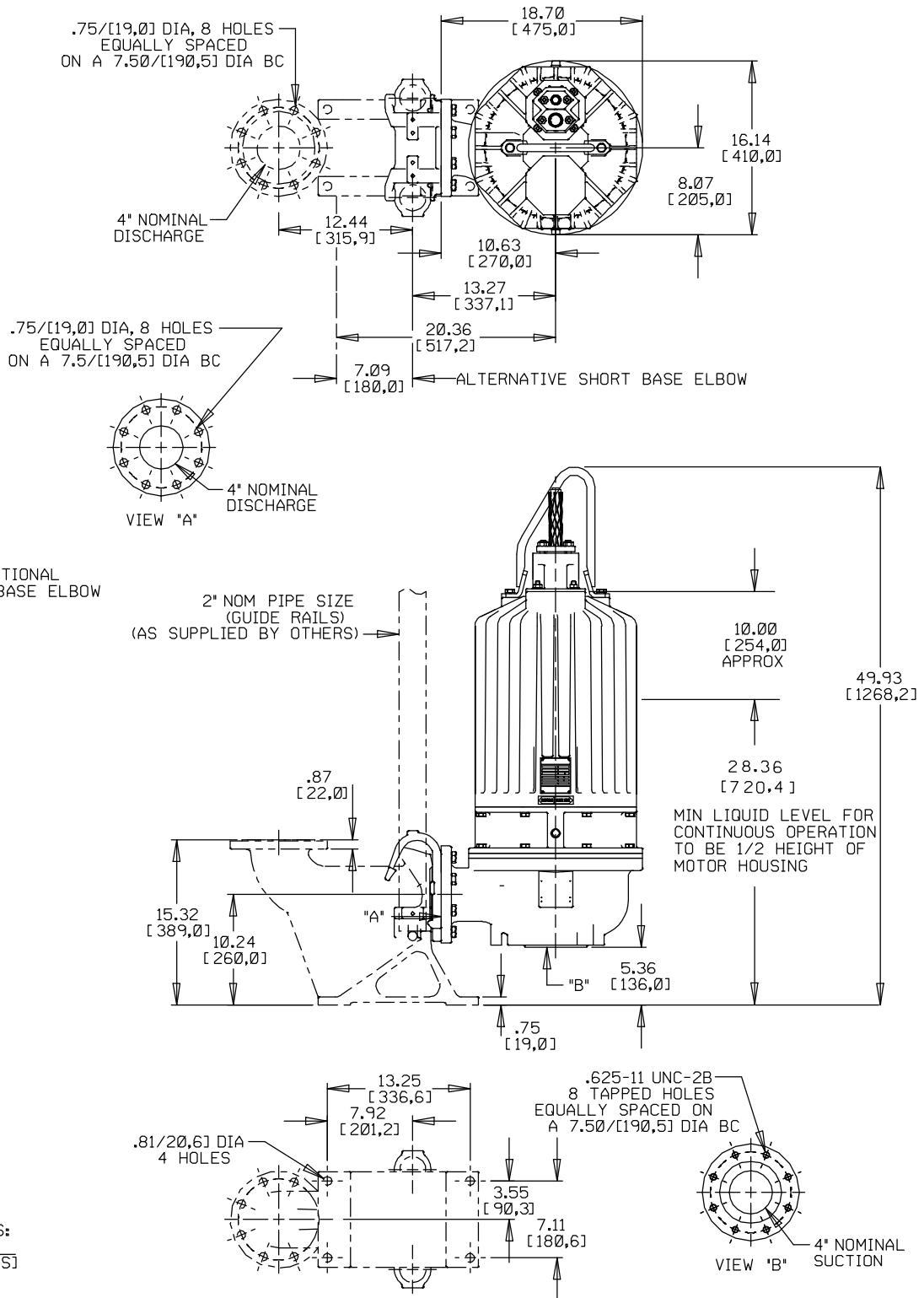
Specification Data

**MODELS SFV4E SFV4E-X
SFEV4E SFEV4E-X
SLIDE RAIL VERSION
APPROXIMATE
DIMENSIONS and WEIGHTS**

NET WT: (pump only)
(comb. cable wt. per meter [3.2 ft.])
SHIPPING WT: (pump only)
CRATE SIZE:

647 LBS. [293,5 KG.]
3.5 LBS. [1,6 KG.]
677 LBS. [307,1 KG.]
15.6 CU. FT. [0,44 CU. M.]

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DIMENSIONS:
INCHES
[MILLIMETERS]



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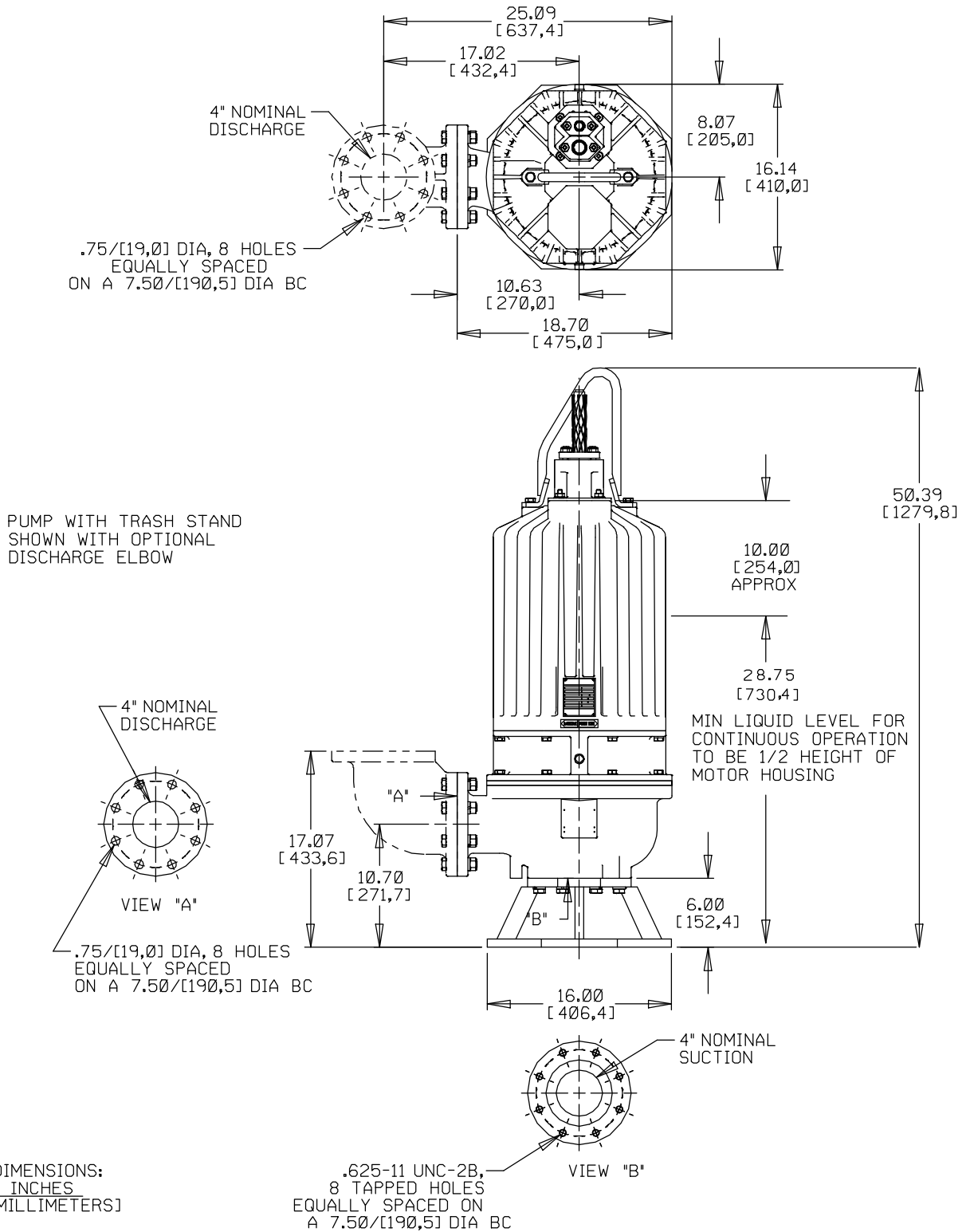
Specification Data

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**MODELS SFV4E SFV4E-X
SFEV4E SFEV4E-X
TRASH VERSION
APPROXIMATE
DIMENSIONS and WEIGHTS**

NET WT: (pump only)
(comb. cable wt. per meter [3.2 ft.])
SHIPPING WT: (pump only)
CRATE SIZE:

670 LBS. [303,9 KG.]
3.5 LBS. [1,6 KG.]
700 LBS. [317,5 KG.]
17.5 CU. FT. [0,50 CU. M.]



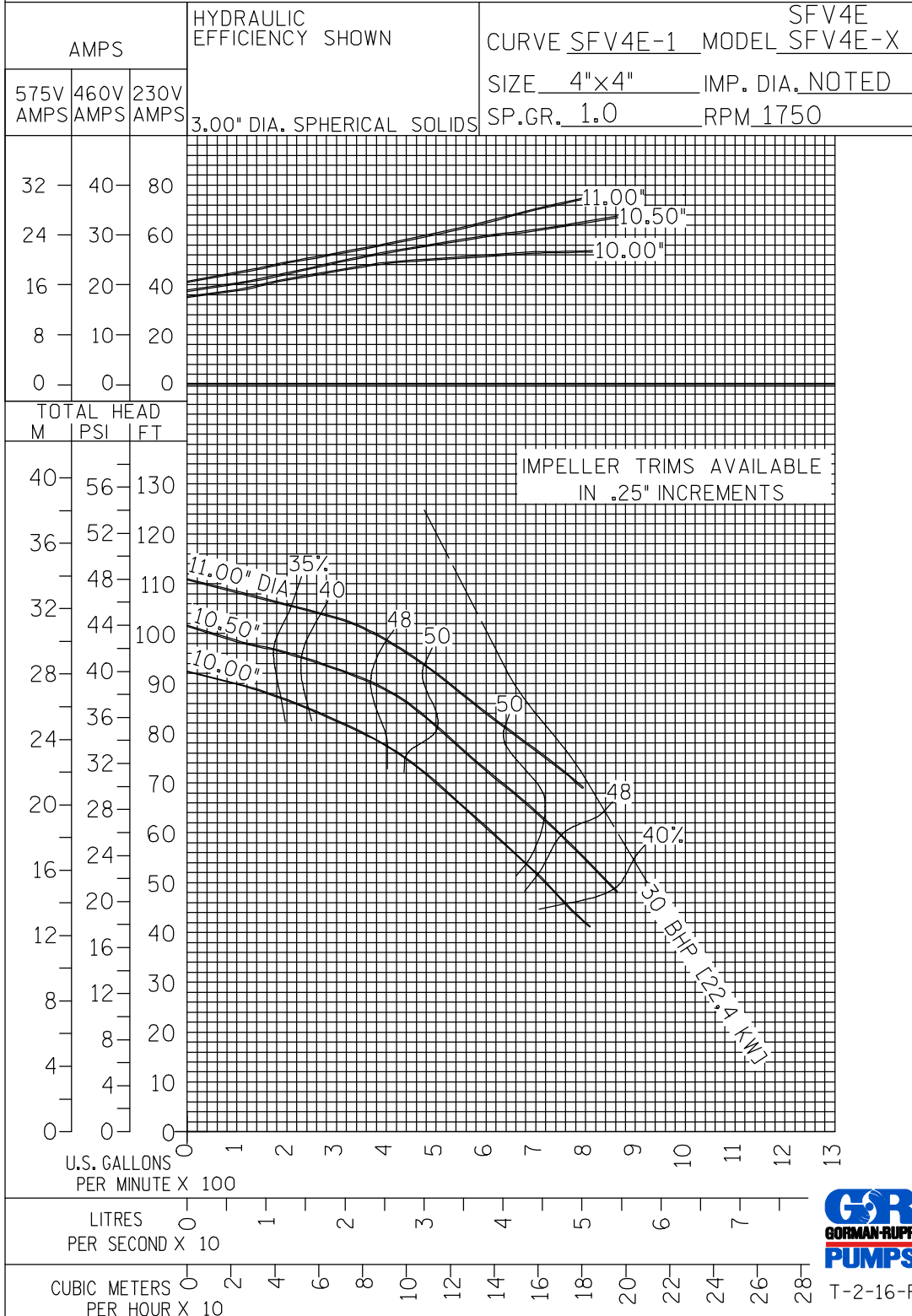
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PERFORMANCE CURVE



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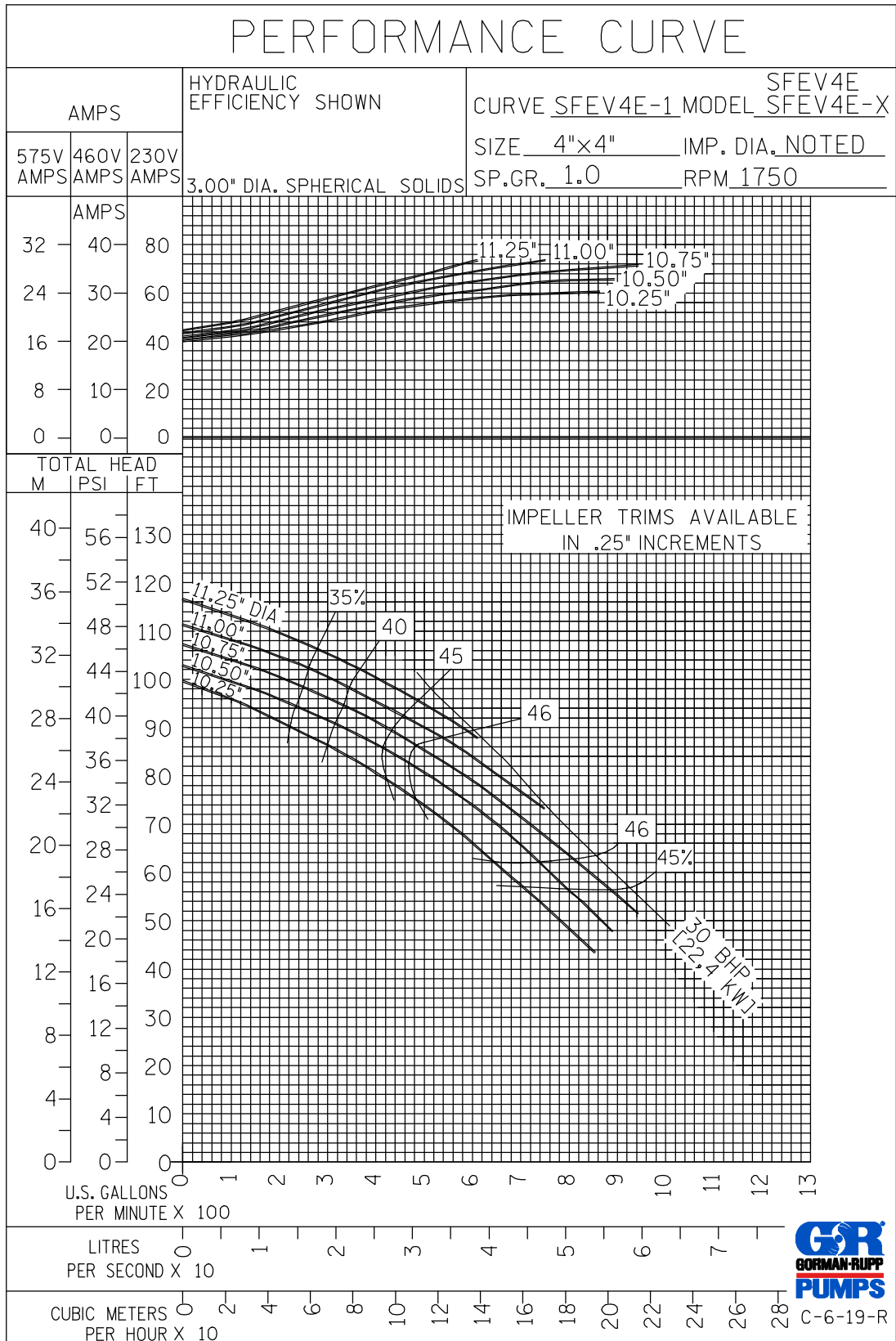


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C-6-19-R



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