

ORENSEN (AMETEK)

DLM40-15

The Sorensen DLM40-15 (by AMETEK) is a highly reliable, high-density 600W programmable DC power supply. Housed in a compact 1U, half-rack chassis, it offers continuously variable output voltage (0 to 40 VDC) and current (0 to 15 ADC). It features active power factor correction, dual 3.5-digit LED displays, low output ripple, and versatile analog programming, making it an excellent choice for ATE system integration, benchtop testing, and OEM applications.

SPECIFICATIONS

General

Interfaces	Analog (standard); GPIB and RS-232 (optional via M9G interface)
Display	Dual 3.5-digit LED displays for voltage and current
Regulatory Compliance	CE marked; Certified to UL3111-1, CSA 22.2 No. 1010.1, EN61010-1
Warm-up Time	30 minutes

Physical

Power Supply	90 - 264 VAC, single-phase, 47 - 63 Hz
Operating Temperature	0 to 50 °C °C
Dimensions (W×H×D)	216 × 44 × 330 mm mm
Weight	4.2 kg kg

Output Specifications

Rated Output Voltage	0 - 40 VDC
Rated Output Current	0 - 15 ADC
Maximum Output Power	600 W
Voltage Line Regulation	0.01% of max voltage + 2 mV
Voltage Load Regulation	0.01% of max voltage + 2 mV
Current Line Regulation	0.01% of max current + 2 mA
Current Load Regulation	0.02% of max current + 5 mA
Output Ripple and Noise (RMS)	10 mV (20 Hz - 20 MHz)
Output Ripple and Noise (Peak-to-Peak)	60 mV (20 Hz - 20 MHz)

AC Input Specifications

Input Voltage Range	90 - 264 VAC (universal input)
Input Frequency Range	47 - 63 Hz
Power Factor	0.98 typical (at full load)
Efficiency	84% typical (at full load)

Protection and Diagnostics

Over Voltage Protection (OVP) Range	2 - 44 VDC
Over Temperature Protection (OTP)	Yes (automatic thermal shutdown)

Control and Interface

Analog Programming Resistive Range	0 - 5 kΩ or 0 - 10 kΩ (user selectable)
Analog Programming Voltage Range	0 - 5 VDC or 0 - 10 VDC (user selectable)
Remote Shutdown Input	TTL active low or contact closure

Physical Characteristics

Chassis Height	1U (44 mm / 1.75 in)
Chassis Width	Half-rack (216 mm / 8.5 in)
Chassis Depth	330 mm (13.0 in)

Environmental and Safety

Cooling	Internal fan (force-air, side intake, rear exhaust)
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Performance

Transient Response Time	Recovers to within 150 mV of steady-state voltage within 1 ms for a 50% to 100% load change
Temperature Coefficient	Voltage: 0.02% of rated output voltage per °C; Current: 0.03% of rated output current per °C
Remote Sense Compensation	Up to 1 V per lead (maximum 2 V total line drop)
Series Operation	Up to 2 identical units in series
Parallel Operation	Up to 4 identical units in parallel (master-slave configuration)
Output Voltage Rise Time	50 ms typical at full resistive load
Output Voltage Fall Time	50 ms typical at full resistive load

Inputs & Outputs

Analog Programming Connector	25-pin D-sub (DB-25) female on rear panel
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Environmental

Storage Temperature	-40°C to +85°C
Operating Humidity	0% to 90% RH, non-condensing
Operating Altitude	Up to 6,562 ft (2,000 m)

Safety

Isolation Voltage	500 VDC
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Power Input

AC Input Phase	Single phase
Input Current	8 A RMS typical @ 115 VAC / 4 A RMS typical @ 230 VAC
Inrush Current	25 A peak maximum @ 115 VAC or 230 VAC
AC Input Hold-up Time	20 ms minimum at nominal AC input and full load

Programming & Control

Analog Voltage Programming Accuracy	±1.0% of maximum output voltage
Analog Current Programming Accuracy	±1.0% of maximum output current

User Interface

Front Panel Voltmeter Accuracy	±(0.5% of maximum output voltage + 1 count)
Front Panel Ammeter Accuracy	±(0.5% of maximum output current + 1 count)

TECHNOLOGY

Switch-mode power supply (SMPS)

APPLICATIONS

ATE system integration, product design testing, QC, and benchtop laboratory power

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