

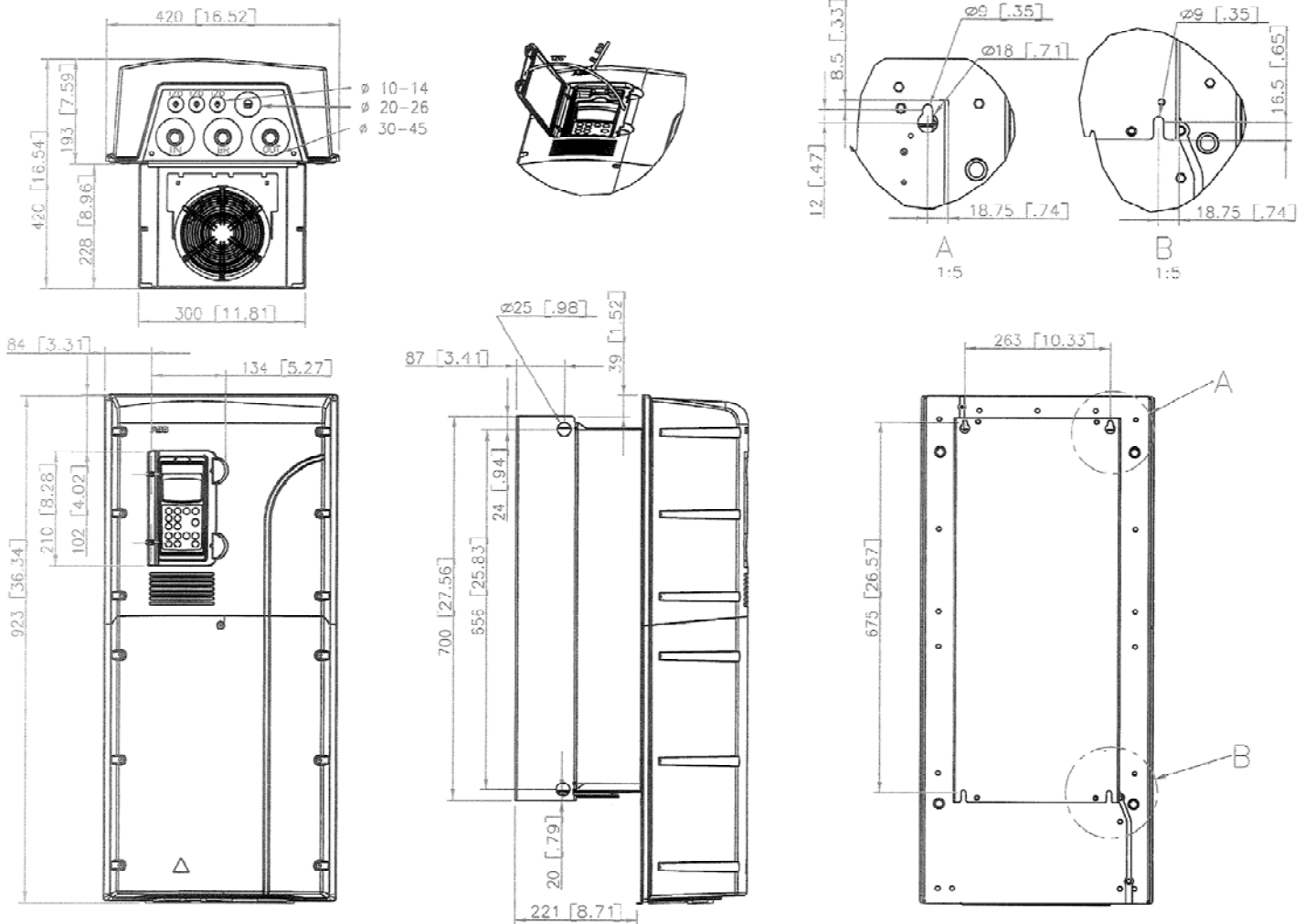


PumpSmart PS200 Drive Dimensions and Ratings Frame R6-IP55

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 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	IP55	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	

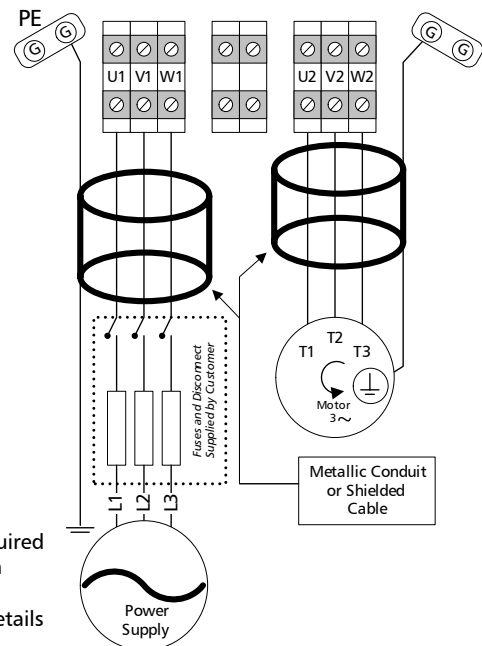
¹ P_N - Nominal Power Rating at listed voltage rating for variable torque loads

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	Cable Dia.	Torque	Max. Wire Size	Torque
	mm ²	mm	Nm	mm ²	Nm
R 6	95-185*	30-45	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 fuses based on installation design.
- Refer to Technical Data section for details



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Drive Dimensions and Ratings
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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
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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.....	COSΦ ₁ = 0.98 (fundamental)
Factor (COSΦ ₁)	COSΦ 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	Over Current
Earth Fault	Under Voltage
Over Voltage	Over Temperature (Motor)
Over Temperature (VFD)	Over Torque
Phase Loss	Motor Stall

PUMP PROTECTION

Loss of Suction/Dry Run	General Condition
Low Flow	Sleep Function
Run-out Flow	Sensor Failure
Shut-off/Dead Head	Safe Speed Operation
Critical Speed Lockout	

FEATURES:

Smartflow	Multipump (Synchronous Control)
Smartcontrol (PID Torque)	Multipump (Backup)
Cavitation Control	System Curve Compensation
Automatic Fault Reset	Pump Cleaning Sequence

FIELDBUS

Communication Modules.....	Modbus, Profibus DP Ethernet, DeviceNet ControlNet
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Certified for Construction Purposes only when signed Date.....	Customer Name..... Goulds S/N..... Customer P.O #..... Item No.....
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