

## DESIGN ENVELOPE 4300 VIL | 8020-022.0 | SUBMITTAL

**File No:** 100.4062UK  
**Date:** AUGUST 14, 2015  
**Supersedes:** 100.4062UK  
**Date:** SEPTEMBER 11, 2013

Job: \_\_\_\_\_ Representative: \_\_\_\_\_

Order No: \_\_\_\_\_ Date: \_\_\_\_\_

Engineer: \_\_\_\_\_ Submitted by: \_\_\_\_\_ Date: \_\_\_\_\_

Contractor: \_\_\_\_\_ Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

### PUMP DESIGN DATA

No. of pumps: \_\_\_\_\_ Tag: \_\_\_\_\_  
Liquid: \_\_\_\_\_ Viscosity: \_\_\_\_\_  
Temperature: \_\_\_\_\_ °C (°F) Specific gravity: \_\_\_\_\_  
Suction: 80mm (3") Discharge: 80mm (3")

### DE PUMPING UNIT CAPACITY

OPERATING POINT	LPS	m <sup>3</sup> /h	METERS
Full capability at maximum efficiency	31.9	114.7	56.1
Design point			
Average part load based on default load profile			

### MOTOR DESIGN DATA

Power: 22 kW Speed: 2-POLE Enclosure: TEFC  
Volts: \_\_\_\_\_ Hertz: 50 Hz Phase: 3  
Efficiency:  IE2 Frame size: \_\_\_\_\_

### MAXIMUM PUMP OPERATING CONDITIONS

**PN 16**  
16 bars at 149°C (232 psig at 300°F)  
7 bars at 150°C (100 psig at 300°F)

**PN 25**  
25 bars at 149°C (375 psig at 300°F)  
21 bars at 150°C (260 psig at 300°F)

### MECHANICAL SEAL DESIGN DATA

See file no. 43.50 for standard mechanical seal details as indicated below

Armstrong seal reference number

c1 (a)  Others: \_\_\_\_\_

### CONTROLS DATA

**Sensorless Control:** Standard

**Minimum system pressure to be maintained:** \_\_\_\_\_ m (ft)\*

**Orientation:**  L1 (default)  L2  L3  L4

**Protocol (standard):**  Modbus RTU  BACnet™ MS/TP  
 Johnson® N2  Siemens® FLN

**Protocol (optional):**  LonWorks®

**Enclosure:**  Indoor - IP55  
 Outdoor - IP66

**Fused disconnect switch:** N/A

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

**Harmonic suppression:** Dual dc-link reactors (Equivalent: 5% AC 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, 3300 ft)

**Analog I/O:** Two current or voltage inputs, one current output

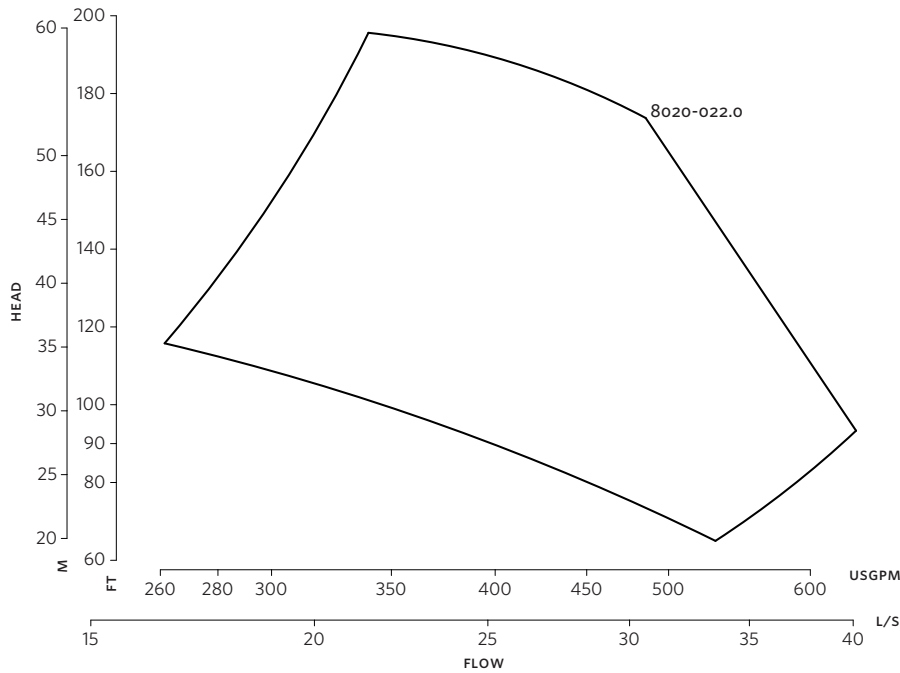
**Digital I/O:** Six programmable inputs (two can be configured as outputs)

**Pulse inputs:** Two programmable

**Relay outputs:** Two programmable

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

\*If minimum maintained system pressure is not known: Default to 40% of design head  
\*\*The ivs 102 drive is a low harmonic drive via built-in dc line reactors. This does not guarantee 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.

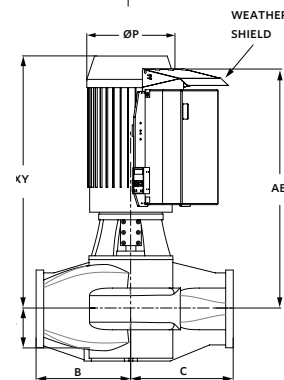
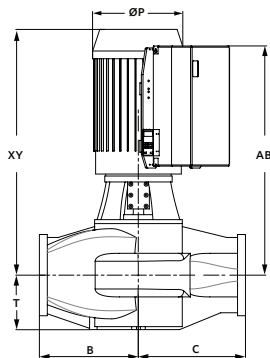
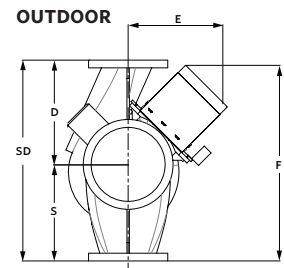
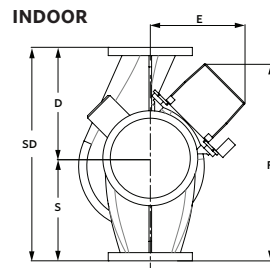


**DIMENSION DATA**

	INDOOR (IP55)	OUTDOOR (IP66)
<b>Frame size:</b>	180M	180M
<b>Size:</b>	8020-022.0	8020-022.0
<b>kW:</b>	22	22
<b>RPM:</b>	3600	3600
<b>AB:</b>	985(38.86)	985(38.86)
<b>B:</b>	171(6.73)	171(6.73)
<b>C:</b>	147(5.87)	147(5.87)
<b>D:</b>	254(10.08)	254(10.08)
<b>E:</b>	392(15.43)	392(15.43)
<b>F:</b>	392(15.43)	392(15.43)
<b>P:</b>	348(13.70)	348(13.70)
<b>S:</b>	305(12.00)	305(12.00)
<b>SD:</b>	559(22.00)	559(22.00)
<b>T:</b>	160(6.38)	160(6.38)
<b>XY:</b>	952(37.57)	952(37.57)
<b>Weight:</b>	295.28(650)	295.28(650)

Performance curves are for reference only.  
Confirm current performance data with Armstrong ACE Online selection software.

- Dimensions - mm (inch)
- Weight - kg (lbs)
- Tolerance of  $\pm 3$  mm ( $\pm 0.125$ " ) should be used
- For exact installation, data please write factory for certified dimensions



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