

## IVS-102 | ADJUSTABLE FREQUENCY DRIVES | SUBMITTAL

File No: 94.65L  
 Date: FEBRUARY 02, 2015  
 Supersedes: 94.65L  
 Date: JUNE 25, 2010

Job: \_\_\_\_\_ Representative: \_\_\_\_\_  
 \_\_\_\_\_ Ordered by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Engineer: \_\_\_\_\_ Submitted by: \_\_\_\_\_ Date: \_\_\_\_\_  
 \_\_\_\_\_ Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

### PUMP DESIGN DATA

No. of pumps: \_\_\_\_\_ Tag: \_\_\_\_\_  
 Capacity: \_\_\_\_\_ L/s (USgpm) Head: \_\_\_\_\_ m(ft)

### MOTOR DESIGN DATA

kW: \_\_\_\_\_ Volts: \_\_\_\_\_  
 Hertz: 50 Hz/60 Hz Phase: \_\_\_\_\_

### STANDARD FUNCTIONALITY AND CONSTRUCTION

**User interface:** Multifunction keypad with the features below

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

**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

**Protocol (standard):**  Modbus RTU  BACnet™  
 Metasys® N2  Apogee® FLN

**Protocol (optional):**  DeviceNet  Profibus  
 Modbus TCP

**Enclosure:**  IP20/21  
 IP55

**EMI/RFI control:** Integrated filter designed to meet EN61800-3.

**Harmonic suppression:** Dual DC-link reactors (equivalent: 5% A line reactor) Supporting IEEE 519-1992 requirements\*\*

**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, 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

**Communication port:** 1-RS485, 1-USB

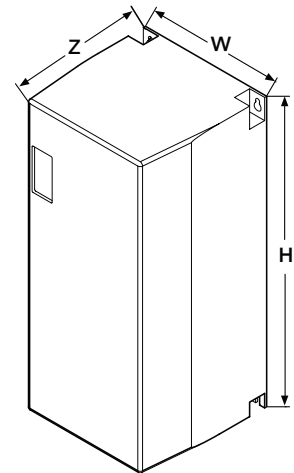
\*\*The IVS 102 drive is a low harmonic drive via built-in DC line reactors. This does not guaranty performance to any system wide harmonic specification or the costs to meet a system wide specification. If supplied with the system electrical details, Armstrong will run a computer simulation of the system wide harmonics. If system harmonic levels are exceeded Armstrong can also recommend additional harmonic mitigation and the costs for such mitigation.

**ARMSTRONG DRIVE DATA - MAXIMUM DIMENSIONS AND WEIGHT**

POWER RANGE - kW	DCD	IP20 (IP21 D&E)			IP55 (IP54 D&E)			WEIGHT kg (lbs)
		H	W	Z	H	W	Z	
380v-480v								
1.1 - 4.0	A2	375 (14.76)	90 (3.54)	220 (8.66)	N/A	N/A	N/A	5.3 (12)
5.5 - 7.5	A3	375 (14.76)	130 (5.12)	220 (8.66)	N/A	N/A	N/A	7.0 (15)
1.1 - 7.5	A5	N/A	N/A	N/A	420 (16.54)	242 (9.53)	200 (7.87)	14.0 (31)
11.0 - 18.5	B1	480 (18.90)	242 (9.53)	260 (10.24)	480 (18.90)	242 (9.53)	260 (10.24)	23.0 (51)
22.0 - 30.0	B2	650 (25.59)	242 (9.53)	260 (10.24)	650 (25.59)	242 (9.53)	260 (10.24)	27.0 (60)
37.0 - 55.0	C1	680 (26.77)	308 (12.13)	310 (12.20)	680 (26.77)	308 (12.13)	310 (12.20)	45.0 (99)
75.0 - 90.0	C2	770 (30.31)	370 (14.57)	335 (13.19)	770 (30.31)	370 (14.57)	335 (13.19)	65.0 (143)
110 - 132	D1	1209 (47.60)	420 (16.54)	380 (14.96)	1209 (47.60)	420 (16.54)	380 (14.96)	104.0 (229)
160 - 250	D2	1589 (62.56)	420 (16.54)	380 (14.96)	1589 (62.56)	420 (16.54)	380 (14.96)	151.0 (333)
315 - 450	E1	2000 (78.74)	600 (23.62)	494 (19.45)	2000 (78.74)	600 (23.62)	494 (19.45)	313.0 (690)

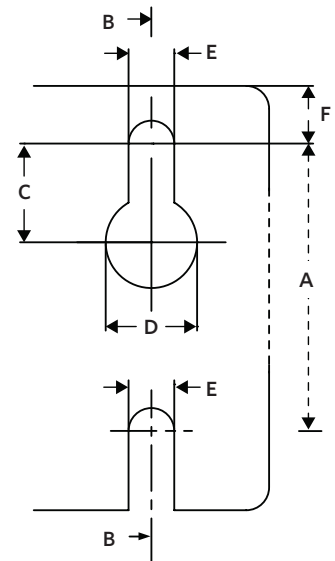
**NOTE:**

- dcd-Drive chassis designation.
- Mounting details on page 3.
- Dimensions are shown in inches (mm).



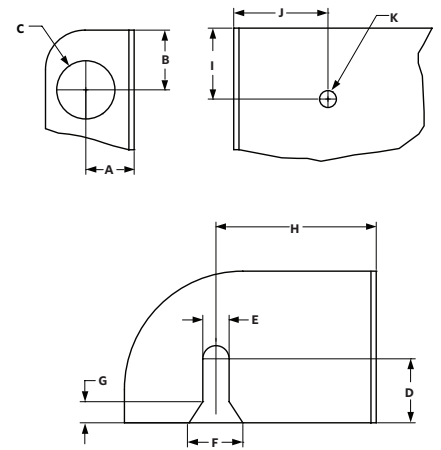
**MOUNTING DETAILS FOR ARMSTRONG IVS-102 ADJUSTABLE FREQUENCY DRIVES**

DCD	TOP AND BOTTOM MOUNTING HOLE DIMENSIONS - mm (INCHES)					
	A	B	C	D	E	F
A2	350 (13.78)	70 (2.76)	8 (0.31)	11 (0.43)	6 (0.22)	9 (0.35)
A3	350 (13.78)	110 (4.33)	8 (0.31)	11 (0.43)	6 (0.22)	9 (0.35)
A5	402 (15.83)	215 (8.46)	8 (0.32)	12 (0.47)	7 (0.26)	9 (0.35)
B1	454 (17.87)	210 (8.27)	12 (0.47)	19 (0.75)	9 (0.35)	9 (0.35)
B2	624 (24.57)	210 (8.27)	12 (0.47)	19 (0.75)	9 (0.35)	9 (0.35)
C1	648 (25.51)	272 (10.71)	12 (0.47)	19 (0.75)	9 (0.35)	10 (0.39)
C2	739 (29.09)	334 (13.15)	12 (0.47)	19 (0.75)	9 (0.35)	10 (0.39)



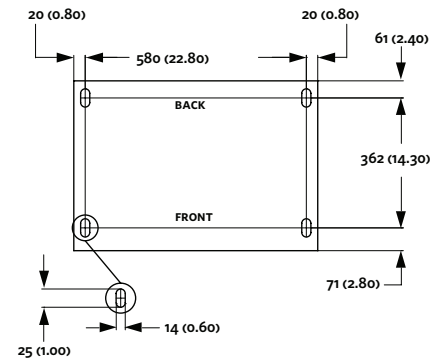
**TOP & BOTTOM MOUNTING HOLES  
(A2, A3, A5, B1, B2, C1, C2)**

DCD	LIFTING EYE AND MOUNTING HOLES DIMENSIONS - mm (INCHES)					
	A	B	C	D	E	F
D1	22 (0.87)	25 (0.98)	25 (0.98)	20 (0.79)	11 (0.43)	22 (0.87)
D2	22 (0.87)	25 (0.98)	25 (0.98)	20 (0.79)	11 (0.43)	22 (0.87)
E1	56 (2.2)	25 (0.98)	25 (0.98)	N/A	N/A	N/A



LIFTING EYE & MOUNTING HOLES  
(D1, D2)

DCD	LIFTING EYE AND MOUNTING HOLES DIMENSIONS - mm (INCHES)				
	G	H	I	J	K
D1	10 (0.39)	51 (2.01)	25 (0.98)	49 (1.93)	11 (0.43)
D2	10 (0.39)	51 (2.01)	25 (0.98)	49 (1.93)	11 (0.43)



BASE PLATE MOUNT

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