

شركة السمرا لتوليد الكهرباء

عطاء 2024/27

توريد أدوات فحص وقياس

No.	Item	QTY	Specifications
1	True-rms Digital Multimeter	4	<ul style="list-style-type: none"> True-rms ac voltage and current for accurate measurements on non-linear signals • Measure up to 1,000 V ac and dc • Measure up to 10 A (20 A for 30 seconds) • Frequency to 200 kHz • DC voltage: Max. resolution 0.1 mV to 1000 V, Accuracy 0.05 % + 1 • AC voltage: Max. resolution 0.1 mV to 1000 V, Accuracy 0.7 % + 4 • DC current: Max. resolution 0.1 μA to 10 A, Accuracy 0.2 % + 2 • AC current: Max. resolution 0.1 μA to 10 A, Accuracy 1.0 % + 2 • Resistance: Max. resolution 0.1 Ω to 50 MΩ. • Capacitance: 0.01 nF to 9999 μF • Frequency: 0.5 Hz to 199.99 kHz • Temperature: -200 $^{\circ}$C to +1090 $^{\circ}$C • Low pass filter (Measurement on VFDs): Yes • Safety rating: CAT IV 600 V, CAT III 1000V • IP rating: IP 67 • Power: Three AA batteries.
2	Low pressure electric pump calibrator kit (Pressure Calibrator - measure & source).	1	<ul style="list-style-type: none"> •Pressure calibrator with built-in electric pump. •Simulates mA signals to troubleshoot 4-20 mA loops. •Test pressure switches. •Range: -12 to 36 psi, -850 mbar to 2.4 bar •Resolution: 0.001 psi, 0.1 mbar •Accuracy: 0.025% range •mA Range: 0 to 24 mA •mA Resolution: 0.001 mA •mA Accuracy: .015% •Operating temperature: -10$^{\circ}$C to 55$^{\circ}$C •Safety: CSA C22.2 No. 1010.1:1992 •EMC: EN50082-1 and EN55022 Class B.



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3	High pressure hydraulic hand pump calibrator kit (Handheld Hydraulic Pressure Pump Kit).	1	<ul style="list-style-type: none"> Hydraulic Pressure pump with multi units digital gauge. high pressure hose Test pressure switches Range: 0 to 10000 psi, 0 to 700 bar Accuracy: less than 0.6% FS 										
4	Infrared thermometer.	2	<ul style="list-style-type: none"> Range: -30°C to 900°C. Accuracy: $\pm 1^\circ\text{C}$. Display resolution: 0.1°C. Distance to Spot: 60:1. 										
5	Clampmeter.	1	<p>AC voltage: 600V. DC</p> <p>voltage: 600V. DC</p> <p>current: 2000A.</p> <p>AC current: 1000A.</p>										
6	Insulation tester.	1	<p>Range: 0.01 MΩ to 10 GΩ.</p> <p>Test Voltage: 50 V, 100 V, 250 V, 500 V, 1000 V.</p> <p>Accuracy:</p> <p>50 V $\pm(3\% + 5)$.</p> <p>100 V $\pm(3\% + 5)$.</p> <p>250 V $\pm(1.5\% + 5)$.</p> <p>500 V $\pm(1.5\% + 5)$.</p> <p>1000 V $\pm(1.5\% + 5)$ to 2000 MΩ, $\pm(10\% + 3)$ above 2000 MΩ.</p>										
7	Clamp-on Ground resistance tester.	1	<p>Resistance Range: 0.025 Ω to 1500 Ω, Measures ground leakage current, from 0.2 mA to 1000 mA, Measures AC current from 0.2 A to 30 A,</p> <table border="1"> <thead> <tr> <th>Range</th> <th>Accuracy ($\pm\%$ of reading Ω)</th> </tr> </thead> <tbody> <tr> <td>0.025 - 0.250 Ω</td> <td>$\pm 1.5\%$ rdg $\pm 0.02 \Omega$.</td> </tr> <tr> <td>0.250 - 9.999 Ω</td> <td>$\pm 1.5\%$ rdg $\pm 0.05 \Omega$.</td> </tr> <tr> <td>10.00 - 99.99 Ω</td> <td>$\pm 2.0\%$ rdg $\pm 0.3 \Omega$.</td> </tr> <tr> <td>100.0 - 199.9 Ω</td> <td>$\pm 3.0\%$ rdg $\pm 1.0 \Omega$.</td> </tr> </tbody> </table>	Range	Accuracy ($\pm\%$ of reading Ω)	0.025 - 0.250 Ω	$\pm 1.5\%$ rdg $\pm 0.02 \Omega$.	0.250 - 9.999 Ω	$\pm 1.5\%$ rdg $\pm 0.05 \Omega$.	10.00 - 99.99 Ω	$\pm 2.0\%$ rdg $\pm 0.3 \Omega$.	100.0 - 199.9 Ω	$\pm 3.0\%$ rdg $\pm 1.0 \Omega$.
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			<p>200.0 - 400.0 Ω $\pm 5.0\%$ rdg $\pm 5 \Omega$.</p> <p>400.0 - 600.0 Ω $\pm 10\%$ rdg $\pm 10 \Omega$.</p> <p>600.0 - 1500 Ω $\pm 20\%$.</p>
8	Dry Block Temperature Calibration.	1	<p>Built-in two-channel readout for PRT, RTD, thermocouple, 4-20 mA current.</p> <p>Range: +33 to +450 °C.</p> <p>Accuracy: $\pm 0.2^\circ\text{C}$ Full Range.</p> <p>Stability: $\leq \pm 0.02^\circ\text{C}$.</p> <p>Display Resolution: 0.01 °C.</p> <p>Insert Dimension: 25.8 x 150 mm.</p> <p>Power: 230 V ($\pm 10\%$), 50/60 Hz, 1800 W.</p> <p>RTD resistance range: 0 ohms to 400 ohms.</p> <p>RTD resistance accuracy: 0 ohms to 25 ohms: ± 0.002 ohms 25 ohms to 400 ohms: ± 80 ppm of reading.</p> <p>TC millivolt range: -10 mV to 75 mV</p> <p>TC Voltage accuracy: 0.025% of reading + 0.01 mV.</p> <p>Accuracy: 0.02% of reading.</p> <p>mA range: 4-24 mA.</p> <p>mA connection: 2 terminal input.</p> <p>Loop power function: 24 V DC loop power.</p>
9	Vibration Tester (Portable handheld, 4 channel vibration meter).	1	<p>Portable hand-held 4 Channel Vibration Meter , logger and Data collector.</p> <p><u>Specifications and features:</u></p> <p>1 x Vibration Meter.</p> <p>4 x Sensors with cable $\geq 1\text{m}$ cable.</p> <p>Meets ISO2954 standard.</p> <p>Frequency range 10 Hz ... 1 KHz.</p> <p>Acceleration, speed, and displacement measurements.</p> <p>Different measurement units \squarem, mm , mm/s , mm/s², g ...etc.</p> <p>Acceleration : $\sim 200\text{m/s}^2$.</p> <p>Velocity : $\sim 200\text{mm/s}$.</p> <p>Displacement : ~ 2 mm.</p> <p>Resolution : 0.1m/s² , 0.01g ; 0.1mm/s ; 0.001mm.</p>



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			<p>accuracy $\pm(5\%+2$ digits).</p> <p>RMS or Peak Value measurement modes.</p> <p>Selectable data sampling rate.</p> <p>Large, LCD display touch screen is preferred.</p> <p>high capacity Data storage.</p> <p>Computer software for Evaluation of data included with lifetime license is preferred.</p> <p>Calibration certificate Traceable to NIST.</p> <p>Set consists of 4 sensors, magnetic mounts, batteries, SD card, and carrying case</p>

