



FILE NO: 100.550  
 DATE: Feb. 9, 2009  
 SUPERSEDES: New  
 DATE: New

**Series 4300 IVS Design Envelope**  
**Models: 13FM6, 13FN6, 13FO6**

**13F\_6**

**SUBMITTAL**

JOB: \_\_\_\_\_ REPRESENTATIVE: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 ENGINEER: \_\_\_\_\_ ORDER NO: \_\_\_\_\_ DATE: \_\_\_\_\_  
 SUBMITTED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 CONTRACTOR: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

PUMP DESIGN DATA			
NO. OF PUMPS:			
TAG:			
CAPACITY:	USgpm (L/s)	HEAD:	ft. (m)
LIQUID:		VISCOSITY:	
TEMPERATURE:	°F (°C)	SPECIFIC GRAVITY:	

MOTOR DESIGN DATA		
HP:		
FRAME SIZE:	ENCLOSURE:	
VOLTS:	HERTZ: 60 Hz	PHASE: 3
EFFICIENCY: NEMA PREMIUM		
FLANGE SIZE: SUCTION: 12" (300 mm)		DISCHARGE: 12" (300 mm)

DESIGN ENVELOPE CAPABILITY DATA					
MODEL	FLOW Usgpm (Lps)	HEAD ft (m)	EFF%	MOTOR HP	RPM
<input type="checkbox"/> 13FM6	2324 (146.6)	40 (12.2)	84.1	40	930
<input type="checkbox"/> 13FN6	2711 (171.0)	55 (16.6)	84.1	50	1085
<input type="checkbox"/> 13FO6	2950 (186.1)	64 (19.5)	84.1	60	1175

DRIVE DATA	
SENSORLESS CONTROL:	<input type="checkbox"/> REQUIRED <input type="checkbox"/> NOT REQUIRED
*MINIMUM SYSTEM PRESSURE TO BE MAINTAINED _____ ft (m)	
FIELDBUS PROTOCOL: <input type="checkbox"/> ModBUS RTU (standard) <input type="checkbox"/> LonWorks <input type="checkbox"/> BACnet	
ENCLOSURE: UL Type 12	
EMI/RFI CONTROL: Integrated Filter designed to meet EN61800-3	
HARMONIC SUPPRESSION: Integrated DC Link Reactors (<5% THD)	
COOLING: Fan-cooled through back channel	
AMBIENT TEMPERATURE: -10°C to +45°C up to 1000 meters above sea level (-14°F TO +113°F, 3280ft)	
ANALOG INPUTS: 2, current or voltage	
ANALOG OUTPUTS: 1, current	
DIGITAL INPUTS: 4 Programmable	
DIGITAL OUTPUTS: 2 Programmable (can be configured as additional digital inputs)	
PULSE INPUTS: 2 Programmable	
RELAY OUTPUTS: 2 Programmable	
COMMUNICATION PORT: RS 485	

MATERIALS OF CONSTRUCTION		
ANSI FLANGE RATING	<input type="checkbox"/> 125 lb. CAST IRON <input type="checkbox"/> 250 lb. DUCTILE IRON	
CONSTRUCTION	BF	DBF
CASING	CAST IRON	DUCTILE IRON
IMPELLER	BRONZE	BRONZE
FLUSH LINE	COPPER	COPPER
PUMP SHAFT	416 STAINLESS STEEL	
COUPLING	HIGH TENSILE ALUMINUM	
GASKET	CONFINED NON-ASBESTOS	

MAXIMUM PUMP OPERATING CONDITIONS	
125 lb. CAST IRON	250 lb. DUCTILE IRON
175 psig at 140°F (12 bars at 60°C) 100 psig at 300°F (7 bars at 149°C)	375 psig at 100°F (26 bars at 38°C) 275 psig at 500°F (19 bars at 260°C)
SEE FILE NO. 43.50 FOR MAXIMUM SEAL OPERATING CONDITIONS	

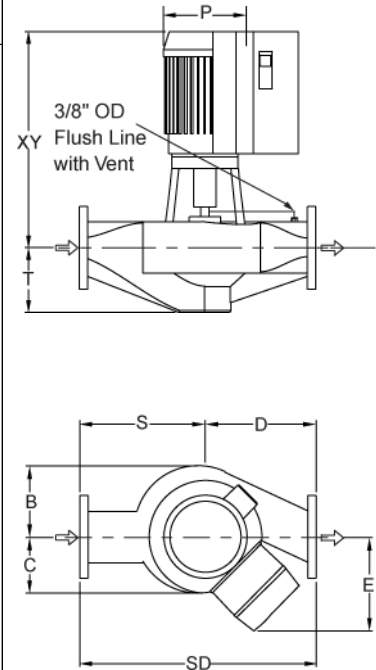
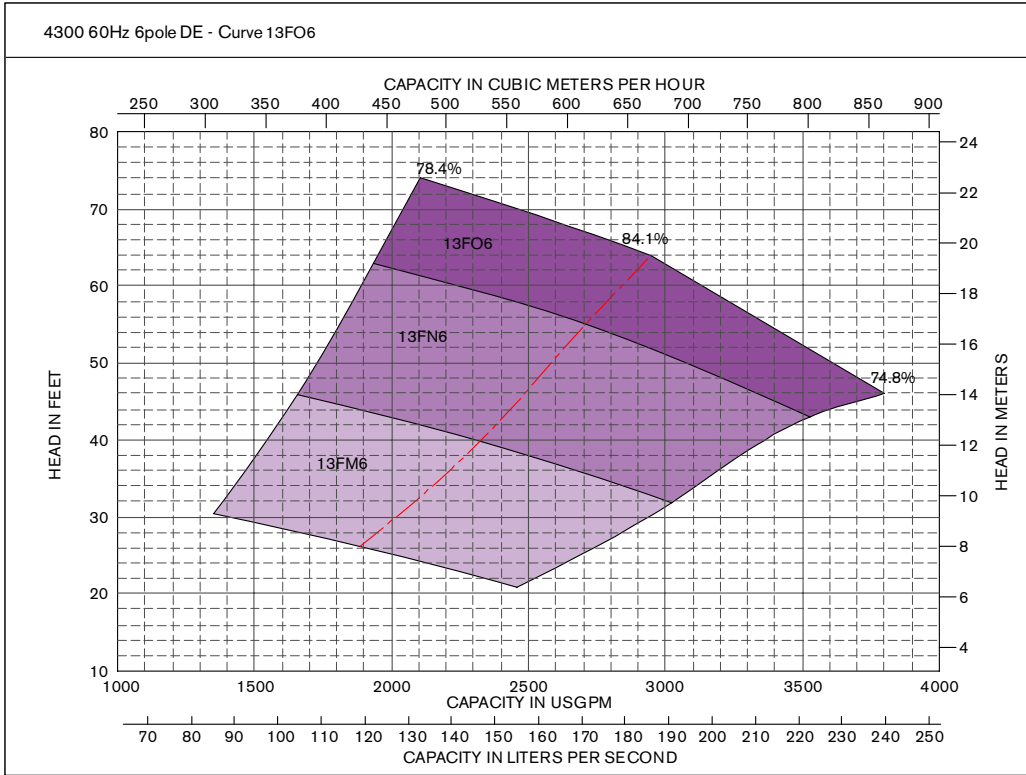
MECHANICAL SEAL DESIGN DATA
See File No. 43.50 for standard mechanical Armstrong Seal Reference Number <input type="checkbox"/> C1 (a) Other _____

SEAL DATA OPTIONS

OPTIONAL EQUIPMENT
SEE FILE NO. 43.50 FOR ENVIRONMENTAL ACCESSORIES

CHASSIS SIZE:				
MODEL	hp	VFD Chassis Size		
		200V-240V	380V-480V	600V
13FM6	40	C1	B2	B2
13FN6	50	C2	C1	B2
13FO6	60	C2	C1	C1

\*If minimum maintained system pressure is not known: Default to 40% of design head



### DIMENSION DATA - inches (mm)

Curve No.	Size	Power (HP)	Motor Frame		B	C	D	S	T	SD	E Max	P	XY	Weight lbs (Kg)
			ODP	TEFC										
13FM6	12x12x13	40	364TC	364TC	16.13 (410)	11.50 (292)	24.25 (616)	22.25 (565)	11.25 (286)	46.50 (1181)	22.18 (563)	19.03 (483)	52.19 (1326)	2675 (1216)
13FN6	12x12x13	50	365TC	365TC	16.13 (410)	11.50 (292)	24.25 (616)	22.25 (565)	11.25 (286)	46.50 (1181)	23.93 (608)	19.03 (483)	52.19 (1326)	2765 (1257)
13FO6	12x12x13	60	404TC	404TC	16.13 (410)	11.50 (292)	24.25 (616)	11.25 (286)	22.25 (565)	46.50 (1181)	24.86 (631)	21.41 (544)	57.95 (1472)	3345 (1520)

- COUPLING GUARD (NOT SHOWN) IS SUPPLIED.
- TOLERANCE OF  $\pm 0.125"$  ( $\pm 3$  mm) SHOULD BE USED.
- FOR EXACT INSTALLATION DATA PLEASE WRITE FACTORY FOR CERTIFIED DIMENSIONS.
- PUMP EQUIPPED WITH CASING DRAIN PLUG AND 1/4" NPT SUCTION AND DISCHARGE GAUGE PORTS

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