

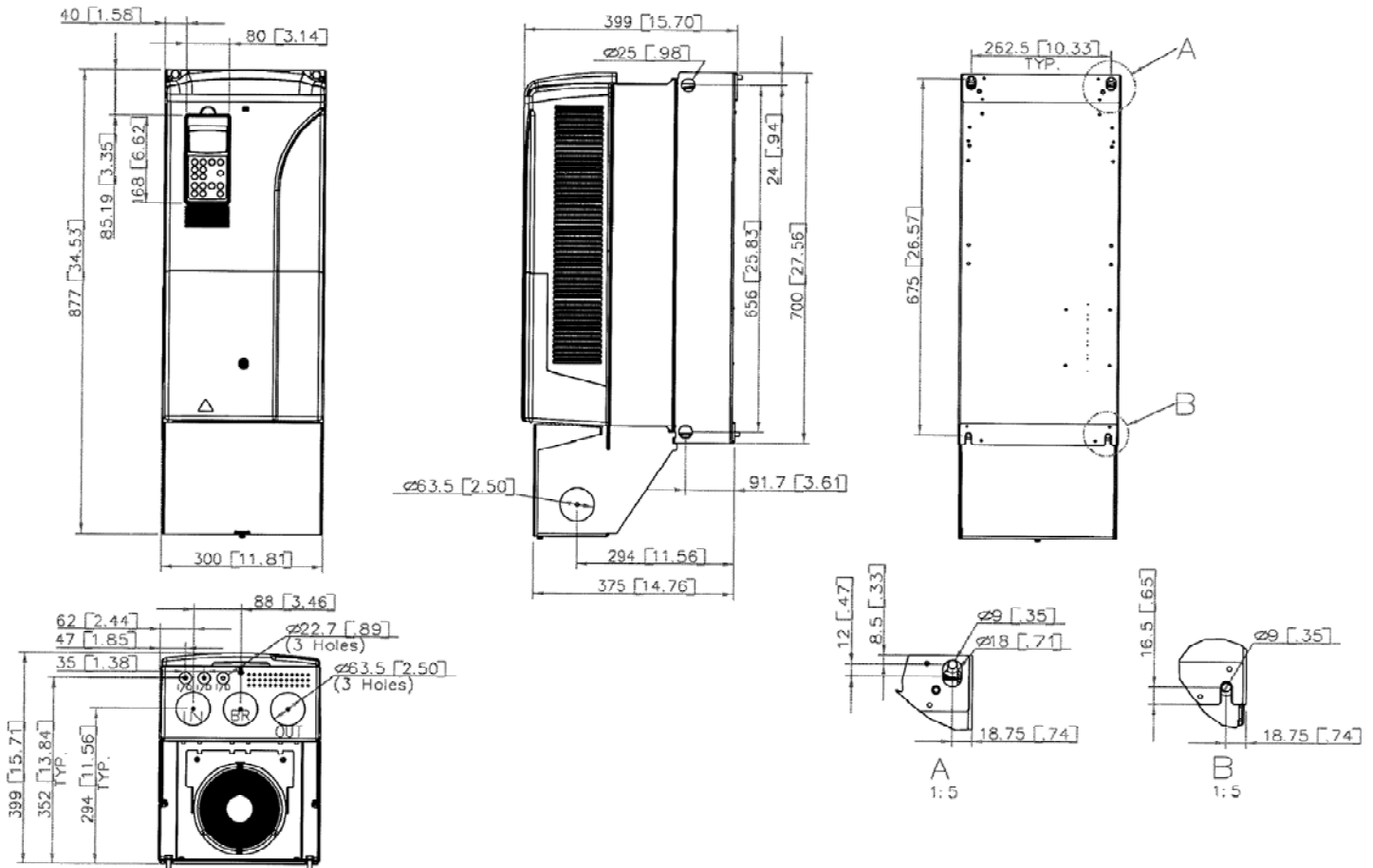


**PumpSmart PS200
Drive Dimensions and Ratings
Frame R6-NEMA1/IP21**

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]
R6	877 [34.53]	300 [11.81]	399 [15.70]	67 [148]

*Dimensions not for construction



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Drive Ratings

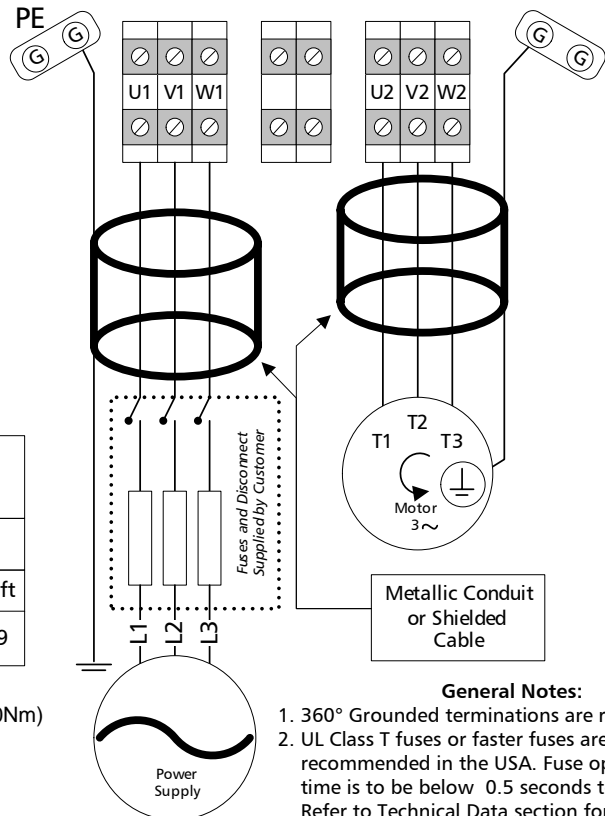
ITT P/N	Input Voltage VAC	Power P _N ¹		Nominal Current I _{2N} ² Amps IEC/NEMA	Heat Dissipation		Air Flow		Frame	Enclosure Rating	Recommended Main Fuses		
		KW	HP		Watts	BTU/hr	M ³ /hr	CFM			gG / aR (A)	UL class T (A)	Bussmann Type
A08098A11	230V	37	50	132/132	988	3370	404	238	R6	NEMA 1 IP21	160/315	175	JJS 175
A08098A12	230V	45	60	155/157	1187	4050					200/315	200	JJS-200
A08098A13	230V	55	75	184/192	1439	4910					224/400	250	JJS-250
A08100A13	380*/460	55	100	115/124	1937	6610					160/315	150	JJS-150
A08100A14	380*/460	75	125	145/157	2312	7890					200/315	200	JJS-200
A08100A15	380*/460	90	150	163/180	2813	9600					200/400	225	JJS-225
A08100A46	380*/460	132	200	254/254	3804	12980					315/550	350	JJS-350
A08186A09	575	45	60	73/73	1231	4200					80/125	100	JJS-100
A08186A10	575	55	75	86/86	1656	5650					100/160	125	JJS-125
A08186A11	575	75	100	108/108	1964	6700					125/200	150	JJS-150
A08186A19	575	90	125	125/125	2667	9100					160/350	200	JJS-200
A08186A20	575	110	150	155/155	3473	11850					200/350	200	JJS-200
A08186A21	575	132	200	180/192	4191	14300					250/400	250	JJS-250

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



Frame Size	U1/V1/W1 - U2/V2/W2 R+,R- Terminals						Earthing PE Terminal			
	Min. Wire Size		Max. Wire Size		Torque		Max. Wire Size		Torque	
	mm ²	AWG	mm ²	AWG	Nm	Lb-ft	mm ²	AWG	Nm	Lb-ft
R6	95	3/0	185	350 MCM ³	20-40	14.8 29.5	95	4/0	8	5.9

³ With cable lugs 6..2/0 AWG, (16..70mm²) tightening torque 14.8-29.5 lb/ft (20..40Nm)
Cable lugs are not included

General Notes:

- 360° Grounded terminations are required
- UL Class T fuses or faster fuses are recommended in the USA. Fuse operating time is to be below 0.5 seconds to protect drive Refer to Technical Data section for details



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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/s² (23 ft/s²) 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.....