

earth safe

Fuel Systems for Critical Facilities

EMERGENCY POWER FUEL SYSTEMS

PowerPlex M200

Compact Duplex Pump Set with Integral
OmniPlex Network Controller

BACnet, Modbus, Metasys N2, or LON Communications



General Description

The PowerPlex Duplex Pump Set is designed for reliable fuel transfer in emergency power systems at critical facilities. Its innovative compact design has a minimal footprint while delivering 5 to 30 GPM of fuel to serve emergency generators and boilers.

The mechanical design is based on Viking positive displacement pumps and is complete with strainers, check valves, ball valves, pressure / vacuum gauges, relief valves. The unit is mounted on an integral containment with leak detection monitoring.

The Duplex Pump Set includes a motor starter panel, or optional VFD drive, with disconnect switch. The motor starter / drive includes current sensors for performance feedback to the duplex pump controller.

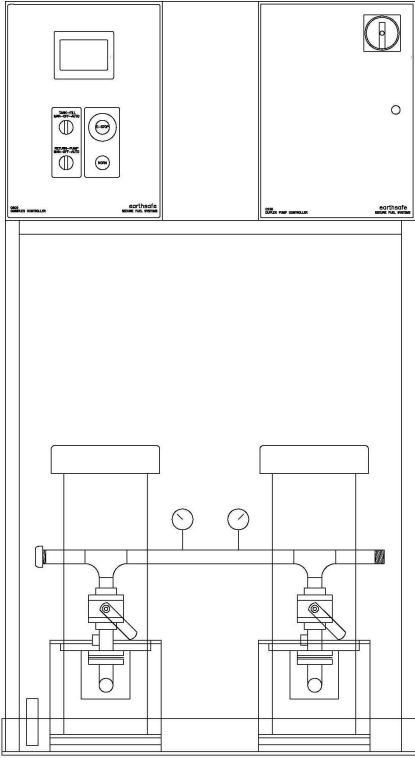
The OmniPlex Controller provides duplex pump operation and monitoring with HOA switches and an emergency stop. The OmniPlex screen provides a summary of operating parameters and allows selection of special operating modes. The Controller networks with other system controllers using Ethernet, and directly to Building Management Systems with an option of BACnet, Modbus, Metasys N2, or Lon protocols.

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2 of 3



PowerPlex M200 Duplex Pump Set

Dimensions	30" L x 18" W x 60" H		
Flow Capacity (GPM)	5 – 10 – 15 – 20 – 30		
Pressure Capacity	10-300 PSI		
Pump Type	Viking Iron Body Pump		
Motor	Close Coupled TEFC Motor 120-240 VAC Single Phase, or 480-240 VAC Three Phase		
Horsepower	GPM	HP@50 PSI Standard	HP@100 PSI Optional
	05	0.50	1.00
	10	0.75	1.50
	15	1.00	2.00
	20	1.50	3.00
	30	2.00	4.00
Accessories	SS Flex Connectors Inlet Strainers Outlet Check Valve Leak Sensor Inlet Suction Gauges Outlet Pressure Gauges Motor Disconnect Switches		
Construction	Welded Steel Construction Containment Basin (7 GAL) Industrial Enamel Finish Color RAL 7035 (Light Gray) Option: Weatherproof Enclosure		
Controls	C820 OmniPlex Module		
Motor Disconnect / Drives	C232 Dual Critical Service C234 Dual Standard Service C235 Dual VFD Drive		
Optional Equipment	01	Weatherproof Enclosure	
	02	Less OmniPlex Controller (CentraPlex System Control)	
	03	X-Proof Motors and Disconnects	
	04	Add Flow Switch	
	05	Add Pressure Switch	
	06	Add Pressure Transducer	
	07	Add Suction Prime Sensor	
	08	Add Electronic Meter	
	09	Add for 100 PSI Motor	

Ordering Information

M200.05.XX 05 GPM Duplex Pump
M200.10.XX 10 GPM Duplex Pump
M200.15.XX 15 GPM Duplex Pump
M200.20.XX 20 GPM Duplex Pump
M200.30.XX 30 GPM Duplex Pump

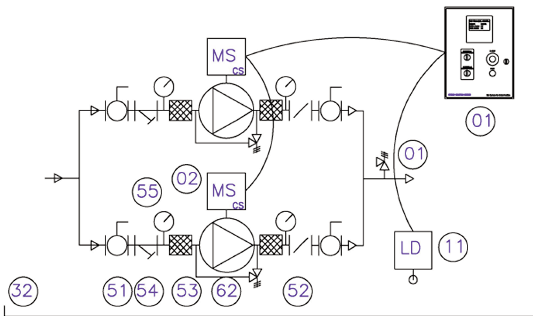
XX=11 120 VAC – 1 PH
XX=21 208 VAC – 1 PH
XX=23 240 VAC – 3 PH
XX=43 480 VAC – 3 PH

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3 of 3



Duplex Pump Set

Item	Qty	Description
1	1	OmniPlex Control Panel
2	2	Pump Control Panel
11	1	Leak Sensor
33	1	Pump / Filter Containment
51	4	Ball Valve
52	2	Check Valve
53	4	Flex Connector
54	2	Strainer
55	4	Pressure / Vacuum Gauge
62	2	Pump – Main Transfer
72		Pressure Relief Valve

Duplex Pump:

The control panel monitors day tanks, gensets, or other systems for a pump on / fuel request signal. The primary / lead pump is started and is monitored for a current sense signal from the motor starter indicating operation. When the pump on / fuel request signal ceases, then the pump shuts down after a 20 second delay that prevents short cycling.

The first pump selected from OFF to AUTO mode is the lead pump and the other pump is the lag pump. Pumps automatically alternate on consecutive starts. The lag pump will start, after a 20 second delay, if the lead pump has on overload alarm or a current sense failure. The 20 second standard delay can be increased to accommodate the operation of line leak detection systems. The audible alarm operates for 60 seconds, or until reset. Alarms are reset by placing the pump selector in the OFF position and returning to AUTO.

The display indicates for each pump: (a) lead / lag status, (b) normal / alarm status, (c) overload alarm condition, (d) current sense fail condition, (e) not-in-auto status, (f) pump run time meter. A common alarm output relay and a serial data interface are provided for BMS integration.

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