

MS640

Mariner Kit for use with
HP Procurve Switches (2708 / 2724 / 6108)



HP Procurve Switches 2708 / 2724 / 6108 are marine type-approved by all of the major international marine Classification Societies when installed in conjunction with our Mariner Kit MS640.

The MS640 Mariner Kit affords protection against the effects of vibration and shock experienced in the offshore marine environment and has been type-tested against IACS Unified Requirement E10 and the relevant sections of IEC60945 (see overleaf for test details).

This type-approved combination of hardware and Mariner Kit can be used as the platform for your critical navigation, control, loading and general purpose applications (please check individual type-approval certificates for any restrictions).

**“Proven solutions for a
demanding environment”**



WHAT IS SO SPECIAL ABOUT HP PROCURVE SWITCHES 2708 / 2724 / 6108?

- ◆ Performance: maximised throughput for all PCs and servers
- ◆ HP/IEEE Auto-MDIX: automatically adjusts for straight-through or crossover cables on all 10/100/1000 ports
- ◆ Lifetime warranty: for as long as you own the product, with next day business day advance replacement (available in most countries)
- ◆ 10/100-1000 auto-sensing per port: automatically detects and sets the speed for any 10Base-T or 100Base-TX, or 1000Base-T device
- ◆ Comprehensive LED display with per-port indicators: provides an at-a-glance view of status, activity, speed, and full-duplex operation
- ◆ Half/full-duplex auto-negotiating capability on every port: double the throughput of every port

Every Mariner system is type-tested against the consolidated, 'worst-case' requirements of all the major international marine Classification Societies:

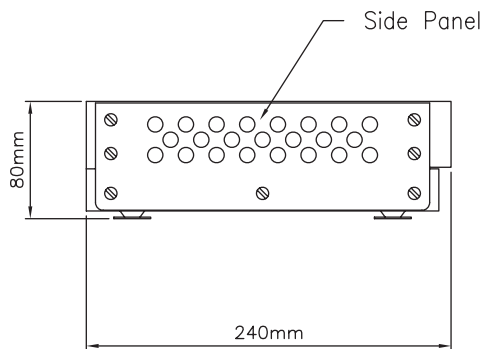
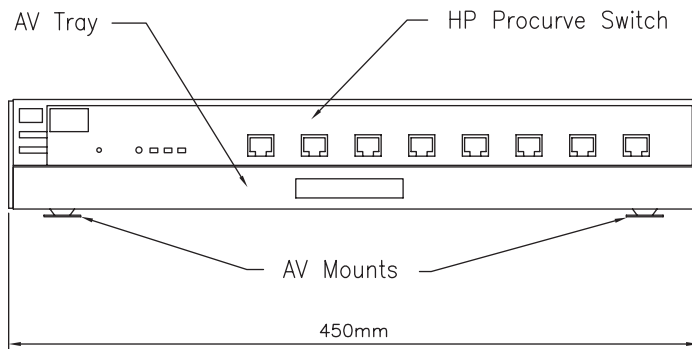
ABS, BV, CCS, DNV, GL, KR, LR, NKK, PRS, RINA

Type-tests included on the test programme are as follows:

- > Vibration, Static and Dynamic Inclination
- > Dry & Damp Heat, Low Temperature
- > Acoustic Noise, Compass Safe Distance
- > High Voltage, Power Supply Variation & Power Supply Failure
- > Conducted LF & RF, Electromagnetic Field
- > Radiated & Conducted Emissions, Electrostatic Discharge
- > Insulation Resistance, Burst / Fast Transients
- > Surge Immunity, Access to Dangerous Voltages

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OPERATING GUIDELINES

Although all our equipment is tested against extreme environmental conditions for the purposes of marine type-approval, installation should take into account the following guidelines:

- > Keep the switch away from excessive moisture, direct moisture and the extremes of heat and cold, to ensure that the unit is within the manufacturer's specified operating/non-operating ranges:

	Operating	Non-Operating
Temperature	+0° to +55°C (+32° to +131°F)	-40° to +70°C (+22° to +158°F)
Humidity	15% to 95% at 40°C (104°F), non-condensing	15% to 90% at 65°C (149°F), non-condensing

- > Leave clearance on all vented sides of the switch to permit the required airflow
- > Never restrict airflow into the switch by blocking any vents or air intakes
- > If the switch is to be operated within a separate enclosure, suitable ventilation must be provided

By following these guidelines you will maximise the life of your equipment and minimise service costs.

STATISTICS

Overall Fitted Dimensions	450mm (w) x 80mm (h) x 240mm (d)
Weight (Mariner Kit only)	Approx 1.5 Kg
Weight (including hardware)	Approx 4.6 Kg
Ports	2708: 8 RJ-45 10/100/1000 ports (IEEE 802.3 Type 10Base-T; IEEE 802.3u Type 100Base-TX, IEEE 802.3ab 1000Base-T Gigabit Ethernet) 2724: 24 RJ-45 10/100/1000 ports (IEEE 802.3 Type 10Base-T; IEEE 802.3u Type 100Base-TX, IEEE 802.3ab 1000Base-T Gigabit Ethernet) 6108: 6 RJ-45 10/100/1000 ports (IEEE 802.3 Type 10Base-T; IEEE 802.3u Type 100Base-TX, IEEE 802.3ab 1000Base-T Gigabit Ethernet); 2 dual-personality ports – can be used as either 2 additional RJ-45 10/100/1000 ports, 2 open mini-GBIC slots (for use with mini-GBIC receivers), or one of each; 1 RS-232C DB-9 console port
Latency	2708: <2.5 μs (LIFO) 2724: <12 μs (LIFO) 6108: <12.5 μs (LIFO)
Throughput	2708 / 6108: 11.9 million pps 2724: 35.7 million pps
Switching Capacity	2708 / 6108: 16 Gbps 2724: 48 Gbps
Address Table Size	2708 / 6108: 8,000 entries 2724: 32,000 entries
Heat Dissipation/hour	341 BTU/hr
AC Voltage	2708 / 2724: 100-127 VAC / 200-240 VAC 6108: 100-240 VAC
Power	100 W
Current	1.5 A
Frequency	50-60 Hz

Design and specifications are subject to change without notice. E&OE.