

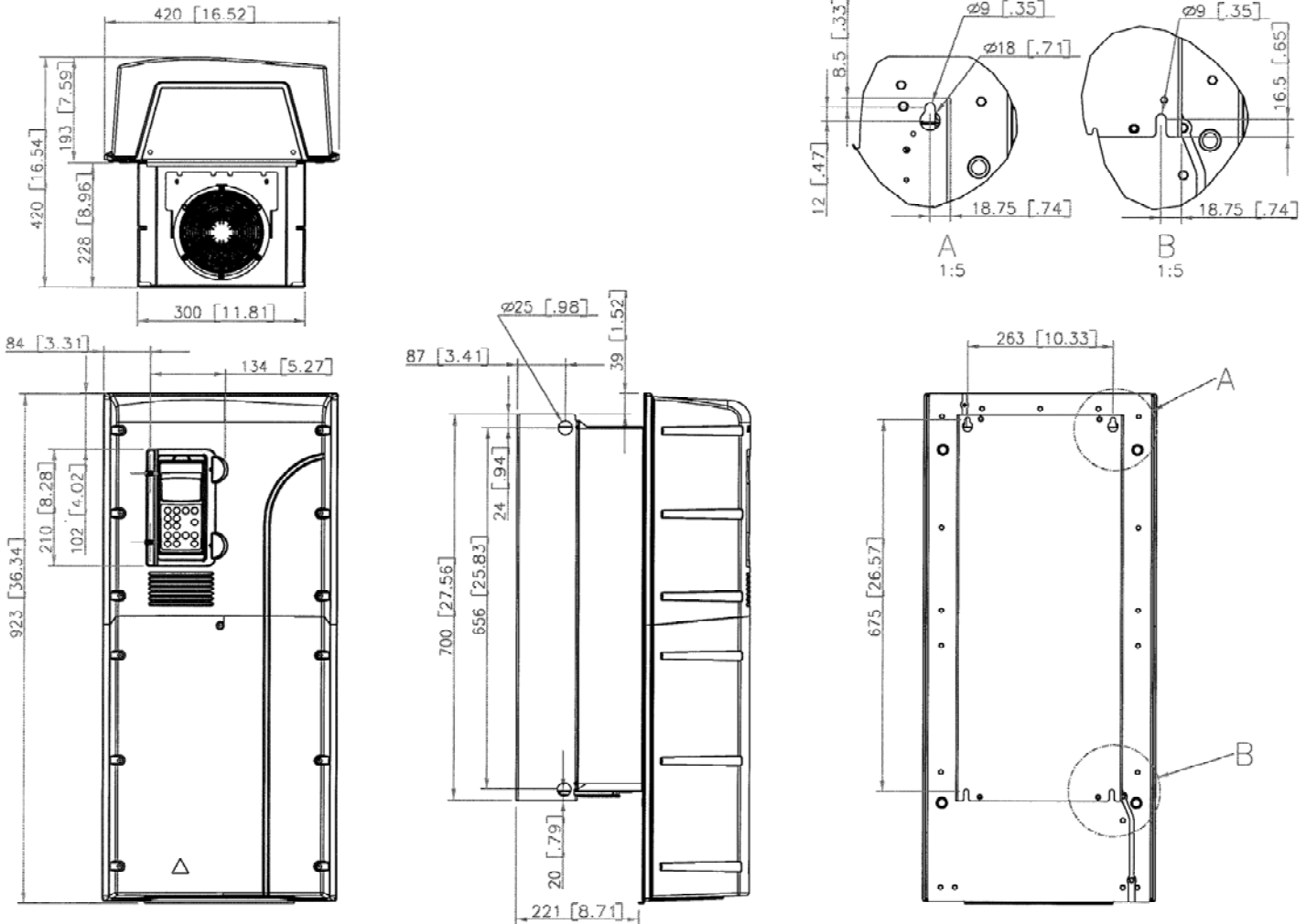


**PumpSmart PS200  
Drive Dimensions and Ratings  
Frame R6-NEMA12/IP55**

**PUMPSMART**

**PumpSmart PS200 Pump and Motor Control System**

The PumpSmart PS200 is a pump and motor control system that provides integral starting, right-sizing, pump protection and process control for all pumping applications. The PumpSmart PS200 is based upon the ABB ACS800 variable frequency drive platform. PumpSmart Control Solutions has worked with ABB to incorporate proprietary pump protection, process control and configuration algorithms into the drive to make it more suitable for pumping applications



**Drive Dimensions**

Frame	Height mm [inches]	Width mm [inches]	Depth mm [inches]	Weight kg [lbm]
R6	923 [36.34]	420 [16.52]	420 [16.54]	77 [170]

\*Dimensions not for construction



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## Drive Ratings

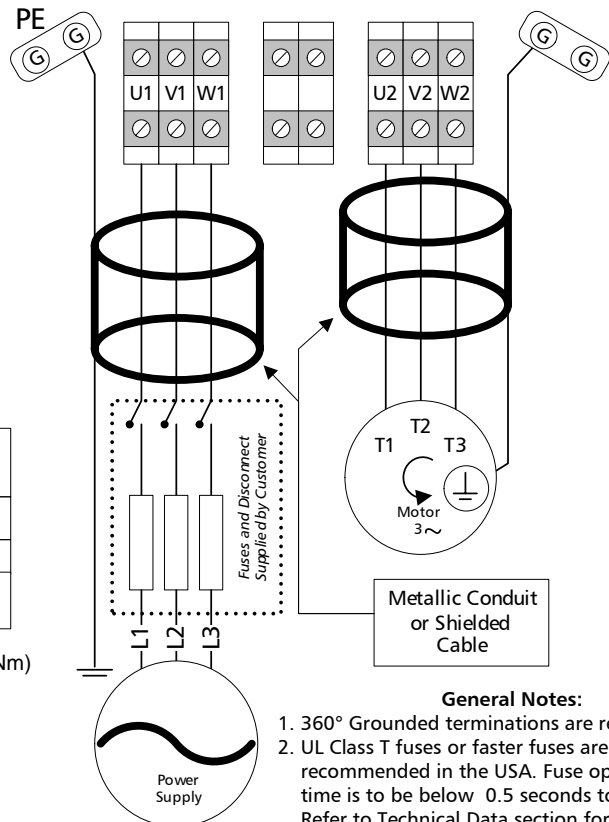
ITT P/N	Input Voltage VAC	Power P <sub>N</sub> <sup>1</sup>		Nominal Current I <sub>2N</sub> <sup>2</sup> IEC/NEMA	Heat Dissipation		Air Flow		Frame	Enclosure Rating	Recommended Main Fuses		
		KW	HP		Watts	BTU/hr	M <sup>3</sup> /hr	CFM			gG / aR (A)	UL class T (A)	Bussmann Type
A08099A11	230V	37	50	132/132	988	3370	404	238	R6	NEMA12 IP55	160/315	175	JJS 175
A08099A12	230V	45	60	155/157	1187	4050					200/315	200	JJS-200
A08099A13	230V	55	75	184/192	1439	4910					224/400	250	JJS-250
A08101A16	380*/460	55	100	115/124	1937	6610					160/315	150	JJS-150
A08101A17	380*/460	75	125	145/157	2312	7890					200/315	200	JJS-200
A08101A18	380*/460	90	150	163/180	2813	9600					200/400	225	JJS-225
A08101A34	380*/460	132	200	254/254	3804	12980					315/550	350	JJS-350
A08187A09	575	45	60	73/73	1231	4200					80/125	100	JJS-100
A08187A10	575	55	75	86/86	1656	5650					100/160	125	JJS-125
A08187A11	575	75	100	108/108	1964	6700					125/200	150	JJS-150
A08187A19	575	90	125	125/125	2667	9100					160/350	200	JJS-200
A08187A20	575	110	150	155/155	3473	11850					200/350	200	JJS-200
A08187A21	575	132	200	180/192	4191	14300					250/400	250	JJS-250

<sup>1</sup> P<sub>N</sub> - Nominal Power Rating at listed voltage rating for variable torque loads

<sup>2</sup> I<sub>2N</sub> - Continuous base current with 10% overload for 1 min / 5 minutes

\* KW rating applies to drives with 380VAC input voltage

## Power Cabling Schematic



Frame Size	U1/V1/W1 - U2/V2/W2 R+, R- Terminals						Earthing PE Terminal			
	Min. Wire Size		Max. Wire Size		Torque		Max. Wire Size		Torque	
	mm <sup>2</sup>	AWG	mm <sup>2</sup>	AWG	Nm	Lb-ft	mm <sup>2</sup>	AWG	Nm	Lb-ft
R6	95	3/0	185	350 MCM <sup>3</sup>	20-40	14.8 29.5	95	4/0	8	5.9

<sup>3</sup> With cable lugs 6..2/0 AWG, (16..70mm<sup>2</sup>) tightening torque 14.8-29.5 lb/ft (20..40Nm)  
Cable lugs are not included

### General Notes:

- 360° Grounded terminations are required
- UL Class T fuses or faster fuses are recommended in the USA. Fuse operating time is to be below 0.5 seconds to protect drive Refer to Technical Data section for details



**PumpSmart PS200**  
**Drive Dimensions and Ratings**  
**Frame R6-NEMA12/IP55**

**PUMPSMART**

**PumpSmart® PS200**

*Drive Hardware: ABB ACS800 -6 Pulse PWM*

**CERTIFICATIONS**

600 VAC and Below  
 UL Listed  
 Canadian UL Listed

CSA Certified  
 CE Marked

**INPUT POWER**

Voltage..... 208..690 VAC 3 Phase ±10%  
 Overload..... 110% for 1 min/5 min,  
 140-150% for 10 sec at startup  
 Frequency..... 48..63Hz

Fundamental Power.....  $\text{COS}\Phi_1 = 0.98$  (fundamental)  
 Factor ( $\text{COS}\Phi_1$ ).....  $\text{COS}\Phi_1 = 0.93..95$  (total)  
 Efficiency..... 98% (at nominal power)

**MOTOR CONNECTION**

Voltage.....  $0..V_{1in}/V_{3in}$   
 Frequency..... 0..300 Hz  
 0..120 Hz with dV/dT Filters  
 Motor Control..... ABB Direct Torque Control Software  
 Static Accuracy: 10% of Motor Slip  
 Speed Control..... Dynamic Accuracy: 0.3-0.4% second  
 with 100% Torque Step

**ENVIRONMENTAL LIMITS**

Enclosures..... NEMA 1/IP21  
 NEMA 12/IP54  
 Temperature..... 5..104° F(-15 to 40°C) Standard  
 104..122° F (40-50 C) with  
 de-rating (1%/1 C)  
 Humidity..... 5..95% Relative Humidity  
 Altitude..... 0..3300 Ft (0..1000M) Standard  
 3300..13,123Ft (1000..4000M) with  
 de-rating (1%/100M)  
 Vibration..... Max. 1 mm (0.04 in.) 5-13.2 HZ  
 Max.  $7 \text{ m/s}^2$  ( $23 \text{ ft/s}^2$ ) 13.2 – 100  
 HZ, Sinusoidal  
 Shock, Free Fall ..... Not Allowed

**STANDARD INPUT/OUTPUT**

2 Current Analog Inputs..... 4...20mA  
 100Ω Input Resistance  
 11 bit resolution

1 Voltage Analog Input..... 2-10 VDC  
 200Ω Input Resistance  
 11 bit resolution  
 Galvanically isolated as a group

2 Current Analog  
 Output.....  
 4...20mA  
 700Ω Max load impedance  
 10 bit resolution  
 Galvanically isolated as a group

Digital Inputs (7).....  
 2 Wire Start/Stop  
 Hand-off Auto (HOA)  
 3-Wire Start/Stop  
 Setpoint 1-2  
 Speed Override  
 Specific Gravity  
 Secondary Protect A/B  
 Digital Reset  
 E Stop/Permissive  
 Motor Thermistor  
 24 VDC Input Voltage  
 1 mS filtering time

Relay Outputs (3)  
 Configurable.....  
 Form-C Switchover Contact  
 24 VDC or 250 VAC  
 2A max continuous current

Reference Voltage.....  
 Output  
 10 VDC ± 0.5%  
 10mA max current

Auxiliary Voltage Output...  
 24 VDC ±10%  
 250 mA max current output

**DRIVE PROTECTION**

Keypad Failure  
 Earth Fault  
 Over Voltage  
 Over Temperature (VFD)  
 Phase Loss

Over Current  
 Under Voltage  
 Over Temperature (Motor)  
 Over Torque  
 Motor Stall

**PUMP PROTECTION**

Loss of Suction/Dry Run  
 Low Flow  
 Run-out Flow  
 Shut-off/Dead Head  
 Critical Speed Lockout

General Condition  
 Sleep Function  
 Sensor Failure  
 Safe Speed Operation

**FEATURES:**

Smartflow  
 Smartcontrol (PID Torque)  
 Cavitation Control  
 Automatic Fault Reset

Multipump (Synchronous Control)  
 Multipump (Backup)  
 System Curve Compensation  
 Pump Cleaning Sequence

**FIELDBUS**

Communication  
 Modules.....

Modbus, Profibus DP  
 Ethernet, DeviceNet  
 ControlNet

Certified for Construction Purposes only when signed    Date.....	Customer Name.....
	Goulds S/N.....  Customer P.O #.....  Item No.....