ARMSTRONG

FILE NO:	94.65
DATE:	July 31, 2009
SUPERSEDES:	New
DATE:	New

IVS-102 Adjustable Frequency Drives

SUBMITTAL

JOB: _____ REPRESENTATIVE: _____

ORDER NO: _____ DATE: _____

ENGINEER: _____ SUBMITTED BY: _____ DATE: _____

CONTRACTOR: _____ APPROVED BY: _____ DATE: _____

PUMP DESIGN DATA

NO. OF PUMPS:			
CAPACITY:	USGPM (L/s)	HEAD:	ft (m)
TAG:			

MOTOR DESIGN DATA

HP:		
VOLTS:	HERTZ: 50 HZ / 60 Hz	PHASE:

STANDARD FUNCTIONALITY and CONSTRUCTION

USER INTERFACE: Multifunction keypad with the following features:

- Graphical display (shows bars and graphs)
- Quick setup menu
- 2 Level password protection
- Intuitive help functionality

POWER ISOLATION: Optional integrated disconnect switch

PUMP PROTECTION:
- Preventative maintenance scheduling
- Dry running and end of curve protection

ENERGY CONSERVATION:
- Automatic energy optimizer (AEO) for accurate load matching
- Energy monitoring for measuring kWh consumption
- Flow compensation for locally mounted DP sensor(s)

MOTOR PROTECTION: Automatic current limiting and fault protection as standard

CONDENSATION PROTECTION: Motor pre-heat function to prevent condensation build up

DRIVE DATA

SENSORLESS CONTROL: ☐ REQUIRED ☐ NOT REQUIRED

MINIMUM SYSTEM PRESSURE TO BE MAINTAINED _____ ft (m) *

PROTOCOL (Standard): ☐ Modbus RTU ☐ Metasys® N2 ☐ Apogee® FLN

PROTOCOL (Optional): ☐ LonWorks® ☐ BACnet™

ENCLOSURE: ☐ NEMA UL Type 1 ☐ NEMA UL Type 12

EMI/RFI CONTROL: Integrated filter designed to meet EN61800-3

HARMONIC SUPPRESSION: Dual D-link reactors (Equivalent: 5% A line reactor)

COOLING: Fan-cooled through back channel

AMBIENT TEMPERATURE: -10°C to +45°C up to 1000 meters above sea level (-14°F to +133°F, 3280 ft)

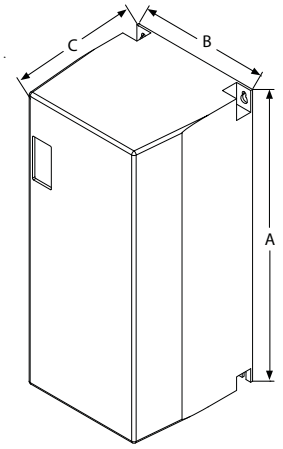
ANALOG I/O: 2 current or voltage inputs, 1 current output

DIGITAL I/O: 6 programmable inputs (2 can be configured as outputs)

PULSE INPUTS: 2 Programmable

RELAY OUTPUTS: 2 Programmable

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



ARMSTRONG DRIVE DATA - MAXIMUM DIMENSIONS AND WEIGHTS

POWER RANGE - hp			DCD	NEMA / UL Type 1 / IP21			NEMA / UL Type 12 / IP55 (IP54 D & E)			Max Weight
200V - 240V	380V - 480V	525V - 600V		A	B	C	A	B	C	lbs (kg)
1.5 - 3	1.5 - 5	- - -	A2	14.76 (375)	3.54 (90)	8.66 (220)	Not Available	Not Available	Not Available	12 (5.3)
4 - 5	7.5 - 10	1.5 - 10	A3	14.76 (375)	5.12 (130)	8.66 (220)	Not Available	Not Available	Not Available	15 (7.0)
1.5 - 5	1.5 - 10	1.5 - 10	A5	Not Available	Not Available	Not Available	16.54 (420)	9.53 (242)	7.87 (200)	31 (14.0)
7.5 - 15	15 - 25	15 - 25	B1	18.90 (480)	9.53 (242)	10.24 (260)	18.90 (480)	9.53 (242)	10.24 (260)	51 (23.0)
20 - 20	30 - 40	30 - 40	B2	25.59 (650)	9.53 (242)	10.24 (260)	25.59 (650)	9.53 (242)	10.24 (260)	60 (27.0)
25 - 40	50 - 75	50 - 75	C1	26.77 (680)	12.13 (308)	12.20 (310)	26.77 (680)	12.13 (308)	12.20 (310)	99 (45.0)
50 - 60	100 - 125	100 - 125	C2	30.31 (770)	14.57 (370)	13.19 (335)	30.31 (770)	14.57 (370)	13.19 (335)	143 (65.0)
- - -	150 - 150	150 - 200	D1	47.60 (1209)	16.54 (420)	14.96 (380)	47.60 (1209)	16.54 (420)	14.96 (380)	229 (104.0)
- - -	200 - 300	250 - 500	D2	62.56 (1589)	16.54 (420)	14.96 (380)	62.56 (1589)	16.54 (420)	14.96 (380)	333 (151.0)
- - -	400 - 600	600 - 800	E1	78.74 (2000)	23.62 (600)	19.45 (494)	78.74 (2000)	23.62 (600)	19.45 (494)	690 (313.0)

Note: • DCD—Drive Chasis Designation • Dimensions are shown in inches (mm)

• Mounting details on page 2

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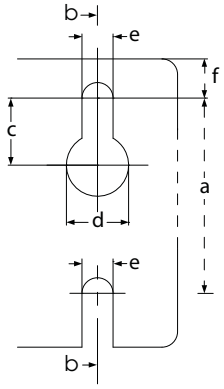
MOUNTING DETAILS FOR ARMSTRONG IVS-102 ADJUSTABLE FREQUENCY DRIVES

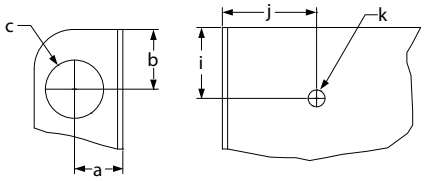
DCD	TOP & BOTTOM MOUNTING HOLE DIMENSIONS - inches (mm)					
	a	b	c	d	e	f
A2	13.78 (350)	2.76 (70)	0.31 (8)	0.43 (11)	0.22 (6)	0.35 (9)
A3	13.78 (350)	4.33 (110)	0.31 (8)	0.43 (11)	0.22 (6)	0.35 (9)
A5	15.83 (402)	8.46 (215)	0.32 (8)	0.47 (12)	0.26 (7)	0.35 (9)
B1	17.87 (454)	8.27 (210)	0.47 (12)	0.75 (19)	0.35 (9)	0.35 (9)
B2	24.57 (624)	8.27 (210)	0.47 (12)	0.75 (19)	0.35 (9)	0.35 (9)
C1	25.51 (648)	10.71 (272)	0.47 (12)	0.75 (19)	0.35 (9)	0.39 (10)
C2	29.09 (739)	13.15 (334)	0.47 (12)	0.75 (19)	0.35 (9)	0.39 (10)

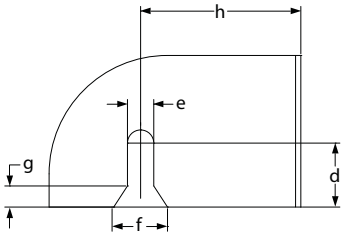
DCD	LIFTING EYE & MOUNTING HOLES DIMENSIONS - inches (mm)					
	a	b	c	d	e	f
D1	0.87 (22)	0.98 (25)	0.98 (25)	0.79 (20)	0.43 (11)	0.87 (22)
D2	0.87 (22)	0.98 (25)	0.98 (25)	0.79 (20)	0.43 (11)	0.87 (22)
E1	2.2 (56)	0.98 (25)	0.98 (25)	- - -	- - -	- - -

DCD	LIFTING EYE & MOUNTING HOLES DIMENSIONS - inches (mm)				
	g	h	i	j	k
D1	0.39 (10)	2.01 (51)	0.98 (25)	1.93 (49)	0.43 (11)
D2	0.39 (10)	2.01 (51)	0.98 (25)	1.93 (49)	0.43 (11)

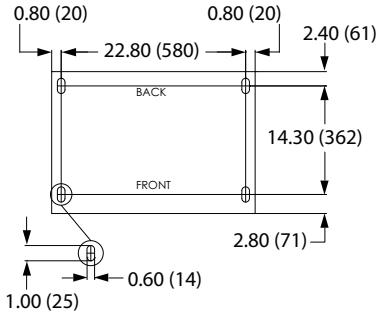


Top & Bottom Mounting Holes
(A2, A3, A5, B1, B2, C1, C2)





Lifting Eye & Mounting Holes
(D1, D2)



Base Plate Mount - inches (mm)
(E1)

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