



Series 4302 IVS Design Envelope
Models: 10AK2, 10AL2, 10AM2

10A_2

FILE NO: 100.586L
 DATE: Mar. 03, 2009
 SUPERSEDES: New
 DATE: New

SUBMITTAL

JOB: _____ REPRESENTATIVE: _____

 ENGINEER: _____ ORDER NO: _____ DATE: _____
 SUBMITTED BY: _____ DATE: _____
 CONTRACTOR: _____ APPROVED BY: _____ DATE: _____

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

MOTOR DESIGN DATA		
KW:		
FRAME SIZE:	ENCLOSURE:	
VOLTS:	HERTZ: 50 Hz	PHASE: 3
EFFICIENCY: <input type="checkbox"/> EFF 2 <input type="checkbox"/> EFF 1		
FLANGE SIZE: SUCTION: 80 mm (3")		DISCHARGE: 80 mm (3")

DESIGN ENVELOPE CAPABILITY DATA					
MODEL	FLOW Lps (USgpm)	HEAD m (ft)	EFF%	MOTOR kW	RPM
<input type="checkbox"/> 10AK2	15 (230)	46 (152)	52.9	18	2500
<input type="checkbox"/> 10AL2	17 (261)	60 (198)	52.9	22	2850
<input type="checkbox"/> 10AM2	20 (322)	92 (302)	52.9	30	3500

DRIVE DATA	
SENSORLESS CONTROL:	<input type="checkbox"/> REQUIRED <input type="checkbox"/> NOT REQUIRED
*MINIMUM SYSTEM PRESSURE TO BE MAINTAINED _____ m (ft)	
FIELDBUS PROTOCOL: <input type="checkbox"/> ModBUS RTU (standard) <input type="checkbox"/> LonWorks <input type="checkbox"/> BACnet	
ENCLOSURE: IP55	
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	
**EXPANSION CARD OPTION	
Drive A	<input type="checkbox"/> Auxiliary Analog I/O <input type="checkbox"/> Auxiliary Digital I/O <input type="checkbox"/> Auxiliary Relay <input type="checkbox"/> Real-Time Clock
Drive B	<input type="checkbox"/> Auxiliary Analog I/O <input type="checkbox"/> Auxiliary Digital I/O <input type="checkbox"/> Auxiliary Relay <input type="checkbox"/> Real-Time Clock

MATERIALS OF CONSTRUCTION		
DIN FLANGE RATING	<input type="checkbox"/> PN16 CAST IRON <input type="checkbox"/> PN25 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	
PN16 Cast Iron	PN25 Ductile Iron
12 bars at 60°C (175 psig at 140°F) 7 bars at 149°C (100 psig at 300°F)	26 bars at 38°C (375 psig at 100°F) 19 bars at 260°C (275 psig at 500°F)
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

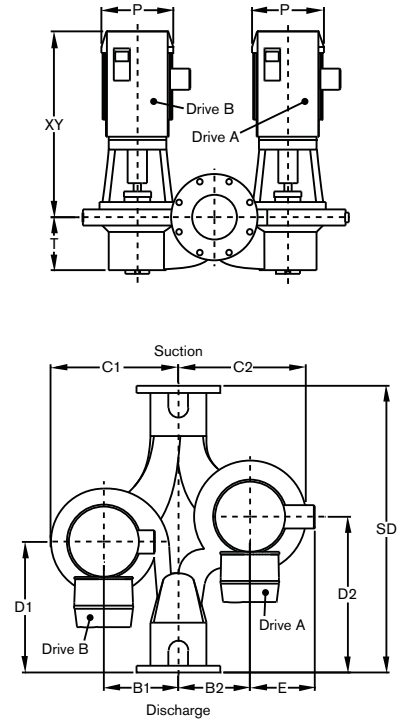
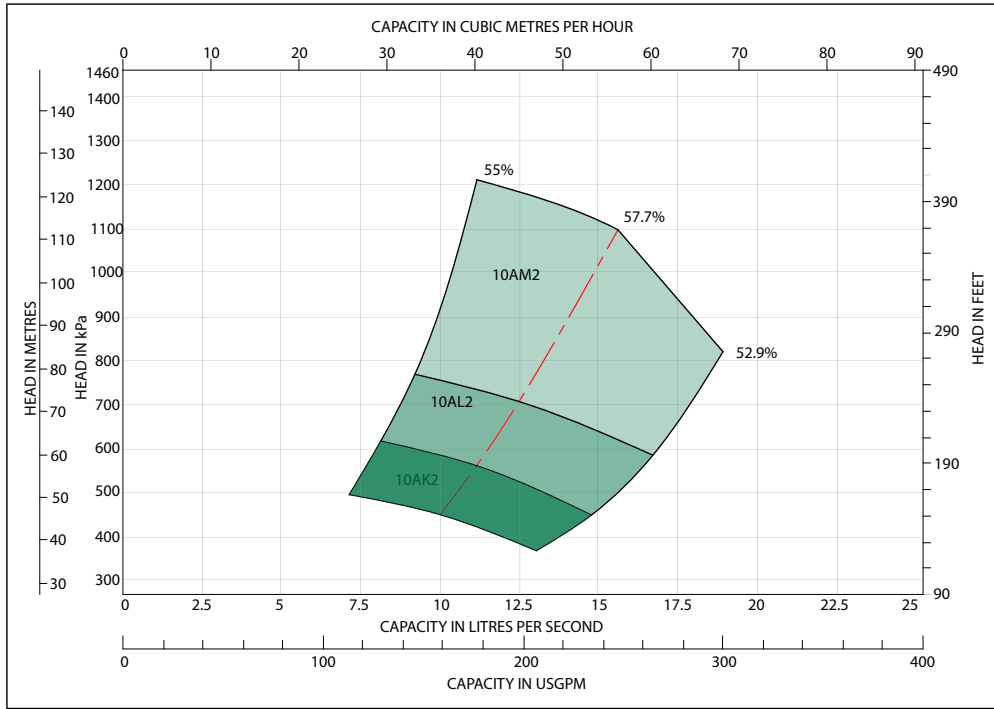
OPTIONAL EQUIPMENT
SEE FILE NO. 43.50 FOR ENVIRONMENTAL ACCESSORIES



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DIMENSION DATA - mm (inches)

Curve No.	Size	Power (kW)	C1	C2	D1	D2	B1	B2	T	SD	ODP motors with UL Type 12 drives			TEFC motors with UL Type 12 drives			Weight in lbs (Kg)	
											P	E	XY	P	E	XY	ODP	TEFC
10AK2	80-250	18	397 (15.63)	400 (15.75)	276 (10.87)	403 (15.87)	229 (9.00)	229 (9.00)	142 (5.60)	654 (25.75)	340 (13.38)	252 (9.94)	870 (34.27)	389 (15.31)	305 (12.00)	1107 (43.60)	371.9 (820)	435.4 (960)
10AL2	80-250	22	397 (15.63)	400 (15.75)	276 (10.87)	403 (15.87)	229 (9.00)	229 (9.00)	142 (5.60)	654 (25.75)	340 (13.38)	298 (11.75)	952 (37.47)	389 (15.31)	305 (12.00)	1107 (43.60)	417.2 (920)	498.9 (1100)
10AM2	80-250	30	397 (15.63)	400 (15.75)	276 (10.87)	403 (15.87)	229 (9.00)	229 (9.00)	142 (5.60)	654 (25.75)	340 (13.38)	298 (11.75)	952 (37.47)	432 (17.00)	353 (13.91)	1131 (44.53)	489.8 (1080)	707.5 (1560)

- COUPLING GUARD (NOT SHOWN) IS SUPPLIED.
- TOLERANCE OF ±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

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