



SF Series

VARIOUS PATENTS APPLY

**Submersible Pumps
Models**

**SFDV3A SFDEV3A
SFDV3A-X SFDEV3A-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.

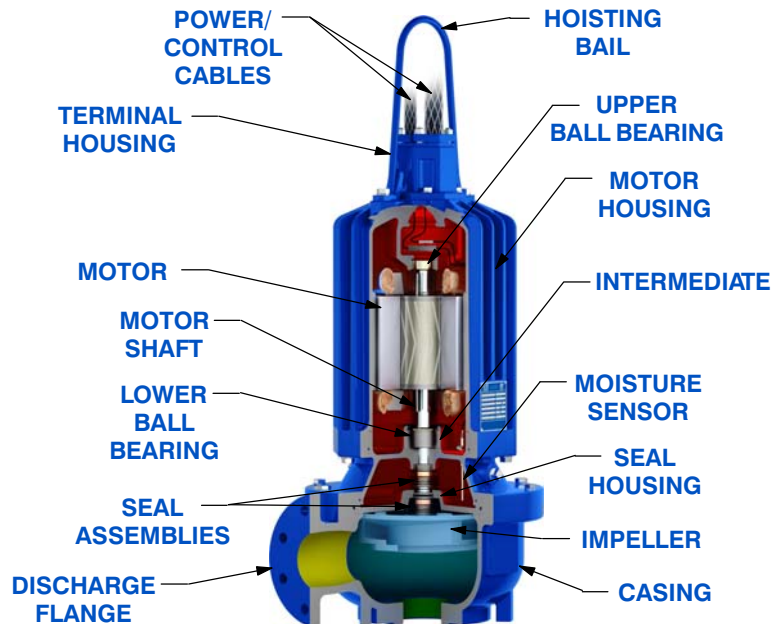
Key Features:

- 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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Specifications Subject to Change Without Notice

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PUMP DETAILS

Pump Models	SFDV3A SFDEV3A/SFDV3A-X SFDEV3A-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:	Upper	Single Row Ball/Permanent Lubrication
Type/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:	Upper	Carbon/Ceramic
Rotating/Stationary	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	2.5 HP (1,7 kW)	3.0 HP (2,2 kW)
Amp Draw:		
Max. Full Load	208V/3P	7.30/55.30
/	230V/3P	7.80/50.0
Locked Rotor	460V/3P	3.90/25.0
	575V/3P	3.12/20.0
NEMA Motor Code	J	H
Service Factor	1.0	1.0
Efficiency: 100%/75%/50% Load	86%/84%/81%	86%/84%/83%
Power Factor: 100%/75%/50% Load	0.80/0.71/0.64	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

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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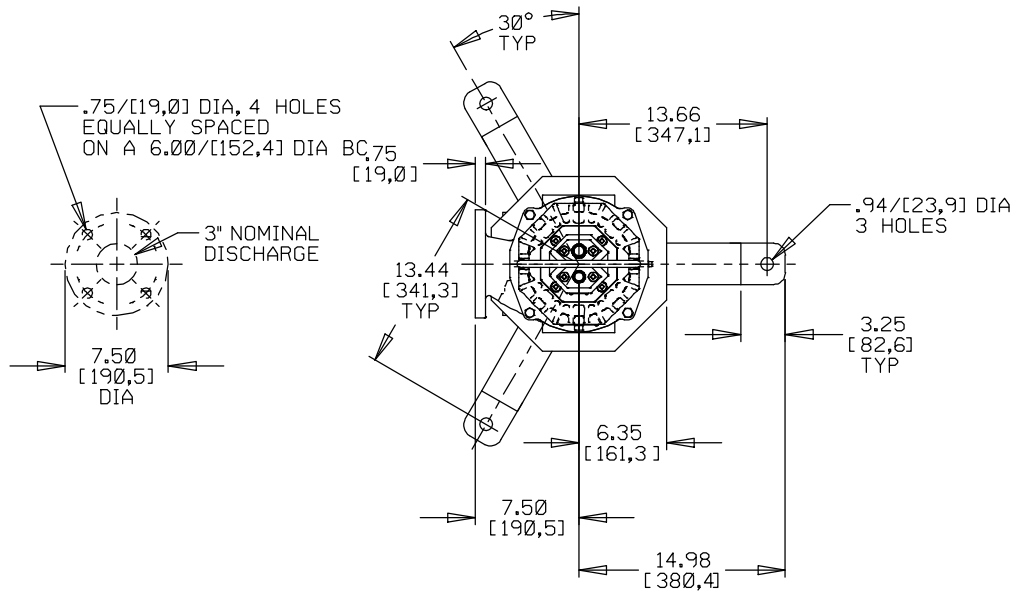
Specification Data

**ALL SFDV3A/ SFDEV3A MODELS
DRY PIT VERSION
APPROXIMATE
DIMENSIONS and WEIGHTS**

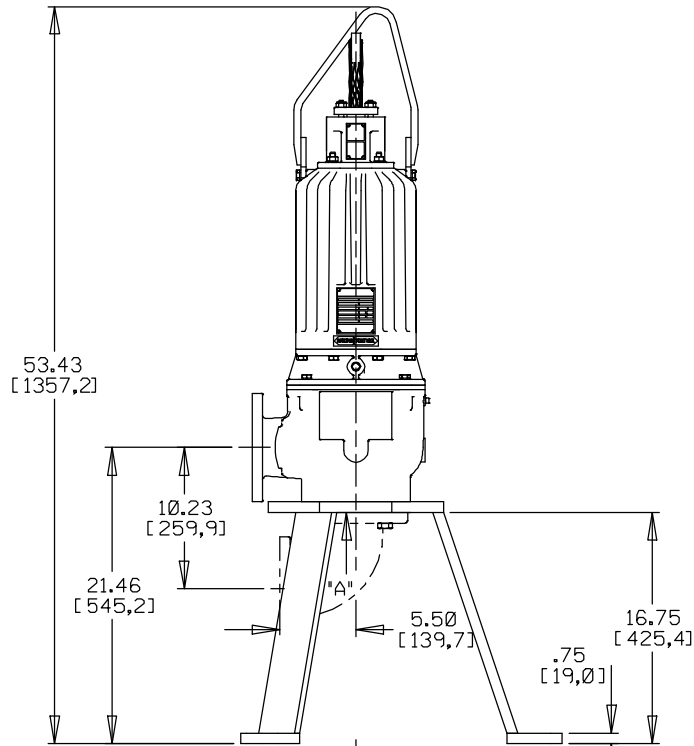
NET WT: (pump only)
(comb. cable wt. per meter [3.2 ft.])
SHIPPING WT: (pump only)
CRATE SIZE:

275 LBS. [124,7 KG.]
1.97 LBS. [0,89 KG.]
305 LBS. [138,3 KG.]
21.3 CU. FT. [0,60 CU. M.]

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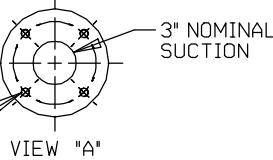


SHOWN WITH OPTIONAL
3' FLANGED ELBOW, #125



DIMENSIONS:
INCHES
[MILLIMETERS]

.625-11 UNC-2B
4 PLACES EQUALLY
SPACED ON A 6.00 DIA BC



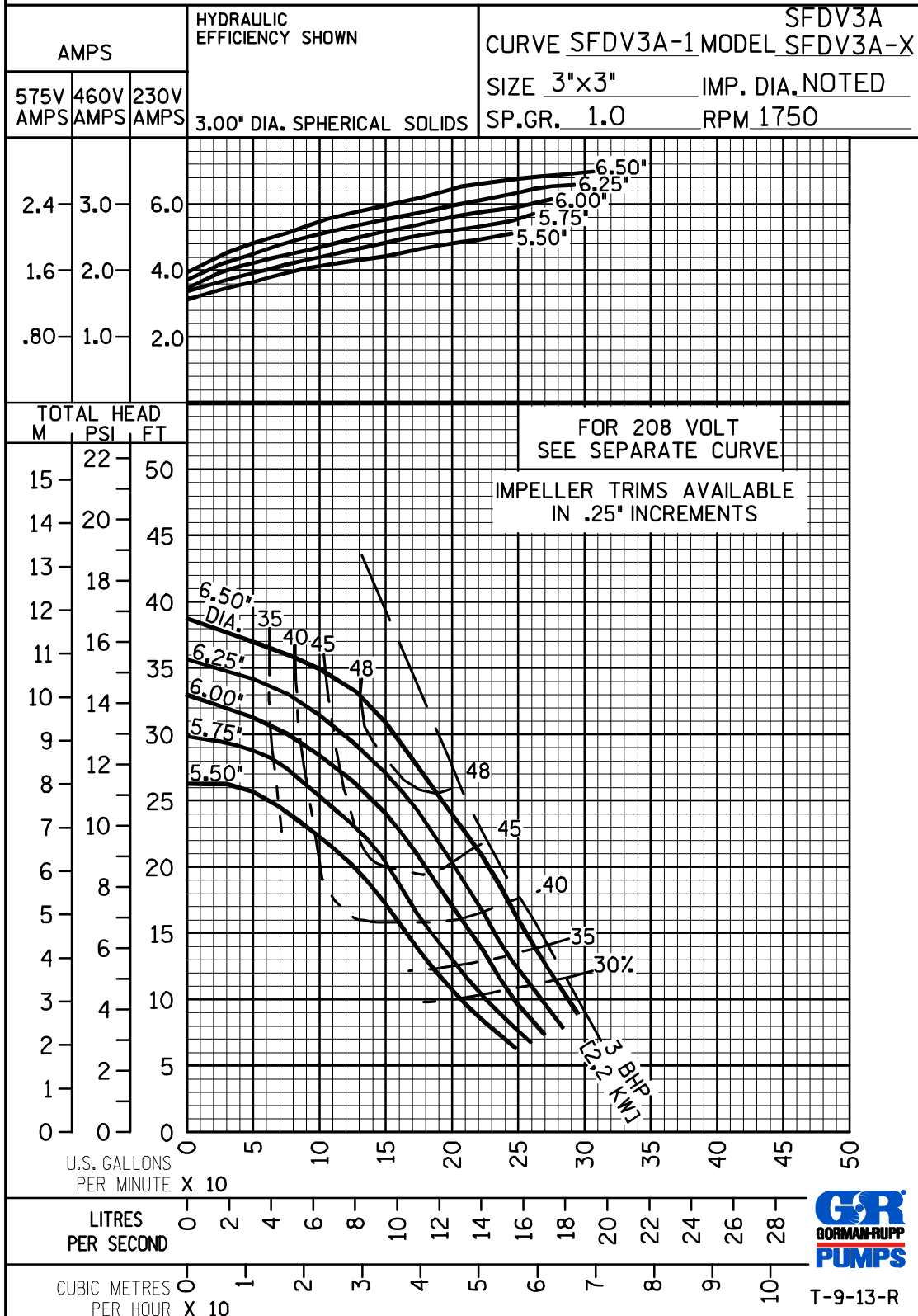
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PERFORMANCE CURVE



T-9-13-R



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PERFORMANCE CURVE

HYDRAULIC
EFFICIENCY SHOWN

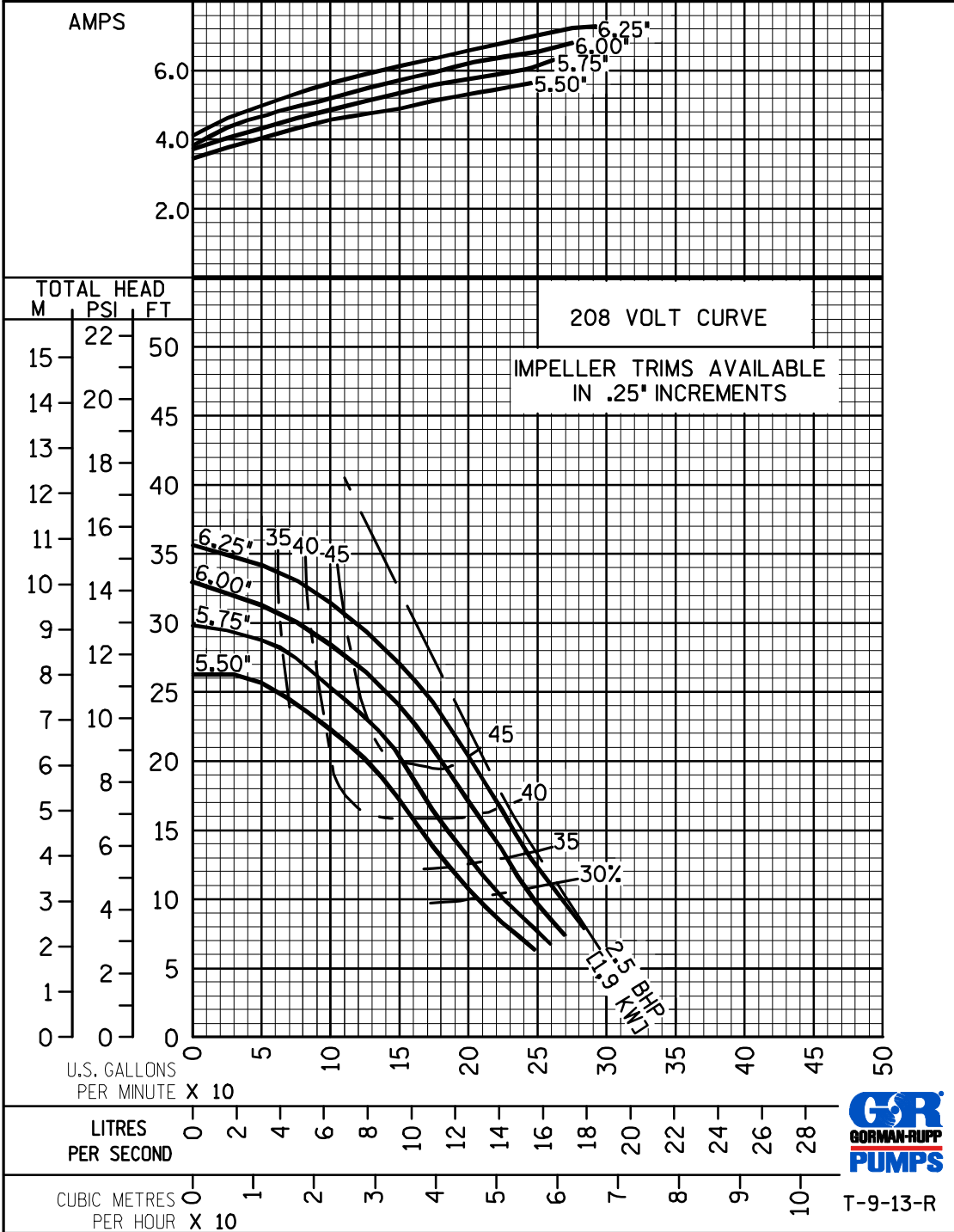
208 VOLT CURVE

3.00" DIA. SPHERICAL SOLIDS

SFDV3A
CURVE SFDV3A-2 MODEL SFDV3A-X

SIZE 3"X3" IMP. DIA. NOTED

SP.GR. 1.0 RPM 1750



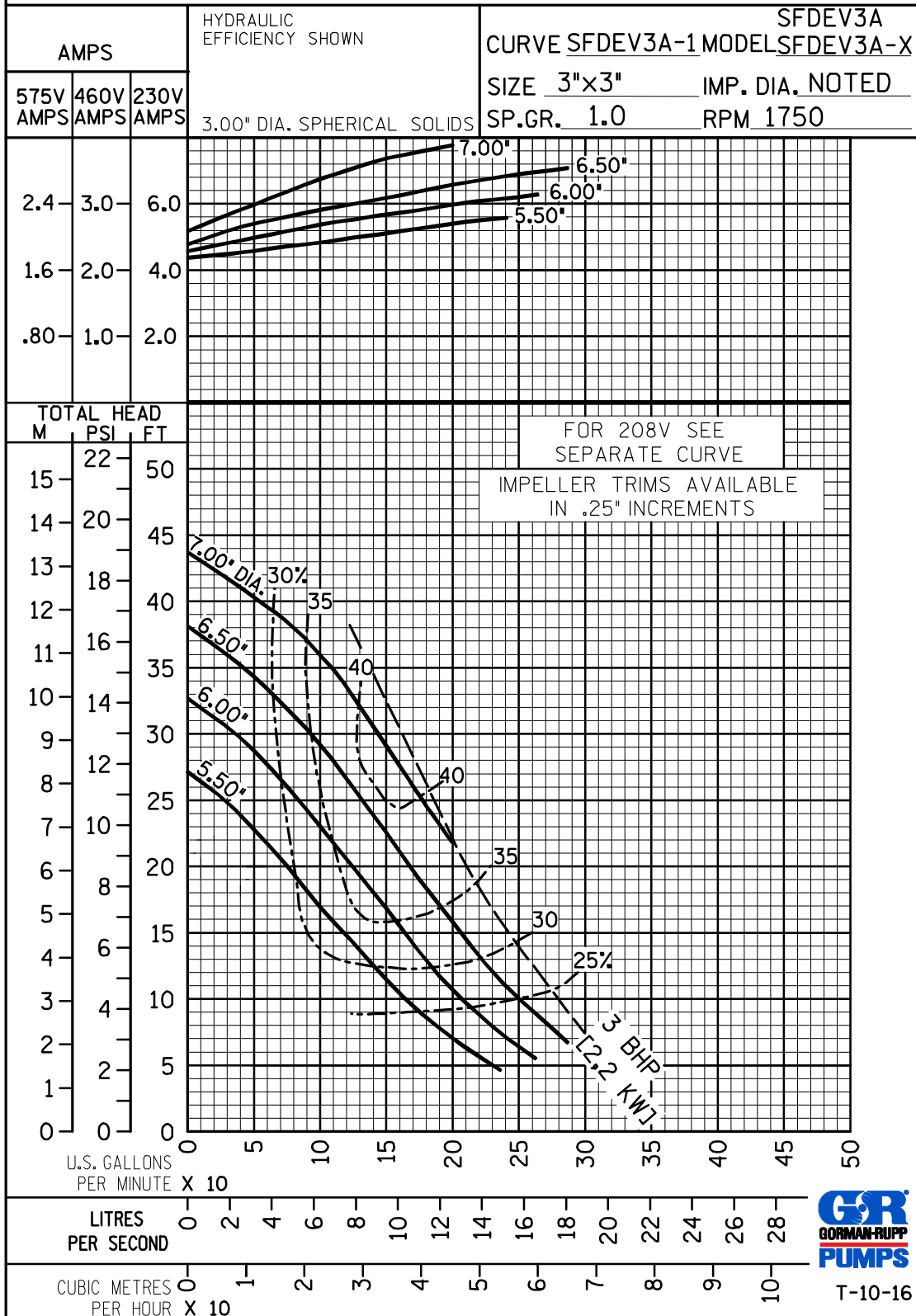
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PERFORMANCE CURVE



T-10-16



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PERFORMANCE CURVE

HYDRAULIC
EFFICIENCY SHOWN

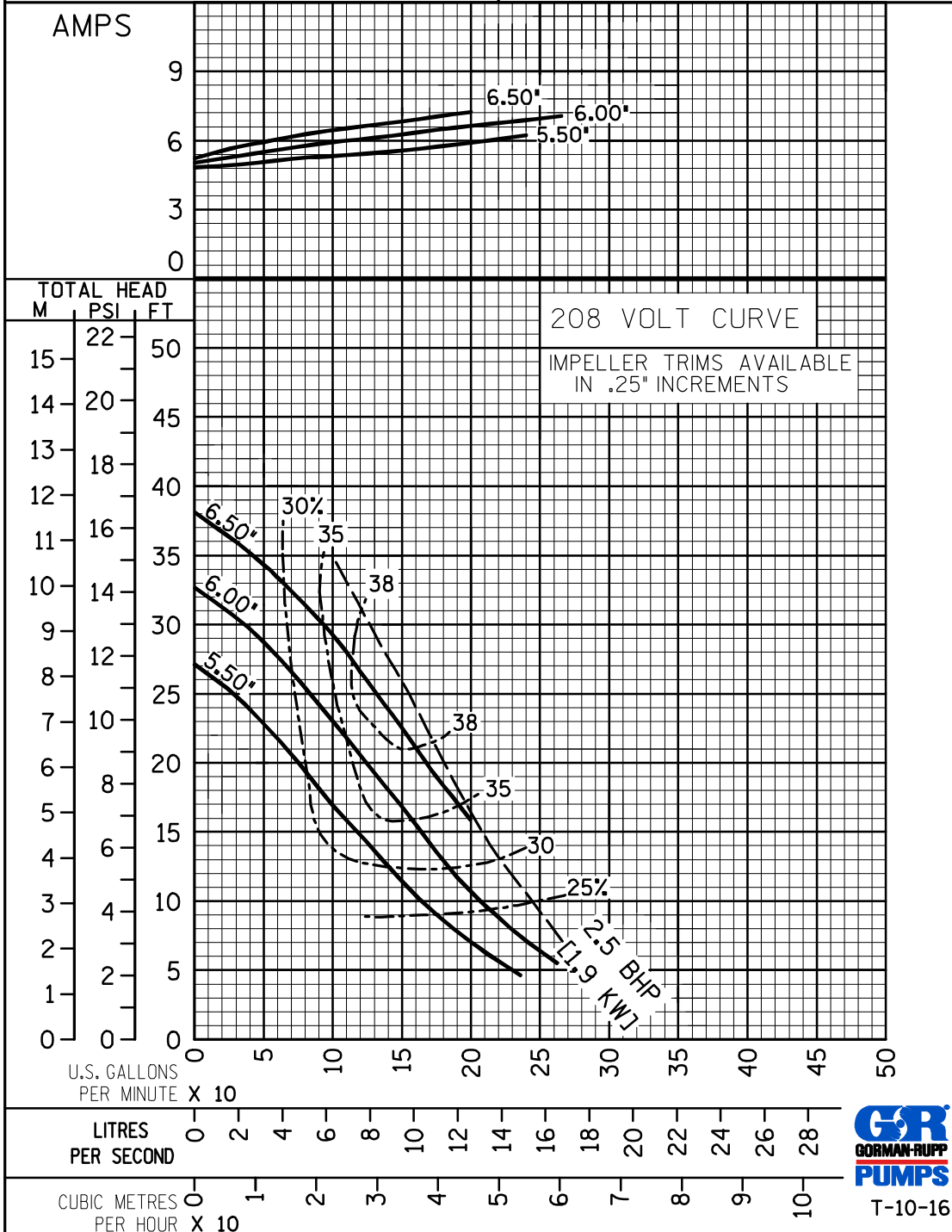
SFDEV3A
CURVE SFDEV3A-2 MODEL SFDEV3A-X

208 VOLT CURVE

SIZE 3"x3" IMP. DIA. NOTED

3.00" DIA. SPHERICAL SOLIDS

SP.GR. 1.0 RPM 1750



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