

KEYSIGHT TECHNOLOGIES (AGILENT HP)

N6740 Series - 100W Modules

The Keysight (formerly Agilent) N6740 Series consists of basic DC power modules providing 100 W of programmable voltage and current for the N6700 Low-Profile Modular Power System and N6705 DC Power Analyzer mainframes. Designed for economy and flexibility, the series includes the N6741B, N6742B, N6743B, N6744B, N6745B, and N6746B modules, covering voltage ranges up to 100 V and currents up to 20 A. These 1-slot modules are ideal for providing power to devices under test (DUT) or automating ATE system resources.

SPECIFICATIONS

General

Interfaces	Provided by mainframe (USB, LAN/LXI, GPIB)
Display	Provided by mainframe
Module Classification	Basic DC Power Module

Physical

Operating Temperature	0 to 55 °C
Weight	1.23 kg kg

DC Output Ratings

Output Power	100 W nominal (96 W to 100 W depending on model)
Output Voltage Range	0 to 5 V (N6741B), 0 to 8 V (N6742B), 0 to 20 V (N6743B), 0 to 35 V (N6744B), 0 to 60 V (N6745B), 0 to 100 V (N6746B)
Output Current Range	0 to 20 A (N6741B), 0 to 12.5 A (N6742B), 0 to 5 A (N6743B), 0 to 2.8 A (N6744B), 0 to 1.6 A (N6745B), 0 to 1 A (N6746B)

Output Ripple and Noise

Constant Voltage (CV) Peak-to-Peak (20 Hz - 20 MHz)	20 mV (N6741B/42B/43B), 22 mV (N6744B), 25 mV (N6745B), 30 mV (N6746B)
Constant Voltage (CV) RMS (20 Hz - 20 MHz)	2 mV (N6741B/42B), 3 mV (N6743B), 5 mV (N6744B), 9 mV (N6745B), 18 mV (N6746B)

Programming Accuracy

Voltage Programming Accuracy	$\pm(0.1\% + 19 \text{ mV})$ for N6741B/42B; $\pm(0.1\% + 20 \text{ mV})$ for N6743B; $\pm(0.1\% + 35 \text{ mV})$ for N6744B; $\pm(0.1\% + 60 \text{ mV})$ for N6745B; $\pm(0.1\% + 100 \text{ mV})$ for N6746B
Current Programming Accuracy	$\pm(0.15\% + 20 \text{ mA})$ for N6741B; $\pm(0.15\% + 12.5 \text{ mA})$ for N6742B; $\pm(0.15\% + 5 \text{ mA})$ for N6743B; $\pm(0.15\% + 2.8 \text{ mA})$ for N6744B; $\pm(0.15\% + 1.6 \text{ mA})$ for N6745B; $\pm(0.15\% + 1 \text{ mA})$ for N6746B

Measurement (Readback) Accuracy

Voltage Readback Accuracy	$\pm(0.1\% + 19\text{ mV})$ for N6741B/42B; $\pm(0.1\% + 20\text{ mV})$ for N6743B; $\pm(0.1\% + 35\text{ mV})$ for N6744B; $\pm(0.1\% + 60\text{ mV})$ for N6745B; $\pm(0.1\% + 100\text{ mV})$ for N6746B
Current Readback Accuracy	$\pm(0.15\% + 20\text{ mA})$ for N6741B; $\pm(0.15\% + 12.5\text{ mA})$ for N6742B; $\pm(0.15\% + 5\text{ mA})$ for N6743B; $\pm(0.15\% + 2.8\text{ mA})$ for N6744B; $\pm(0.15\% + 1.6\text{ mA})$ for N6745B; $\pm(0.15\% + 1\text{ mA})$ for N6746B

Protection Functions

Over-Temperature Protection (OTP)	Standard / Included
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Physical Specifications

Module Width (Slots)	1 slot
System Compatibility	Keysight N6700, N6701, N6702 Low-Profile Mainframes and N6705 DC Power Analyzer

Outputs

Remote Sense Drop (Max)	1 V per load lead
Output Isolation	$\pm 240\text{ VDC}$ from chassis ground

Performance

Command Processing Time	$\leq 1\text{ ms}$
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Protection

Over-Voltage Protection (OVP)	Standard
Over-Current Protection (OCP)	Standard

Options

Disconnect & Polarity Reversal Relays	Available via Option 761
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Environmental

Storage Temperature	$-30\text{ }^{\circ}\text{C}$ to $70\text{ }^{\circ}\text{C}$
Operating Altitude	Up to 2000 m
Pollution Degree	2

Features

Parallel Operation	Supported (up to 4 identical modules)
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TECHNOLOGY

Programmable Modular DC Power Supply

APPLICATIONS

Automated Test Equipment (ATE), DUT powering, fixture control, general-purpose DC power

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