

PPC3 & PPC5

State-of-the-art pump protection and controllers

Pentek® Pump Controllers provide innovative pumping solutions for maximizing pump functionality, optimizing pump system design and reducing operating energy costs.

Pentek PPCs can be used on all centrifugal motor-driven pumps including close-coupled motor drive, frame mount, submersible and line shaft turbine pumps, in a wide range of applications.



PPC5 NEMA 1



PPC5 NEMA 1



PPC3 NEMA 1

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PPC Features

The Pentek® PPC3 and PPC5 Pump Controllers are programmed with the Pentek Assistant and pre-jumpered, providing ease of setup for constant pressure applications. The Pentek Assistant defaults to pre-defined parameters and prompts the user for application-specific information. The 'Help' key activates parameter descriptions, providing easy reference to the programming guide.

Pentek Assistant

- ▶ Guides the user through the setup process for constant pressure applications, taking less than 2 minutes to program; allows for local or remote operation
- ▶ Includes macros for both submersible and above-ground pump applications
- ▶ System harmonics evaluation process



Additional Application Functions

- ▶ Auto-Restart Functionality – re-starts pump after power loss
- ▶ Easily configured for constant flow applications by adjusting 2 additional menu parameters
- ▶ Multiple System Setpoints or Operating Condition – includes 2 independent process control setpoints to allow operation under a second process
- ▶ Time Function supports 4 Daily and Weekly START/STOP/BOOST times

Process Benefits

Variable Speed Control

- ▶ Meets requirements of process control with constant pressure at variable flow conditions or constant flow at variable pressure conditions

Reduced Energy Costs

- ▶ Calculate energy savings online using BEC2 software at www.bec2.net

Pump Protection

- ▶ From loss of prime, dead head and blocked suction

Motor Protection

- ▶ From ground fault, short circuit, phase loss and imbalance, overload, undervoltage and overvoltage

System Protection (PPC5 only)

- ▶ From harmonics, featuring an input choke that exceeds the performance of a fixed 5% impedance line reactor

Phase Conversion

- ▶ The PPC5 will convert 1-phase power into 3-phase power, allowing the use of a 3-phase motor
- ▶ The PPC3 is available in both 1 & 3 phase models

PPC Selection Guide

PPC3, PPC5

PPC3 / PPC5 Comparison

FEATURES	PPC3	PPC5
HP Ratings	1 – 30	1/2 – 200
Voltages	230, 460	230, 460, 575
Frequency	50/60 Hz	50/60 Hz
Floating Choke	No	Yes
Harmonic Signature	Good	Best
No. of Relays	1	3 (ext. to 6 available)
Digital Inputs	5	6
Multiple Pump Capable	No	Yes
Mod. Bus	No	Yes
Enclosure Type	NEMA 1	NEMA 1, 12

The output current (for amps) of the PPC must be greater than or equal to the maximum rated motor current.

PPC3 Selection

200-240 Volt – 1-Phase IN, 3-Phase OUT

OUTPUT AMPS	ENCLOSURE SIZE	MOUNTING	MODEL NUMBER NEMA 1
4.7	R1	WALL	PPC3-1-4A7-1
6.7	R1	WALL	PPC3-1-6A7-1
7.5	R2	WALL	PPC3-1-7A5-1
9.8	R2	WALL	PPC3-1-9A8-1

200-240 Volt – 3-Phase IN, 3-Phase OUT

OUTPUT AMPS	ENCLOSURE SIZE	MOUNTING	MODEL NUMBER NEMA 1
4.7	R1	WALL	PPC3-2-4A7-1
6.7	R1	WALL	PPC3-2-6A7-1
7.5	R1	WALL	PPC3-2-7A5-1
9.8	R2	WALL	PPC3-2-9A8-1
17.6	R2	WALL	PPC3-2-17A6-1
24.4	R3	WALL	PPC3-2-24A4-1
31.0	R4	WALL	PPC3-2-31A0-1
46.2	R4	WALL	PPC3-2-46A2-1

380-480 Volt – 3-Phase IN, 3-Phase OUT

OUTPUT AMPS	ENCLOSURE SIZE	MOUNTING	MODEL NUMBER NEMA 1
2.4	R1	WALL	PPC3-4-2A4-1
3.3	R1	WALL	PPC3-4-3A3-1
4.1	R1	WALL	PPC3-4-4A1-1
5.6	R1	WALL	PPC3-4-5A6-1
8.8	R1	WALL	PPC3-4-8A8-1
12.5	R3	WALL	PPC3-4-12A5-1
15.6	R3	WALL	PPC3-4-15A6-1
23.1	R3	WALL	PPC3-4-23A1-1
31.0	R4	WALL	PPC3-4-31A0-1
38.0	R4	WALL	PPC3-4-38A0-1
44.0	R4	WALL	PPC3-4-44A0-1

PPC Selection Guide

PPC5

208-240 Volt – 3-Phase IN, 3-Phase OUT

OUTPUT AMPS	ENCLOSURE SIZE	MOUNTING	MODEL NUMBER NEMA 1	MODEL NUMBER NEMA 12
4.6	R1	Wall	PPC5-2-4A6-1	PPC5-2-4A6-12
6.6	R1	Wall	PPC5-2-6A6-1	PPC5-2-6A6-12
7.5	R1	Wall	PPC5-2-7A5-1	PPC5-2-7A5-12
11.8	R1	Wall	PPC5-2-11A-1	PPC5-2-11A-12
16.7	R1	Wall	PPC5-2-16A-1	PPC5-2-16A-12
24.2	R2	Wall	PPC5-2-24A-1	PPC5-2-24A-12
30.8	R2	Wall	PPC5-2-30A-1	PPC5-2-30A-12
46.2	R3	Wall	PPC5-2-46A-1	PPC5-2-46A-12
59.4	R3	Wall	PPC5-2-59A-1	PPC5-2-59A-12
74.8	R4	Wall	PPC5-2-74A-1	PPC5-2-74A-12
88	R4	Wall	PPC5-2-88A-1	PPC5-2-88A-12
114	R4	Wall	PPC5-2-114A-1	PPC5-2-114A-12
143	R6	Wall	PPC5-2-143A-1	-
178	R6	Wall	PPC5-2-178A-1	-
221	R6	Wall	PPC5-2-221A-1	-
248	R6	Wall	PPC5-2-248A-1	-

Specifications are based on a 3-phase supply voltage, 208 volt or 230 volt. For operation on 1-phase input power, de-rate the drive output current by 50%. Drive output is always 3-phase voltage.

400-480 Volt – 3-Phase IN, 3-Phase OUT

OUTPUT AMPS	ENCLOSURE SIZE	MOUNTING	MODEL NUMBER NEMA 1	MODEL NUMBER NEMA 12
3.3	R1	Wall	PPC5-4-3A3-1	PPC5-4-3A3-12
4.1	R1	Wall	PPC5-4-4A1-1	PPC5-4-4A1-12
6.9	R1	Wall	PPC5-4-6A9-1	PPC5-4-6A9-12
8.8	R1	Wall	PPC5-4-8A8-1	PPC5-4-8A8-12
11.9	R1	Wall	PPC5-4-11A-1	PPC5-4-11A-12
15.4	R2	Wall	PPC5-4-15A-1	PPC5-4-15A-12
23	R2	Wall	PPC5-4-23A-1	PPC5-4-23A-12
31	R3	Wall	PPC5-4-31A-1	PPC5-4-31A-12
38	R3	Wall	PPC5-4-38A-1	PPC5-4-38A-12
44	R4	Wall	PPC5-4-44A-1	PPC5-4-44A-12
59	R4	Wall	PPC5-4-59A-1	PPC5-4-59A-12
72	R4	Wall	PPC5-4-72A-1	PPC5-4-72A-12
77	R5	Wall	PPC5-4-77A-1	PPC5-4-77A-12
96	R5	Wall	PPC5-4-96A-1	PPC5-4-96A-12
124	R6	Wall	PPC5-4-124A-1	-
157	R6	Wall	PPC5-4-157A-1	-
180	R6	Wall	PPC5-4-180A-1	-
196	R7	Floor	PPC5-4-196A-1	-
245	R7	Floor	PPC5-4-245A-1	-

The output current (or amps) of the PPC must be greater than or equal to the maximum rated motor current.

500-600 Volt – 3-Phase IN, 3-Phase OUT

OUTPUT AMPS	ENCLOSURE SIZE	MOUNTING	MODEL NUMBER NEMA 1	MODEL NUMBER NEMA 12
2.7	R1	Wall	PPC5-5-2A7-1	PPC5-5-2A7-12
3.9	R1	Wall	PPC5-5-3A9-1	PPC5-5-3A9-12
6.1	R1	Wall	PPC5-5-6A1-1	PPC5-5-6A1-12
9	R1	Wall	PPC5-5-9A0-1	PPC5-5-9A0-12
11	R1	Wall	PPC5-5-11A-1	PPC5-5-11A-12
17	R2	Wall	PPC5-5-17A-1	PPC5-5-17A-12
22	R2	Wall	PPC5-5-22A-1	PPC5-5-22A-12
27	R3	Wall	PPC5-5-27A-1	PPC5-5-27A-12
32	R3	Wall	PPC5-5-32A-1	PPC5-5-32A-12
41	R4	Wall	PPC5-5-41A-1	PPC5-5-41A-12
52	R4	Wall	PPC5-5-52A-1	PPC5-5-52A-12
62	R4	Wall	PPC5-5-62A-1	PPC5-5-62A-12
77	R5	Wall	PPC5-5-77A-1	PPC5-5-77A-12
99	R6	Wall	PPC5-5-99A-1	PPC5-5-99A-12



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