

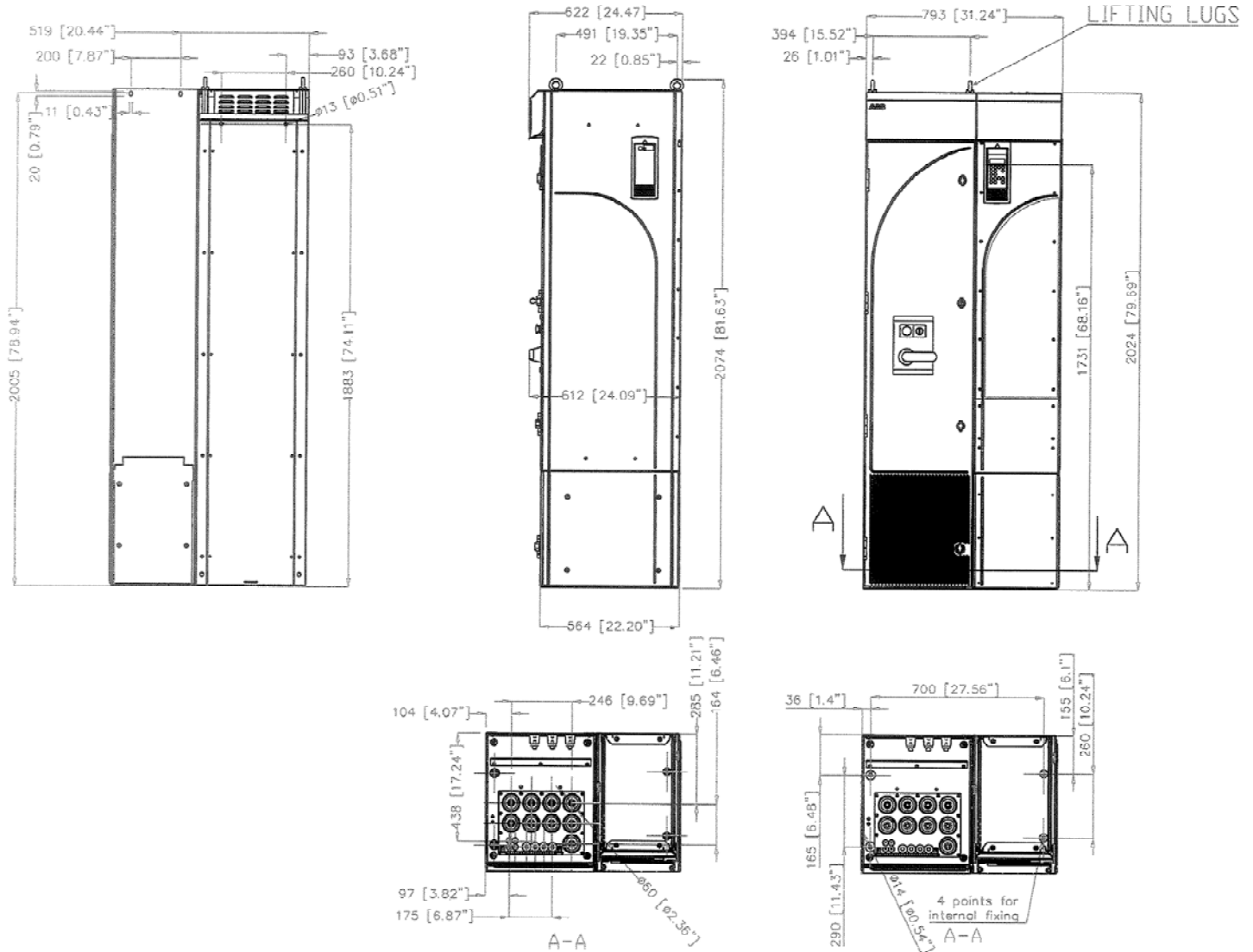


# PumpSmart PS200 Drive Dimensions and Ratings Frame R8-IP21/ACS800-02

# 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]
R8	2024 [79.69]	793 [31.24]	622 [24.47]	375 [827]

\*Dimensions not for construction



# PumpSmart PS200 Drive Dimensions and Ratings Frame R8-IP21/ACS800-02

# PUMPSMART

## Drive Ratings

ITT Type Code	Input Voltage VAC	Power P <sup>N1</sup> KW	Nominal Current I <sub>2N2</sub> Amps	Heat Dissipation Watts	Air Flow M <sup>3</sup> /Hr	Noise Level dBA	Frame	Enclosure Rating	Recommended Main Fuses		
									gG/aR	V	IEC Size
ACS-ITT-02-0140-2	230	110	396	5300	1220	72	R8	IP21	500/800	500	3
ACS-ITT-02-0170-2	230	132	440	6100					500/800		3
ACS-ITT-02-0210-2	230	160	516	6700					630/1000		3
ACS-ITT-02-0230-2	230	160	598	7600					630/1250		3
ACS-ITT-02-0260-2	230	200	679	7850					800/1400		3
ACS-ITT-02-0300-2	230	200	704	8300					800/1400		3
ACS-ITT-02-0260-3	400	200	440	6600					500/800		3
ACS-ITT-02-0320-3	400	250	516	7150					630/1000		3
ACS-ITT-02-0400-3	400	315	590	8100					630/1250		3
ACS-ITT-02-0440-3	400	355	679	8650					800/1400		3
ACS-ITT-02-0490-3	400	400	704	9100					800/1400		3
ACS-ITT-02-0320-5	500	250	435	6850					500/800		3
ACS-ITT-02-0400-5	500	315	510	7800					630/1000		3
ACS-ITT-02-0440-5	500	355	545	7600					630/1250		3
ACS-ITT-02-0490-5	500	400	590	8100					630/1250		3
ACS-ITT-02-0550-5	500	450	670	9100					800/1400		3
ACS-ITT-02-0610-5	500	500	704	9700					800/1400	3	
ACS-ITT-02-0320-7	690	250	290	6150					315/630	2	
ACS-ITT-02-0400-7	690	315	344	6650					400/630	3	
ACS-ITT-02-0440-7	690	355	387	7400					500/800	3	
ACS-ITT-02-0490-7	690	400	426	8450					500/900	3	
ACS-ITT-02-0550-7	690	450	482	8300					500/900	3	
ACS-ITT-02-0610-7	690	500	537	9750					630/1000	3	

<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 at 40° C

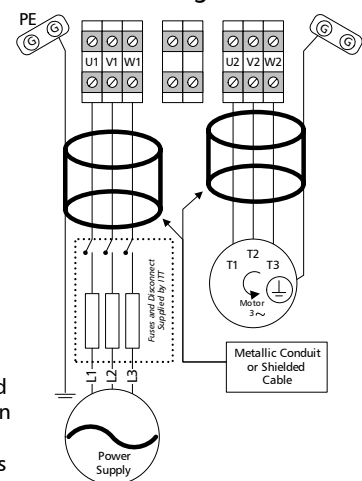
Frame Size	U1/V1/W 1 - U2/V2/W2 BRK ±UDC±Terminals				Earthing PE Terminal	
	Holes Per Phase	Cable Dia.	Screw	Torque	Screw	Torque
		mm		Nm		Nm
R 8	3	58	M12	50..75	M10	30..44

The maximum allowed width of cable lug is 38 mm

### General Notes:

- 1- 360° Grounded terminations are required
  2. Select either gG or aR fuses depending on installation design.
- Refer to Technical Data section for details

### Power Cabling Schematic





**PumpSmart PS200**  
**Drive Dimensions and Ratings**  
**Frame R8-IP21/ACS800-02**

**PUMPSMART**

**PumpSmart® PS200**

Drive Hardware: ABB ACS800 -6 Pulse PWM

**CERTIFICATIONS**

<u>USA/Canada</u> 600 VAC and Below UL, C-UL, CSA	<u>Europe</u> CE Marked Bureau Veritas Cert 14370/AO BV EMC 89/336/EEC as amended by 93/68 DNV Cert. E-7039
---	---

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

**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

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
-------------------------	---

Fundamental Power.....	COSΦ <sub>1</sub> = 0.98 (fundamental)
Factor (COSΦ <sub>1</sub> )	COSΦ <sub>1</sub> = 0.93...95 (total)
Efficiency.....	98% (at nominal power)

**MOTOR CONNECTION**

Voltage.....	0..V <sub>1in</sub> /V <sub>3in</sub>
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

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

**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 m/s <sup>2</sup> (23 ft/s <sup>2</sup> ) 13.2 – 100 HZ, Sinusoidal
Shock, Free Fall .....	Not Allowed

**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
---	--

**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

**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.....
---	--