








Product Verification and Reliability Report

Product Name: P3 PowerPort 500 IP Install



Test Performed	Test condition	Test Duration	Test Lab	Test Result
Operation Temperature Test 	<p>According to IEC 60068-2-1&2 The full functionalities and performances validated at -30°C/55°C temperature range</p>	2 x 24h	Martin Professional	Pass
Damp heat, cyclic test 	<p>According to IEC 60068-2-30 Test Db Variant 1 Upper temperature: +55°C Lower temperature: +25°C Humidity: 96% RH 24h/cycle, 6 cycles</p>	6 days	Martin Professional	Pass
Lifetime Operating test 	<p>1.Test with fixtures (VDO Sceptron XB) at full load mode 2.Weekly function check and record</p>	10000h	Martin Professional	Pass

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<p>Application Vibration test - Both transportation and installation</p> 	Sine Vibration (Marine)- IEC 60068-2-6	3 x 30 mins/axis	Martin Professional	Pass
	Random Vibration (Marine)- IEC 60068-2-64	3 x 30 mins/axis		
	Random Vibration without power (Touring)- IEC 60068-2-27	3 x 30 mins/axis		
	Mechanical Shock (Touring) without power- IEC 60068-2-64	500*6 pulses		
<p>Package test</p>  	ISTA-6A Free Fall Drop Test, 10 drops, 1 corner + 3 edge + 6 surface	N/A	Martin Professional	Pass
	ISTA-6A Vibration Test, 0.52Grms (Truck) +1.06Grms (Air)+ 0.52Grms (Truck)	3 x 30 mins/ case		
<p>Hanger test</p> 	Static loading with six times of unit's weight at each mounting orientation and keep for 1h	1h	Martin Professional	Pass
<p>Safety Wire test</p>	The height of free fall: 30cm, 30 times	N/A	Martin Professional	Pass

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<p>Degrees of Enclosure Protection</p>  	<p>IP 66 according to IEC 60529</p>	<p>N/A</p>	<p>3rd Party Lab</p>	<p>Pass</p>
<p>IK08 according to IEC 62262 IK 08 Impact energy:5J</p>				
<p>Salt mist test</p> 	<p>ISO 12944-6: Neutral Salt Spray Category:C5 High 1440h with operation mode</p>	<p>1440h</p>	<p>Martin Professional</p>	<p>Pass</p>
<p>Wind load Test</p>	<p>Tested according to EN60598-2-5 Static load simulating 60 m/sec. (216 km/h) wind force without causing failure or permanent set to mount bracket</p>	<p>10 mins</p>	<p>Martin Professional</p>	<p>Pass</p>

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