



SF Series

VARIOUS PATENTS APPLY

Submersible Pumps

Models
SFV4B

SFV4B-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.

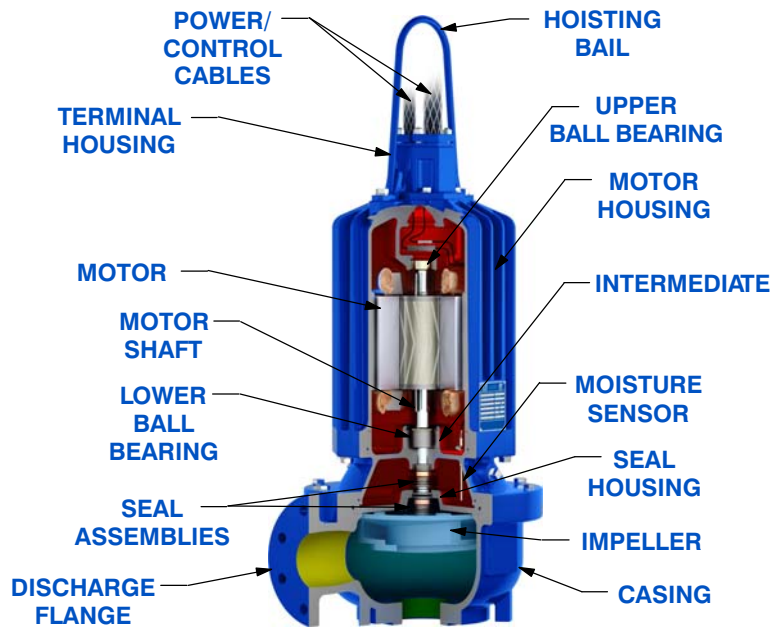
Key Features:

- NEMA premium efficiency motors (3 Phase)
- 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
- 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 Models	SFV4B/SFV4B-X	
Agency Approvals	FM/CSA-C/US	
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	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/Ni-Resist
	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	7.5 (5,6)	10.0 HP (7,5 kW)
Amp Draw @ Max. Rated Power: Full Load/ Locked Rotor	230V/1P	33.0/135.0
	208V/3P	30.0/184.7
	230V/3P	27.0/167.0
	460V/3P	13.5/83.5
	575V/3P	10.8/66.8
NEMA Motor Code	D	H
Service Factor	1.15	1.15
Efficiency: 100%/75%/50% Load	82%/83%/81%	87%/86%/85%
Power Factor: 100%/75%/50% Load	0.99/0.99/0.98	0.80/0.76/0.64
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	230V 1P/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	GGC/CPE	SOOW/EPDM
	Nominal Cable O.D.	0.91" (23,1 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		



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Specification Data

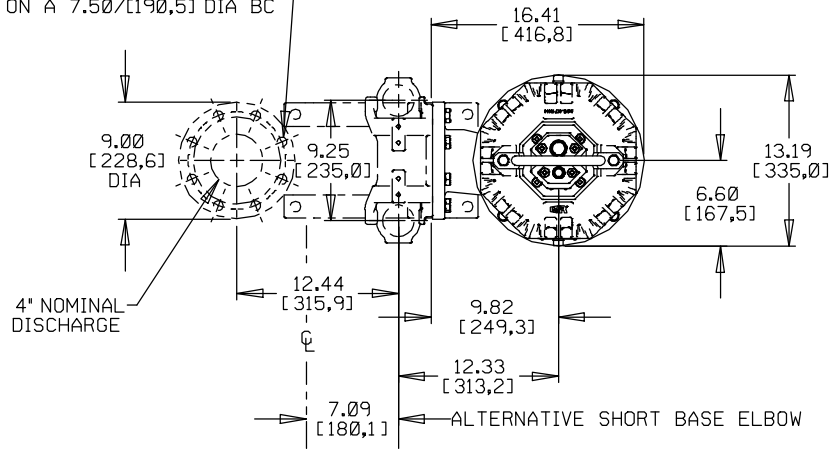
**MODELS SFV4B/SFV4B-X
SLIDE RAIL VERSION
APPROXIMATE
DIMENSIONS and WEIGHTS**

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

507 LBS. [230 KG.]
2.9 LBS. [1,3 KG.]
537 LBS. [244,0 KG.]
11.9 CU. FT. [0,34 CU. M.]

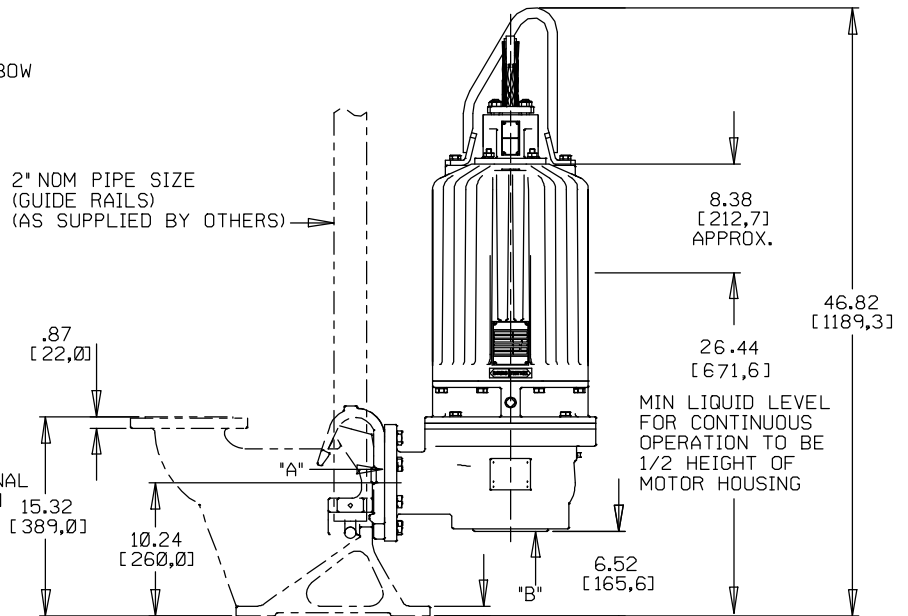
SECTION 133, PAGE 130.2

.75 / [19,0] DIA, 8 HOLES
EQUALLY SPACED
ON A 7.50 / [190,5] DIA BC

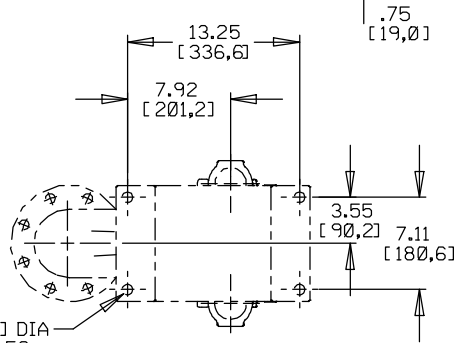
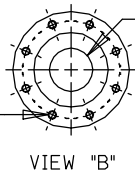


SHOWN WITH OPTIONAL
RAIL KIT AND BASE ELBOW

2" NOM PIPE SIZE
(GUIDE RAILS)
(AS SUPPLIED BY OTHERS)



.625-11 UNC-2B,
8 PLACES EQUALLY
SPACED ON A
7.50 / [190,5] DIA BC



DIMENSIONS:
INCHES
[MILLIMETERS]



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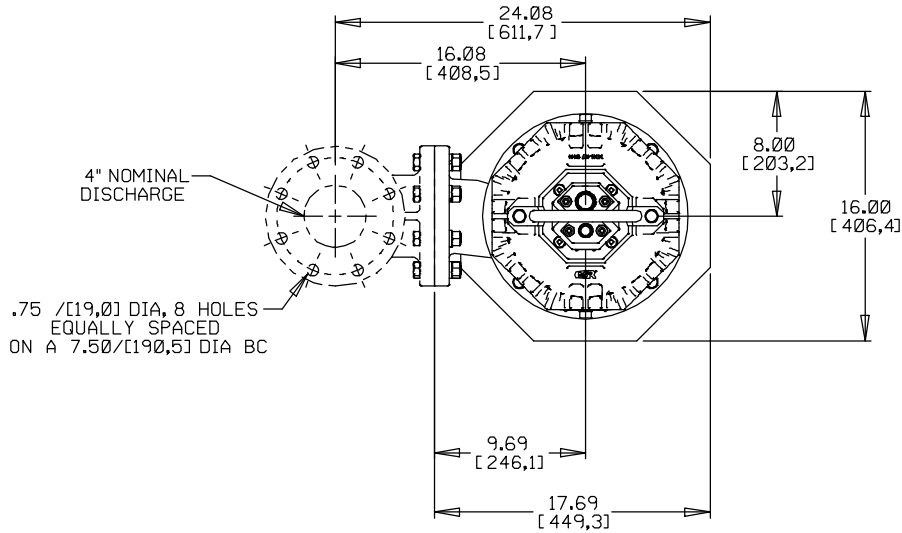
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Specification Data

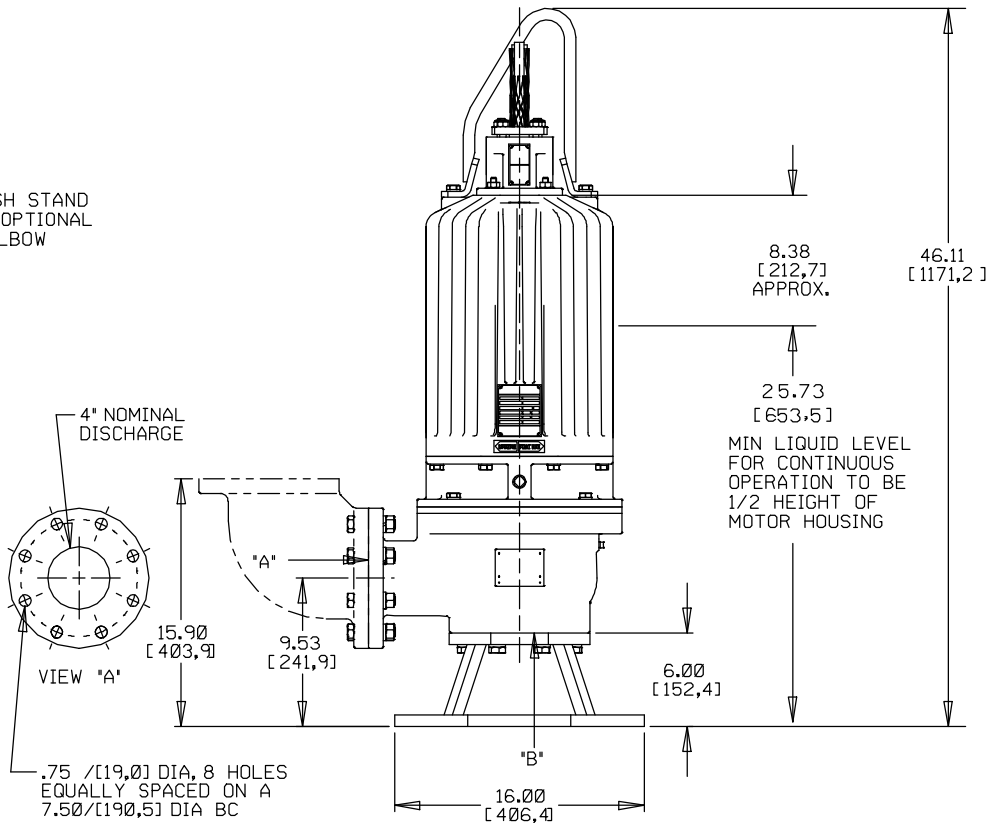
SECTION 133, PAGE 130.3

**MODELS SFV4B/SFV4B-X
TRASH VERSION
APPROXIMATE
DIMENSIONS and WEIGHTS**

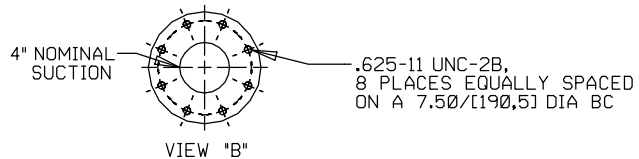
NET WT: (pump only)	490 LBS.	[222,3 KG.]
(comb. cable wt. per meter [3.2 ft.]	2.9 LBS.	[1,3 KG.]
SHIPPING WT: (pump only)	520 LBS.	[235,9 KG.]
CRATE SIZE:	15.9 CU. FT.	[0,45 CU. M.]



PUMP W/TRASH STAND SHOWN WITH OPTIONAL DISCHARGE ELBOW



DIMENSIONS:
INCHES
[MILLIMETERS]



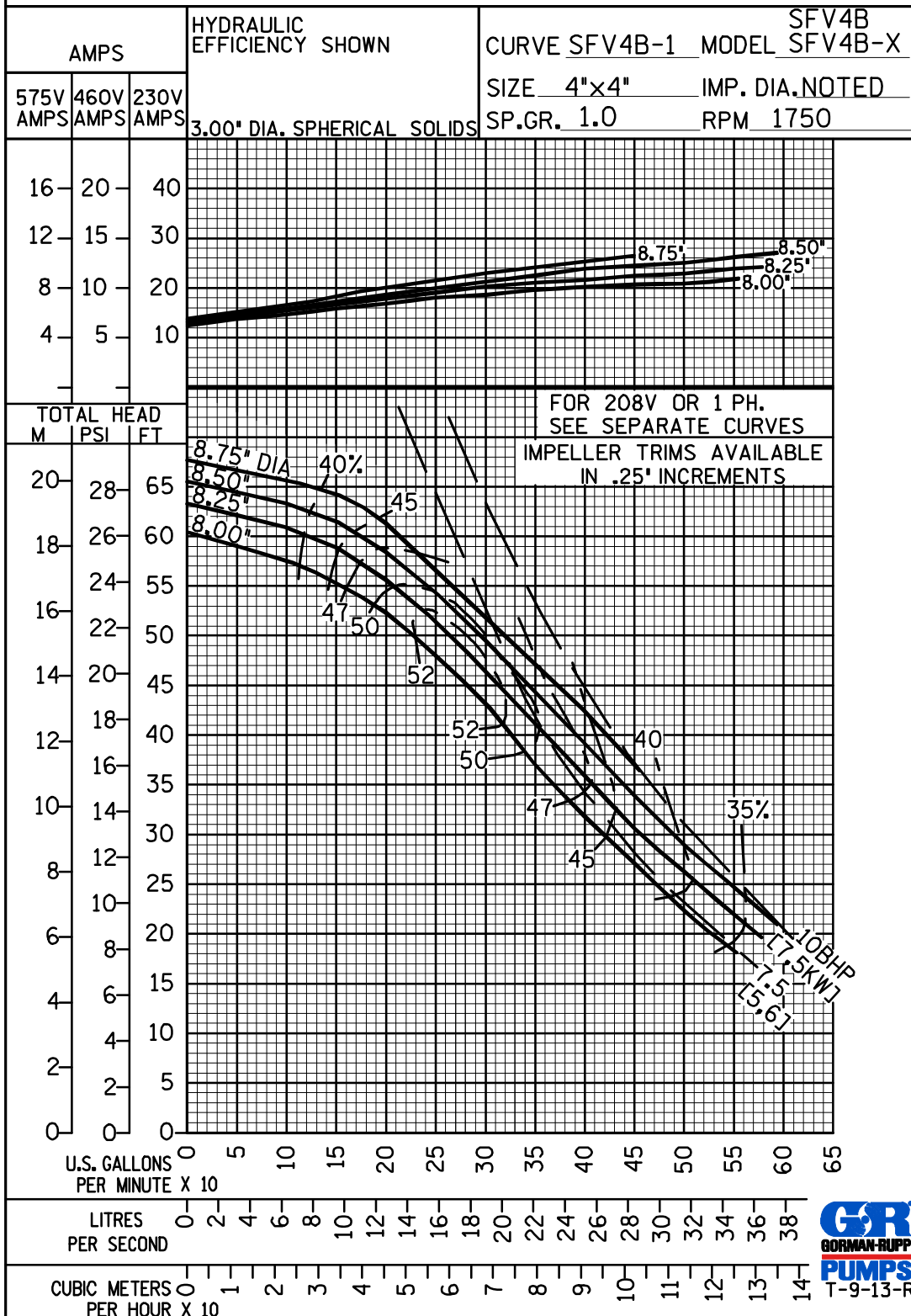
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PERFORMANCE CURVE



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PERFORMANCE CURVE

HYDRAULIC
EFFICIENCY SHOWN

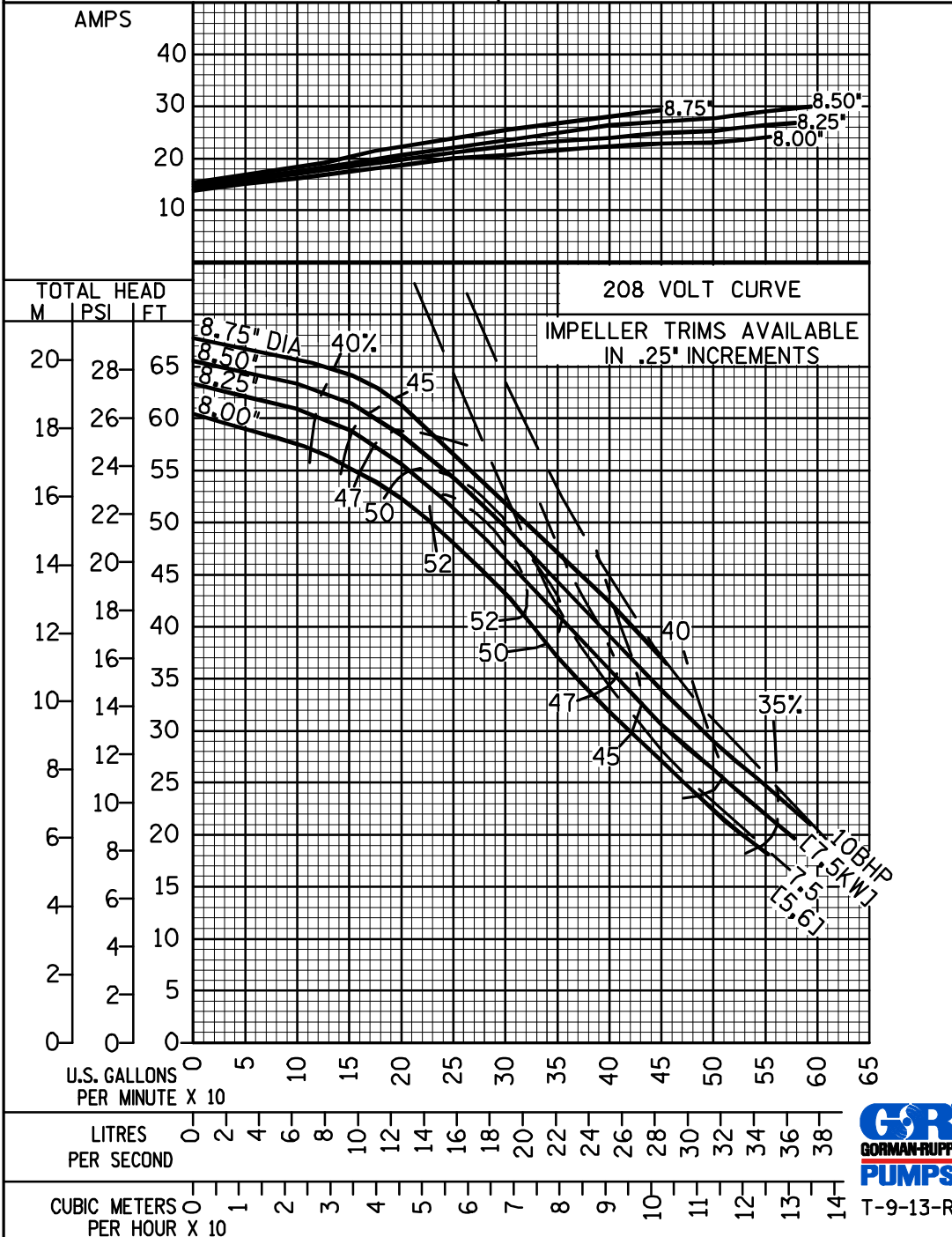
208 VOLT CURVE

3.00" DIA. SPHERICAL SOLIDS

CURVE SFV4B-2 MODEL SFV4B-X

SIZE 4"x4" IMP. DIA. NOTED

SP.GR. 1.0 RPM 1750



T-9-13-R



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PERFORMANCE CURVE

HYDRAULIC EFFICIENCY SHOWN

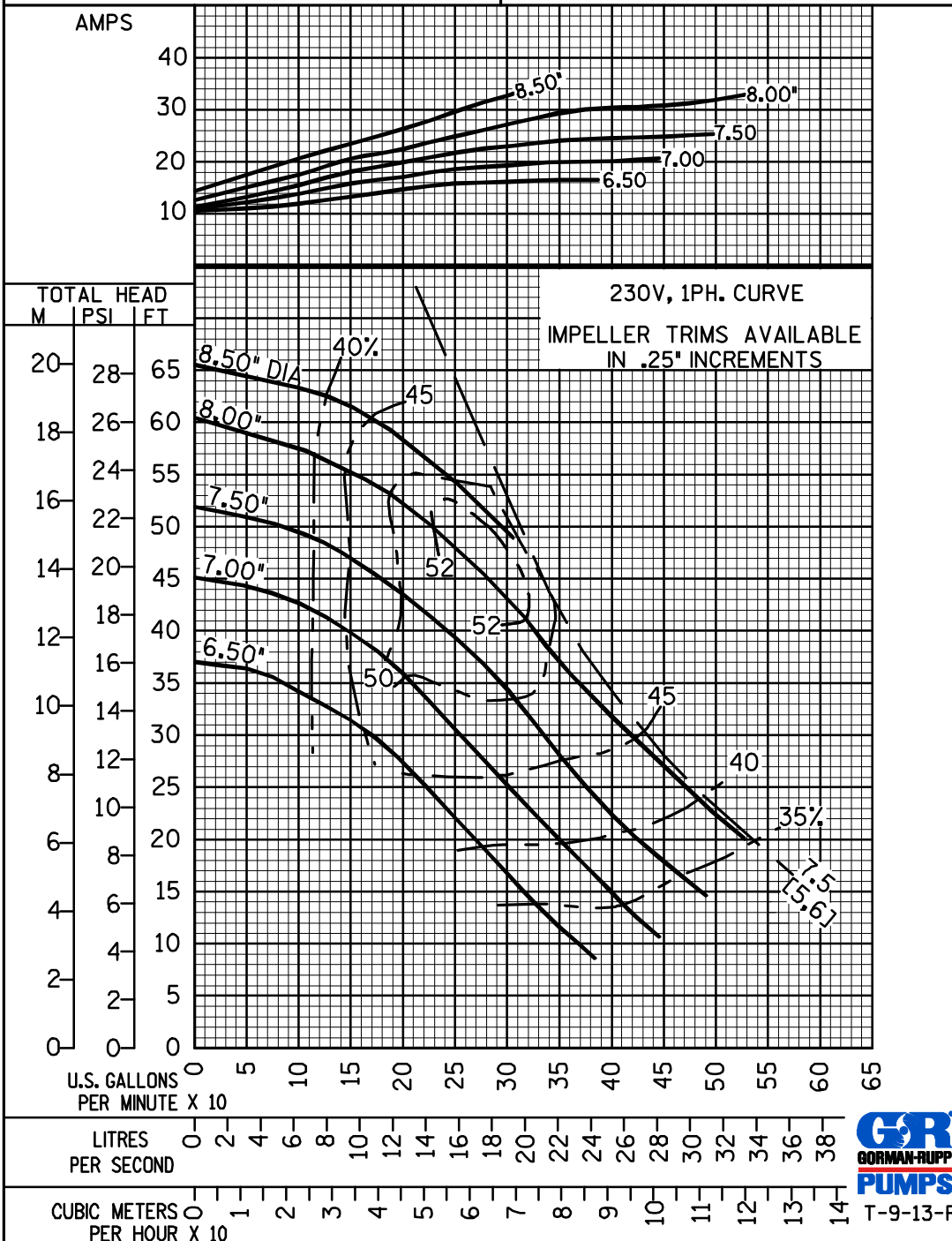
230V, 1PH. CURVE

3.00" DIA. SPHERICAL SOLIDS

CURVE SFV4B-3 MODEL SFV4B-X

SIZE 4"x4" IMP. DIA. NOTED

SP.GR. 1.0 RPM 1750



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