

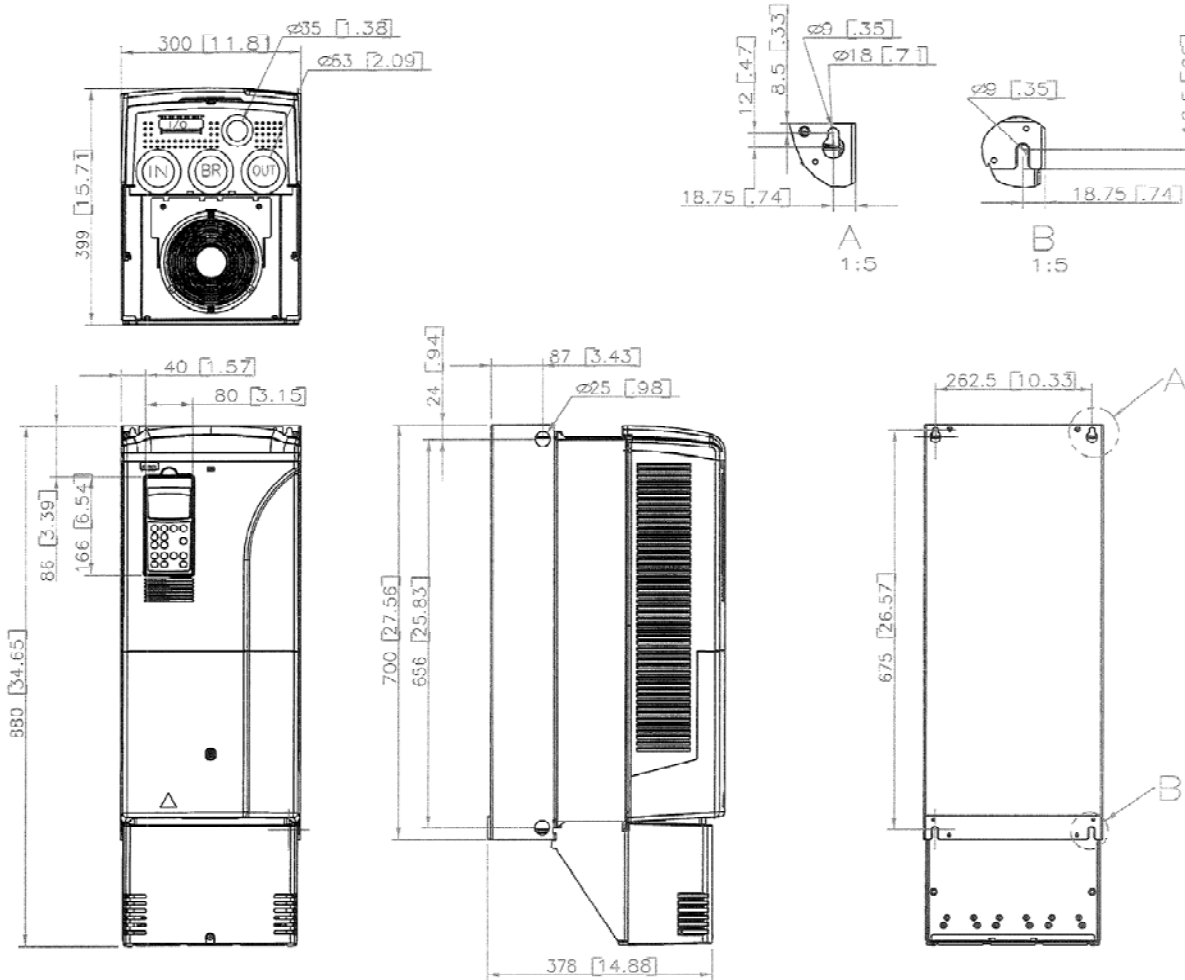


**PumpSmart PS200
Drive Dimensions and Ratings
Frame R6-IP21**

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]
R6	880 [34.65]	300 [11.81]	399 [15.70]	67 [148]

*Dimensions not for construction



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Drive Ratings

ITT Type Code	Input Voltage VAC	Power P ^{N1} KW	Nominal Current I _{2N2} Amps	Heat Dissipation Watts	Air Flow M ³ /Hr	Noise Level dBA	Frame	Enclosure Rating	Recommended Main Fuses		
									gG/aR	V	IEC Size
ACS-ITT-01-0050-2	230	37	132	1190	405	65	R6	IP21	160/315	500	00
ACS-ITT-01-0060-2	230	45	155	1190					200/315		1
ACS-ITT-01-0070-2	230	55	184	1440					224/400		1
ACS-ITT-01-0070-3	400	55	132	1440					160/315		00
ACS-ITT-01-0100-3	400	75	155	1940					200/315		1
ACS-ITT-01-0120-3	400	90	184	2310					224/400		1
ACS-ITT-01-0135-3	400	110	220	2810					250/500		1
ACS-ITT-01-0165-3	400	132	254	3260					315/550		2
ACS-ITT-01-0100-5	500	75	115	1940					160/315		00
ACS-ITT-01-0120-5	500	90	145	2310					200/315		1
ACS-ITT-01-0140-5	500	110	163	2810					200/400	1	
ACS-ITT-01-0165-5	500	132	220	3260					250/500	1	
ACS-ITT-01-0205-5	500	160	254	3800					315/550	2	
ACS-ITT-01-0070-7	690	55	73	1220					80/125	0	
ACS-ITT-01-0100-7	690	75	86	1650					100/160	1	
ACS-ITT-01-0120-7	690	90	108	1960					125/200	1	
ACS-ITT-01-0145-7	690	110	125	2660					160/350	1	
ACS-ITT-01-0175-7	690	132	155	3470					200/350	1	
ACS-ITT-01-0205-7	690	160	180	4180					250/400	2	

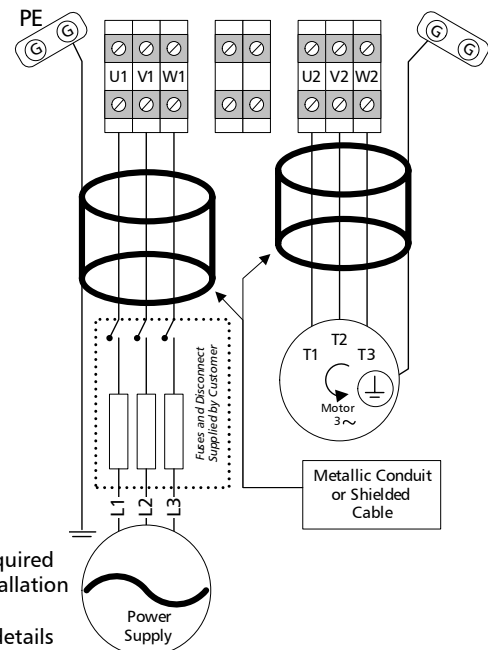
¹ P_N - Nominal Power Rating at listed voltage rating for variable torque loads

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

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 6	95-185*	53	20-40	95	8

* With cable lugs 16..70mm² tightening torque 20..40 Nm Cable lugs are not included

Power Cabling Schematic



General Notes:

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



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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.....
 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.....
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