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# mariadb

AMD Ryzen 9 5900HX testing with a ASUS G513QY v1.0 (G513QY.318 BIOS) and ASUS AMD Cezanne 512MB on Ubuntu 22.10 via the Phoronix Test Suite.

**Automated Executive Summary**

*a had the most wins, coming in first place for 45% of the tests.*

*Based on the geometric mean of all complete results, the fastest (a) was 1.017x the speed of the slowest (C). b was 0.989x the speed of a and C was 0.994x the speed of b.*

*The results with the greatest spread from best to worst included:*

*HammerDB - MariaDB (Virtual Users: 64 - Warehouses: 250) at 1.084x*
*HammerDB - MariaDB (Virtual Users: 64 - Warehouses: 250) at 1.079x*
*HammerDB - MariaDB (Virtual Users: 8 - Warehouses: 500) at 1.078x*
*HammerDB - MariaDB (Virtual Users: 16 - Warehouses: 100) at 1.073x*
*HammerDB - MariaDB (Virtual Users: 16 - Warehouses: 100) at 1.07x*
*HammerDB - MariaDB (Virtual Users: 8 - Warehouses: 500) at 1.068x*
*HammerDB - MariaDB (Virtual Users: 64 - Warehouses: 500) at 1.06x*
*HammerDB - MariaDB (Virtual Users: 64 - Warehouses: 500) at 1.059x*
*HammerDB - MariaDB (Virtual Users: 64 - Warehouses: 100) at 1.047x*

*HammerDB - MariaDB (Virtual Users: 16 - Warehouses: 500) at 1.045x.*

# Test Systems:

## a

## b

## C

Processor: AMD Ryzen 9 5900HX @ 4.89GHz (8 Cores / 16 Threads), Motherboard: ASUS G513QY v1.0 (G513QY.318 BIOS), Chipset: AMD Renoir/Cezanne, Memory: 16GB, Disk: 512GB SAMSUNG MZVLQ512HBLU-00B00, Graphics: ASUS AMD Cezanne 512MB (2500/1000MHz), Audio: AMD Navi 21/23, Monitor: LQ156M1JW25, Network: Realtek RTL8111/8168/8411 + MEDIATEK MT7921 802.11ax PCI

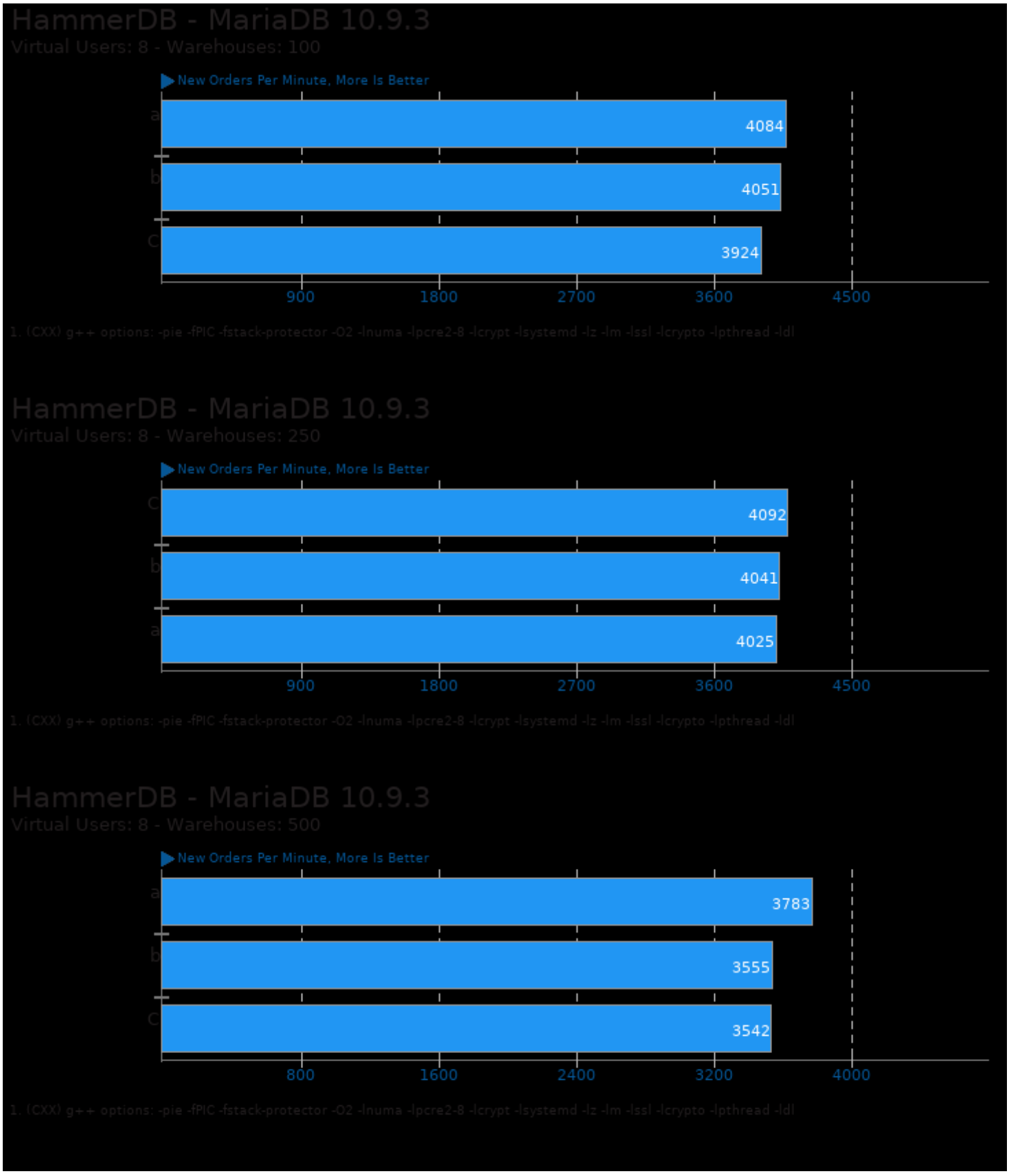
OS: Ubuntu 22.10, Kernel: 5.19.0-23-generic (x86_64), Desktop: GNOME Shell 43.0, Display Server: X Server + Wayland, OpenGL: 4.6 Mesa 22.2.1 (LLVM 15.0.2 DRM 3.47), Vulkan: 1.3.224, Compiler: GCC 12.2.0, File-System: ext4, Screen Resolution: 1920x1080

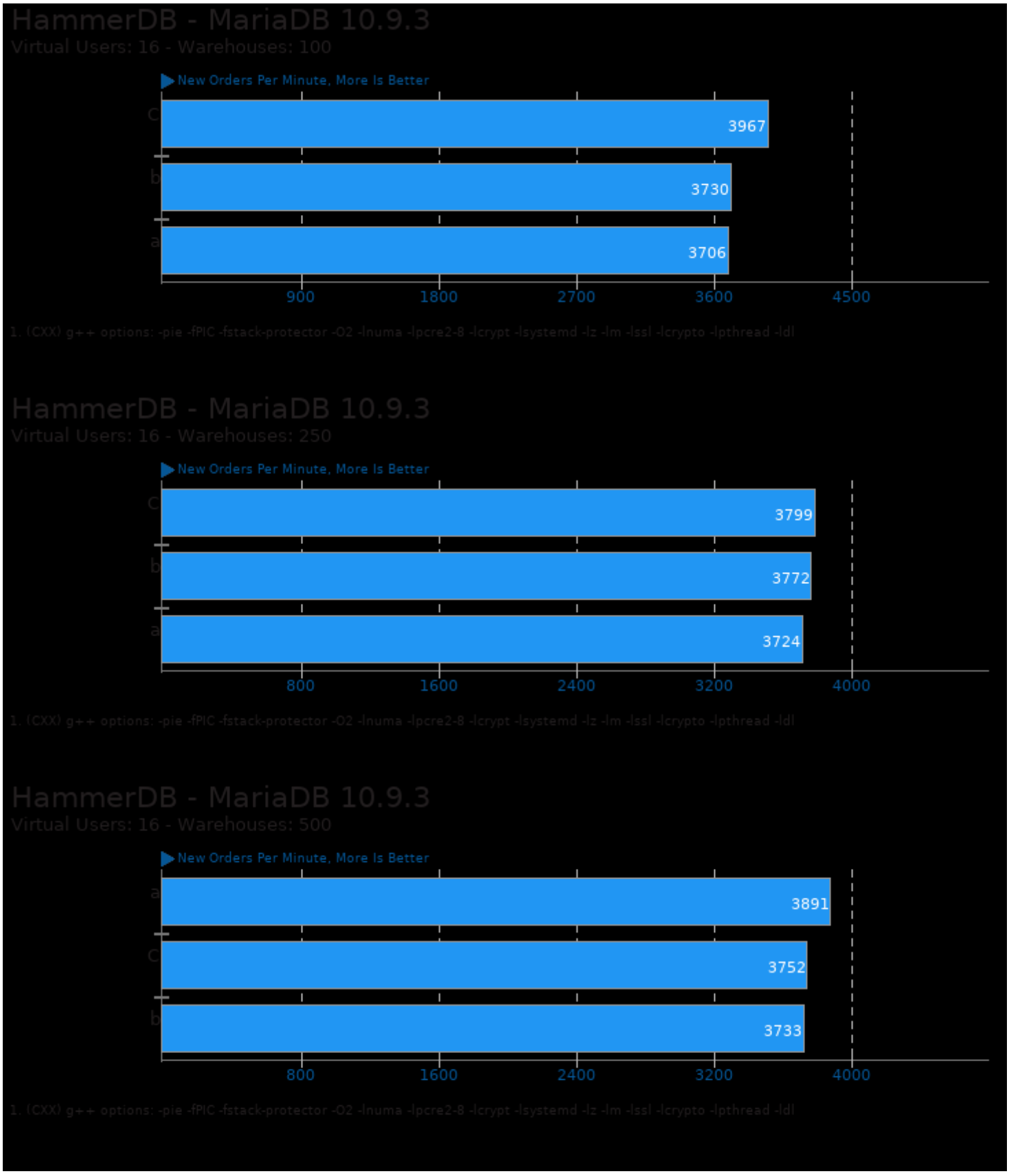
Kernel Notes: Transparent Huge Pages: madvise
Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-cet --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,d,fortran,objc,obj-c++,m2 --enable-libphobos-checking=release --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-defaulted --enable-offload-targets=nvptx-none=/build/gcc-12-U8K4Qv/gcc-12-12.2.0/debian/tmp-nvptx/usr,amdgcn-amdhsa=/build/gcc-12-U8K4Qv/gcc-12-12.2.0/debian/tmp-gcn/usr --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib=auto --with-tune=generic --without-cuda-driver -v
Processor Notes: Scaling Governor: amd-pstate schedutil (Boost: Enabled) - Platform Profile: balanced - CPU Microcode: 0xa50000c - ACPI Profile: balanced
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + mmio_stale_data: Not affected + retbleed: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Retpolines IBPB: conditional IBRS_FW STIBP: always-on RSB filling PBRSB-eIBRS: Not affected + srbds: Not affected + tsx_async_abort: Not affected

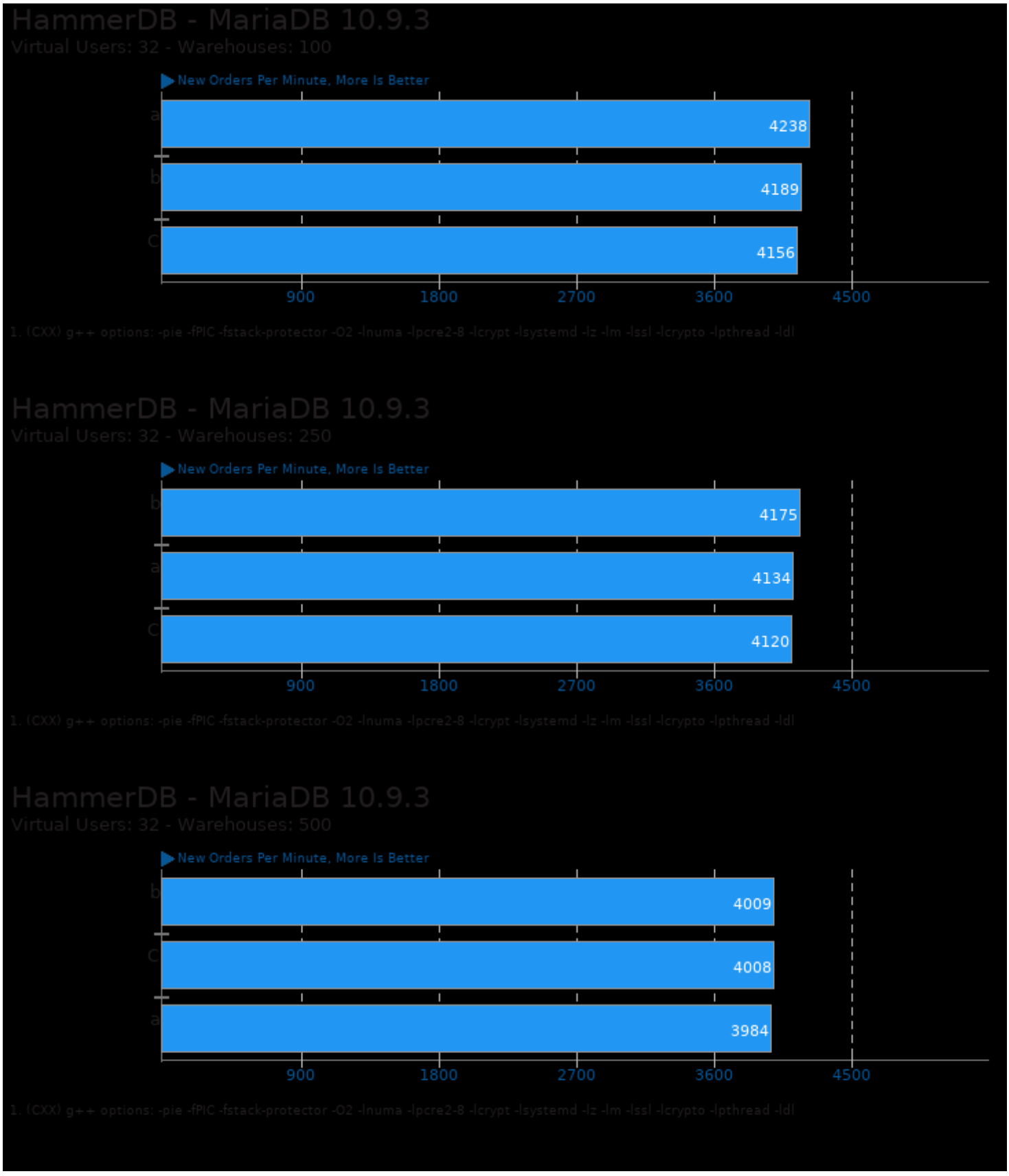
| | a | b | C |
|---|---|---|---|
| **HammerDB - MariaDB - 8 - 100 (New Orders/min)** | **4084** | 4051 | **3924** |
| **Normalized** | 100% | 99.19% | 96.08% |
| **HammerDB - MariaDB - 8 - 250 (New Orders/min)** | **4025** | 4041 | **4092** |
| **Normalized** | 98.36% | 98.75% | 100% |
| **HammerDB - MariaDB - 8 - 500 (New Orders/min)** | **3783** | 3555 | **3542** |
| **Normalized** | 100% | 93.97% | 93.63% |
| **HammerDB - MariaDB - 16 - 100 (New Orders/min)** | **3706** | 3730 | **3967** |
| **Normalized** | 93.42% | 94.03% | 100% |

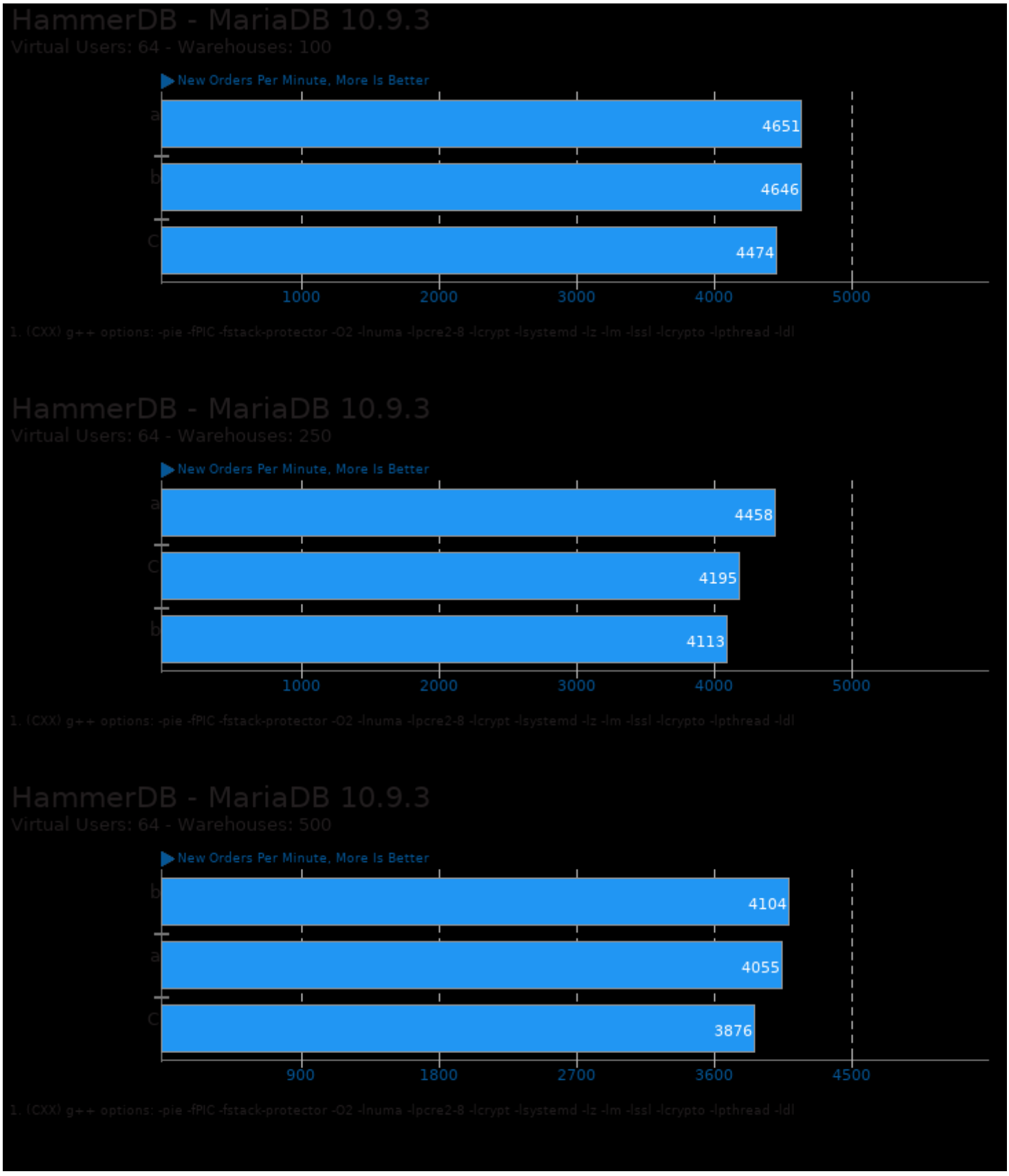
| | | | |
|---|---|---|---|
| **HammerDB - MariaDB - 16 - 250 (New Orders/min)** | 3724 | 3772 | 3799 |
| **Normalized** | 98.03% | 99.29% | 100% |
| **HammerDB - MariaDB - 16 - 500 (New Orders/min)** | 3891 | 3733 | 3752 |
| **Normalized** | 100% | 95.94% | 96.43% |
| **HammerDB - MariaDB - 32 - 100 (New Orders/min)** | 4238 | 4189 | 4156 |
| **Normalized** | 100% | 98.84% | 98.07% |
| **HammerDB - MariaDB - 32 - 250 (New Orders/min)** | 4134 | 4175 | 4120 |
| **Normalized** | 99.02% | 100% | 98.68% |
| **HammerDB - MariaDB - 32 - 500 (New Orders/min)** | 3984 | 4009 | 4008 |
| **Normalized** | 99.38% | 100% | 99.98% |
| **HammerDB - MariaDB - 64 - 100 (New Orders/min)** | 4651 | 4646 | 4474 |
| **Normalized** | 100% | 99.89% | 96.19% |
| **HammerDB - MariaDB - 64 - 250 (New Orders/min)** | 4458 | 4113 | 4195 |
| **Normalized** | 100% | 92.26% | 94.1% |
| **HammerDB - MariaDB - 64 - 500 (New Orders/min)** | 4055 | 4104 | 3876 |
| **Normalized** | 98.81% | 100% | 94.44% |
| **HammerDB - MariaDB - 8 - 100 (Transactions/min)** | 9473 | 9461 | 9109 |
| **Normalized** | 100% | 99.87% | 96.16% |
| **HammerDB - MariaDB - 8 - 250 (Transactions/min)** | 9418 | 9393 | 9526 |
| **Normalized** | 98.87% | 98.6% | 100% |
| **HammerDB - MariaDB - 8 - 500 (Transactions/min)** | 8737 | 8332 | 8107 |
| **Normalized** | 100% | 95.36% | 92.79% |
| **HammerDB - MariaDB - 16 - 100 (Transactions/min)** | 8595 | 8615 | 9220 |
| **Normalized** | 93.22% | 93.44% | 100% |
| **HammerDB - MariaDB - 16 - 250 (Transactions/min)** | 8677 | 8809 | 8872 |
| **Normalized** | 97.8% | 99.29% | 100% |
| **HammerDB - MariaDB - 16 - 500 (Transactions/min)** | 9049 | 8707 | 8660 |
| **Normalized** | 100% | 96.22% | 95.7% |
| **HammerDB - MariaDB - 32 - 100 (Transactions/min)** | 9849 | 9729 | 9648 |
| **Normalized** | 100% | 98.78% | 97.96% |
| **HammerDB - MariaDB - 32 - 250 (Transactions/min)** | 9537 | 9694 | 9592 |
| **Normalized** | 98.38% | 100% | 98.95% |
| **HammerDB - MariaDB - 32 - 500 (Transactions/min)** | 9306 | 9328 | 9295 |
| **Normalized** | 99.76% | 100% | 99.65% |

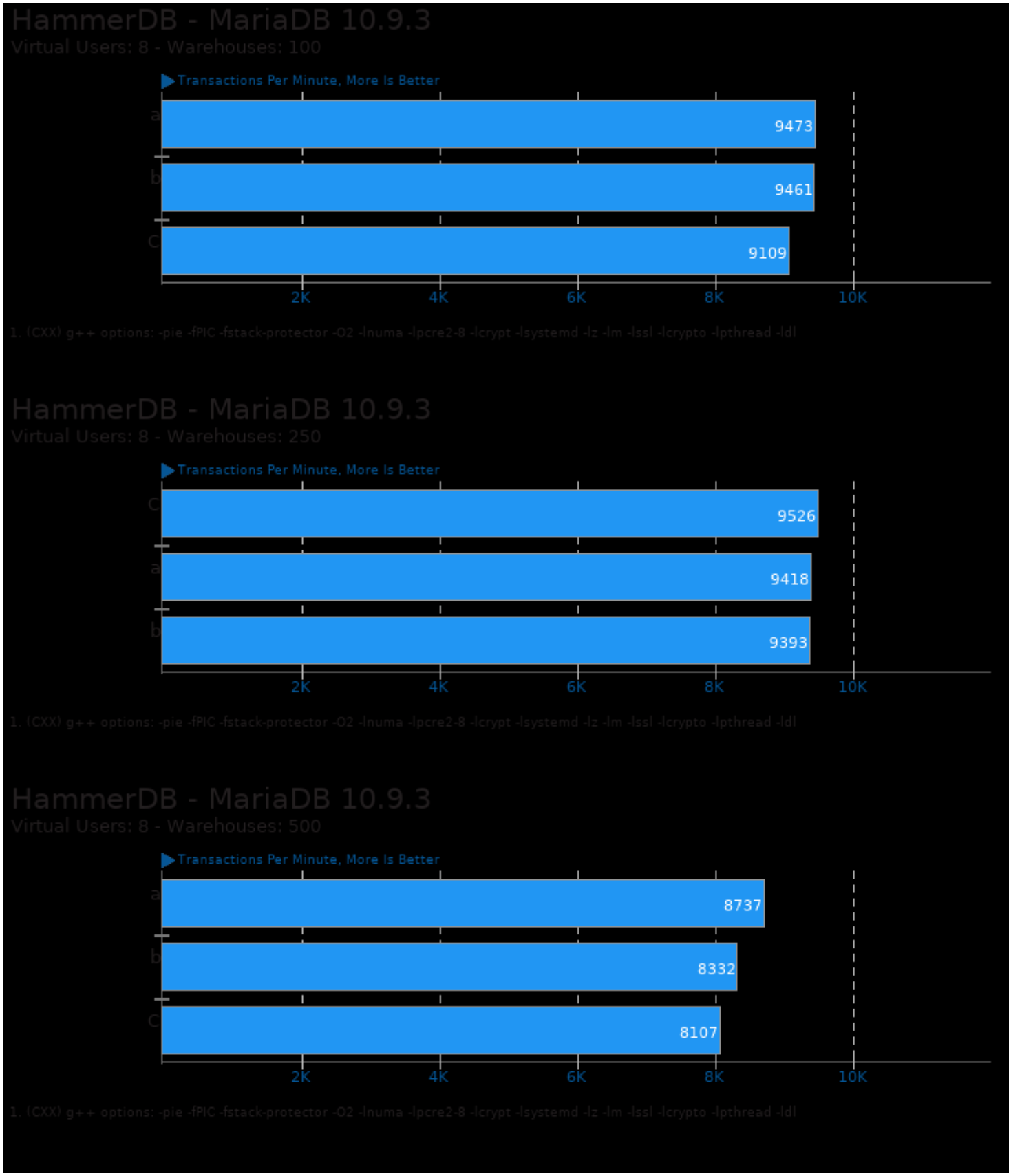
| | | | |
|---|---|---|---|
| **HammerDB - MariaDB - 64 - 100 (Transactions/min)** | 10744 | **10843** | **10352** |
| **Normalized** | 99.09% | 100% | 95.47% |
| **HammerDB - MariaDB - 64 - 250 (Transactions/min)** | **10367** | **9610** | 9728 |
| **Normalized** | 100% | 92.7% | 93.84% |
| **HammerDB - MariaDB - 64 - 500 (Transactions/min)** | 9341 | **9565** | **9022** |
| **Normalized** | 97.66% | 100% | 94.32% |

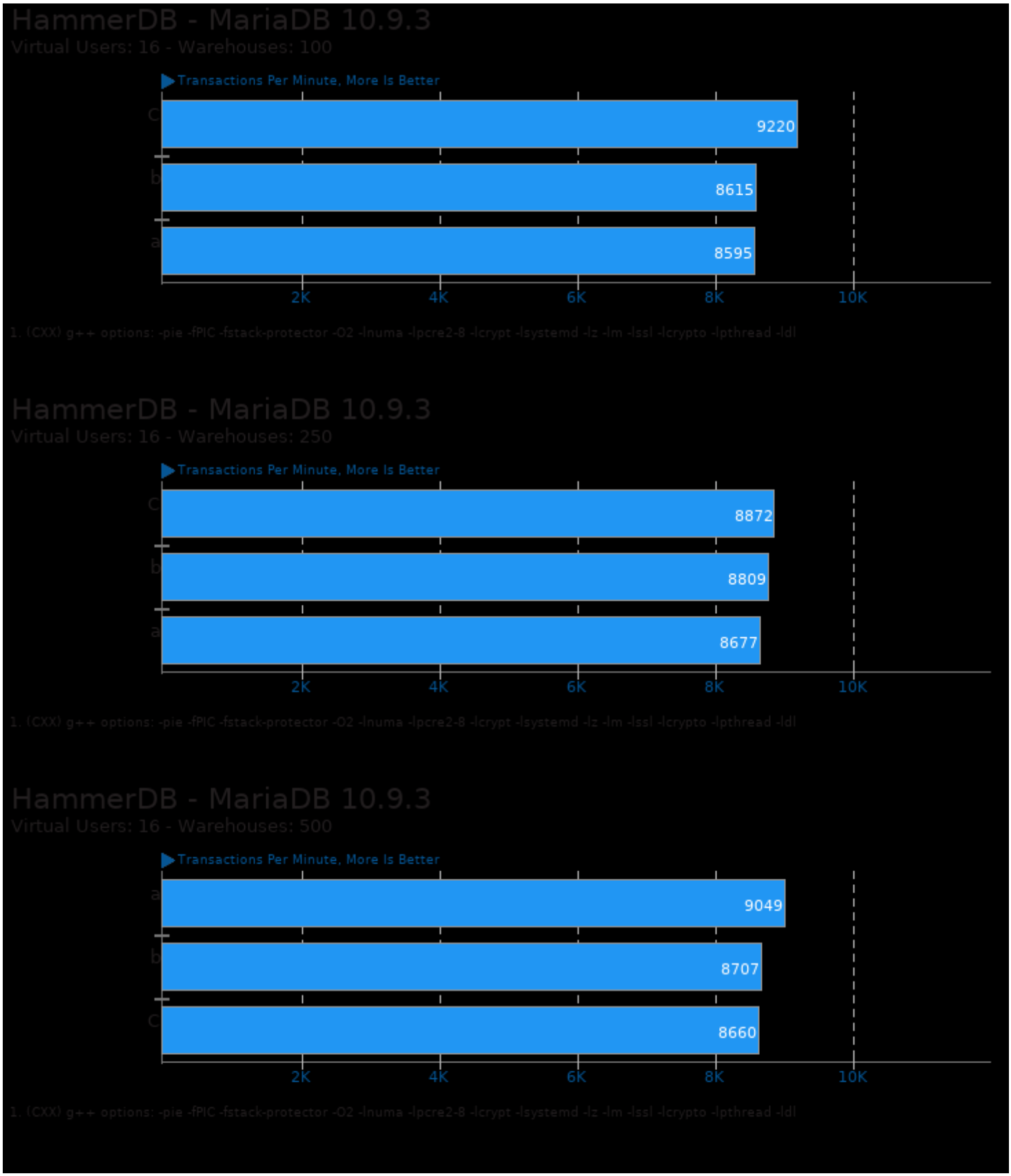

HammerDB - MariaDB 10.9.3
Virtual Users: 8 - Warehouses: 100
New Orders Per Minute, More Is Better
a
b
c
4084
4051
3924
900
1800
2700
3600
4500
1. (CXX) g++ options: -pie -fPIC -fstack-protector -O2 -lnuma -lpcre2-8 -lcrypt -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl
HammerDB - MariaDB 10.9.3
Virtual Users: 8 - Warehouses: 250
New Orders Per Minute, More Is Better
c
b
a
4092
4041
4025
900
1800
2700
3600
4500
1. (CXX) g++ options: -pie -fPIC -fstack-protector -O2 -lnuma -lpcre2-8 -lcrypt -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl
HammerDB - MariaDB 10.9.3
Virtual Users: 8 - Warehouses: 500
New Orders Per Minute, More Is Better
a
b
c
3783
3555
3542
800
1600
2400
3200
4000
1. (CXX) g++ options: -pie -fPIC -fstack-protector -O2 -lnuma -lpcre2-8 -lcrypt -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl

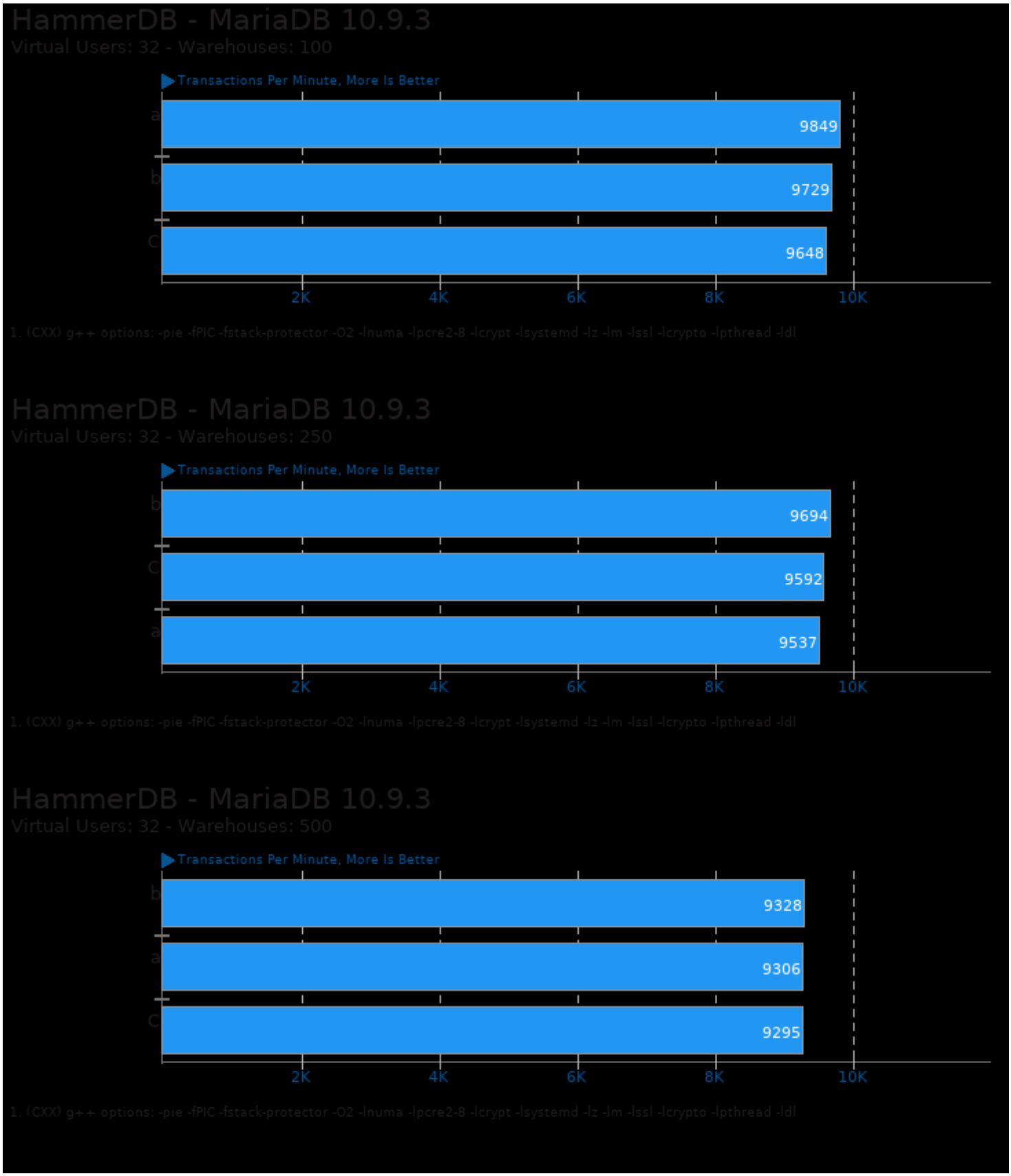

HammerDB - MariaDB 10.9.3
Virtual Users: 16 - Warehouses: 100
New Orders Per Minute, More Is Better
c
b
a
3967
3730
3706
900
1800
2700
3600
4500
1. (CXX) g++ options: -pie -fPIC -fstack-protector -O2 -lnuma -lpcre2-8 -lcrypt -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl
HammerDB - MariaDB 10.9.3
Virtual Users: 16 - Warehouses: 250
New Orders Per Minute, More Is Better
c
b
a
3799
3772
3724
800
1600
2400
3200
4000
1. (CXX) g++ options: -pie -fPIC -fstack-protector -O2 -lnuma -lpcre2-8 -lcrypt -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl
HammerDB - MariaDB 10.9.3
Virtual Users: 16 - Warehouses: 500
New Orders Per Minute, More Is Better
a
c
b
3891
3752
3733
800
1600
2400
3200
4000
1. (CXX) g++ options: -pie -fPIC -fstack-protector -O2 -lnuma -lpcre2-8 -lcrypt -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl

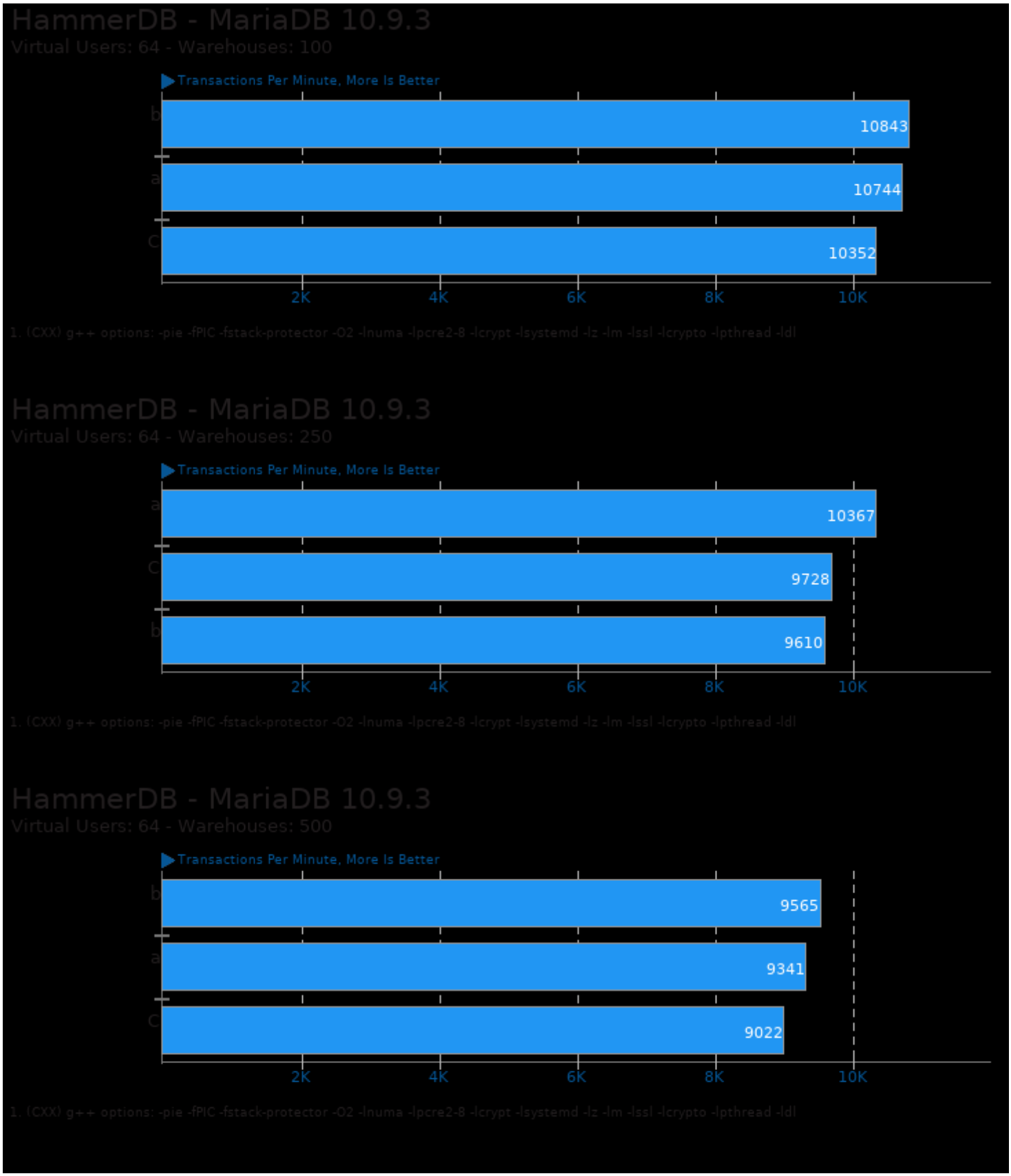

HammerDB - MariaDB 10.9.3
Virtual Users: 32 - Warehouses: 100
New Orders Per Minute, More Is Better
a
b
c
4238
4189
4156
900
1800
2700
3600
4500
1. (CXX) g++ options: -pie -fPIC -fstack-protector -O2 -lnuma -lpcre2-8 -lcrypt -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl
HammerDB - MariaDB 10.9.3
Virtual Users: 32 - Warehouses: 250
New Orders Per Minute, More Is Better
b
a
c
4175
4134
4120
900
1800
2700
3600
4500
1. (CXX) g++ options: -pie -fPIC -fstack-protector -O2 -lnuma -lpcre2-8 -lcrypt -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl
HammerDB - MariaDB 10.9.3
Virtual Users: 32 - Warehouses: 500
New Orders Per Minute, More Is Better
b
c
a
4009
4008
3984
900
1800
2700
3600
4500
1. (CXX) g++ options: -pie -fPIC -fstack-protector -O2 -lnuma -lpcre2-8 -lcrypt -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl


HammerDB - MariaDB 10.9.3
Virtual Users: 64 - Warehouses: 100
New Orders Per Minute, More Is Better
a
b
c
4651
4646
4474
1000
2000
3000
4000
5000
1. (CXX) g++ options: -pie -fPIC -fstack-protector -O2 -lnuma -lpcre2-8 -lcrypt -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl
HammerDB - MariaDB 10.9.3
Virtual Users: 64 - Warehouses: 250
New Orders Per Minute, More Is Better
a
c
b
4458
4195
4113
1000
2000
3000
4000
5000
1. (CXX) g++ options: -pie -fPIC -fstack-protector -O2 -lnuma -lpcre2-8 -lcrypt -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl
HammerDB - MariaDB 10.9.3
Virtual Users: 64 - Warehouses: 500
New Orders Per Minute, More Is Better
b
a
c
4104
4055
3876
900
1800
2700
3600
4500
1. (CXX) g++ options: -pie -fPIC -fstack-protector -O2 -lnuma -lpcre2-8 -lcrypt -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl


HammerDB - MariaDB 10.9.3
Virtual Users: 8 - Warehouses: 100
Transactions Per Minute, More Is Better
a
b
c
9473
9461
9109
2K
4K
6K
8K
10K
1. (CXX) g++ options: -pie -fPIC -fstack-protector -O2 -lnuma -lpcre2-8 -lcrypt -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl
HammerDB - MariaDB 10.9.3
Virtual Users: 8 - Warehouses: 250
Transactions Per Minute, More Is Better
c
a
b
9526
9418
9393
2K
4K
6K
8K
10K
1. (CXX) g++ options: -pie -fPIC -fstack-protector -O2 -lnuma -lpcre2-8 -lcrypt -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl
HammerDB - MariaDB 10.9.3
Virtual Users: 8 - Warehouses: 500
Transactions Per Minute, More Is Better
a
b
c
8737
8332
8107
2K
4K
6K
8K
10K
1. (CXX) g++ options: -pie -fPIC -fstack-protector -O2 -lnuma -lpcre2-8 -lcrypt -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl


HammerDB - MariaDB 10.9.3
Virtual Users: 16 - Warehouses: 100
Transactions Per Minute, More Is Better
c
9220
b
8615
a
8595
2K
4K
6K
8K
10K
1. (CXX) g++ options: -pie -fPIC -fstack-protector -O2 -lnuma -lpcre2-8 -lcrypt -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl
HammerDB - MariaDB 10.9.3
Virtual Users: 16 - Warehouses: 250
Transactions Per Minute, More Is Better
c
8872
b
8809
a
8677
2K
4K
6K
8K
10K
1. (CXX) g++ options: -pie -fPIC -fstack-protector -O2 -lnuma -lpcre2-8 -lcrypt -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl
HammerDB - MariaDB 10.9.3
Virtual Users: 16 - Warehouses: 500
Transactions Per Minute, More Is Better
a
9049
b
8707
c
8660
2K
4K
6K
8K
10K
1. (CXX) g++ options: -pie -fPIC -fstack-protector -O2 -lnuma -lpcre2-8 -lcrypt -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl


HammerDB - MariaDB 10.9.3
Virtual Users: 32 - Warehouses: 100
Transactions Per Minute, More Is Better
a
b
c
9849
9729
9648
2K
4K
6K
8K
10K
1. (CXX) g++ options: -pie -fPIC -fstack-protector -O2 -lnuma -lpcre2-8 -lcrypt -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl
HammerDB - MariaDB 10.9.3
Virtual Users: 32 - Warehouses: 250
Transactions Per Minute, More Is Better
b
c
a
9694
9592
9537
2K
4K
6K
8K
10K
1. (CXX) g++ options: -pie -fPIC -fstack-protector -O2 -lnuma -lpcre2-8 -lcrypt -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl
HammerDB - MariaDB 10.9.3
Virtual Users: 32 - Warehouses: 500
Transactions Per Minute, More Is Better
b
a
c
9328
9306
9295
2K
4K
6K
8K
10K
1. (CXX) g++ options: -pie -fPIC -fstack-protector -O2 -lnuma -lpcre2-8 -lcrypt -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl




*This file was automatically generated via the Phoronix Test Suite benchmarking software on Friday, 29 March 2024 03:12.*