

# **DESIGN ENVELOPE** 4200H | END SUCTION BASE MOUNTED SPLIT-COUPLED | 0511-030.0 | SUBMITTAL

File No: 100.3334 Date: APRIL 18, 2016 Supersedes: NEW Date: NEW

| Job:             | Representative: |       |  |
|------------------|-----------------|-------|--|
|                  | Order No:       | Date: |  |
| Engineer:        | Submitted by:   | Date: |  |
| Contractor:      | Approved by:    | Date: |  |
| PUMP DESIGN DATA | CONTROLS DATA   |       |  |
| N ( T            |                 |       |  |

| No. of pumps:                       | _ Tag:                      | Sensorless Con  |
|-------------------------------------|-----------------------------|---|
| Capacity:USgpm (L/s                 | ) Head:ft (m)               | Minimum system press<br>to be maintai                       |
| Liquid:                             | Viscosity:                  | Protocol (standa  |
| Temperature:°F (°C                  | ) Specific gravity:         |   |
| Suction: 6"(150mm) Flanged          |                             | Protocol (option  |
| Discharge: 5"(125mm) Flange         | d                           | Enclos  |
|                                     |                             | Fused disconnect swi  |
| UL STD 778 & CSA STD C22.2 N        | 10.108 certified            | EMI/RFI CON   |
|                                     |                             | Harmonic suppress   |
| MOTOR DESIGN DATA                   |                             |   |
| нр: 30 крм: 1800 Frame              | size: 286TC Enclosure: TEFC | Coo   |
| Volts: Hertz:                       | 60 Hz Phase: 3              | Ambient temperat  |
| Efficiency: NEMA premium 12.12      |                             | Analog  |
|                                     |                             | Analog  |
| MAXIMUM PUMP OPERA                  | TING CONDITIONS             | Digital   |
| ANSI 125                            |                             | Pulse inp   |
| 175 psig at 140°F (12 bars at 60°C) |                             | Relay outp  |
| 100 psig at 300°F (7 bars at 149°C) |                             | Communication p   |
| ANSI 250                            |                             | *If minimum maintained system                               |
| 375 psig at 100°F (26 bars at 38°C) |                             | **The IVS 102 drive is a low harm                           |
| 275 psig at 300°F (19 bars at 149   | °C)                         | guaranty performance to any a system wide specification. If |

- 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 ¼" NPT suction and discharge gauge ports

## OPTIONAL EQUIPMENT

| Sensorless Control:                          | Standard   |  |
|--|--|--|
| Minimum system pressure<br>to be maintained: | ft (m)*  |  |
| Protocol (standard):                         | □ Modbus rtu □ bacnet <sup>™</sup> ms/tp<br>□ Johnson <sup>®</sup> N2 □ Siemens <sup>®</sup> fln     |  |
| Protocol (optional):                         | $\Box$ LonWorks <sup>®</sup>   |  |
| Enclosure:                                   | : 🗆 Indoor – UL TYPE 12  |  |
| Fused disconnect switch:                     |  |  |
| ЕМІ/RFI control:                             | Integrated filter designed to meet<br>EN61800-3  |  |
| Harmonic suppression:                        | Dual DC-link reactors (Equivalent: 5%<br>AC line reactor) Supporting IEEE<br>519-1992 requirements** |  |
| Cooling:                                     | Fan-cooled through back channel  |  |
| Ambient temperature:                         | : -10°c to +45°c up to 1000 meters above<br>sea level (-14°F to +113°F, 3300 ft)                     |  |
| Analog ı/o:                                  | : Two current or voltage inputs,<br>one current output   |  |
| Digital ı/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 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.

### MECHANICAL SEAL DATA

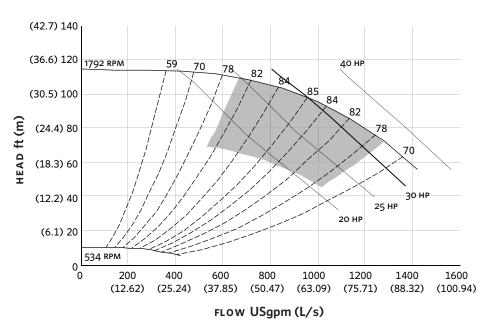
| Seal type: AB2          |   |
|-------------------------|---|
| Secondary seal: Viton   | R |
| Spring: Stainless steel |   |

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Stationary seat: Sintered silicon carbide Rotating hardware: Stainless steel

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#### EXTENDED SPEED



нс

2HF

ΗВ

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

|                        | (UL TYPE 12/ODP) |
|------------------------|------------------|
| Frame size:            | 286TC            |
| Size:                  | 6×5×11.5         |
| HP:                    | 30               |
| RPM:                   | 1800             |
| HA:                    | 18.94 (481)      |
| HB:                    | 48.00 (1219)     |
| HC:                    | 45.37 (1152)     |
| HD:                    | 14.00 (356)      |
| HE:                    | 8.84 (225)       |
| HF:                    | 22.00 (559)      |
| 2HF:                   | 44.00 (1118)     |
| HG:                    | 4.00 (102)       |
| HI:                    | 41.52 (1055)     |
| HL:                    | 6.50 (165)       |
| HV:                    | 19.01 (483)      |
| NaN1:                  | 2.00 (51)        |
| NaN2:                  | 10.83 (275)      |
| x:                     | 14.00 (356)      |
| Υ:                     | 6.00 (152)       |
| Weight:                | 993 (450.3)      |
| <u>.</u>               |                  |
| Dimensions – inch (mm) |                  |

| нv х |

НD

Dimensions – inch (m Weight – Ibs (kg)

NAN2

HE

HA

HE

INDOOR

NAN1-

**TORONTO** +1 416 755 2291

BUFFALO

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