

**SF Series**®

VARIOUS PATENTS APPLY

**Submersible Pumps**  
Models  
**SFDV4D SFDEV4D**  
**SFDV4D-X SFDEV4D-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.

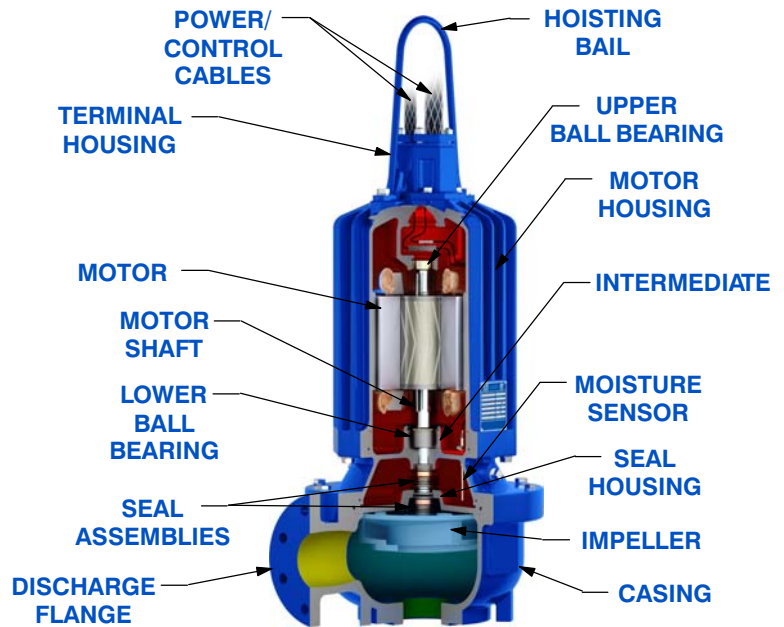
**Key Features:**

- 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
- 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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Specifications Subject to Change Without Notice

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## PUMP DETAILS

Pump Models	SFDV4D SFDEV4D SFDV4D-X SFDEV4D-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	10.0 HP (7,4 kW)	14.0 HP (10,4 kW)
Amp Draw: Max. Full Load / Locked Rotor	208V/3P	37.0/416.0
	230V/3P	40.0/376.0
	460V/3P	20.0/188.0
	575V/3P	16.0/150.0
NEMA Motor Code	R	M
Service Factor	1.0	1.0
Efficiency: 100%/75%/50% Load	90%/86%/84%	90%/86%/84%
Power Factor: 100%/75%/50% Load	0.72/0.63/0.49	0.72/0.63/0.49
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 Gauge	1/6	1/6
	Type/Material	(3) 6 AWG PWR & (3) 10 AWG GND/GC	(3) 8 AWG PWR & (3) 10 AWG GND/GC
	Nominal Cable O.D.	1.05" (26,7 mm)	0.97" (20,2 mm)
Control Cable	No. Cables/Conductors per Gauge	1/4	
	Type/Material	14 AWG	
	Nominal Cable O.D.	SOOW/CPE	
	Length	0.61" (15,5 mm)	
		32 Feet (10 Meters) Standard, 164 Feet (50 Meters) Maximum	



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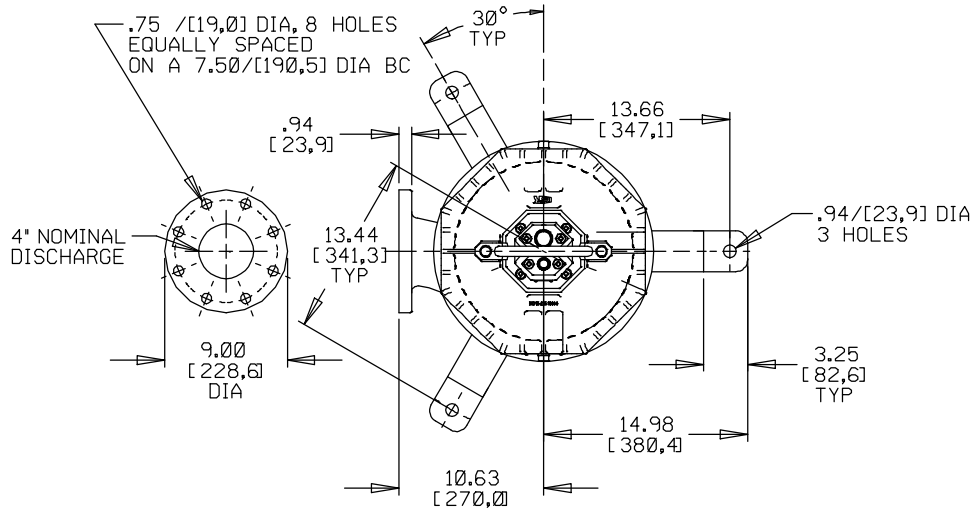
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**Specification Data**

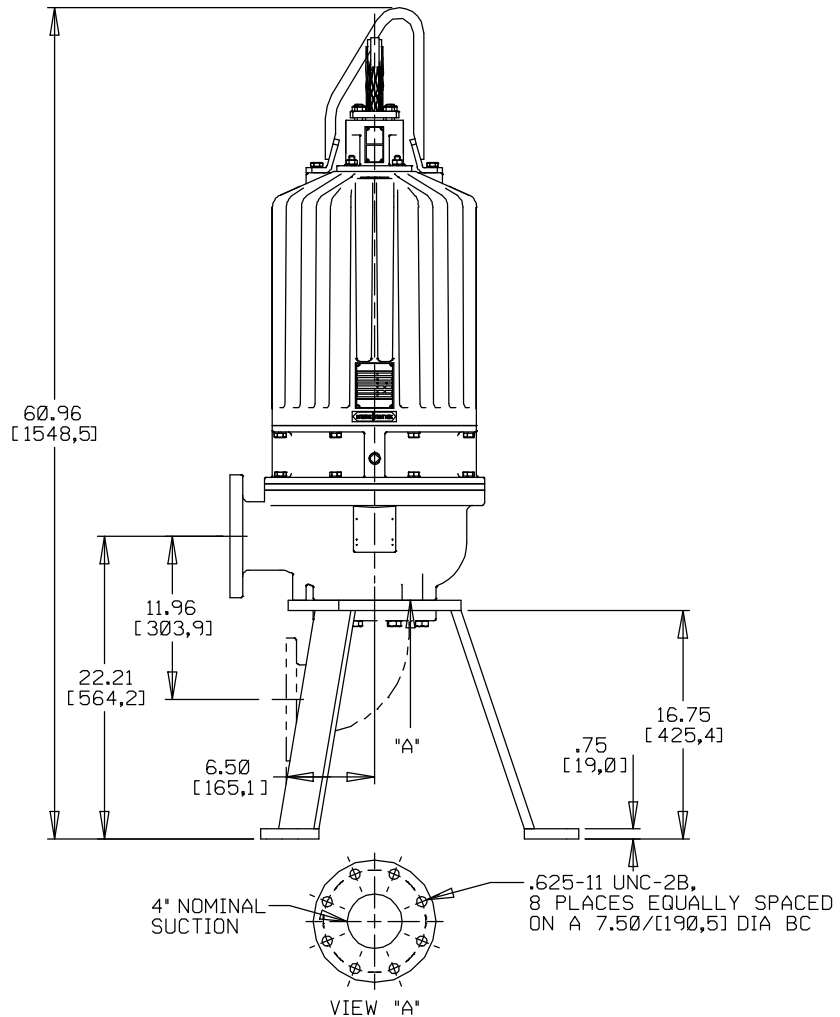
**MODELS SFDV4D SFDEV4D  
SFDV4D-X SFDEV4D-X  
DRY PIT VERSION  
APPROXIMATE  
DIMENSIONS and WEIGHTS**

**NET WT:** (pump only) **692 LBS.** [313,9 KG.]  
(comb. cable wt. per meter [3.2 ft.]) **3.5 LBS.** [1,6 KG.]  
**SHIPPING WT:** (pump only) **722 LBS.** [327,5 KG.]  
**CRATE SIZE:** **39.7 CU. FT.** [1,10 CU. M.]

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SHOWN WITH OPTIONAL  
4" FLANGE ELBOW, #125



DIMENSIONS:  
INCHES  
[MILLIMETERS]



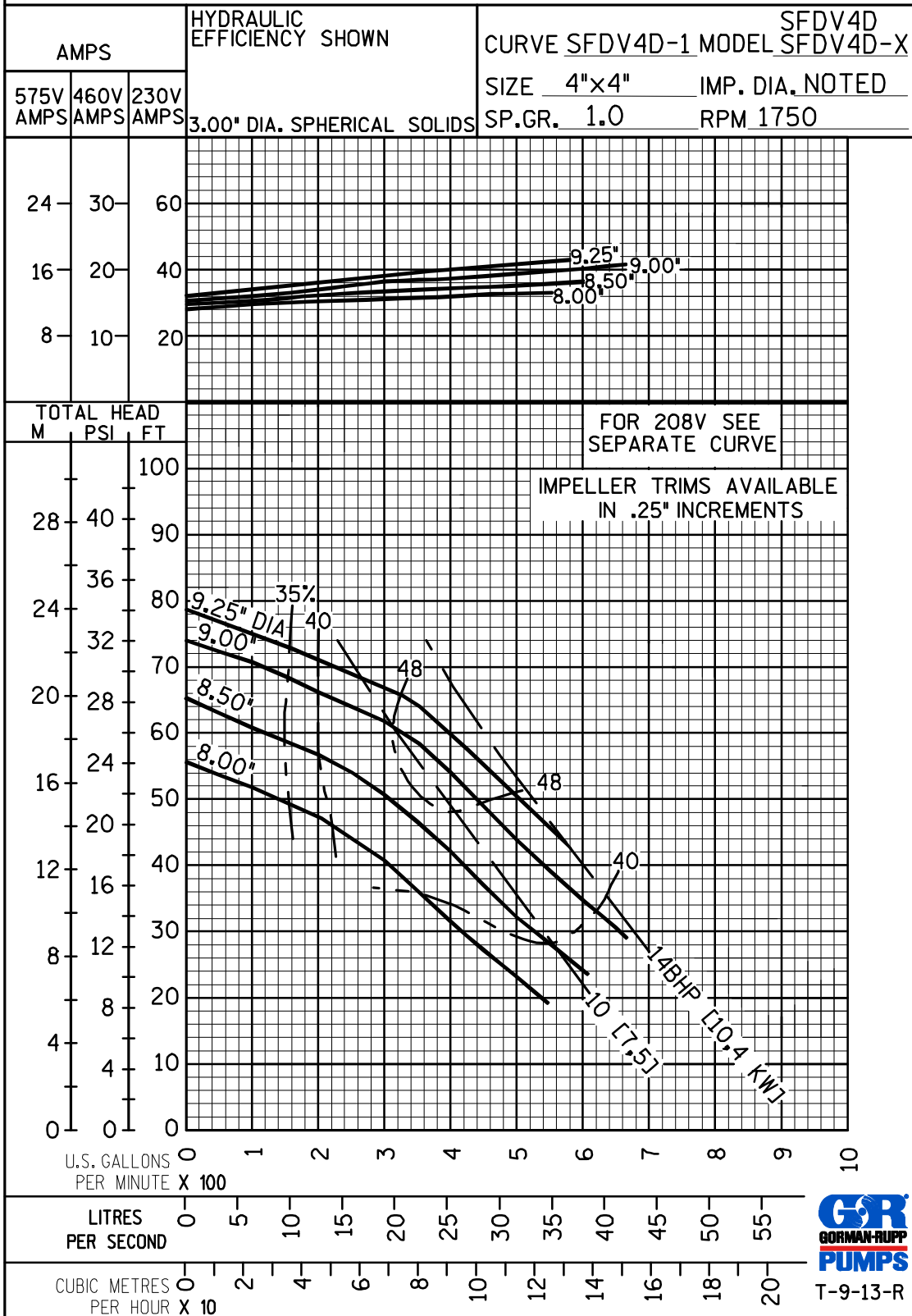
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# PERFORMANCE CURVE



T-9-13-R



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# PERFORMANCE CURVE

HYDRAULIC EFFICIENCY SHOWN

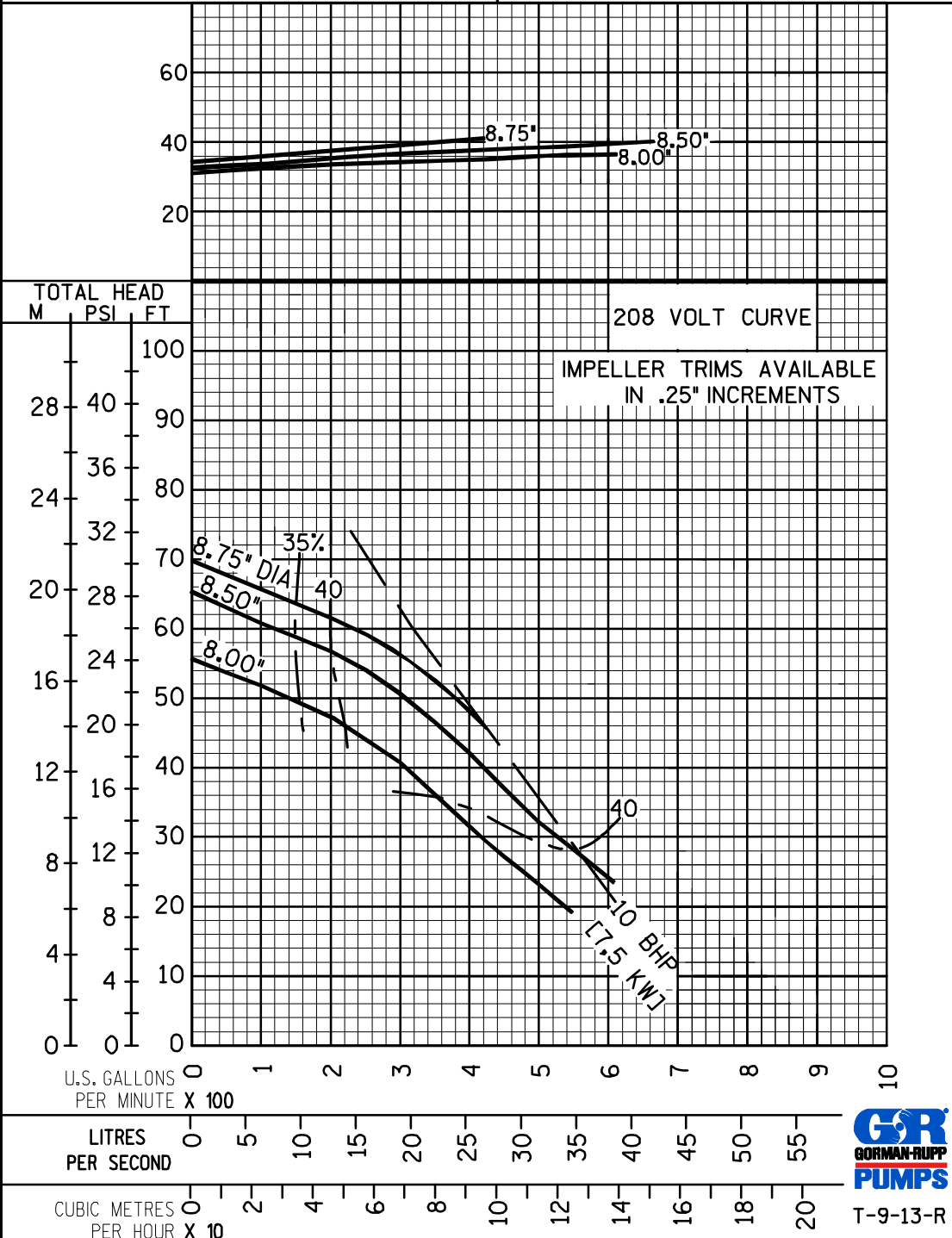
CURVE SFDV4D-2 MODEL SFDV4D-X

208 VOLT CURVE

SIZE 4"×4" IMP. DIA. NOTED

3.00" DIA. SPHERICAL SOLIDS

SP.GR. 1.0 RPM 1750



T-9-13-R



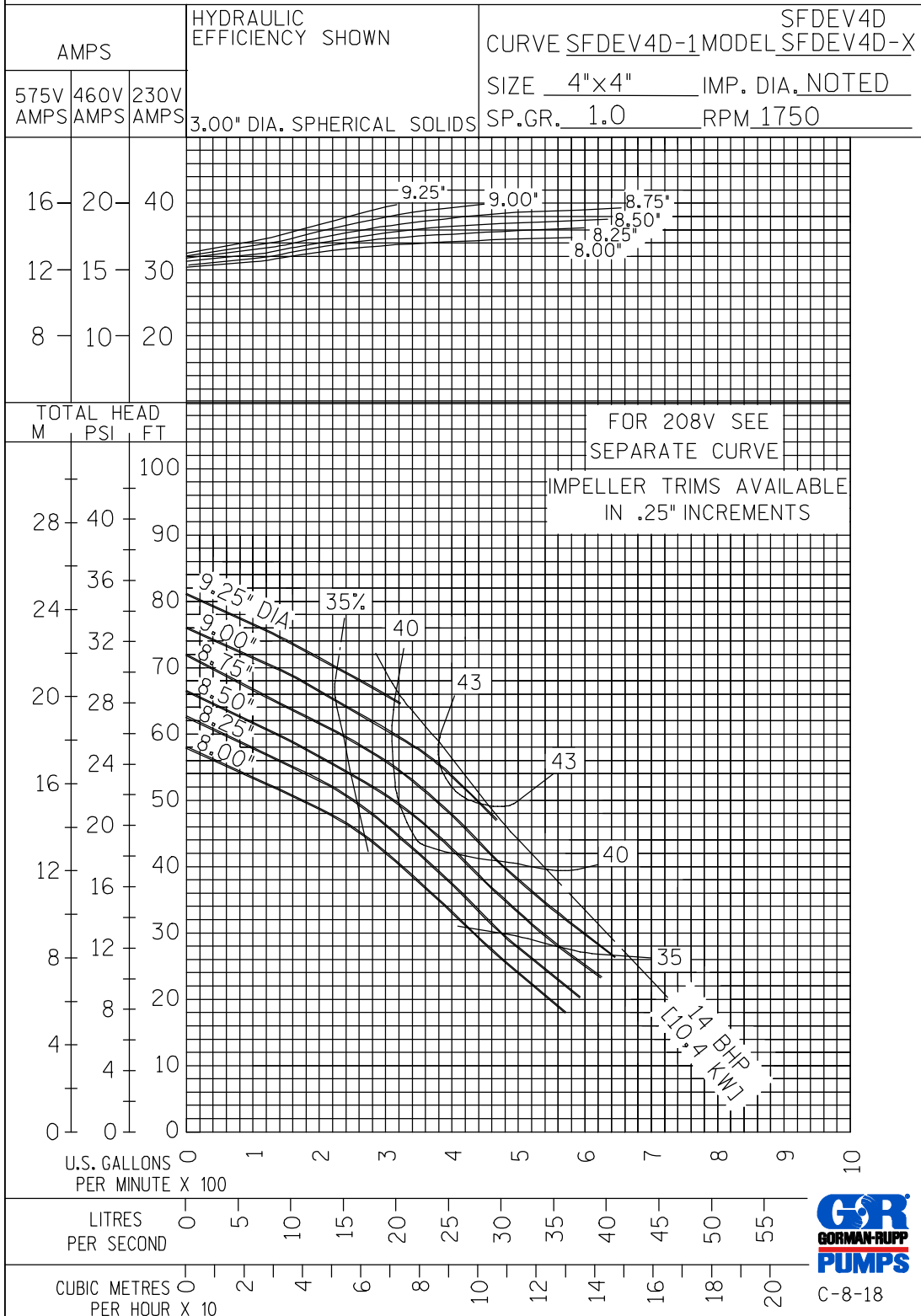
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# PERFORMANCE CURVE



C-8-18



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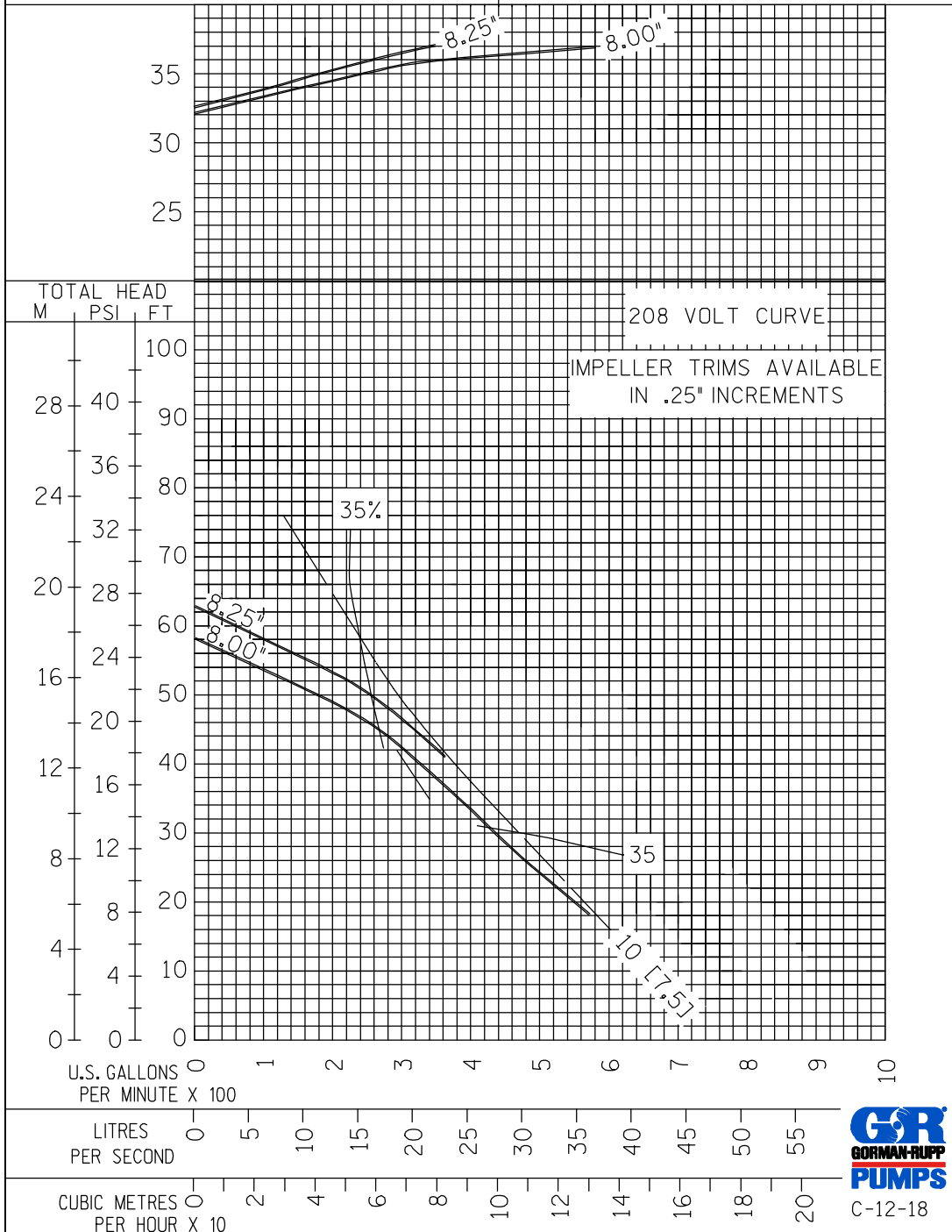
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# PERFORMANCE CURVE

HYDRAULIC  
EFFICIENCY SHOWN  
208 VOLT CURVE  
3.00" DIA. SPHERICAL SOLIDS

SFDEV4D  
CURVE SFDEV4D-2MODEL SFDEV4D-X  
SIZE 4"x4" IMP. DIA. NOTED  
SP.GR. 1.0 RPM 1750



C-12-18



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