



SF Series

VARIOUS PATENTS APPLY

**Submersible Pumps
Models**

**SFV3A SFEV3A
SFV3A-X SFEV3A-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.

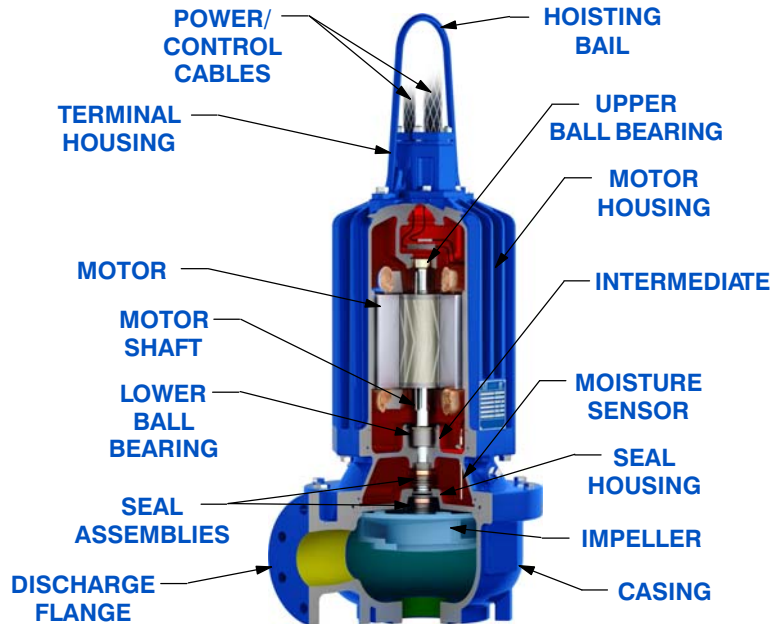
Key Features:

- NEMA premium efficiency motors (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	SFV3A SFEV3A/SFV3A-X SFEV3A-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	Single 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	3.0 HP (2,2 kW)	3.0 HP (2,2 kW)	3.0 HP (2,2 kW)
Amp Draw @ Max. Rated Power: Full Load/ Locked Rotor	230V/1P	13.3/19.3	
	208V/3P	8.62/55.3	
	230V/3P	7.80/50.0	
	460V/3P	3.90/25.0	
	575V/3P	3.12/20.0	
NEMA Motor Code	A	H	H
Service Factor	1.15	1.0	1.15
Efficiency: 100%/75%/50% Load	74%/74%/70%	86%/84%/83%	86%/84%/83%
Power Factor: 100%/75%/50% Load	0.98/0.99/0.99	0.83/0.79/0.67	0.83/0.79/0.67
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	All	
	No. Cables/Conductors per	1/4	
	Gauge	10 AWG	
	Type/Material	SOOW/EPDM	
Control Cable	Nominal Cable O.D.	0.75" (19,0 mm)	
	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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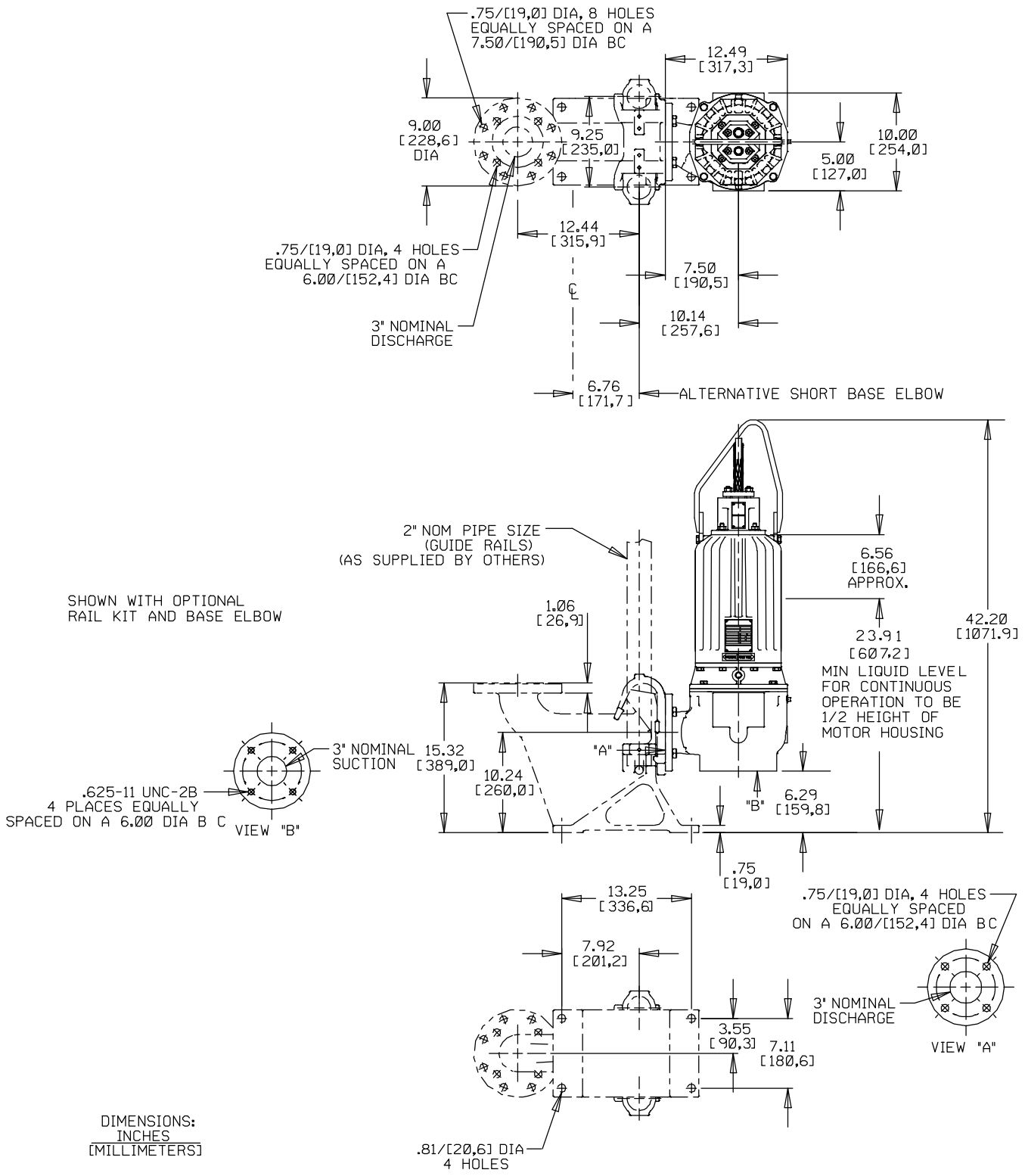
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Specification Data

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**ALL SFV3A/SFEV3A MODELS
SLIDE RAIL VERSION
APPROXIMATE
DIMENSIONS and WEIGHTS**

NET WT: (pump only)
227 LBS. [103 KG.]
(comb. cable wt. per meter [3.2 ft.])
1.97 LBS. [0,89 KG.]
SHIPPING WT: (pump only)
257 LBS. [116.5 KG.]
CRATE SIZE:
7.2 CU. FT. [0,20 CU. M.]



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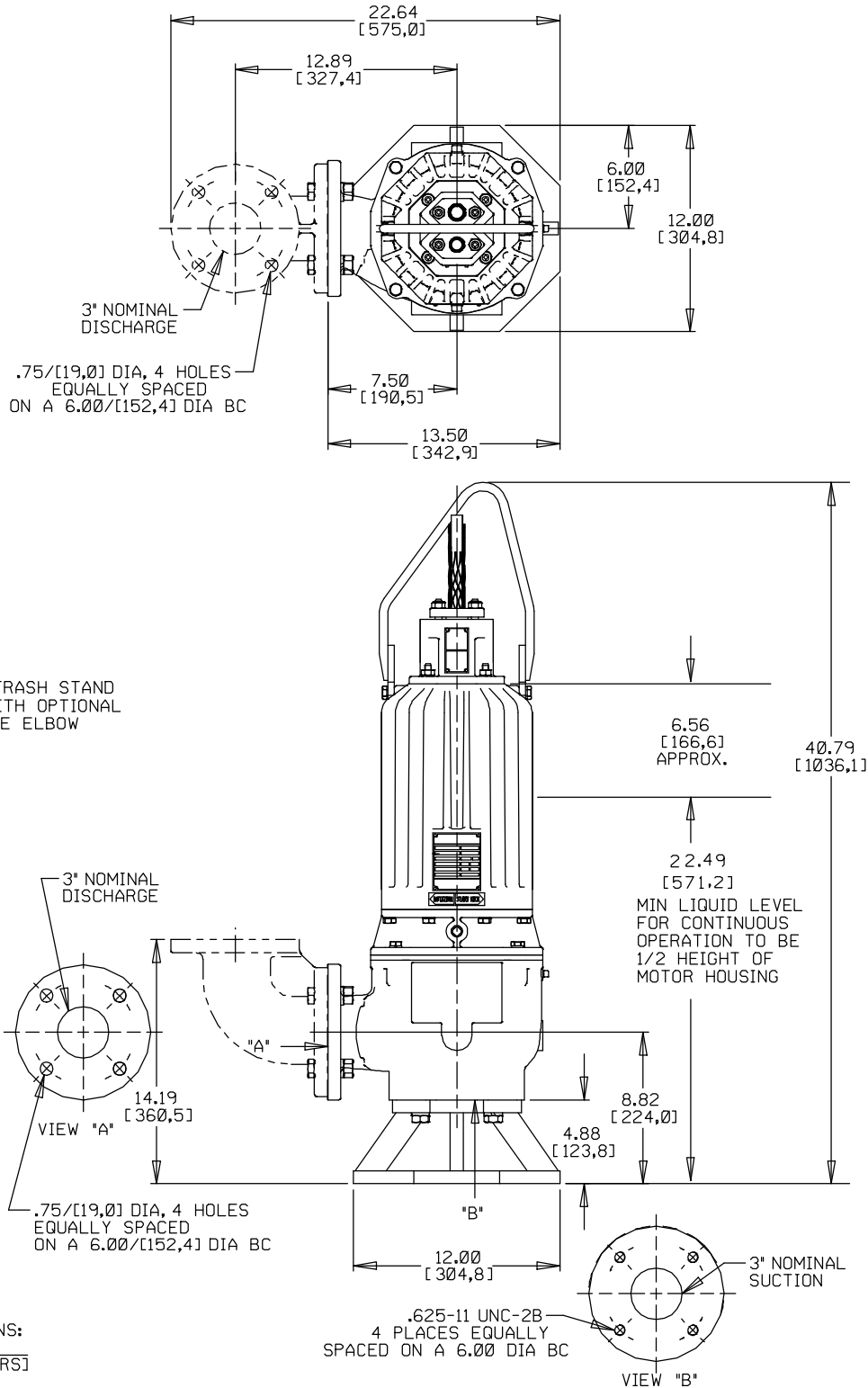
Specification Data

**ALL SFV3A/SFEV3A MODELS
TRASH VERSION
APPROXIMATE
DIMENSIONS and WEIGHTS**

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

237 LBS. [107,5 KG.]
1.97 LBS. [0,89 KG.]
267 LBS. [121 KG.]
8.3 CU. FT. [0,23 CU. M.]

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DIMENSIONS:
INCHES
(MILLIMETERS)



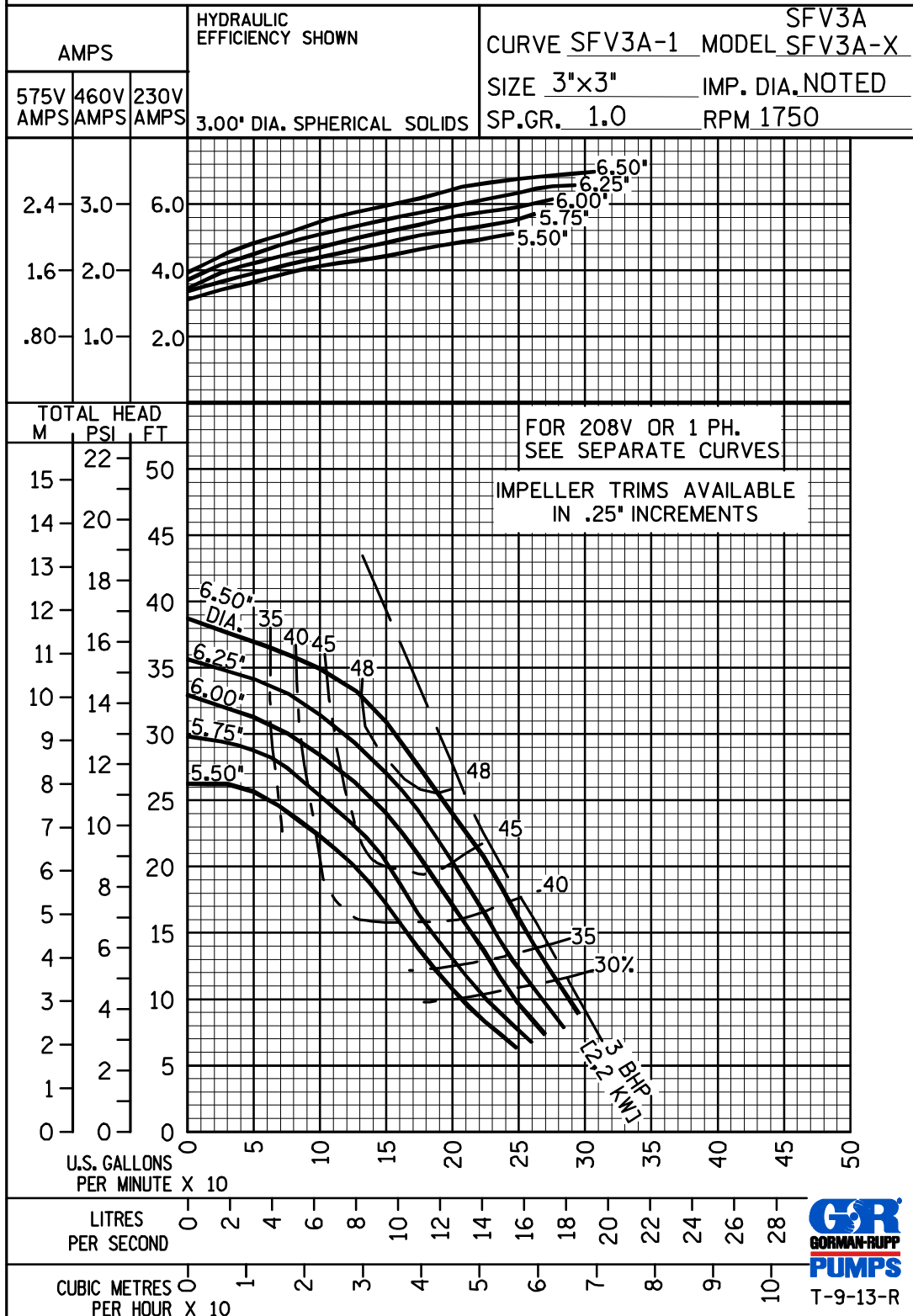
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PERFORMANCE CURVE



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PERFORMANCE CURVE

HYDRAULIC
EFFICIENCY SHOWN

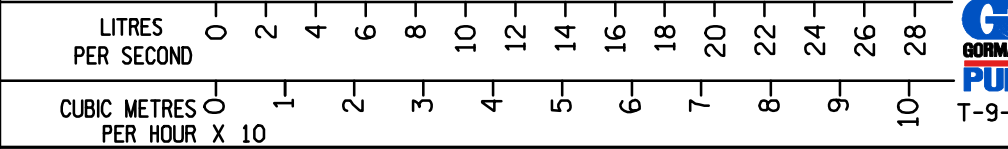
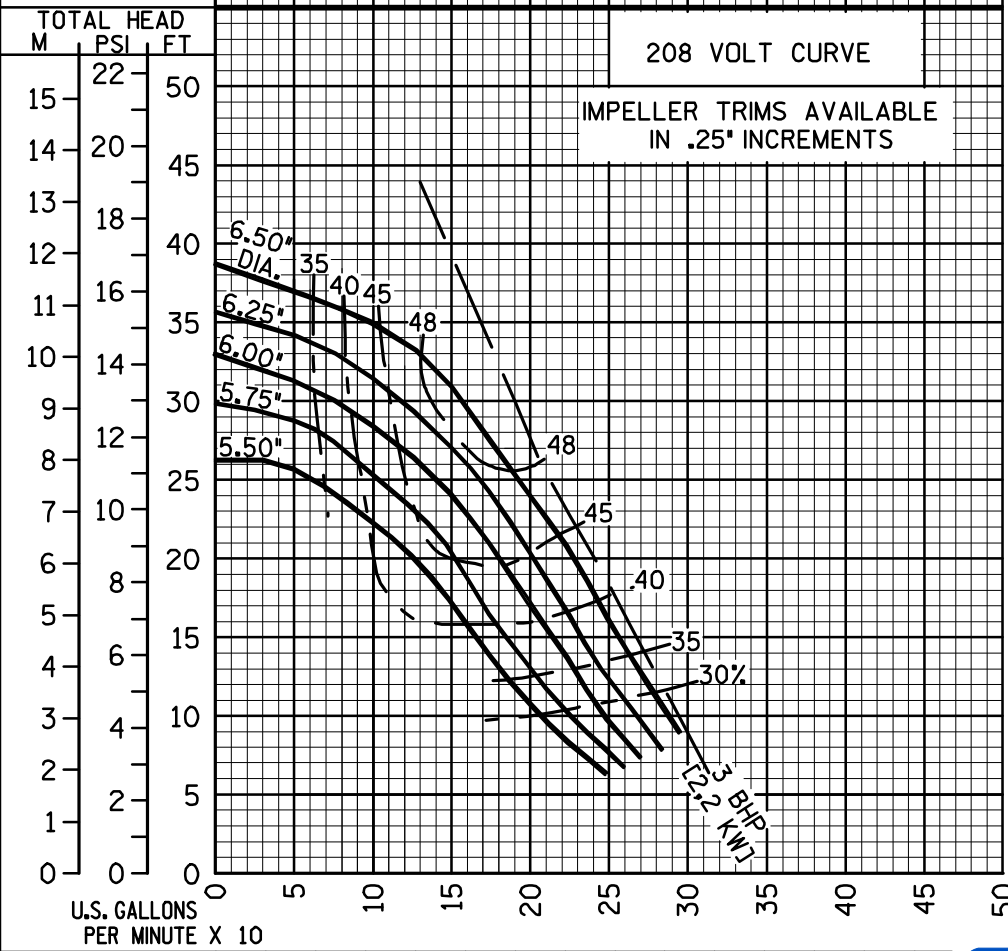
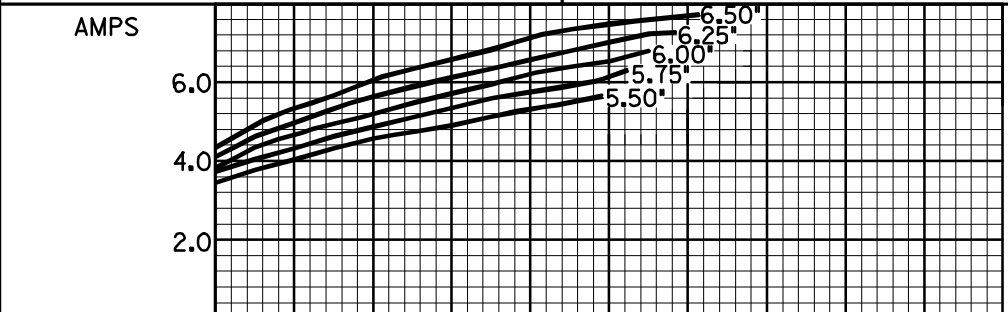
208 VOLT CURVE

3.00" DIA. SPHERICAL SOLIDS

CURVE SFV3A-2 MODEL SFV3A-X

SIZE 3"x3" IMP. DIA. NOTED

SP.GR. 1.0 RPM 1750



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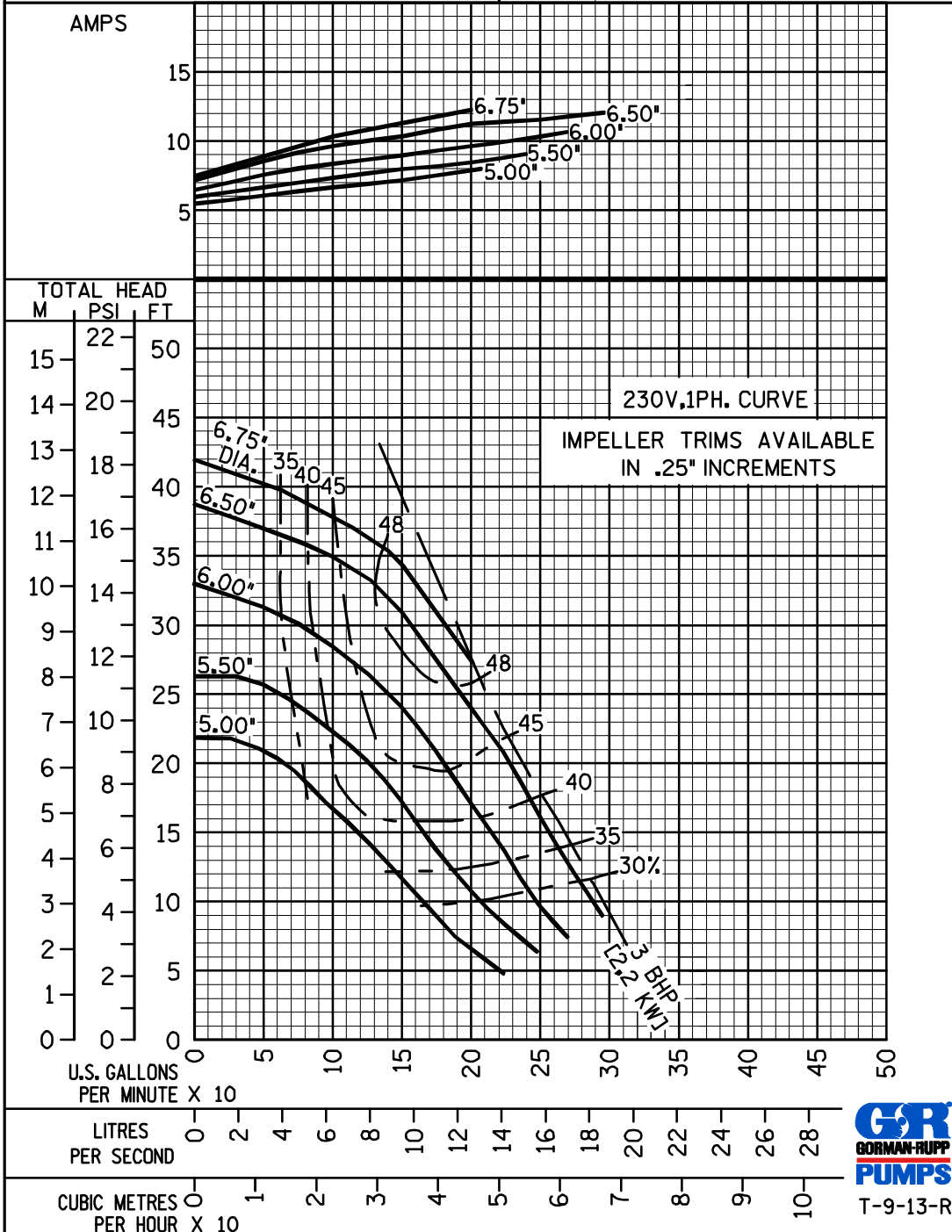
230V, 1PH. CURVE

3.00" DIA. SPHERICAL SOLIDS

CURVE SFV3A-3 MODEL SFV3A-X

SIZE 3"x3" IMP. DIA. NOTED

SP.GR. 1.0 RPM 1750



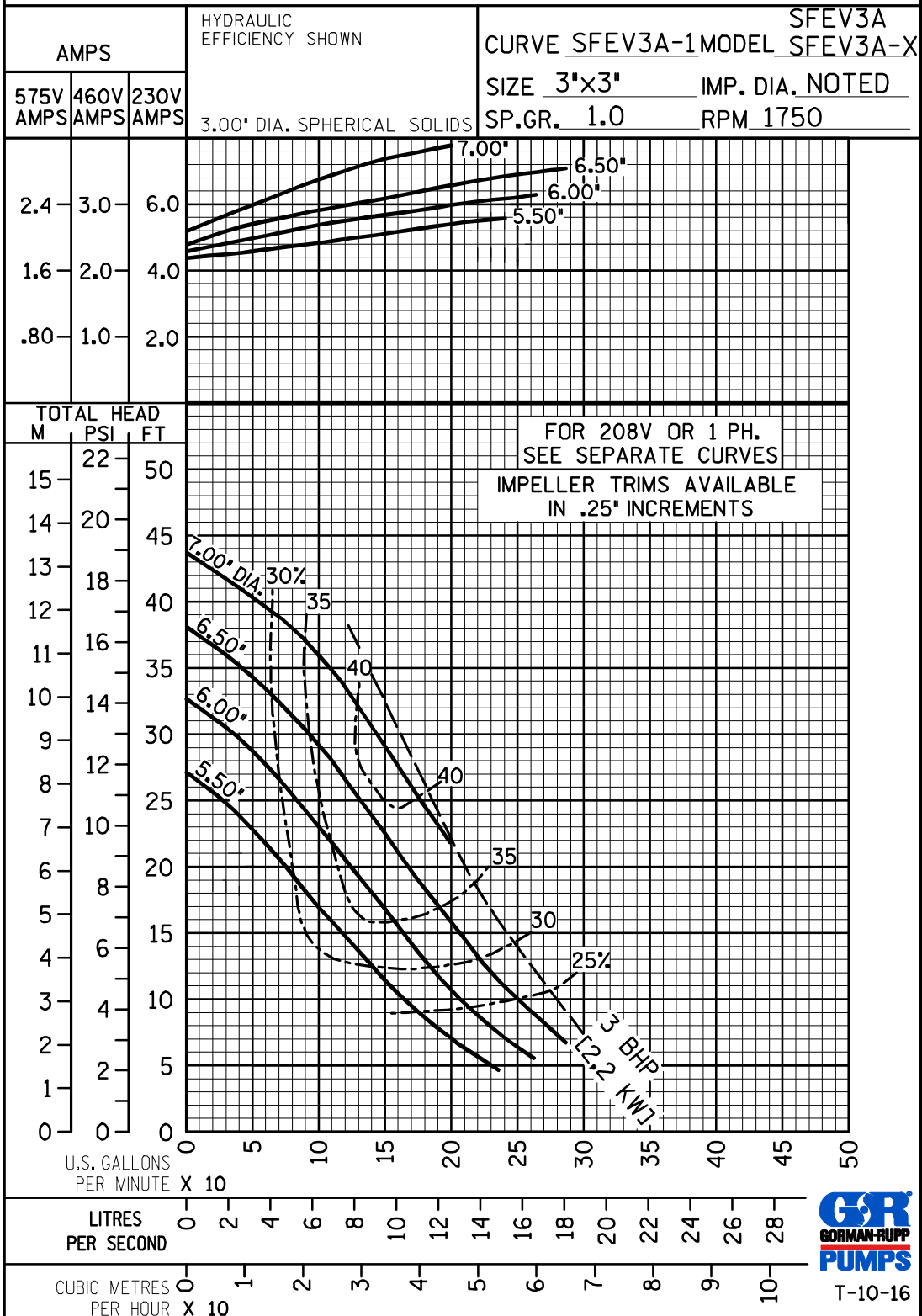
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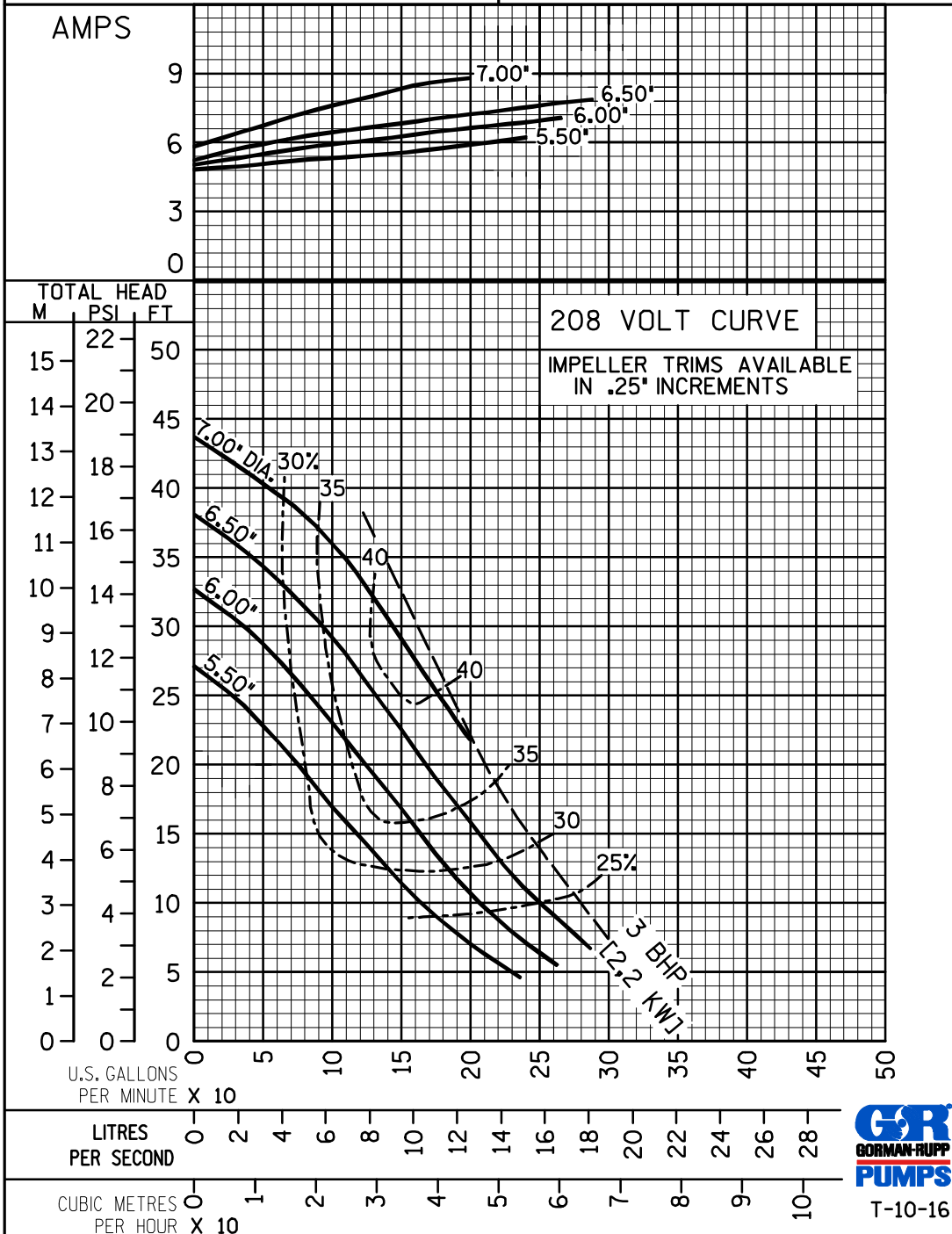
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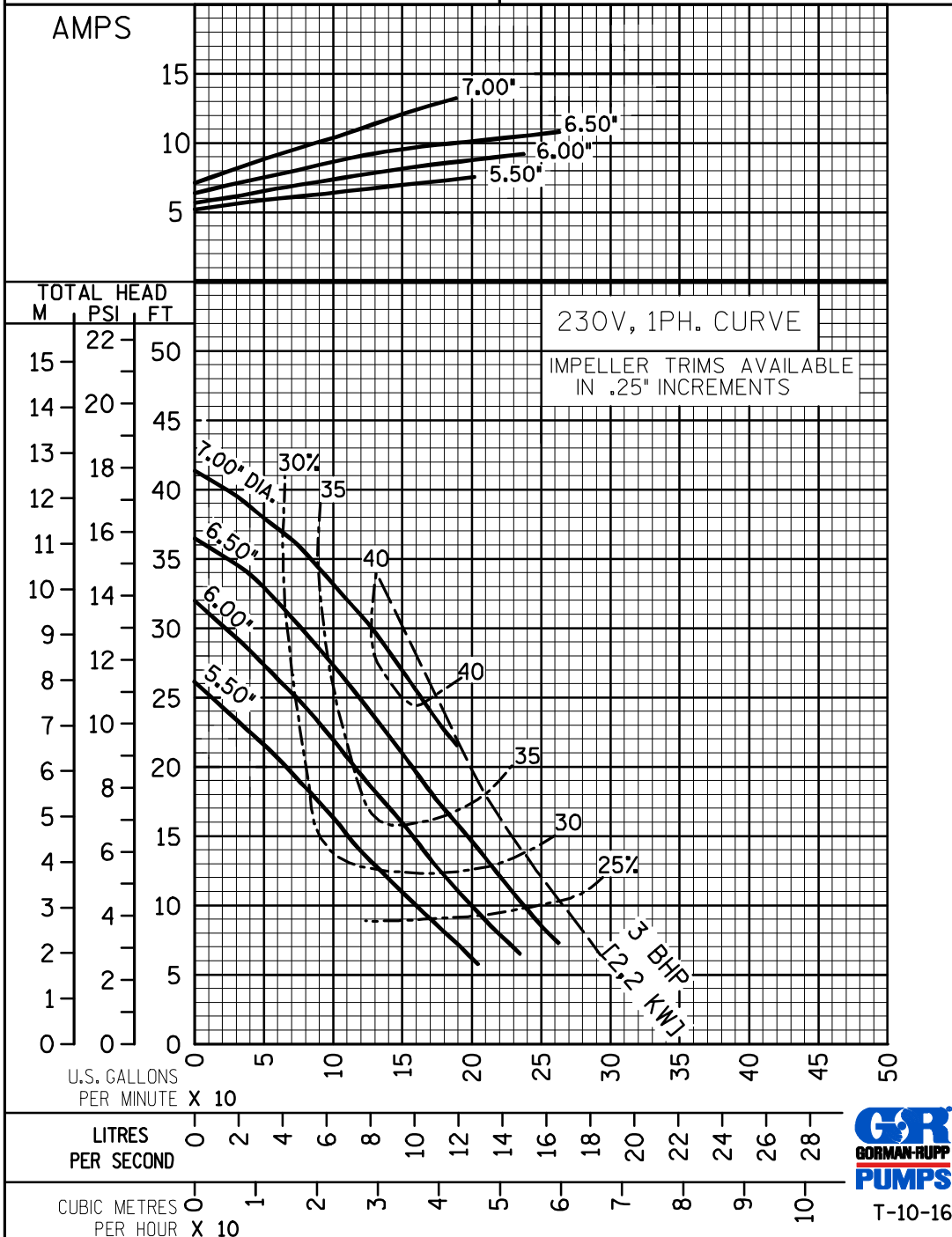
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