

Submersible Pumps

Models
SF4E
SF4E-X
Size 4''

SF Series®

VARIOUS PATENTS APPLY



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® channel pumps provide superior pumping efficiency while maintaining a 3-inch (76,2 mm) spherical solids passage.

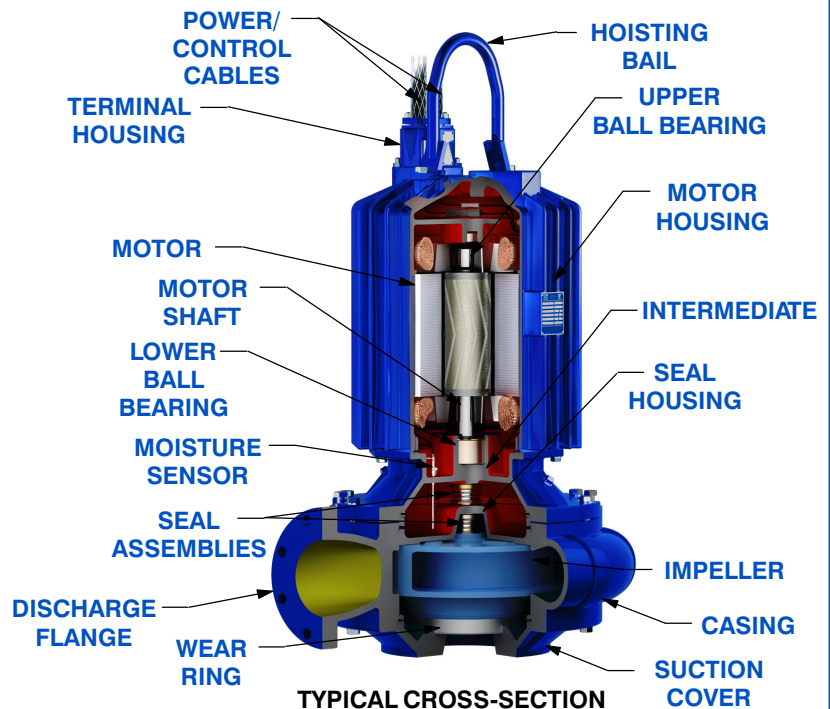
Key Features:

- NEMA premium efficiency motors
- Externally adjustable face clearance
- 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



GORMAN-RUPP PUMPS

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Specifications Subject to Change Without Notice

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PUMP DETAILS

Pump Models	SF4E/SF4E-X		
Agency Approvals	FM/CSA-C/US		
Discharge Flange	4" ANSI ^{w/} Flat Face		
Impeller Type / Material	Single Vane Enclosed/ Ductile Iron		
Wear Ring	Ductile Iron		
Spherical Solids Handling	3" (76 mm) Non-Deformable Diameter		
Motor Housing (Including Seal Plate and Intermediate)	Gray Iron 30		
Pump Casing	Ductile Iron		
Motor Shaft/Shaft Sleeve	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	65 Feet (20 Meters)			
Min. Submergence	1/2 Motor Covered			
Max. Starts per Hour	10			
Max. Rated Output Power	15 (11,2)	20 (14,9)	24.0 (17,9)	
Amp Draw @ Max. Rated Power: Full Load/ Locked Rotor	208V/3P	46.8/416	58.6/416	
	230V/3P	42.4/376	53.0/376	61.6/376
	460V/3P	21.2/188	26.5/188	30.8/188
	575V/3P	17.0/150	21.2/150	24.6/150
NEMA Motor Code	L	J	G	
Service Factor	1.15	1.15	1.15	
Efficiency: 100%/75%/50% Load	91%/89%/83%	91%/89%/86%	92%/92%/91%	
Power Factor: 100%/75%/50% Load	0.74/0.68/0.53	0.80/0.75/0.62	0.82/0.78/0.67	
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		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.	1.01" (25,7 mm)	0.91" (23,1 mm)
Control Cable	No. Cables/Conductors per Gauge	1/4 14 AWG	
	Type/Material	SOOW/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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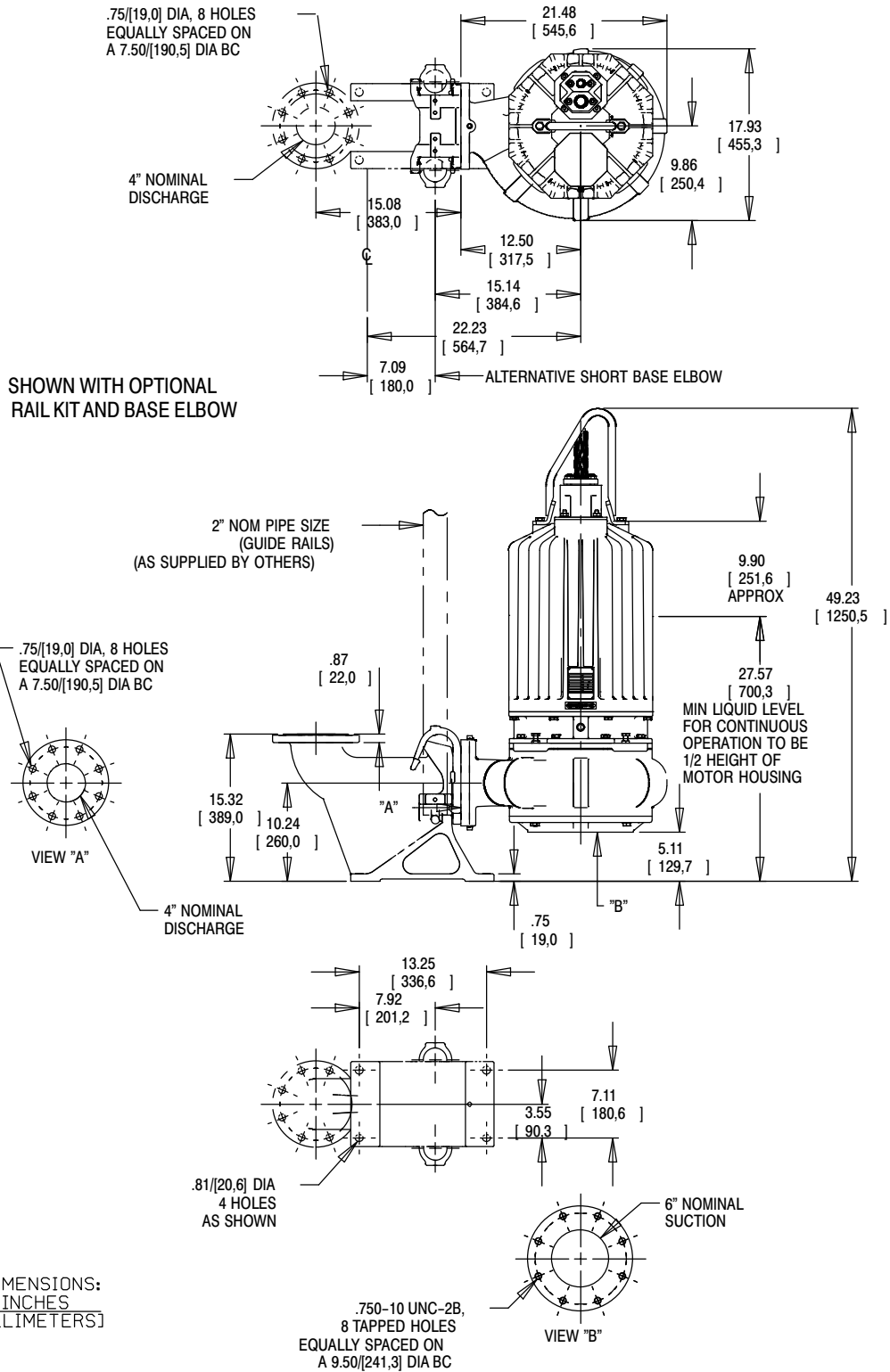
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Specification Data

SECTION 133, PAGE 240.2

**MODELS SF4E/SF4E-X
SLIDE RAIL VERSION
APPROXIMATE
DIMENSIONS and WEIGHTS**

NET WT: (pump only) **647 LBS.** [293,5 KG.]
(comb. cable wt. per meter [3.2 ft.]) **3.5 LBS.** [1,6 KG.]
SHIPPING WT: (pump only) **677 LBS.** [307,1 KG.]
CRATE SIZE: **15.6 CU. FT.** [0,44 CU. M.]



DIMENSIONS:
INCHES
(MILLIMETERS)



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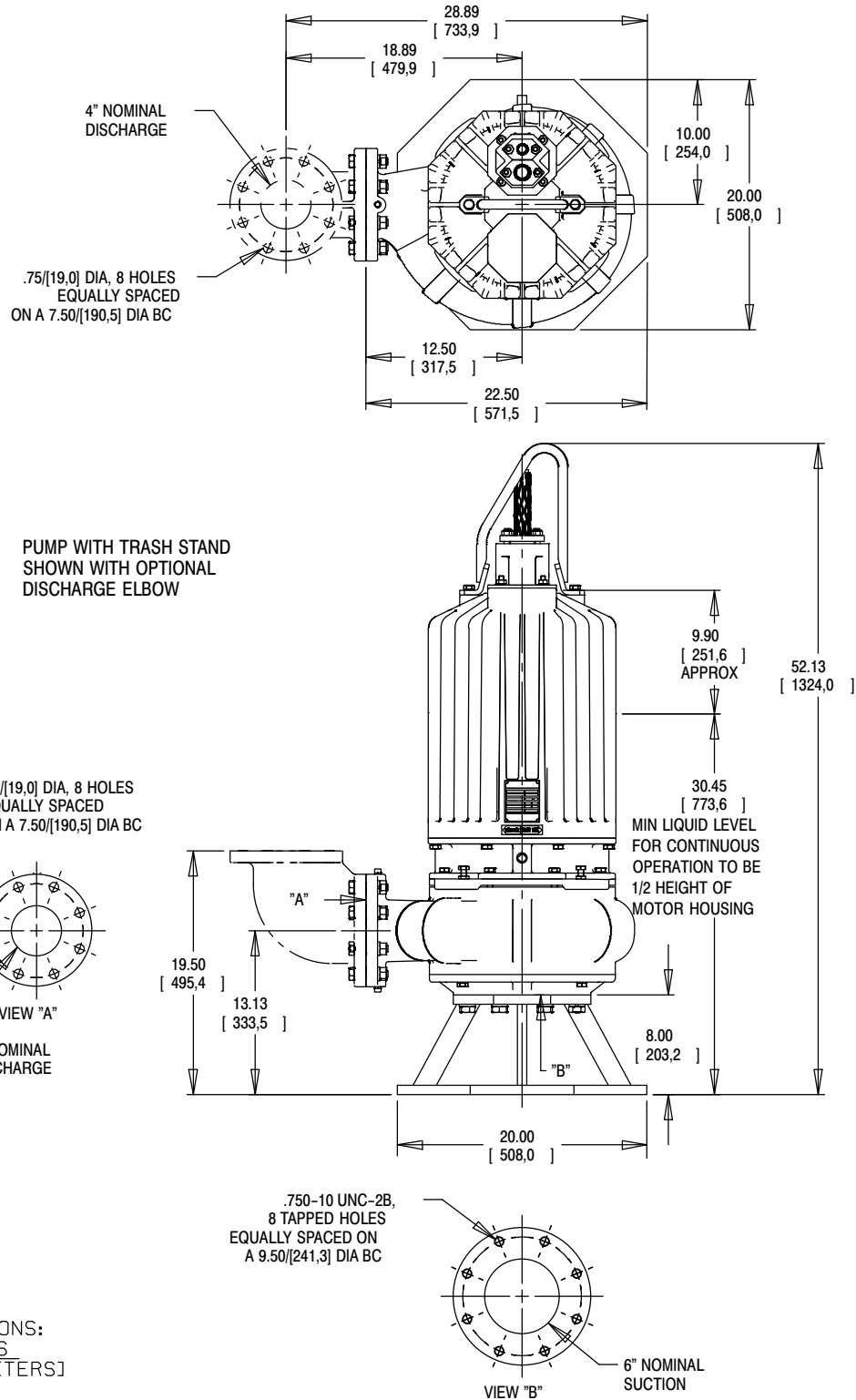
Specification Data

SECTION 133, PAGE 240.3

**MODELS SF4E/SF4E-X
TRASH VERSION
APPROXIMATE
DIMENSIONS and WEIGHTS**

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

670 LBS. [303,9 KG.]
3.5 LBS. [1,6 KG.]
700 LBS. [317,5 KG.]
17.5 CU. FT. [0,50 CU. M.]



DIMENSIONS:
INCHES
[MILLIMETERS]



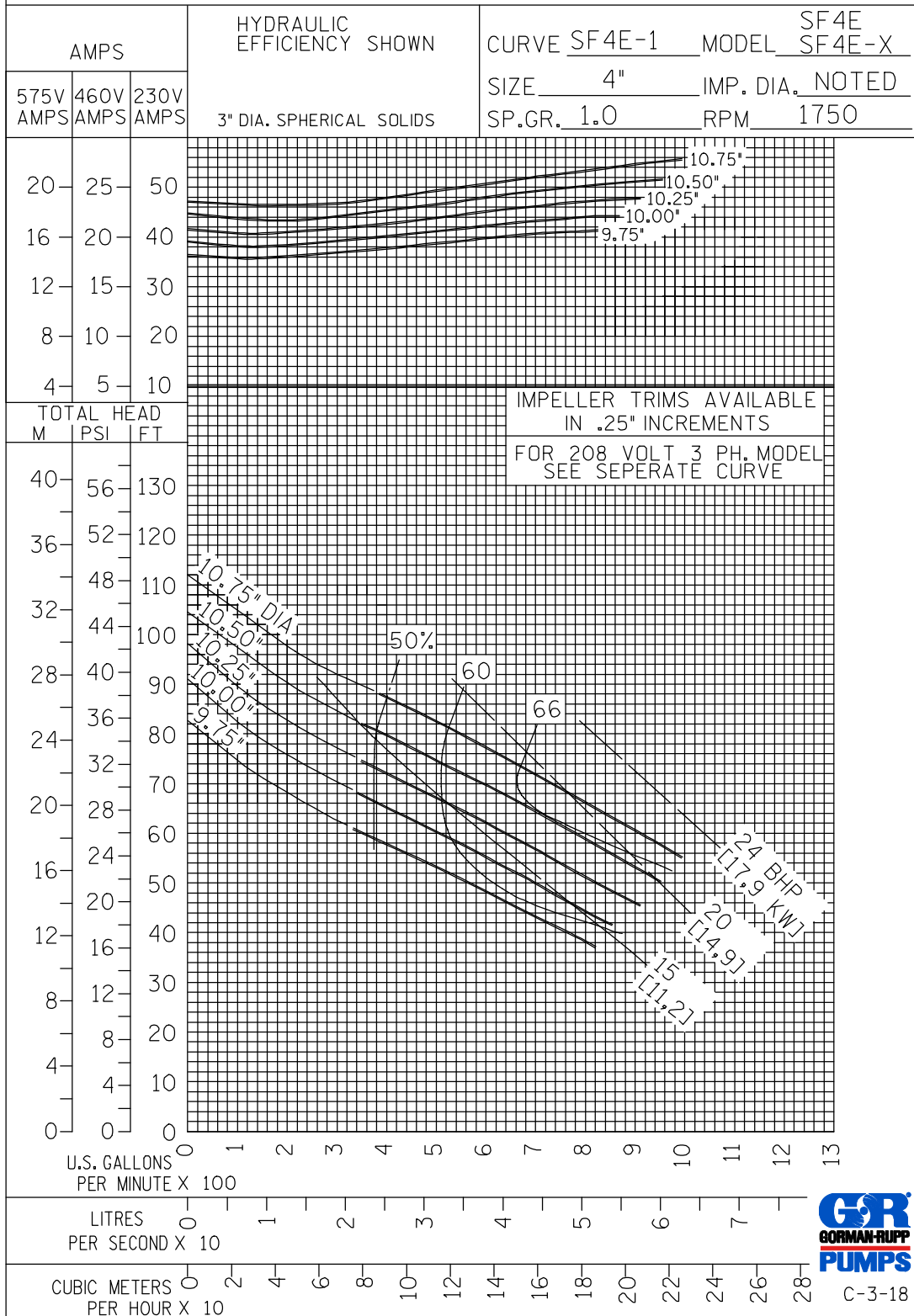
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PERFORMANCE CURVE



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PERFORMANCE CURVE

HYDRAULIC
EFFICIENCY SHOWN

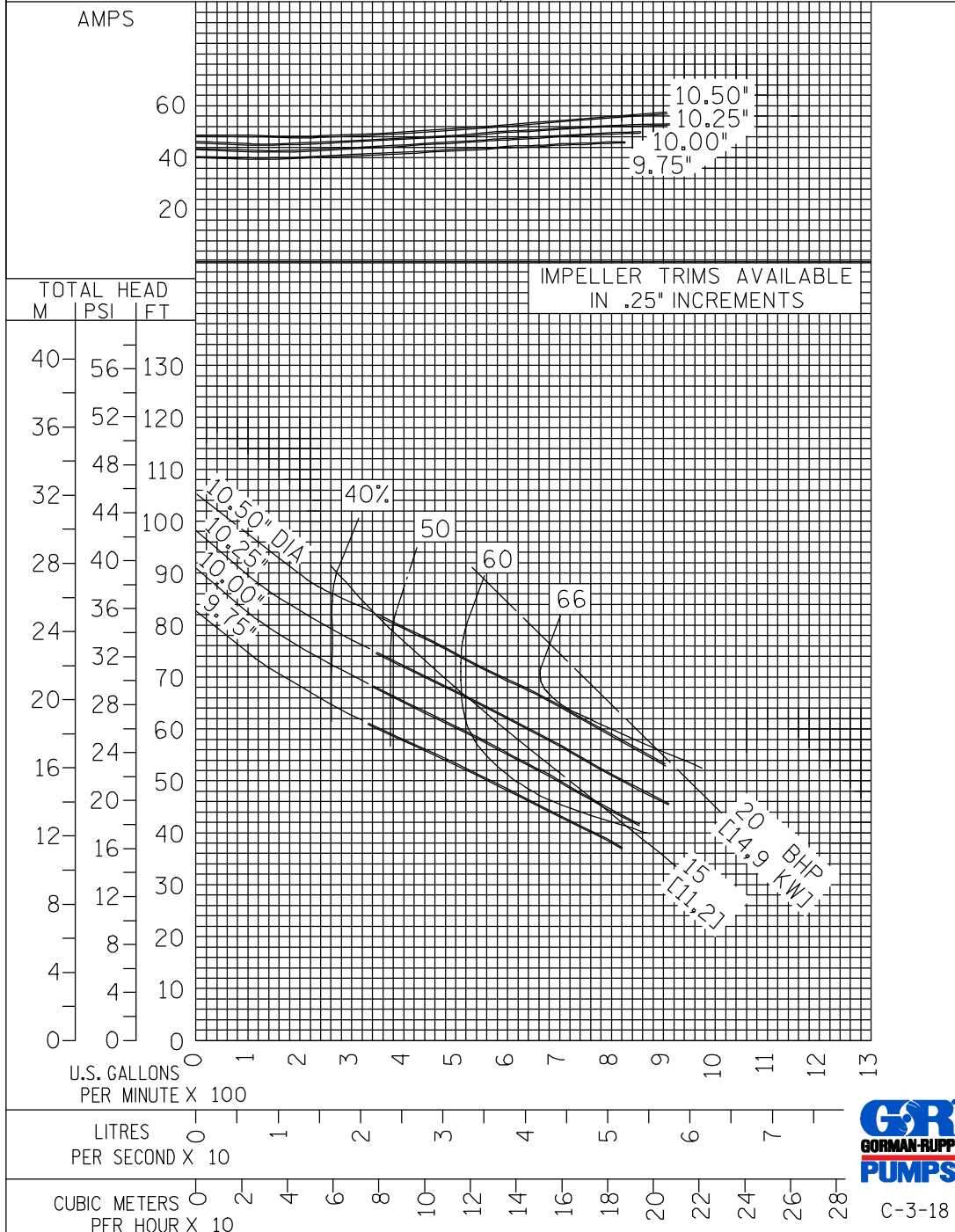
208 VOLT 3 PH. CURVE

3" DIA. SPHERICAL SOLIDS

CURVE SF4E-2 MODEL SF4E-X

SIZE 4" IMP. DIA. NOTED

SP.GR. 1.0 RPM 1750



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