



**SF Series**

VARIOUS PATENTS APPLY

**Submersible Pumps**  
Models  
**SFDV4B**  
**SFDV4B-X**  
Size 4"



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

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

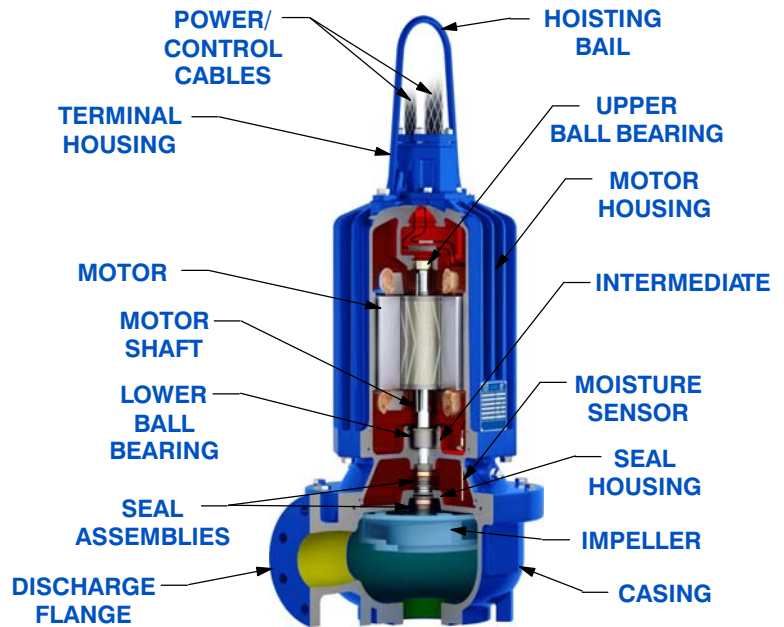
**Key Features:**

- 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
- Easy, in-the-field cable changes
- Standard moisture detection in both the seal and motor chambers
- CSA-C/US and 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
- Dry Pit Stand Installation Components
  - Dry Pit Stand
  - Discharge Elbow
  - Discharge In increaser



TYPICAL VORTEX CROSS-SECTION



GORMAN-RUPP PUMPS

www.grpumps.com

Specifications Subject to Change Without Notice

Printed in U.S.A.

## PUMP DETAILS

Pump Models	SFDV4B/SFDV4B-X	
Agency Approvals	FM/CSA-C/US	
Discharge Flange	4" ANSI <sup>w/</sup> 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	17-4 PH Stainless Steel	
O-Rings	Buna-N and Fluorocarbon (DuPont Viton <sup>®</sup> 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 <sup>®</sup> 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	N/A	
Min. Submergence	N/A	
Max. Starts per Hour	10	
Rated Power	7.0 HP (5,2 kW)	7.5 HP (5,6 kW)
Amp Draw: Max. Full Load / Locked Rotor	208V/3P	22.0/184.7
	230V/3P	22.2/167.0
	460V/3P	11.1/83.5
	575V/3P	8.88/66.8
NEMA Motor Code	L	K
Service Factor	1.0	1.0
Efficiency: 100%/75%/50% Load	85%/84%/78%	85%/84%/80%
Power Factor: 100%/75%/50% Load	0.75/0.67/0.56	0.75/0.70/0.58
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

Voltage		208-230/460V	575V
Power Cable	No. Cables/Conductors per	1/6	1/4
	Gauge	(3) 8 AWG PWR & (3) 10 AWG GND/GC	10 AWG
	Type/Material	GCC/CPE	SOOW/EPDM
	Nominal Cable O.D.	0.97" (24,6 mm)	0.75" (19,0 mm)
Control Cable	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	



## GORMAN-RUPP PUMPS

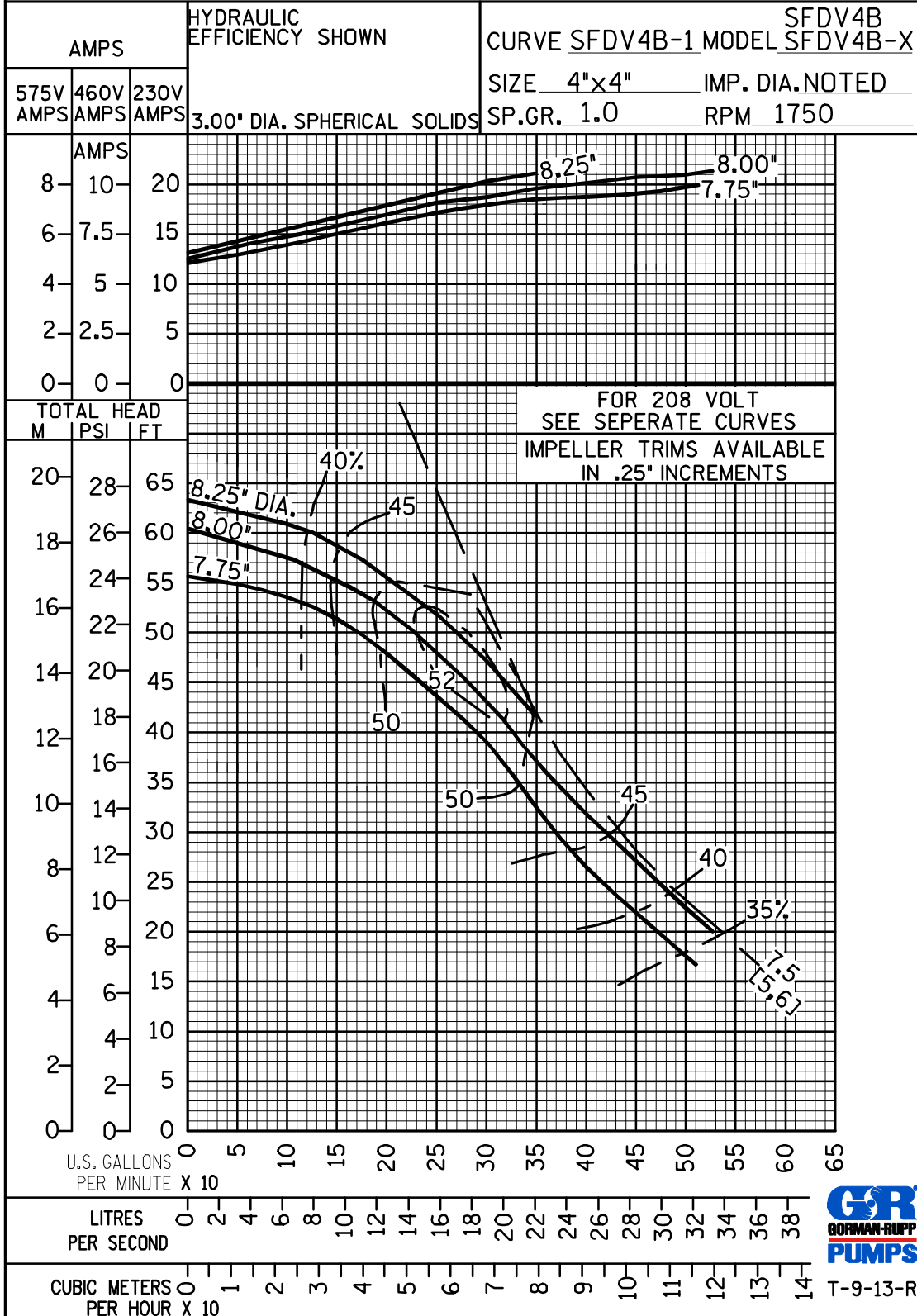
www.grpumps.com

Specifications Subject to Change Without Notice

Printed in U.S.A.



# PERFORMANCE CURVE



T-9-13-R



## GORMAN-RUPP PUMPS

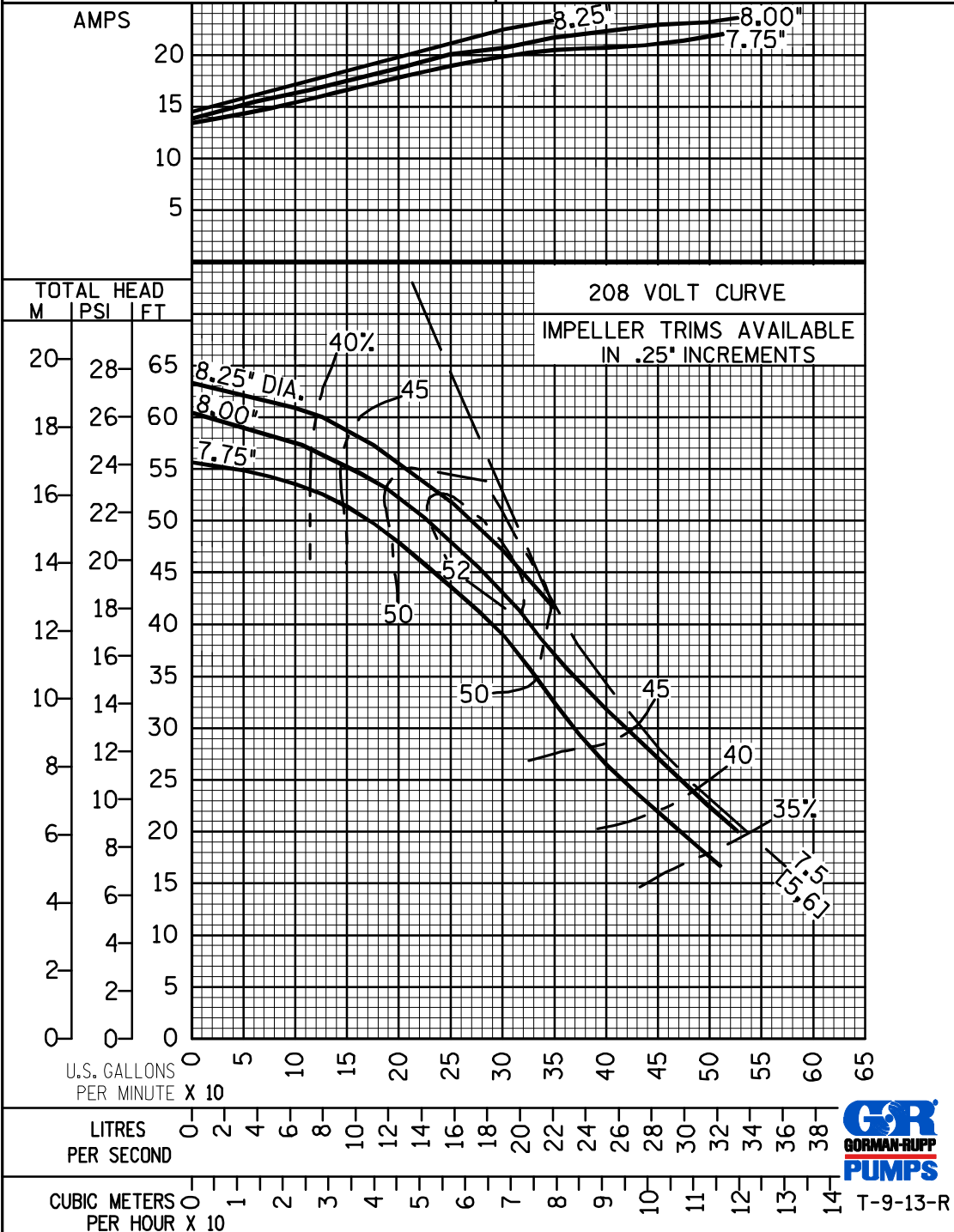
www.grpumps.com

Specifications Subject to Change Without Notice

Printed in U.S.A.

# PERFORMANCE CURVE

HYDRAULIC EFFICIENCY SHOWN	SFDV4B
208 VOLT CURVE	CURVE SFDV4B-2 MODEL SFDV4B-X
3.00" DIA. SPHERICAL SOLIDS	SIZE 4"x4" IMP. DIA. NOTED
	SP.GR. 1.0 RPM 1750



GORMAN-RUPP PUMPS

www.grpumps.com

Specifications Subject to Change Without Notice

Printed in U.S.A.