



# Series 4302 IVS Design Envelope

Models: 10AK2, 10AL2, 10AM2

# 10A\_2

FILE NO:	100.586
DATE:	Feb. 09, 2009
SUPERSEDES:	New
DATE:	New

# 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
<input type="checkbox"/> 10AK2	181 (11.4)	196 (59.8)	57.7	25	2575
<input type="checkbox"/> 10AL2	204 (12.9)	251 (76.4)	57.7	30	2900
<input type="checkbox"/> 10AM2	248 (15.6)	368 (112.3)	57.7	40	3500

DRIVE DATA	
SENSORLESS CONTROL:	<input type="checkbox"/> REQUIRED <input type="checkbox"/> NOT REQUIRED
*MINIMUM SYSTEM PRESSURE TO BE MAINTAINED _____ ft (m)	
FIELD BUS PROTOCOL: <input type="checkbox"/> ModBUS RTU (standard) <input type="checkbox"/> LonWorks <input type="checkbox"/> BACnet	
VFD BRIDGE: <input type="checkbox"/> Automatic Standby - Alternation Control	
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	<input type="checkbox"/> BF	<input type="checkbox"/> 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
10AK2	25	C1	B1	B1
10AL2	30	C1	B2	B2
10AM2	40	C1	B2	B2

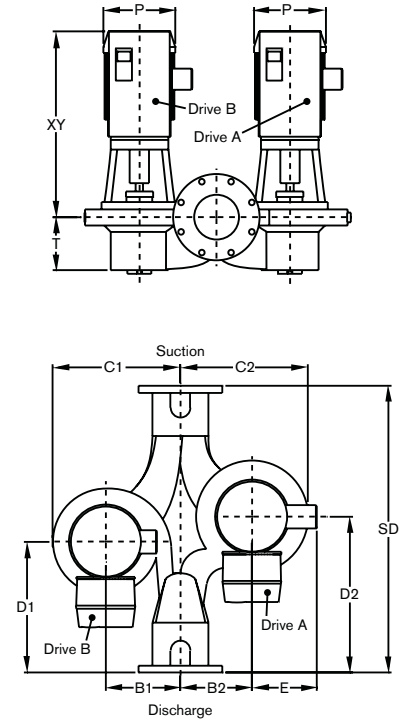
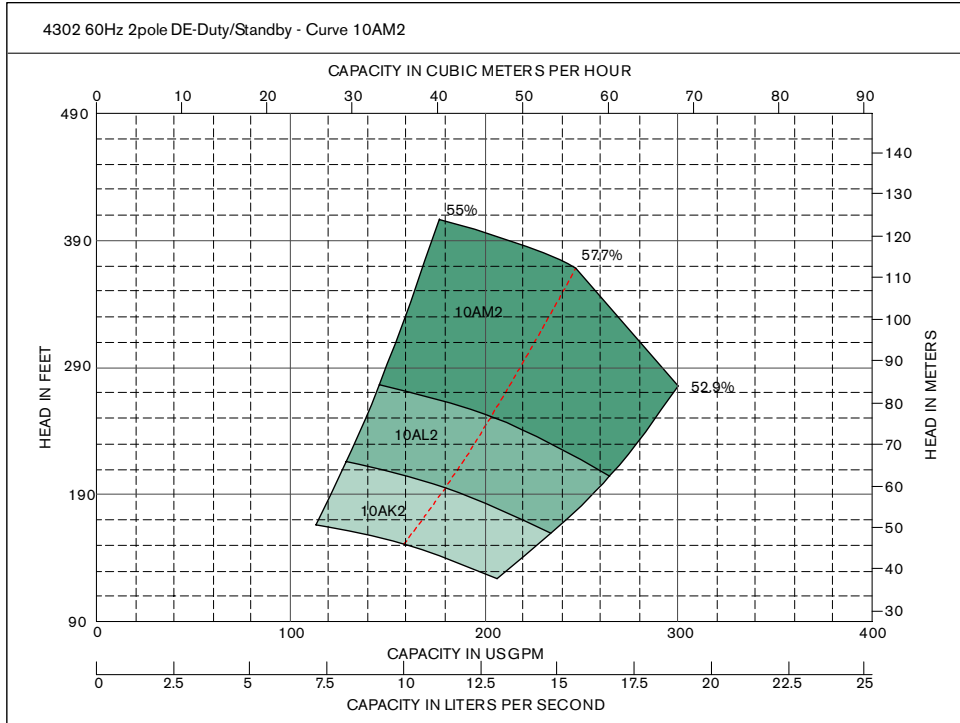
\*If minimum maintained system pressure is not known: Default to 40% of design head



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### DIMENSION DATA - inches (mm)

Curve No.	Size	Power (HP)	Motor Frame		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)	
			ODP	TEFC									P	E	XY	P	E	XY	ODP	TEFC
10AK2	3X3X10	25	256TC	284TC	15.63 (397)	15.75 (400)	10.87 (276)	15.87 (403)	9.00 (229)	9.00 (229)	5.60 (142)	25.75 (654)	13.38 (340)	9.94 (252)	34.27 (870)	15.31 (389)	12.00 (305)	43.60 (1107)	820 (371.9)	960 (435.4)
10AL2	3X3X10	30	284TC	286TC	15.63 (397)	15.75 (400)	10.87 (276)	15.87 (403)	9.00 (229)	9.00 (229)	5.60 (142)	25.75 (654)	13.38 (340)	11.75 (298)	37.47 (952)	15.31 (389)	12.00 (305)	43.60 (1107)	920 (417.2)	1100 (498.9)
10AM2	3X3X10	40	286TC	324TC	15.63 (397)	15.75 (400)	10.87 (276)	15.87 (403)	9.00 (229)	9.00 (229)	5.60 (142)	25.75 (654)	13.38 (340)	11.75 (298)	37.47 (952)	17.00 (432)	13.91 (353)	44.53 (1131)	1080 (489.8)	1560 (707.5)

- 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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