

NVIDIA RTX PRO 5000 Blackwell 48GB vs NVIDIA GeForce RTX 5090 32GB

Side by side datacenter GPU specifications from the Flopper.io database.

OVERVIEW

	NVIDIA RTX PRO 5000 Blackwell 48GB	NVIDIA GeForce RTX 5090 32GB
FP32 TFLOPS	65.0	104.8
VRAM	48 GB	32 GB
Memory Bandwidth	1.3 TB/s	1.8 TB/s
TDP	300 W	575 W

PERFORMANCE BY PRECISION

Precision	NVIDIA RTX PRO 5000 Blackwell 48GB peak TFLOPS (dense)	NVIDIA GeForce RTX 5090 32GB peak TFLOPS (dense)
FP64	—	1.6
FP32	65.0	104.8
TF32	—	104.8
BF16	—	209.5
FP16	—	419.1
FP8	—	838.2
FP6	—	—
FP4	1032.0	1676.0
INT8	—	838.2

SPECIFICATIONS

	NVIDIA RTX PRO 5000 Blackwell 48GB	NVIDIA GeForce RTX 5090 32GB
Architecture	Blackwell	Blackwell
Process Node	4nm	4nm
Launch Year	2025	2025
Form Factor	PCIe	PCIe
Memory Type	GDDR7	GDDR7

	NVIDIA RTX PRO 5000 Blackwell 48GB	NVIDIA GeForce RTX 5090 32GB
Interface Width	512-bit	512-bit
Interconnect	—	—
TDP	300 W	575 W
FP32 Efficiency	0.22 TFLOPS/W	0.18 TFLOPS/W