



FILE NO: 100.546
DATE: Feb. 9, 2009
SUPERSEDES: New
DATE: New

Series 4300 IVS Design Envelope

Models: 13AH4, 13AI4, 13AJ4

13A_4

SUBMITTAL

JOB: _____

REPRESENTATIVE: _____

ENGINEER: _____

ORDER NO: _____ DATE: _____

CONTRACTOR: _____

SUBMITTED BY: _____ DATE: _____

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: 3" (80 mm)	DISCHARGE: 3" (80 mm)

DESIGN ENVELOPE CAPABILITY DATA

MODEL	FLOW Usgpm (Lps)	HEAD ft (m)	EFF%	MOTOR HP	RPM
☐ 13AH4	192 (12.1)	68 (20.7)	61.4	10	1175
☐ 13AI4	254 (16.0)	118 (36.0)	61.4	15	1550
☐ 13AJ4	298 (18.8)	163 (49.8)	61.4	20	1823

MATERIALS OF CONSTRUCTION

ANSI FLANGE RATING	☐ 125 lb. CAST IRON	☐ 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
☐ C1 (a) Other _____

SEAL DATA OPTIONS

OPTIONAL EQUIPMENT

SEE FILE NO. 43.50 FOR ENVIRONMENTAL ACCESSORIES

DRIVE DATA

SENSORLESS CONTROL:	☐ REQUIRED	☐ NOT REQUIRED
*MINIMUM SYSTEM PRESSURE TO BE MAINTAINED _____ ft (m)		
FIELD BUS PROTOCOL: ☐ ModBUS RTU (standard) ☐ LonWorks ☐ 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		

CHASSIS SIZE:

MODEL	hp	VFD Chassis Size		
		200V-240V	380V-480V	600V
13AH4	10	B1	A5	A5
13AI4	15	B1	B1	B1
13AJ4	20	B2	B1	B1

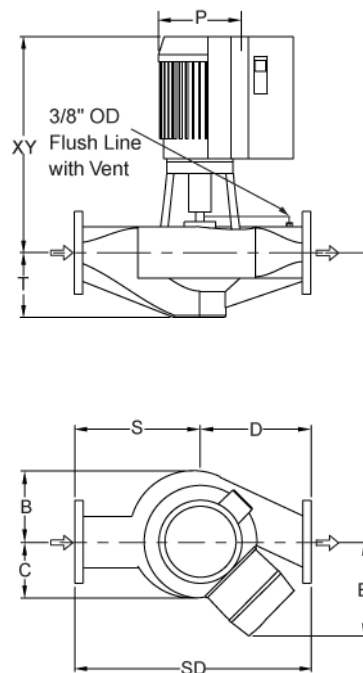
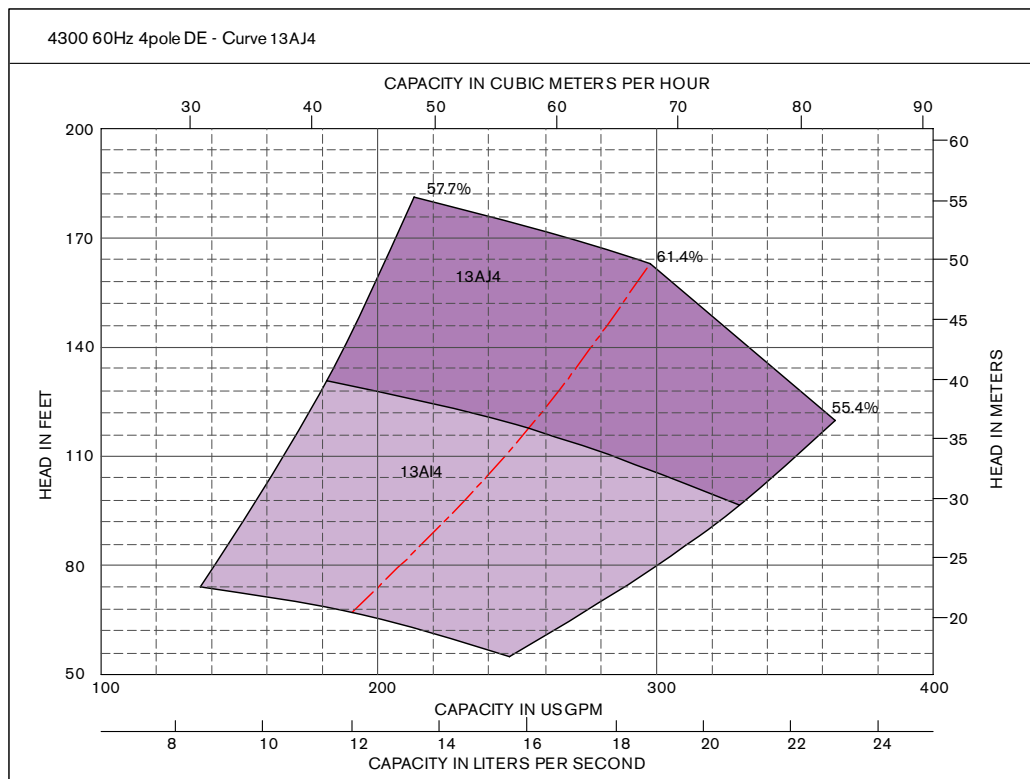
*If minimum maintained system pressure is not known: Default to 40% of design head



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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										
13AH4	3x3x13	10	215TC	215TC	8.25 (210)	8.75 (222)	12.00 (305)	13.50 (343)	6.63 (168)	25.50 (648)	16.59 (421)	11.25 (286)	31.65 (804)	505 (230)
13AI4	3x3x13	15	254TC	254TC	8.25 (210)	8.75 (222)	12.00 (305)	13.50 (343)	6.63 (168)	25.50 (648)	17.42 (442)	13.38 (340)	36.59 (929)	575 (261)
13AJ4	3x3x13	20	256TC	256TC	8.25 (210)	8.75 (222)	12.00 (305)	13.50 (343)	6.63 (168)	25.50 (648)	17.42 (442)	13.38 (340)	36.59 (929)	620 (282)

- COUPLING GUARD (NOT SHOWN) IS SUPPLIED.
- TOLERANCE OF $\pm 0.125"$ (± 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

S. A. Armstrong Limited
23 Bertrand Avenue
Toronto, Ontario
Canada, M1L 2P3
T: (416) 755-2291
F (Main): (416) 759-9101

Armstrong Pumps Inc.
93 East Avenue
North Tonawanda, New York
U.S.A. 14120-6594
T: (716) 693-8813
F: (716) 693-8970

Armstrong Holden Brooke Pullen
Wenlock Way
Manchester
United Kingdom, M12 5JL
T: +44 (0) 1612 232223
F: +44 (0) 1612 209660



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