



SF Series

VARIOUS PATENTS APPLY

Submersible Pumps

Models
SFV4A SFEV4A
SFV4A-X SFEV4A-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.

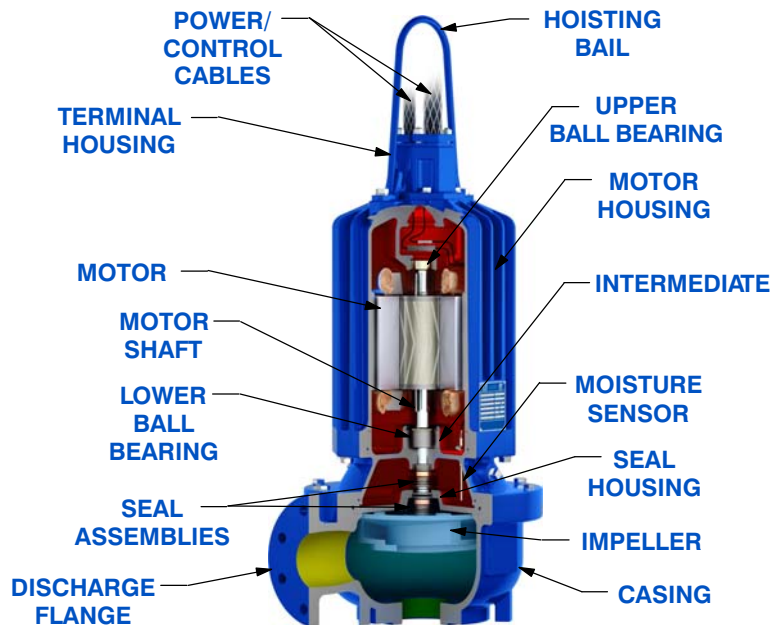
Key Features:

- NEMA premium efficiency motors
- 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

www.grpumps.com

Specifications Subject to Change Without Notice

Printed in U.S.A.

PUMP DETAILS

Pump Models	SFV4A SFEV4A/SFV4A-X SFEV4A-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	4.0 HP (3,0 kW)	7.0 HP (5,2 kW)	7.0 HP (5,2 kW)
Amp Draw @ Max. Rated Power: Full Load/ Locked Rotor	230V/1P	18.2/80.6	
	208V/3P	18.1/106.1	
	230V/3P	16.4/96.0	
	460V/3P	8.2/48.0	
	575V/3P	6.6/38.4	
NEMA Motor Code	E	F	F
Service Factor	1.15	1.0	1.15
Efficiency: 100%/75%/50% Load	79%/79%/76%	86%/87%/87%	86%/87%/87%
Power Factor: 100%/75%/50% Load	0.97/0.97/0.94	0.86/0.84/0.74	0.86/0.84/0.74
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 Gauge	1/4	
	Type/Material	10 AWG	
	Nominal Cable O.D.	SOOW/EPDM	
Control Cable	No. Cables/Conductors per Gauge	0.75" (19,0 mm)	
	Type/Material	1/4	
	Nominal Cable O.D.	14 AWG	
	Length	CPE	
		0.61" (15,5 mm)	
		32 Feet (10 Meters) Standard, 164 Feet (50 Meters) Maximum	



GORMAN-RUPP PUMPS

www.grpumps.com

Specifications Subject to Change Without Notice

Printed in U.S.A.

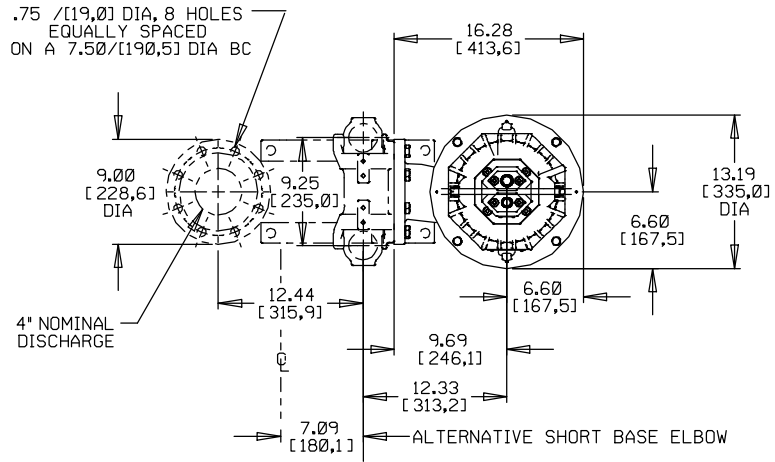
Specification Data

**ALL SFV4A/SFEV4A MODELS
SLIDE RAIL VERSION
APPROXIMATE
DIMENSIONS and WEIGHTS**

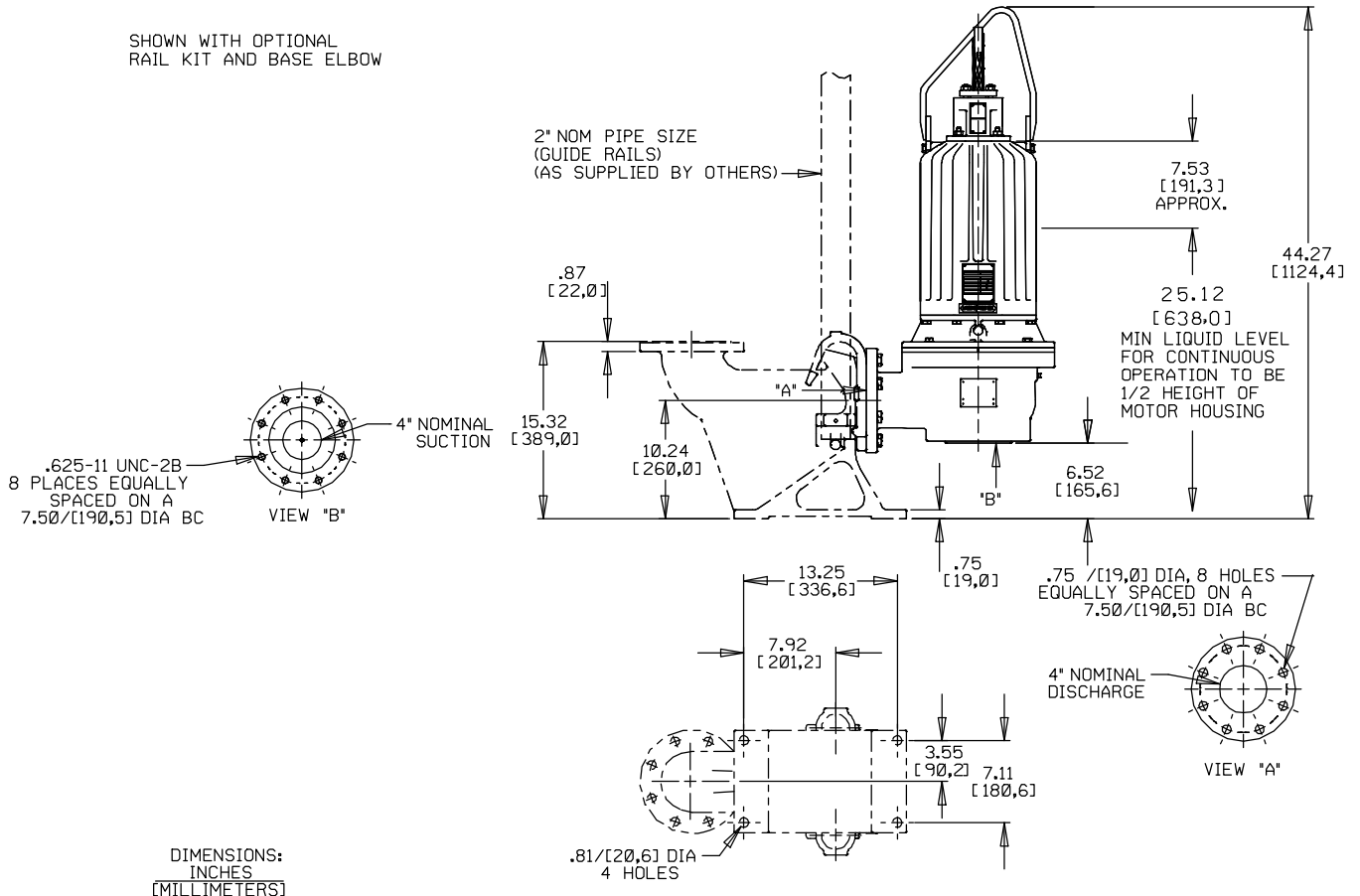
NET WT: (pump only)
(comb. cable wt. per meter [3.2 ft.])
SHIPPING WT: (pump only)
CRATE SIZE:

278 LBS. [126,1 KG.]
1.97 LBS. [0,89 KG.]
308 LBS. [139,7 KG.]
11.4 CU. FT. [0,32 CU. M.]

SECTION 133, PAGE 120.2



SHOWN WITH OPTIONAL RAIL KIT AND BASE ELBOW



DIMENSIONS:
INCHES
[MILLIMETERS]



GORMAN-RUPP PUMPS

www.grpumps.com

Specifications Subject to Change Without Notice

Printed in U.S.A.

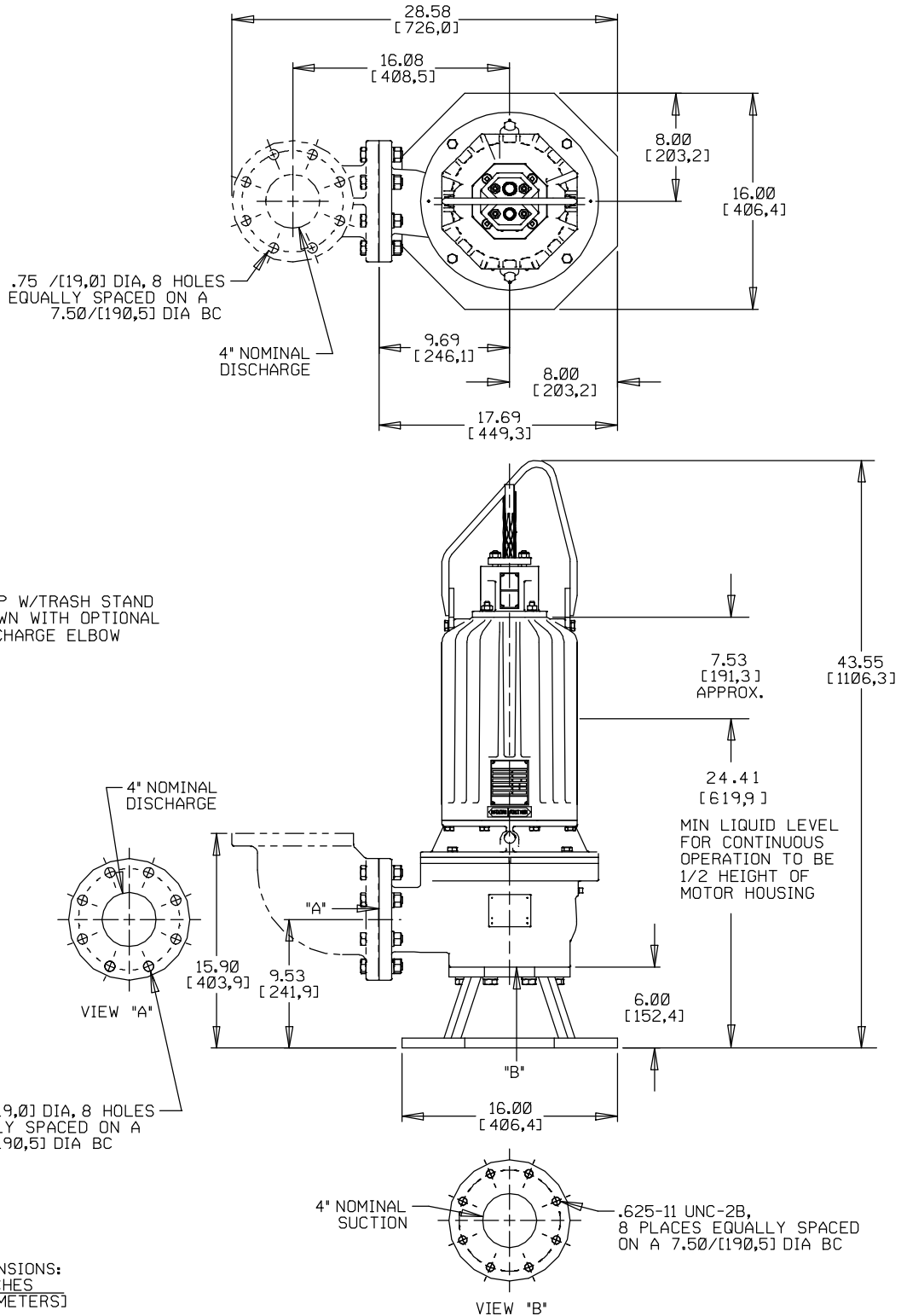
Specification Data

SECTION 133, PAGE 120.3

**ALL SFV4A/SFEV4A 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:

305 LBS. [138,3 KG.]
1.97 LBS. [0,89 KG.]
335 LBS. [152,0 KG.]
14.5 CU. FT. [0,41 CU. M.]



DIMENSIONS:
INCHES
[MILLIMETERS]



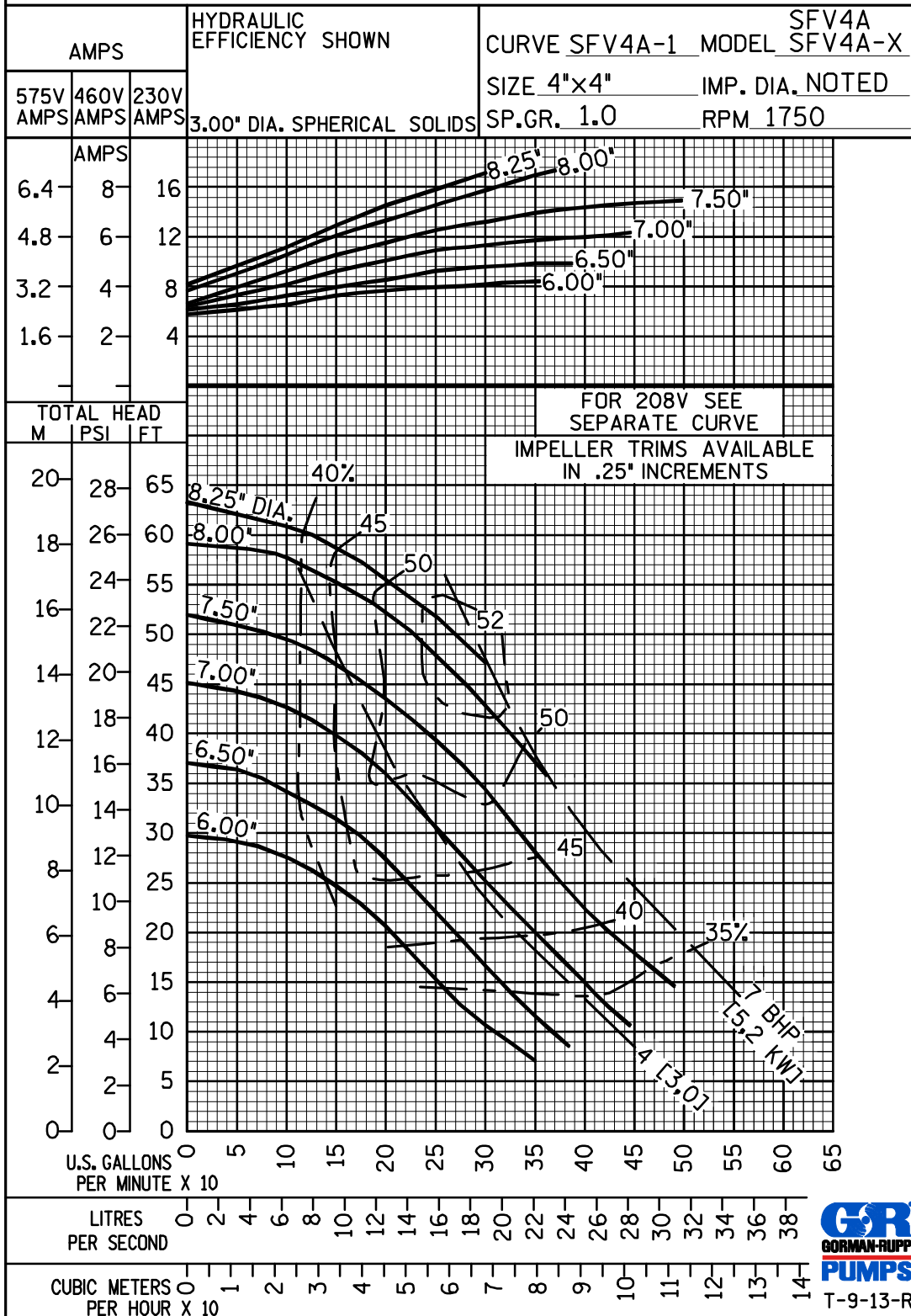
GORMAN-RUPP PUMPS

www.grpumps.com

Specifications Subject to Change Without Notice

Printed in U.S.A.

PERFORMANCE CURVE



GORMAN-RUPP PUMPS

www.grpumps.com

Specifications Subject to Change Without Notice

Printed in U.S.A.

PERFORMANCE CURVE

HYDRAULIC
EFFICIENCY SHOWN

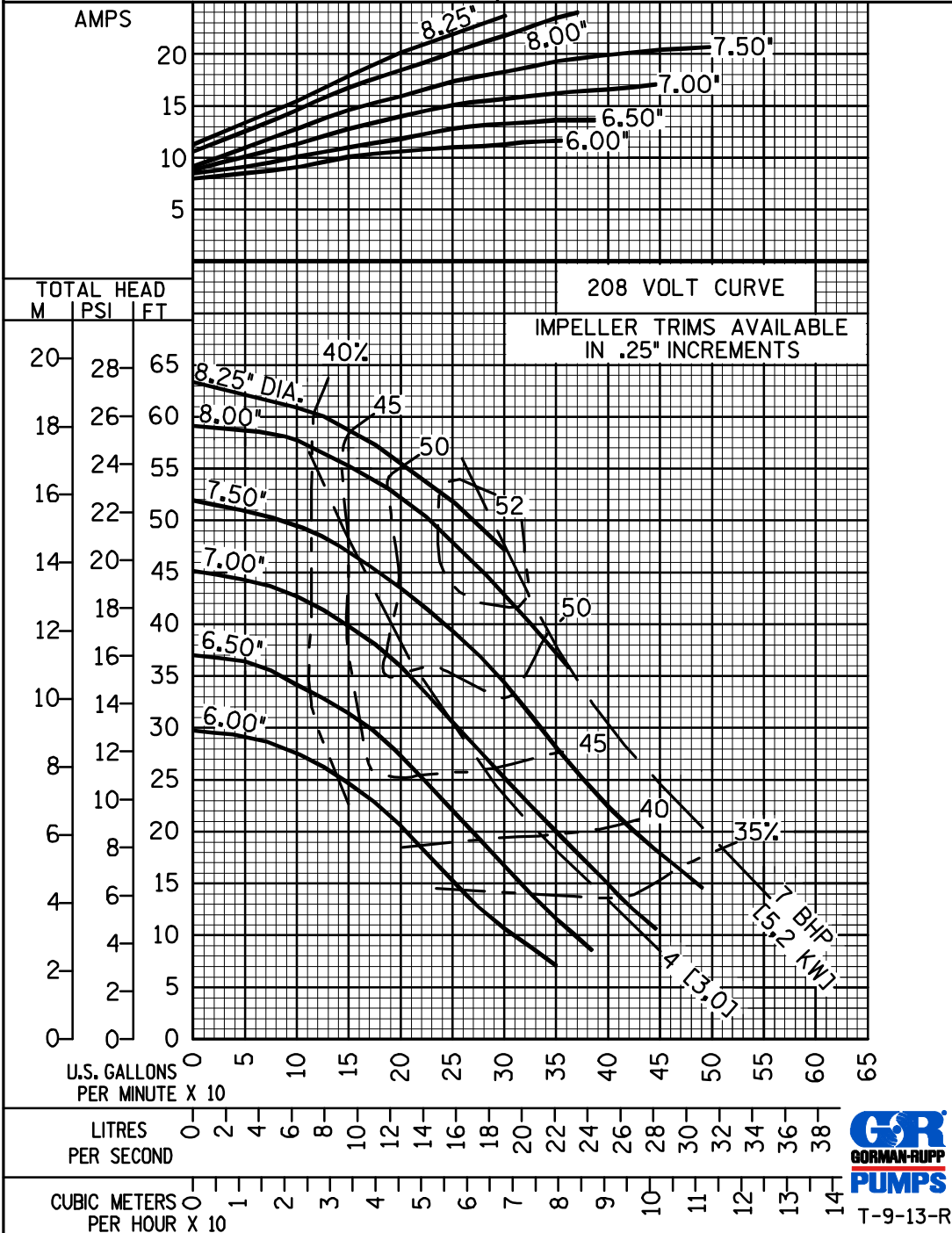
CURVE SFV4A-2 MODEL SFV4A-X

208 VOLT CURVE

SIZE 4"x4" IMP. DIA. NOTED

3.00" DIA. SPHERICAL SOLIDS

SP.GR. 1.0 RPM 1750



GORMAN-RUPP PUMPS

www.grpumps.com

Specifications Subject to Change Without Notice

Printed in U.S.A.

PERFORMANCE CURVE

HYDRAULIC EFFICIENCY SHOWN

230V, 1PH. CURVE

3.00" DIA. SPHERICAL SOLIDS

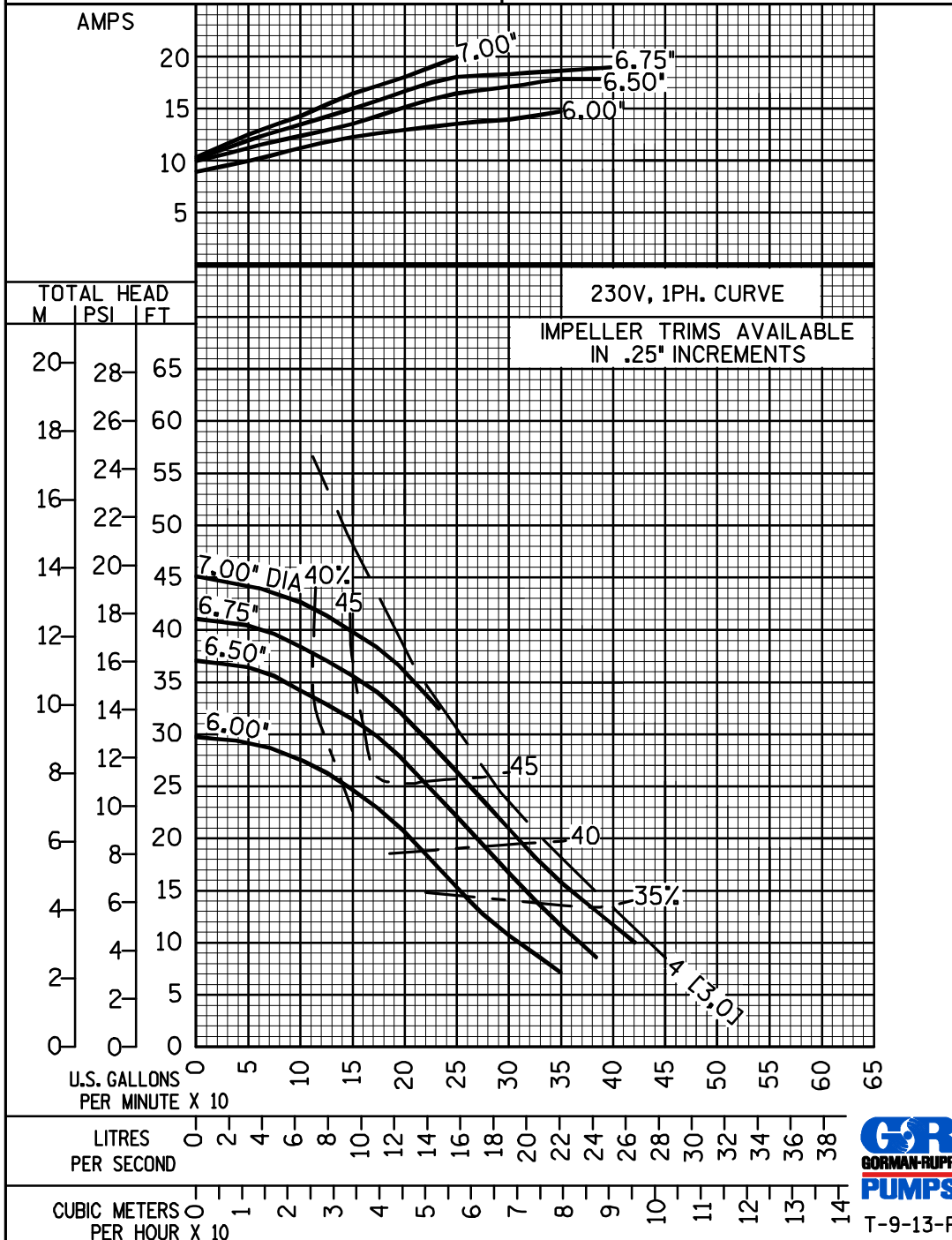
CURVE SFV4A-3 MODEL SFV4A-X

SIZE 4"x4"

IMP. DIA. NOTED

SP.GR. 1.0

RPM 1750



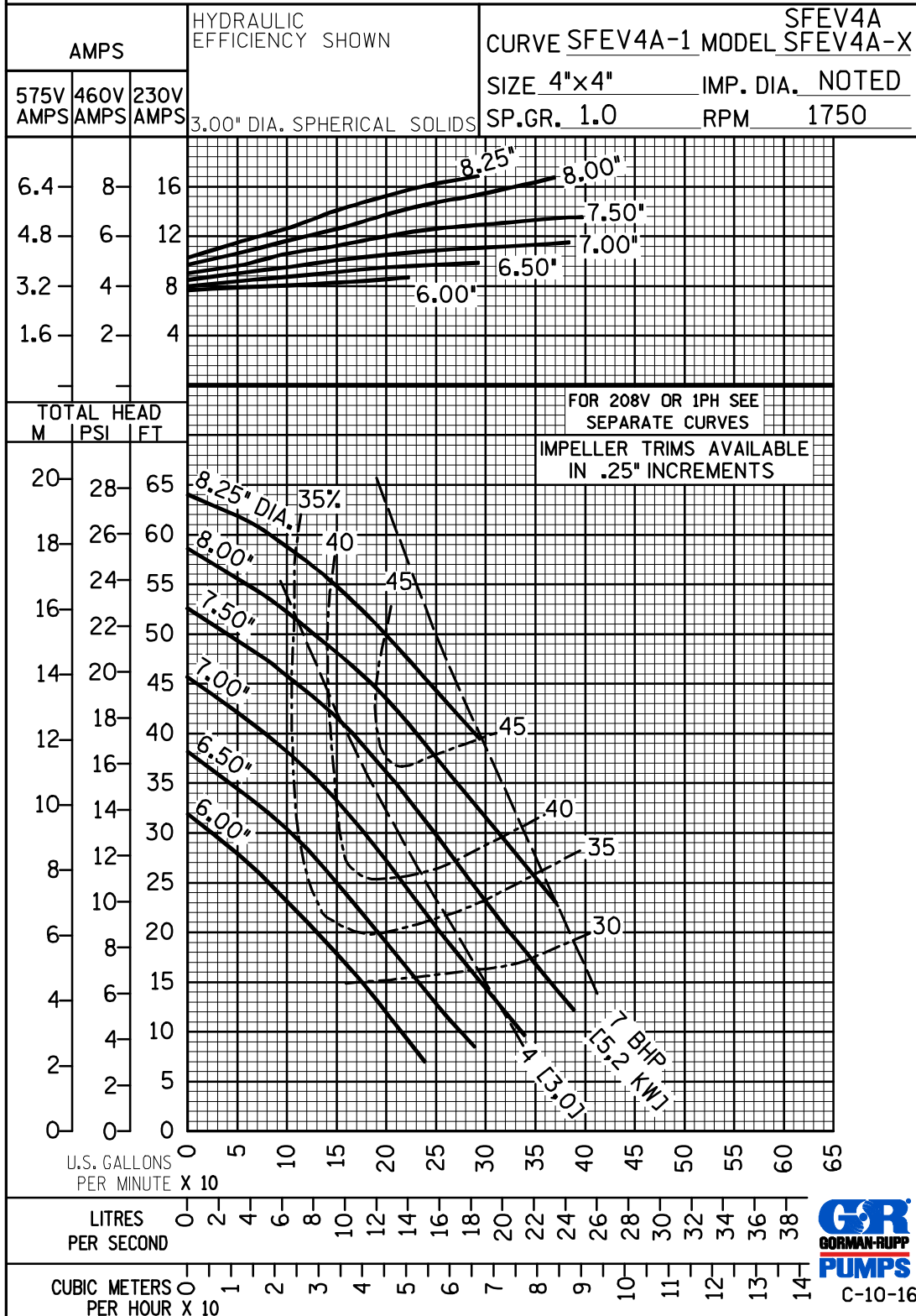
GORMAN-RUPP PUMPS

www.grpumps.com

Specifications Subject to Change Without Notice

Printed in U.S.A.

PERFORMANCE CURVE



C-10-16



GORMAN-RUPP PUMPS

www.grpumps.com

Specifications Subject to Change Without Notice

Printed in U.S.A.

PERFORMANCE CURVE

HYDRAULIC EFFICIENCY SHOWN

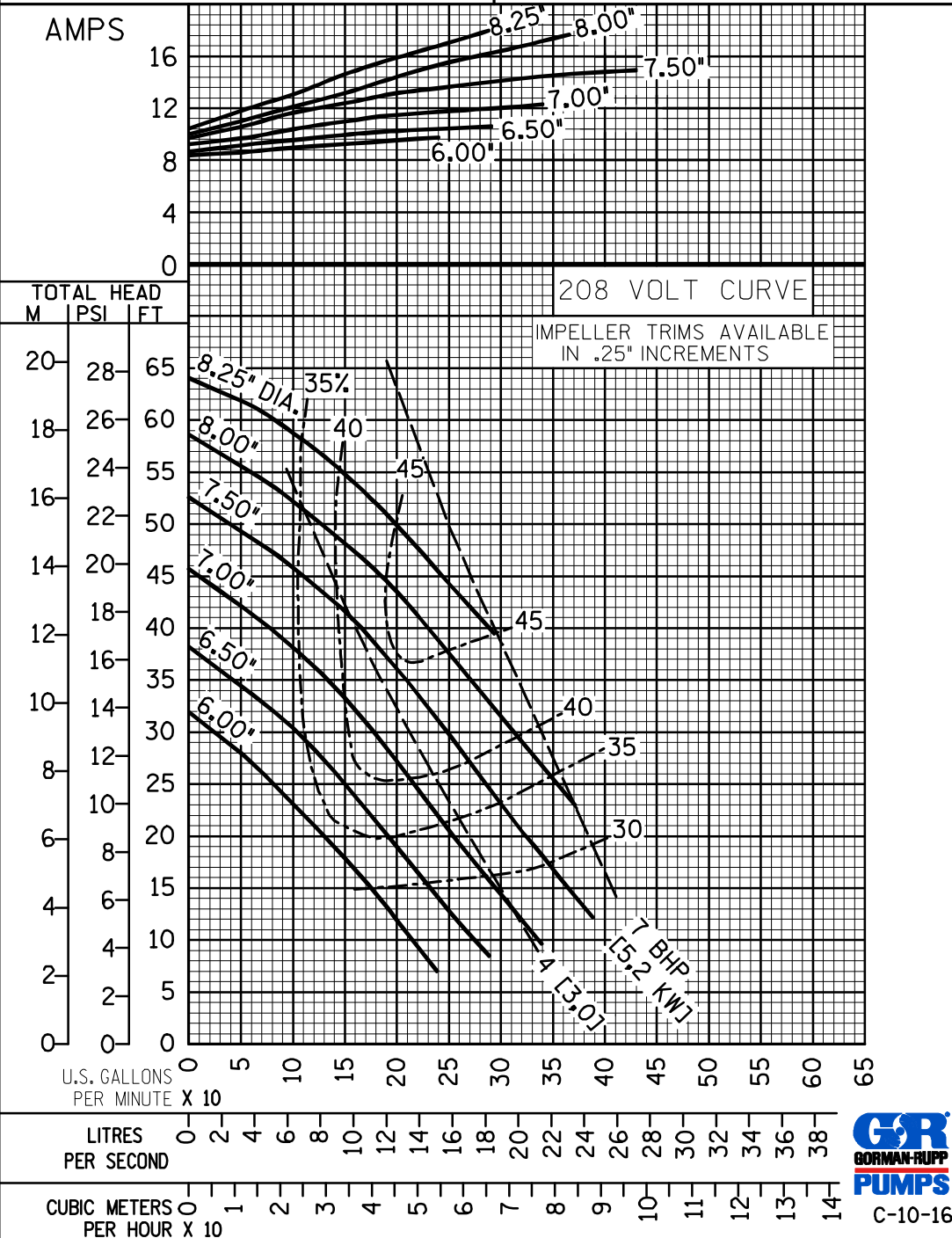
208 VOLT CURVE

3.00" DIA. SPHERICAL SOLIDS

CURVE SFEV4A-2 MODEL SFEV4A-X

SIZE 4"x4" IMP. DIA. NOTED

SP.GR. 1.0 RPM 1750



GORMAN-RUPP PUMPS

www.grpumps.com

Specifications Subject to Change Without Notice

Printed in U.S.A.

PERFORMANCE CURVE

HYDRAULIC EFFICIENCY SHOWN

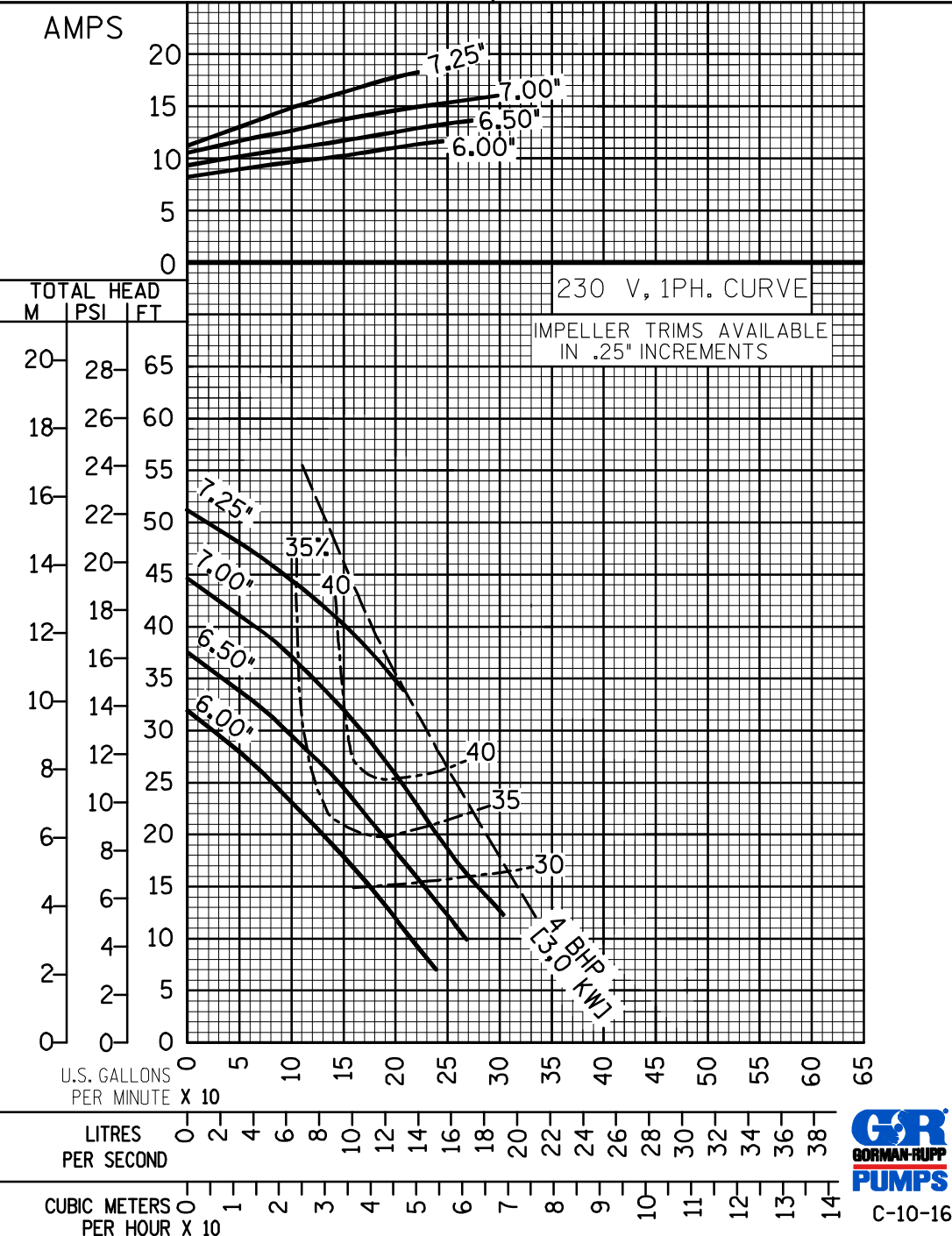
230V, 1PH. CURVE

3.00" DIA. SPHERICAL SOLIDS

SFEV4A
CURVE SFEV4A-3 MODEL SFEV4A-X

SIZE 4"x4" IMP. DIA. NOTED

SP.GR. 1.0 RPM 1750



GORMAN-RUPP PUMPS

www.grpumps.com

Specifications Subject to Change Without Notice

Printed in U.S.A.