

IVS-102 Variable Speed Drives

SUBMITTAL

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

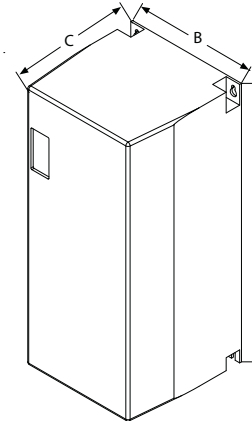
PUMP DESIGN DATA			
NO. OF PUMPS:			
CAPACITY:	L/s (USGPM)	HEAD:	m (ft)
TAG:			

MOTOR DESIGN DATA			
KW:			
VOLTS:	HERTZ: 50 HZ / 60 Hz	PHASE:	

STANDARD FUNCTIONALITY and CONSTRUCTION	
USER INTERFACE:	Multifunction keypad with the features below <ul style="list-style-type: none"> • Graphical display (shows bars and graphs) • Quick setup menu • 2 level password protection • Intuitive help function
POWER ISOLATION:	Optional integrated disconnect switch
PUMP PROTECTION:	<ul style="list-style-type: none"> • Preventative maintenance scheduling • Dry running and end-of-curve protection
ENERGY CONSERVATION:	<ul style="list-style-type: none"> • 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):	<input type="checkbox"/> Modbus RTU <input type="checkbox"/> Metasys® N2 <input type="checkbox"/> Apogee® FLN
PROTOCOL (Optional):	<input type="checkbox"/> LonWorks® <input type="checkbox"/> BACnet™ <input type="checkbox"/> DeviceNet <input type="checkbox"/> Profibus <input type="checkbox"/> Modbus TCP
ENCLOSURE:	<input type="checkbox"/> IP20/IP21 <input type="checkbox"/> IP55
EMI/RFI CONTROL:	Integrated filter designed to meet EN61800-3
HARMONIC SUPPRESSION:	Dual D-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 +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
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 WEIGHTS										
POWER RANGE	DCD	IP20 (IP21 D&E)			IP55 (IP54 D&E)			Max Weight		
		A	B	C	A	B	C		kg (lbs)	
380V - 480V										
1.1 - 4.0	A2	375 (14.76)	90 (3.54)	220 (8.66)	Not Available	Not Available	Not Available	5.3 (12)		
5.5 - 7.5	A3	375 (14.76)	130 (5.12)	220 (8.66)	Not Available	Not Available	Not Available	7.0 (15)		
1.1 - 7.5	A5	Not Available	Not Available	Not Available	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)		

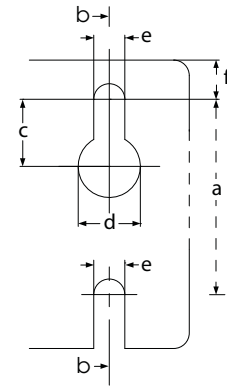
Note: • DCD—Drive Chasis Designation • Dimensions are shown in mm (inches)
• Mounting details on page 2

MOUNTING DETAILS FOR ARMSTRONG IVS-102 VARIABLE SPEED DRIVES

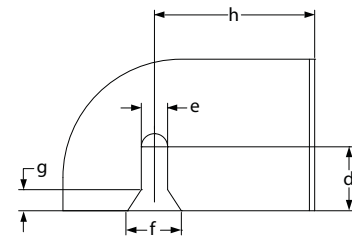
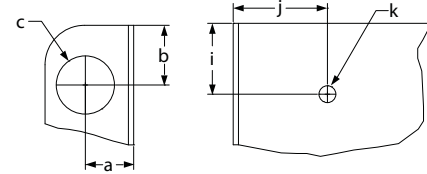
DCD	TOP & BOTTOM MOUNTING HOLE DIMENSIONS - mm (inches)					
	a	b	c	d	e	f
A2	350 (13.78)	70 (2.76)	8 (0.31)	11 (0.43)	6 (0.22)	9 (0.35)
A3	350 (13.78)	110 (4.33)	8 (0.31)	11 (0.43)	6 (0.22)	9 (0.35)
A5	402 (15.83)	215 (8.46)	8 (0.32)	12 (0.47)	7 (0.26)	9 (0.35)
B1	454 (17.87)	210 (8.27)	12 (0.47)	19 (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)

DCD	LIFTING EYE & 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)	---	---	---

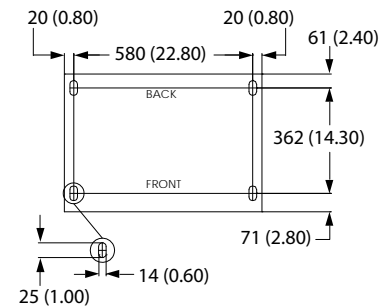
DCD	LIFTING EYE & MOUNTING HOLES DIMENSIONS - mm (inches)				
	g	h	i	j	k
D1	10 (0.39)	51 (2.01)	25 (0.98)	49 (1.93)	11 (0.43)
D2	10 (0.39)	51 (2.01)	25 (0.98)	49 (1.93)	11 (0.43)



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



Lifting Eye & Mounting Holes
(D1, D2)



Base Plate Mount - mm (inches)
(E1)

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

Armstrong Integrated Limited
Wenlock Way
Manchester
United Kingdom, M12 5JL
T: +44 (0) 8444 145 145
F: +44 (0) 8444 145 146

Armstrong Design Private Ltd.
(Unit 1- Armstrong Manufacturing Center)
490-L, 4th Phase, Peenya Industrial Area,
Bangalore, India 560 058
T: +91 (80) 4149 2832
F: +91 (80) 4149 2831