Overview

Synthesis™ Parallel Pump systems are available as stand-alone components or turn-key packages. Various standard packages and packaging options are available. Custom integration can be provided to meet any requirements.

Parallel Pumps

Parallel Pump systems can operate up to three pumps in speed synchronization.

Variable-Speed Drives

Each pump is controlled by a flux vector AC drive from UNICO’s 1100 family. Drives are available from 1 1/2 to 500 hp and are UL and C-UL listed. Input power can be 230, 460, or 575 V AC.

Bypass Control

Manual or fully automatic bypass control is available with packaged systems.

Power Conditioning

A variety of options is available for conditioning the incoming line, including AC line reactors, isolation transformers, twelve-pulse transformers, and harmonic filters.

Environmental Options

Systems can be packaged in NEMA 1, 4, 3R, or 12 enclosures for indoor or outdoor use. Customization is available for special environmental requirements.

Operator Interface

A touch-sensitive color interface simplifies start-up, operation, and troubleshooting. Users are walked through the commissioning process step by step. Once running, graphical screens portray system status, while an interactive diagnostic system provides assistance in the event of a problem.

Services

Comprehensive start-up assistance, service, and training are available.
Electrical Connections

Typical Two-Pump System

Three-Phase AC Line Input

Circuit Breaker

Line Reactor or Transformer (optional)

AC Motor

Pump 1

AC Motor

Pump 2

AC Line Input

Building Automation System (BAS)

Differential Pressure Sensors

Pump 1 Flow Sensor

Pump 2 Flow Sensor

Suction Sensor (optional)

Zone 1

Zone 2 (optional)

Zone 3 (optional)

Zone 4 (optional)

Differential Pressure Switches

Pump 1

Pump 2

Alarm

Input-Selectable Analog Output

Serial Communication

UNICO — Worldwide