



**SF Series**

VARIOUS PATENTS APPLY

**Submersible Pumps  
Models**

**SFDV3B SFDEV3B  
SFDV3B-X SFDEV3B-X**

**Size 3"**



**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.

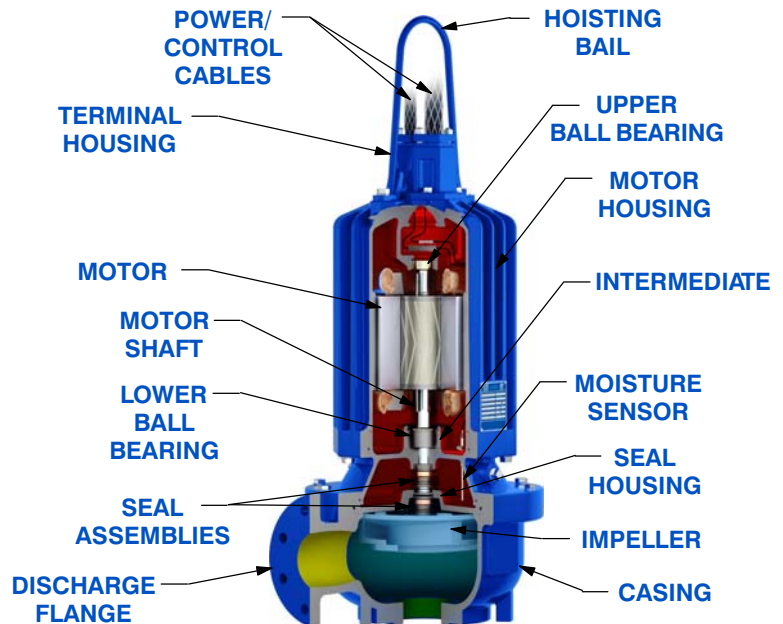
**Key Features:**

- 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**

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## PUMP DETAILS

Pump Models	SFDV3B SFDEV3B/SFDV3B-X SFDEV3B-X	
Agency Approvals	FM/CSA-C/US	
Discharge Flange	3" 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/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	N/A	
Min. Submergence	N/A	
Max. Starts per Hour	10	
Rated Power	5.0 HP (3,7 kW)	5.0 HP (3,7 kW)
Amp Draw: Max. Full Load / Locked Rotor	208V/3P	13.8/106.1
	230V/3P	13.0/96.0
	460V/3P	6.5/48.0
	575V/3P	5.2/38.4
NEMA Motor Code	J	J
Service Factor	1.0	1.10
Efficiency: 100%/75%/50% Load	88%/87%/86%	88%/87%/86%
Power Factor: 100%/75%/50% Load	0.82/0.76/0.67	0.82/0.76/0.67
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

Voltage	All	
Power Cable	No. Cables/Conductors per	1/4
	Gauge	10 AWG
	Type/Material	SOOW/EPDM
	Nominal Cable O.D.	0.75" (19,0 mm)
Control Cable	No. Cables/Conductors per	1/4
	Gauge	14 AWG
	Type/Material	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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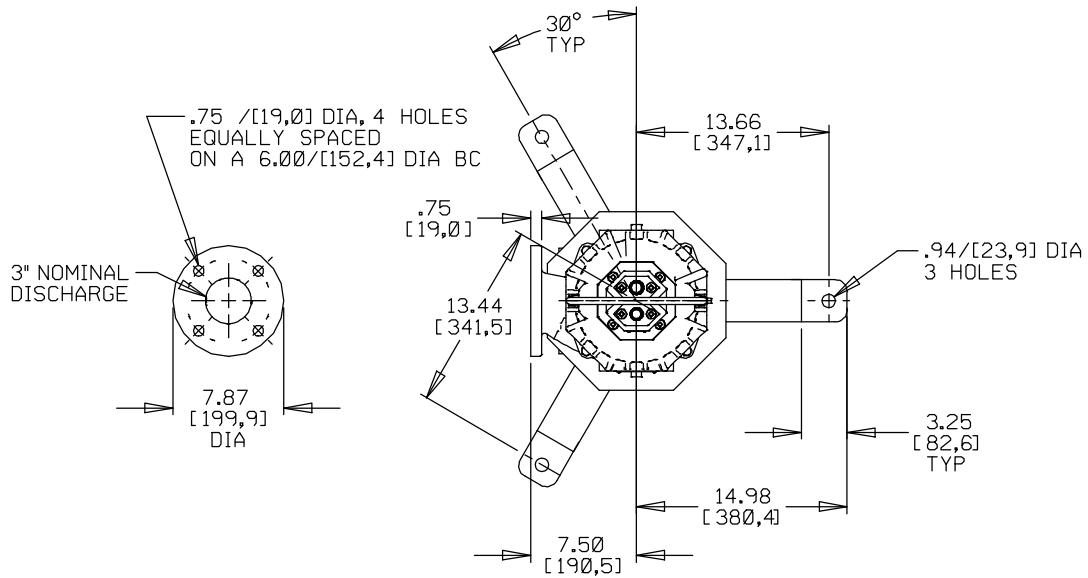
**Specification Data**

**ALL SFDV3B/SFDEV3B MODELS  
DRY PIT VERSION  
APPROXIMATE  
DIMENSIONS and WEIGHTS**

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

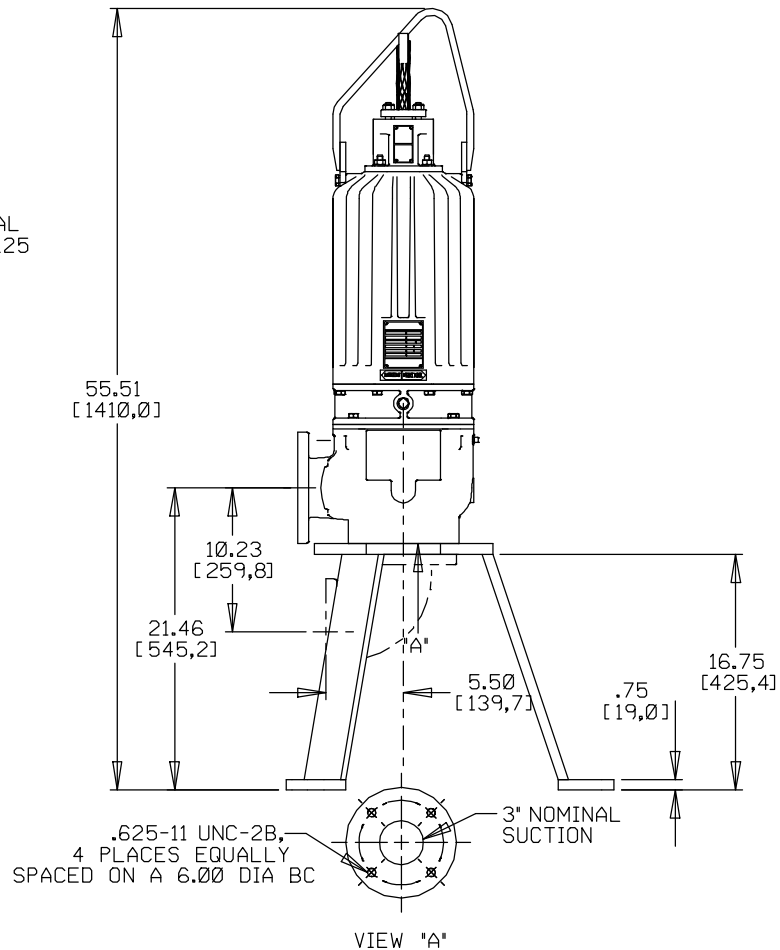
**331 LBS. [150,1 KG.]**  
**1.97 LBS. [0,89 KG.]**  
**361 LBS. [163,7 KG.]**  
**29.2 CU. FT. [0,83 CU. M.]**

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SHOWN WITH OPTIONAL  
3" FLANGED ELBOW,\*125

DIMENSIONS:  
INCHES  
[MILLIMETERS]



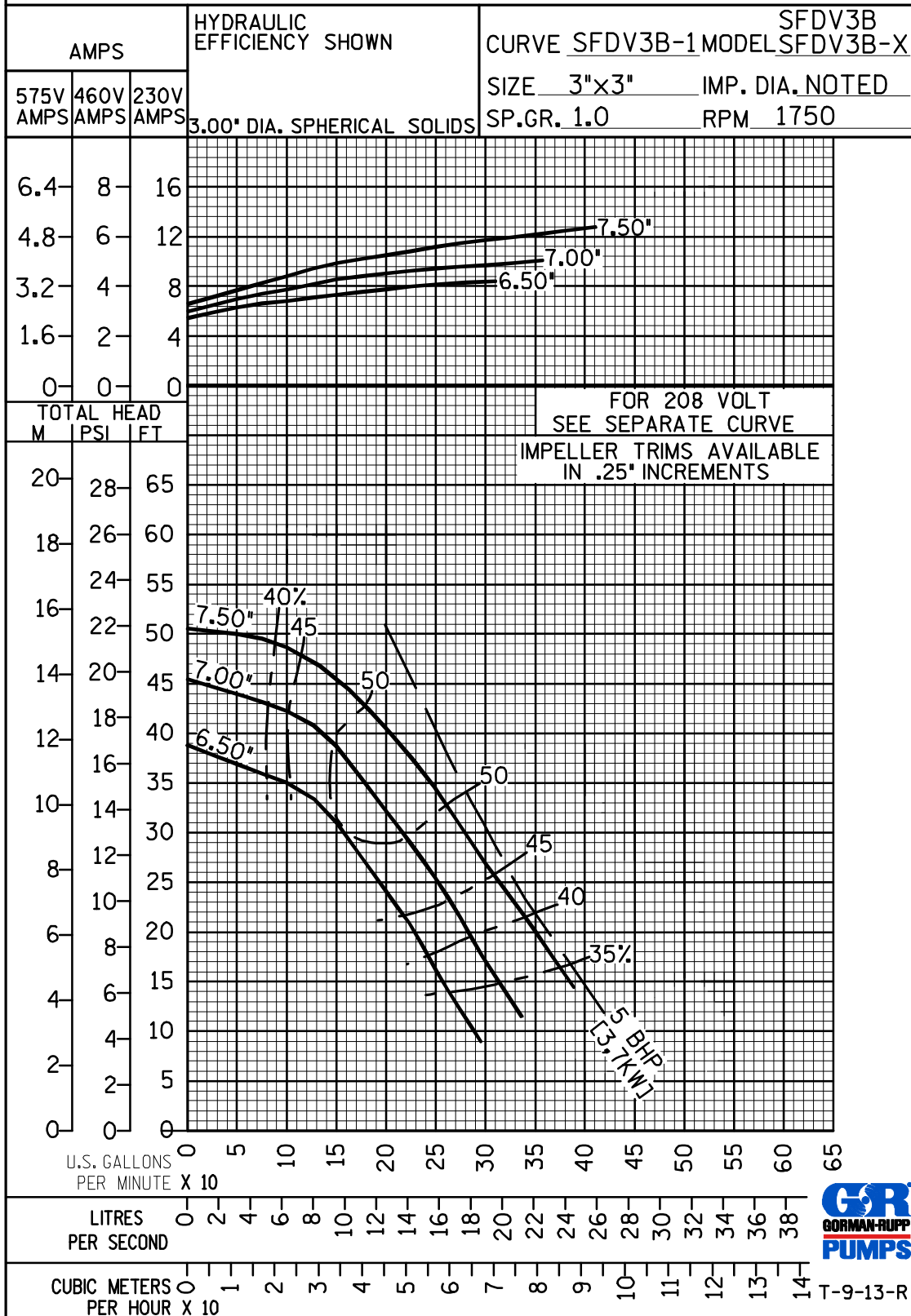
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# PERFORMANCE CURVE



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# PERFORMANCE CURVE

HYDRAULIC EFFICIENCY SHOWN

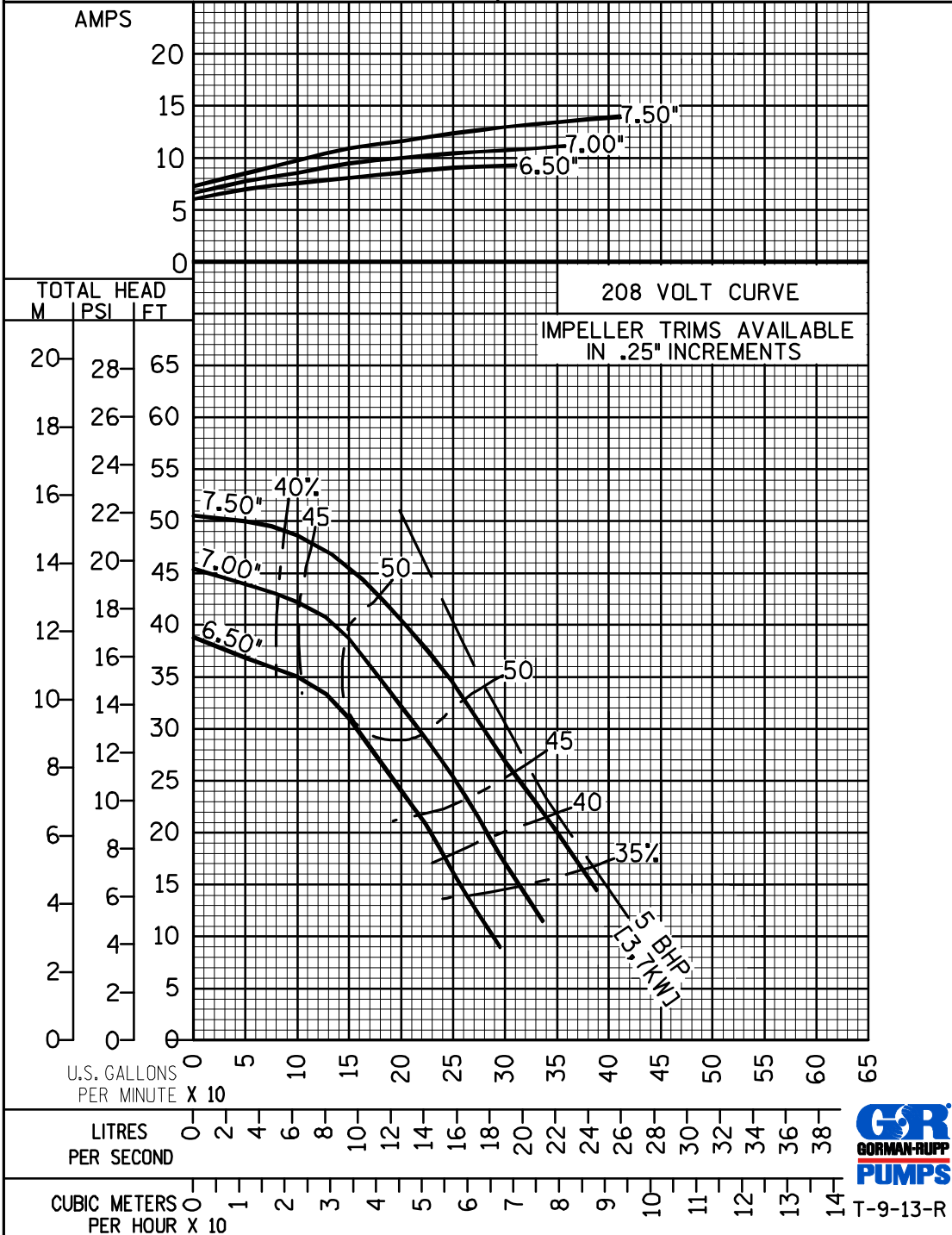
SFDV3B  
CURVE SFDV3B-2 MODEL SFDV3B-X

208 VOLT CURVE

SIZE 3" x 3" IMP. DIA. NOTED

3.00" DIA. SPHERICAL SOLIDS

SP.GR. 1.0 RPM 1750



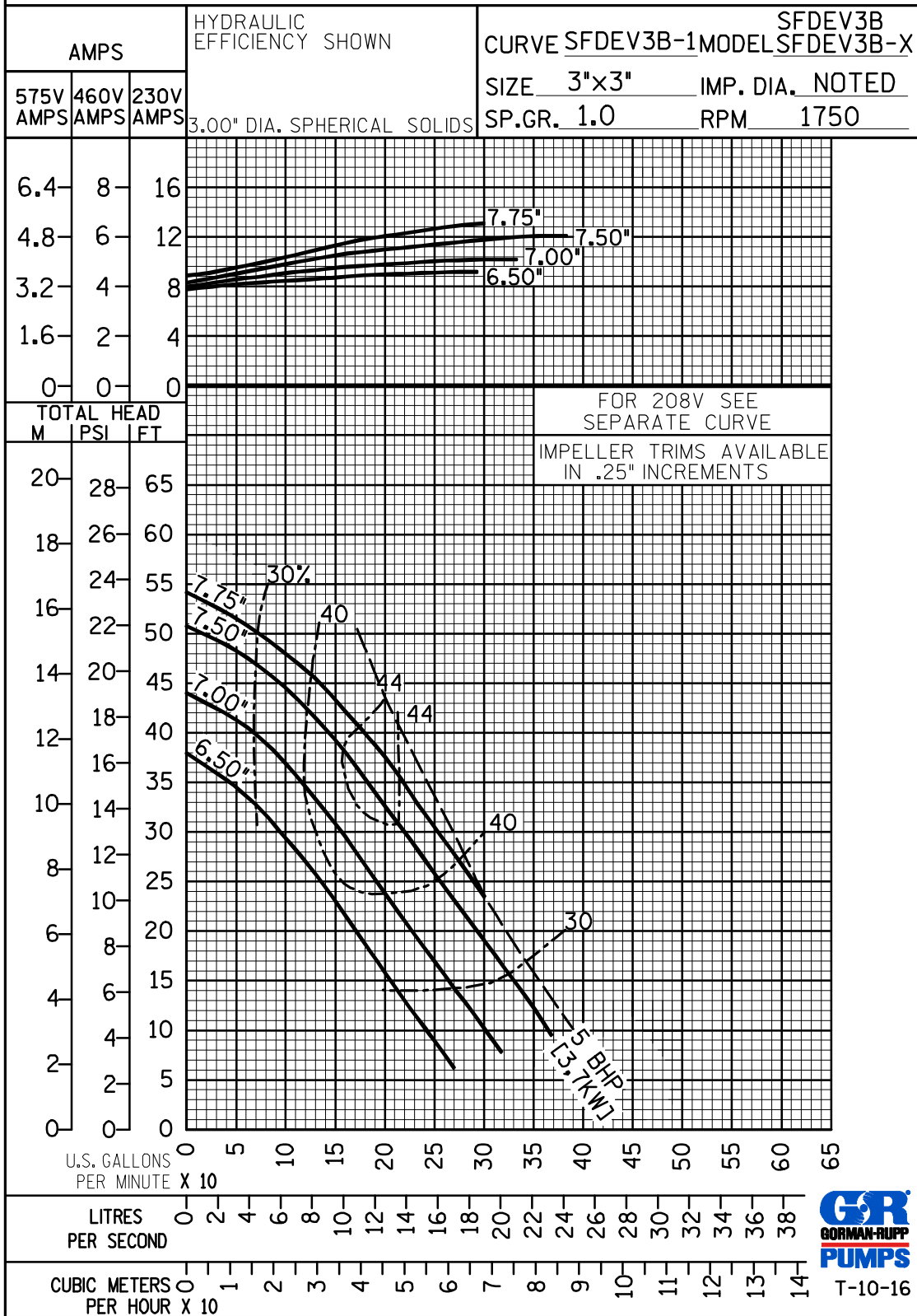
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# PERFORMANCE CURVE



T-10-16



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# PERFORMANCE CURVE

HYDRAULIC EFFICIENCY SHOWN

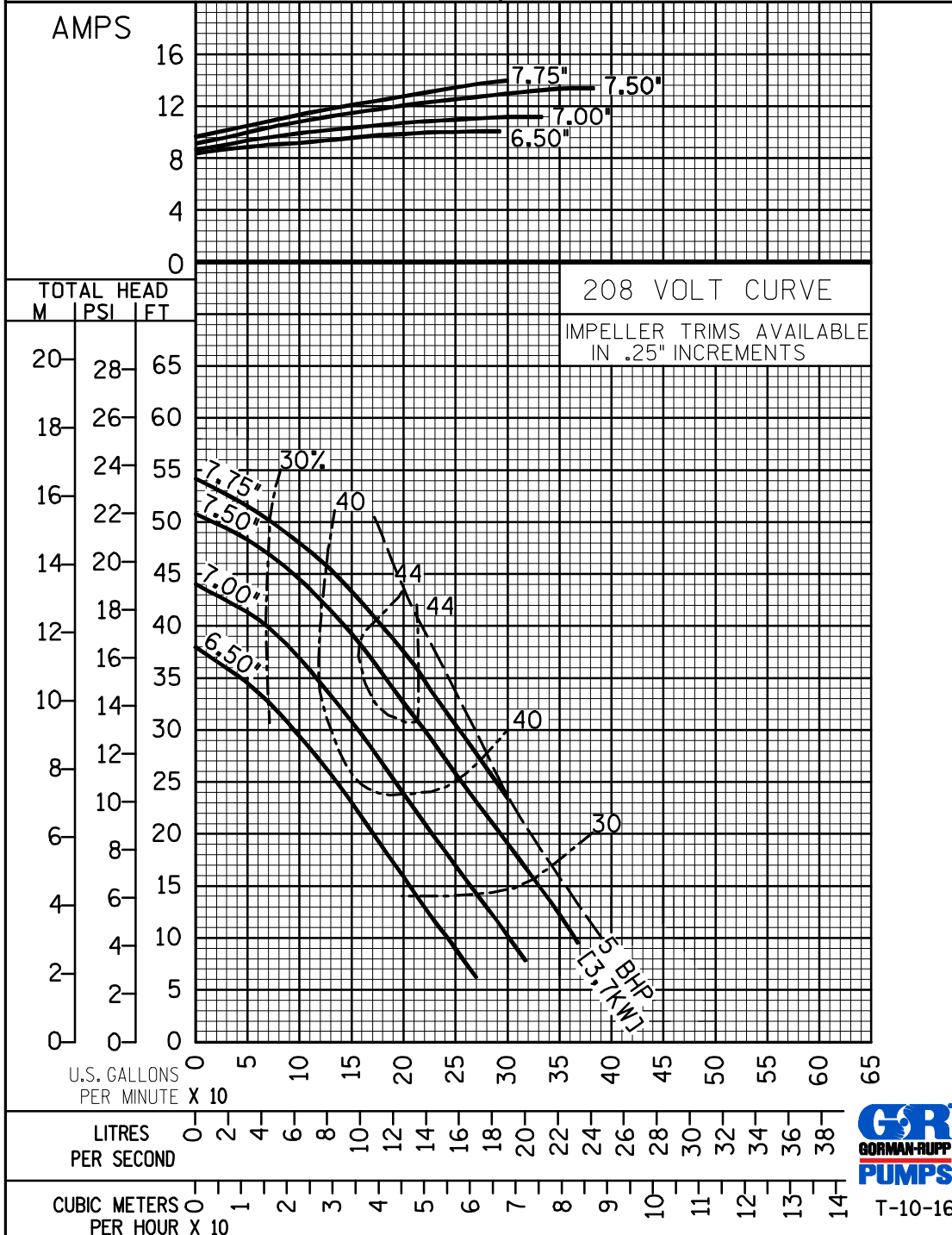
208 VOLT CURVE

3.00" DIA. SPHERICAL SOLIDS

CURVE SFDEV3B-2 MODEL SFDEV3B-X

SIZE 3"x3" IMP. DIA. NOTED

SP.GR. 1.0 RPM 1750



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