

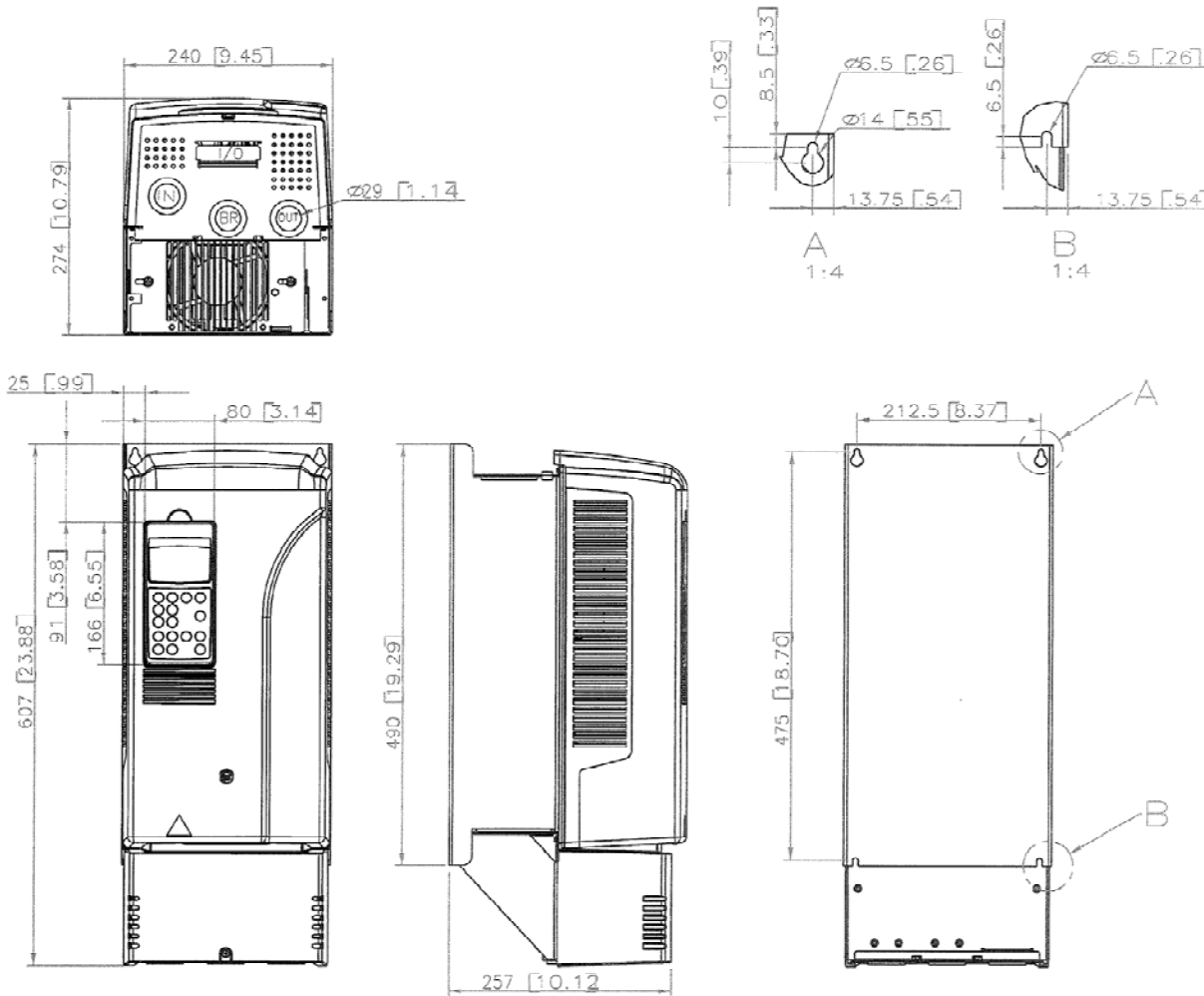


PumpSmart PS200 Drive Dimensions and Ratings Frame R4-IP21

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]
R4	607 [23.9]	240 [9.45]	274 [10.8]	26 [57]

*Dimensions not for construction

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Drawing is not to scale
Dimensions in mm(inches)

Issue: Rev1 dwg
updated

Drawn: JCS 5-6-06

Checked: AES 5-6-06

Drawing
A08908A

Revision

1

Sheet
1 of 3



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PUMPSMART

Drive Ratings

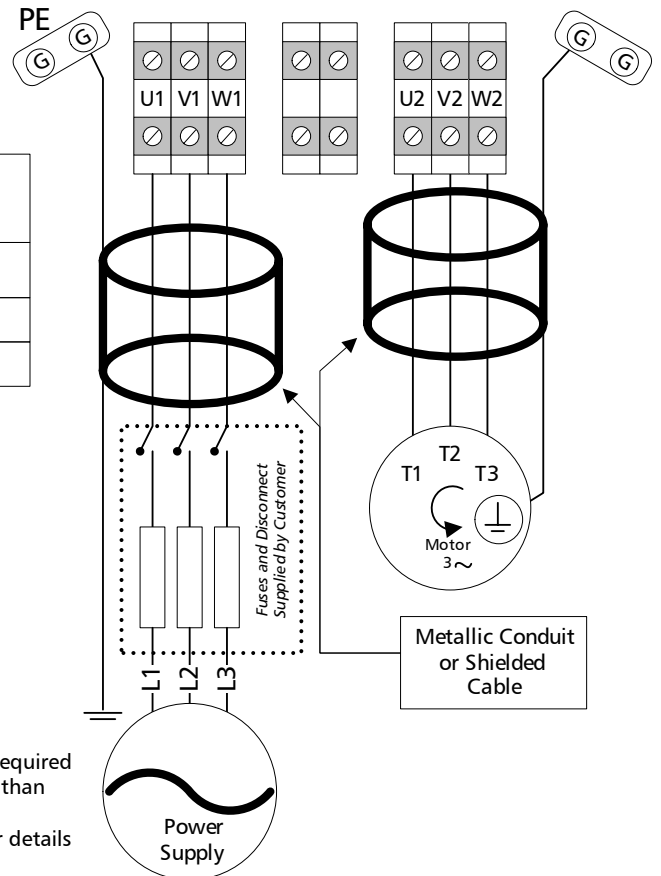
ITT Type Code	Input Voltage VAC	Power P _N ¹ KW	Nominal Current I _{2N} ² Amps	Heat Dissipation Watts	Air Flow M ³ /Hr	Noise Level dBA	Frame	Enclosure Rating	Recommended Main Fuses		
									gG or aR	V	IEC Size
ACS-ITT-01-0016-2	230	11	42	340	103	62	R4	IP21	50	500	000
ACS-ITT-01-0020-2	230	11	50	440					63		
ACS-ITT-01-0025-3	400	18.5	41	530					50		
ACS-ITT-01-0030-3	400	22	50	610					63		
ACS-ITT-01-0030-5	500	22	39	610					50		
ACS-ITT-01-0040-5	500	30	44	810					63		
ACS-ITT-01-0011-7	690	7.5	11.5	300					16	690	000
ACS-ITT-01-0016-7	690	11	15	340					20		
ACS-ITT-01-0020-7	690	15	20	440					25		
ACS-ITT-01-0025-7	690	18.5	23	530					32		
ACS-ITT-01-0030-7	690	22	30	610					35		
ACS-ITT-01-0040-7	690	30	34	690					50		

¹ P_N - Nominal Power Rating at listed voltage rating for variable torque loads

² I_{2N} - Continuous base current with 10% overload for 1 min / 5 minutes at 40° C

Power Cabling Schematic

Frame Size	U1/V1/W1 - U2/V2/W2 R+, R- Terminals			Earthing PE Terminal	
	Max. Wire Size	Max. Cable Dia.	Torque	Max. Wire Size	Torque
	mm ²	mm	Nm	mm ²	Nm
R 4	25	29	2-4	16	3



General Notes:

- 1- 360° Grounded terminations are required
 2. Fuse operating time must be less than 0.5 seconds to protect drive.
- Refer to Technical Data section for details



**PumpSmart PS200
Drive Dimensions and Ratings
Frame R4-IP21**

PUMPSMART

PumpSmart® PS200

Drive Hardware: ABB ACS800 -6 Pulse PWM

CERTIFICATIONS

USA/Canada
600 VAC and Below
UL, C-UL, CSA

Europe
CE Marked
Bureau Veritas Cert 14370/AO BV
EMC 89/336/EEC as amended by 93/68
DNV Cert. E-7039

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 m/s^2 (23 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..... 10 VDC ± 0.5%
Output 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

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