

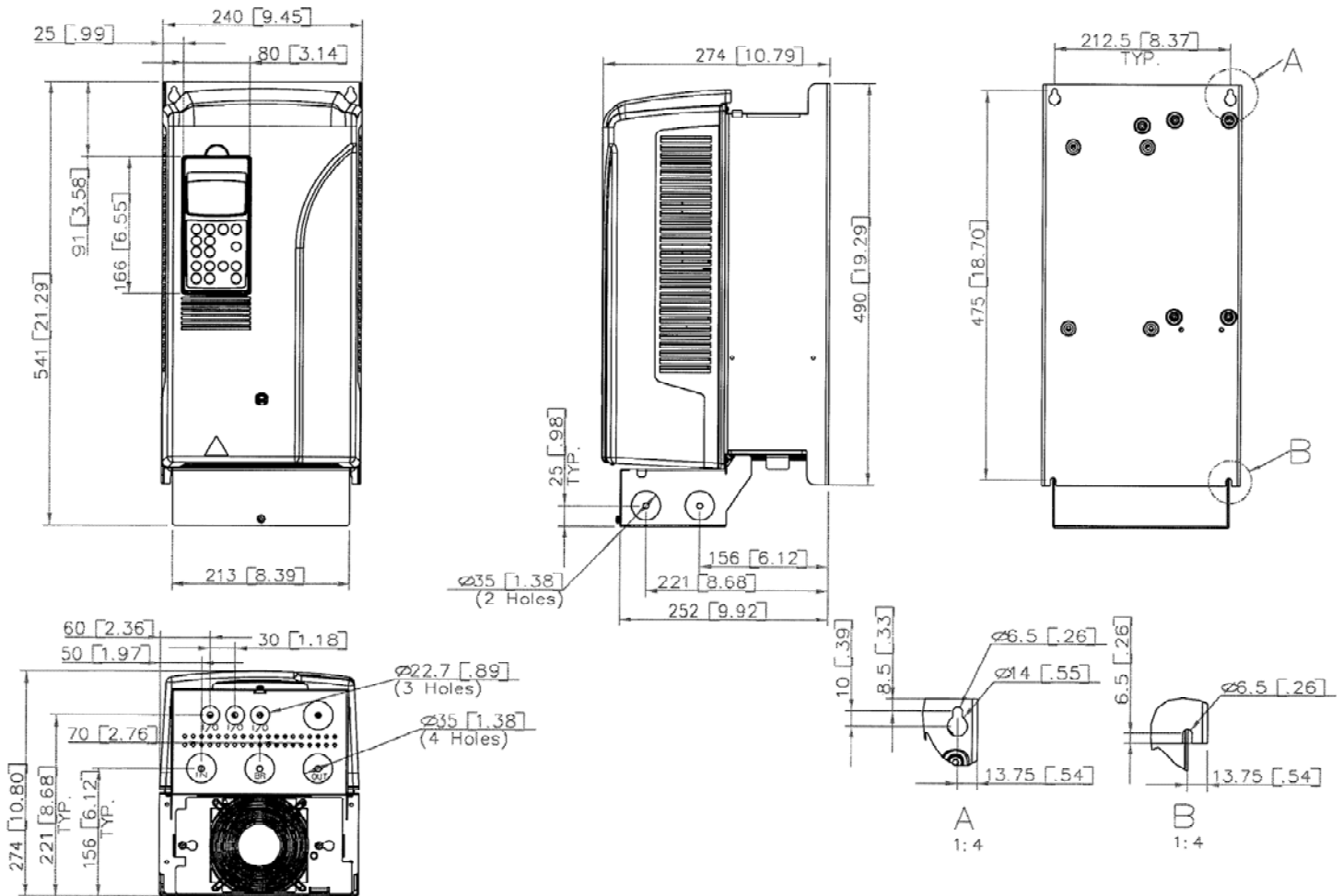


PumpSmart PS200 Drive Dimensions and Ratings Frame R4-NEMA1/IP21

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	541 [21.3]	240 [9.45]	274 [10.8]	26 [57]

*Dimensions not for construction



PumpSmart PS200 Drive Dimensions and Ratings Frame R4-NEMA1/IP21

PUMPSMART

Drive Ratings

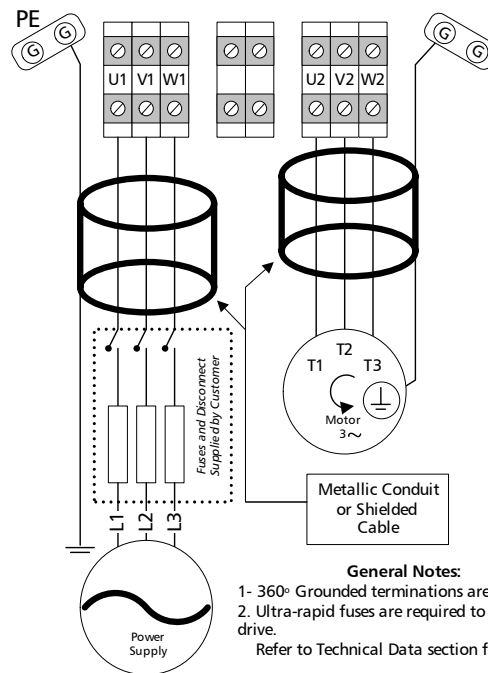
ITT P/N	Input Voltage VAC	Power P ^{N1}		Nominal Current I _{2N2} Amps IEC/NEMA	Heat Dissipation		Air Flow		Frame	Enclosure Rating	Recommended Main Fuses		
		KW	HP		Watts	BTU/hr	M ³ /hr	CFM			IEC269gG (A)	UL class T (A)	Bussmann Type
A08098A06	230	11	15	42/42	337	1150	104	61	R4	NEMA 1 IP 21	50	50	JJS -50
A08098A07	230	11	20	50/54	436	1490					63	70	JJS -70
A08100A08	380*/460	18.5	30	39/42	612	2090					63	50	JJS -50
A08100A09	380*/460	22	40	44/52	811	2770					80	70	JJS -70
A08186A01	575	7.5	10	11.5/11.5	307	1050					16	20	JJS -20
A08186A02	575	7.5	10	15/15	351	1200					20	20	JJS -20
A08186A03	575	11	15	20/20	454	1550					25	30	JJS -30
A08186A04	575	15	20	23/23	542	1850					32	30	JJS -30
A08186A05	575	18.5	25	30/30	615	2100					35	45	JJS -45
A08186A06	575	22	30	34/34	703	2400					50	45	JJS -45

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

* KW rating applies to drives with 380VAC input voltage

Power Cabling Schematic



General Notes:

- 1- 360° Grounded terminations are required
 2. Ultra-rapid fuses are required to protect drive.
- Refer to Technical Data section for details

Frame Size	U1/V1/W1 - U2/V2/W2 R+, R- Terminals				Earthing PE Terminal			
	Max. Wire Size		Torque		Max. Wire Size		Torque	
	mm ²	AWG	Nm	Lb-ft	mm ²	AWG	Nm	Lb-ft
R4	25	4	2-4	1.5-3.0	16	5	3	2.2



**PumpSmart PS200
Drive Dimensions and Ratings
Frame R4-NEMA1/IP21**

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 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.....