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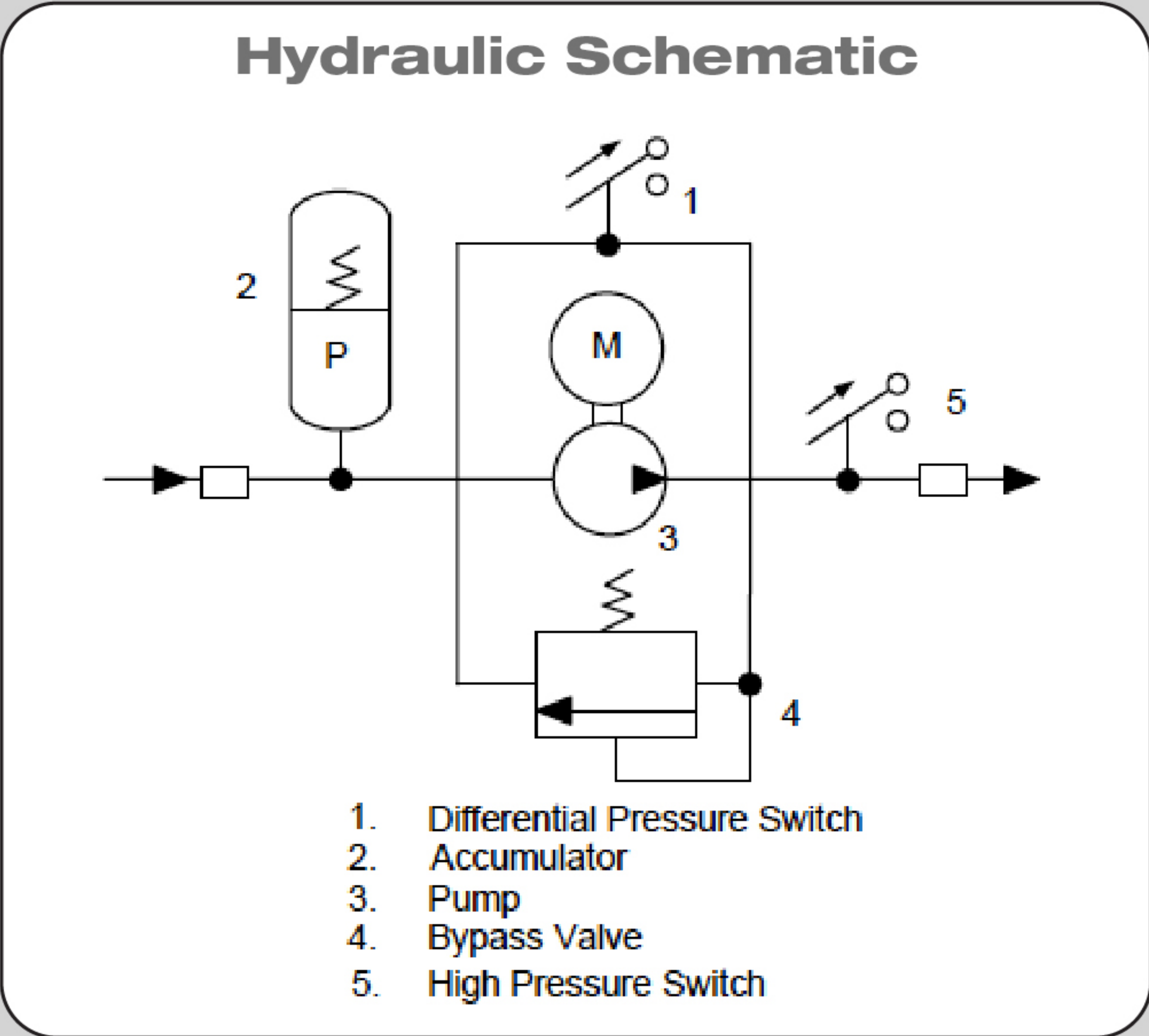
Thermal Management Solutions

Model 5001 Motor Driven Pump Unit

Datasheet



Motor Driven Pump Unit
PDT Model 5001



Description

The PDT Model 5001 includes a positive displacement pump, spring loaded accumulator and two pressure switches. The motor cavity is flooded to allow the use of a hydro dynamically lubricated journal instead of ball bearings. These design features greatly enhance pump reliability and benefit motor cooling. The unit has been qualified to MIL-STD-810 environments and has a proven flight history within its jamming radar cooling system.

Specification
Pump Parameters

Fluid:	Polyalphaolefin (PAO) per MIL-PRF-87252
Pump Flow:	4.0 gpm (min)
Pressure:	30 psid @ +21°C ± 5°C
Temperature Ranges:	Ambient Air: -54°C to +85°C Coolant: -54°C to +105°C
Operating Voltage:	115/200 VAC, 3Ø, 400 Hz
Input Power:	414 Watts (max)
Pump Type:	Positive displacement
Dry Weight:	7.0 lbs (max)
Pump Type:	33.5 in3 (min) @ 15 psig ; 0 in3 (min) @ 8 psig
Style:	Piston-type, Spring loaded, Vented
Integral Bypass Valve:	Full bypass @ 4.00 gpm (min) by 150 psid
Differential Pressure:	Normally open Close by 8.5 ±1.5 psid on increasing pressure Open by 5.0 ±2.0 psid on decreasing pressure
High (Gauge) Pressure:	Open by 140 psig on increasing pressure Close by 120 psig on decreasing pressure
Thermal Protection:	Integral relay and thermal switches (located in motor windings)

Performance Graph





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