

Updated for: Patch 1.6 (WIP)

"Prinzessin der Verurteilung, Sovereign of Immernachtreich, and Ruler of Ashen Darkness'

Damage and DPS Calculator

Last updated on: 12 June 2021 (UTC-5) Made by bloodreign616#4766 & denmax#9293

marily, it should be noted that this is only a <u>heoretical</u> DPS calculator. Actual DPS may vary due to factors not so easily accounted for. What accounts into DPS is attack speed, combos, buff duration, mental reactions, and more. Because of this, the purpose of this calculator is essentially to compare the effects of artifacts, weapons, food, buffs, and the like, on the damage dealt per attack and DPS in total calculators. Further updates may be made to more easily incorporate buffs from party members such as Bennetts' Fantastic Voyage "given a certain percentage uptime."

urrently, the calculator can compute at 99% accuracy. For larger damage values, it's expected that there will be larger differences in terms of magnitude which may seem big. Percentage-wise though, it'll show all it doesn't matter a lot, if at all. The reason for that 1% inaccuracy is how Minbyo rounds their stats, where Artifact stats (and possibly, Character stats as well) have hidden decimal values. As for the damage Elemental Reactions, both determining the damage deat and the multiplier are achieved via an empirical formula. Thus, expect a larger deviation estimated at up to 510%.

- White cells are places where you may input your data. Cells that are not white are off-limits, else you risk breaking the calculator Note: All entries should be in <u>real number</u> format. Do not add a percentage sign in any of them else the calculations will not be accurate
- Base stats refer to Fischl's stats before considering any equipment. They can be obtained by un-equipping your Weapon and Artifact or from Fischl's Wikia page.

 Link: https://genshin-impact.fandom.com/wiki/Fischl
- Under Weapon stats, a few entries are marked in . Pressing the the drop-down list will allow you to change the stat and effect for the purpose of this calculator. Note that not all possible effects are under the drop-down list, mostly due to its complicated nature.
- Stat Ratios shows the balance between your attack multipliers. It does not take into account buffs and food effects ATK% is the summation of all ATK% modifiers from your Weapon, Artifacts, and Set Effects CRIT% is the product of the total Crit Rate% and Crit DMG% from your Character, Weapon, Artifacts, and Set Effects DMG% is the summation of all applicable DMG% modifiers from your Weapon, Artifacts, and Set Effects
- Artifacts are separated per type. For the sake of this calculator, the only sub-stats that are considered are ATK, ATK%, Crit Rate%, and Crit DMG%. Some artifacts can have different main stats, marked ... Use the drop-down menu to change it. Only a handful of main stats are also considered for computing damage.

 Note: Once a main stat has been chosen. The particular sub-stat similar to it will be marked ... This is only to warn the user that there is a conflict. The calculator will still work but there is a risk of obtaining inaccurate results
- Set effects pertain to the bonuses from equipping similar Artifacts. You may press the drop-down menu to Y (shorthand, yes) to consider the effects of that particular set. Note: Computations will still consider having multiple set effects present, even if impossible.
- 6 Total Stat Quantities are simply a record of all your stats, ideally, it should match with what you already have under the Details tab in-game.
- If you wish to change certain stats just so you can compare or contrast, or you simply want to input your total values without checking each Artifact, you may write down your stats under the OVERWRITE column just beside the Total Stat Quantities. This is the only exception from Step 1.
- Food Effects refer to the bonuses acquired from consuming food and potions.

 Note: Please note that food with similar effects cannot stack and have their effects co-exist. As an example, <u>Adeptus' Temptation</u> and <u>Berry & Mint Burst</u> don't work with each other

 As for potions, only one may be active at a time.
- Buff Effects instead consider the temporary bonuses obtained from skills, weapons, and the like. The ATK bonus from "Fantastic Voyage"can be jotted down as Flat ATK for exam Note: If you were to have all your total stats under OVERWRITE, the calculator will still require the Base Character ATK and Weapon ATK for ATK% buffs to work properly

- Similar to the earlier page, you may only input on white cells

- Each Talent will have their own table of damage based on Talent Level, broken down per attack or damage instance Note: Currently, only up to Ly 8 Normal Attack, Ly 15 Burst and Skill.
- Resultant Stat Ratios is the same as Stat Ratios in Stats Page but with accounting for buffs and food effects
- Resultant Character Stats are the same as Total Stat Quantities in Stats Page but with accounting for buffs and food effects
- Additional damage effects from bows which deal bonus attacks or modify attack speed may be selected from a drop-down list, as well as the level of refinement. Note: DPS of such effects is determined by an assumption that each effect is triggered as frequently as the cooldown allows and divides the total damage of the effect by the maximum frequency of the trigger.
- Normal Attack Uptime is the percentage of the duration of combat for which Fischl is executing her normal attack string. This may be adjusted to account for the reality of combat which involves forced downtime from character swapping, movement, knockdown, stagger/interruption, and more.
- DPS of various talents is determined by dividing the total damage of each trigger of the talent by the frequency at which it can be triggered, or by multiplying its damage per second by its percentage uptime.

 - #1: "Midright Phantasmagoria" is executed every 25 seconds under optimal circumstances, so its total damage divided by 25 would be its DPS.
 #2: O'S normal attack fires every second and Oz has an untime of 80% below C6, and 96% at C6. Therefore, Oz's basic attack DPS is his basic attack damage multiplied by 0 8 and 0 85 below C6 and at C6, respectively.
 #3: O'S C1 attack therefore has a theoretical total DPS of 5 / 2.7 multiplied by 15 and 0 5 per hit damage.
 Note: this final DPS is multiplied in reality by the percentage uptime of Fischi's normal attack, as well as the percentage downtime of Oz himself, which is 30% below C6, and 4% at C6.
 #3: Co'S C6 attack, "Evernight Revern"; a tied to the active character's attack speed. For this reason, this factor in Fischi's "Support" DPS will not necessarily translate accurately when considering her for this role. Its DPS is determined in the same manner as C1 Oz attack's is, in that the damage per hit is multiplied by the average numl of hits per second.
 Note: this DPS is multiplied by Oz's uptime which is 96% in optimal circumstances.
- Physical DPS is the DPS Fischi does when accounting for only Normal Attack string and Oz's C1 attack, as well as special weapon attacks, when applicable. Note: Oz's C1 DPS is factored and adjusted at C1 and C6 respectively, based on Constellation level selection.
- Electro/Support DPS is the DPS Oz contributes through each of Fisch's electro-related talents which are tied to him, and accounts for each component at the Constellations which they become available. Note: C3 and C5 talent level boosts must be manually added by using the respective talents' drop-down lists.
- 13 Total/Carry DPS is the sum of Fischl's Physical DPS and Electro/Support DPS.

25 Dec 2020 – Fixed an error in Elemental Mastery Total Stat uantities calculation. Aesthetic redesign, Intro Page update.

12 June 2021 – Updated elemental reaction da natch Patch 1.6 changes (HungryDave#1530)

CREDITS & SOURCES

Elemental Reaction Empirical Formula (from u/Dandan0587) https://www.reddit com/r/Genshin_Impact/comments/j580b _increase/

enshin Impact Wiki <u>httos://qenshin-impact.fandom.com/wiki/Genshin_Impact_Wiki</u>

eqing Discord (for testing the calculator) https://discord.com/invite/Keqing

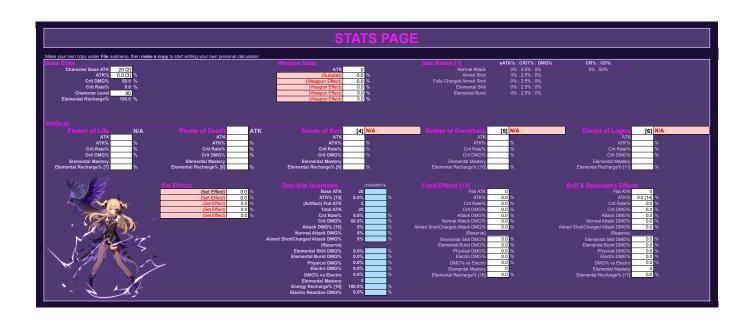
FOURE.

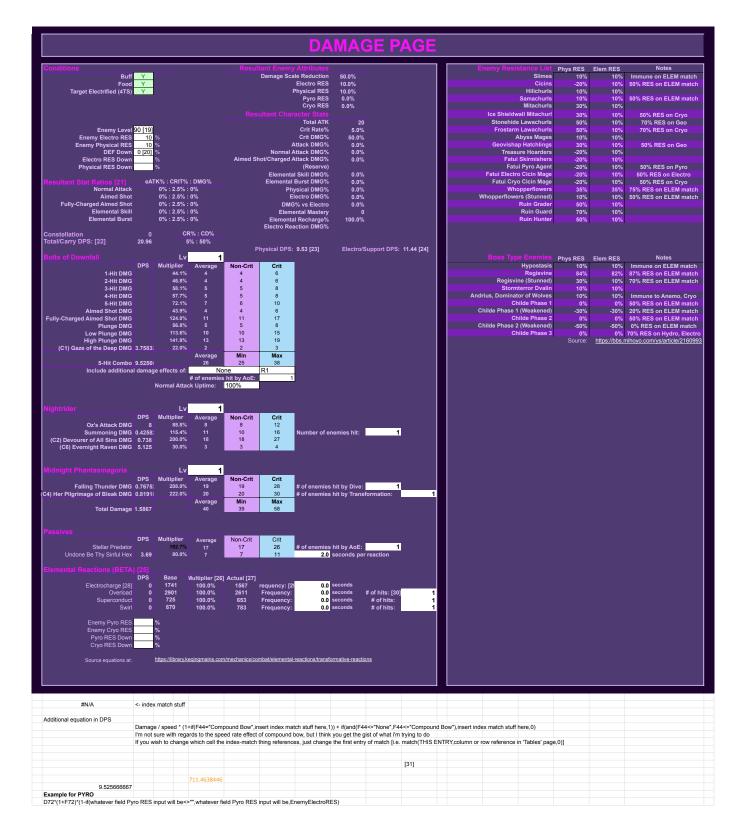
Drop-down list of Artifact substats

Drop-down list of Weapon, Food, and Buffs based on actual in-ga source (can be doable for Food and Buffs, but issue with Weapon due to lack of data per level).

Senarate Respance section

FOR THOUGHT
- Stat and Damage Page in a single sheet (to easily dupe sheets for comparing damage values)
- Agesthetic improvement for Tables sheet





Bolts of Downfall																
3. 50	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Data pulled from: https://genshin-impact.fandom.com/wiki/Keging
1-Hit DMG	44.1%	47.7%			60.0%		69.8%	75.40%	81.1%	87.2%	93.37%	99.52%	105.68%	113.83%	117.99%	AND PARENTON HOLD HILLS AGENCY THE PARENT HAND
2-Hit DMG	46.8%	50.6%					74.0%	80.0%	86.0%	92.5%	99.01%	105.54%	112.06%	118.59%	125.12%	
3-Hit DMG	58.1%						91.9%	99.4%	106.8%	114.9%	123.03%	131.14%	139.26%	147.37%	155.48%	
4-Hit DMG	57.7%						91.3%	98.6%	106.0%	114.1%	122.12%	130.17%	138.23%	146.28%	154.33%	
5-Hit DMG	72.1%						114.0%	123.2%	132.4%	142.5%	152.52%	162.57%	172.63%	182.68%	192.74%	
Aimed Shot	43.9%	47.4%					69.4%	75.0%	80.6%	86.7%	92.82%	98.94%	105.06%	111.18%	117.30%	
Fully-Charged Aimed Shot	124.0%						186.0%	198.4%	210.8%	223.2%	235.60%	248%	263.50%	279%	294.50%	
Plunge DMG	56.8%	61.5%					89.9%	97.1%	104.4%	112.3%	120.27%	128.20%	136.12%	144.05%	151.98%	
Low Plunge DMG	113.6%	122.9%					179.7%	194.2%	208.8%	224.6%	240.48%	256.34%	272.19%	288.05%	303.90%	
High Plunge DMG		153.5%					224.5%	242.6%	260.8%	280.6%	300.37%	320.18%	339.98%	359.79%	379.59%	
night Flutige DMG	141.070	133.370	100.076	101.37	100.170	200.376	224.570	242.070	200.076	200.0%	300.37%	320.1070	339.8076	338.1870	31 8.38 /6	
Nightrider	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
0 1 17/ 01/0		95.5%						142.1%	151.0%	159.8%	168.70%	177.60%	188.70%	199.80%	210.90%	
Oz's ATK DMG							133.2%	184.7%	196.3%	207.8%	219.30%	230.90%	245.30%	259.70%	274.20%	
Summoning DMG (C2) Devourer of All Sins DMG	115.4% 200.0%	124.1% 200.0%					173.2%	200.0%	200.0%	200.0%	200.0%	200.0%	200.0%	200.0%	200.0%	
(C2) Devourer of All Sins DMG	200.0%	200.0%	200.0%	200.0%	200.0%	200.0%	200.0%	200.0%	200.0%	200.0%	200.0%	200.0%	200.0%	200.0%	200.0%	
Midnight Phantasmagoria	a	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
Falling Thunder DMG	208.0%	223.6%					312.0%	333.0%	353.6%	374.4%	395.20%	416%	13 442%	468%	15 494%	
4) Her Pilgrimage of Bleak DMG	208.0%	223.6%					222.0%	222.0%	222.0%	222.0%	222%	222%	222%	222%	222%	
4) Hel Filgilliage of bleak blild	222.070	222.070	222.070	222.07	222.070	222.070	222.070	222.070	222.070	222.070	222/0	222.70	222/0	222/0	222 /0	
Because of Google Sheets Lin StatBaseATK	nitation, some 20		be placed he	re (DO NOT E	DIT)											
StatATKo	0.0%															
StatTATK	5.0%															
StatCR StatCD	50.0%															
StatCD StatAttackDMG	0.0%															
StatNormalAttackDMG	0%															
StatChargedAttackDMG	0%															
StatElemSkillDMG	0.0%															
StatElemBurstDMG	0.0%															
StatPhysDMG	0.0%															
StatElectroDMG	0.0%															
StatDMGvsElectro	0.0%															
StatEM	0															
StatER	100.0%															
StatReactionDMG	0.0%															
EnemyPhysRESMult	90.0%															
EnemyElemRESMult	90.0%															
EnemyPyroRESMult	100.0%															
EnemyCryoRESMult	100.0%															
	R1	R2	R3	R4	R5											
Compound Bow	0.048															
Messenger	1.35															
Skyward Harp		3.294642857														
Viridescent Hunt	2.108571429			4.696363636												
			3.00		2.00											
	0	1	. 2	. 3	4	5	6									
Total DPS at Constellation:	20.96245267	21.71411933			23.27129933	23.27129933	28.900654									
	0	1					6									
Physical DPS at Constellation:	9.525666667						9.676									
	0	1					6									
Electro DPS at Constellation:	11.436786	11.436786	12.174786	12.174786	12.993966	12.993966	19.224654									

[1] For Electro ratios, includes VS Electro. For Physical ratios, excludes VS Electro

ATK% = Summation of all ATK% CRIT% = Product of CR% and CD%

DMG% = Summation of all DMG%, if applicable

- [2] The difference between Base ATK and Weapon ATK in your details page
- [3] ATK% gained from Character Ascension
- [4] In real number format (for a 36.6% bonus, simply right 36.6). Adding a percentage will not return an appropriate calculation
- [5] In real number format (for a 36.6% bonus, simply right 36.6). Adding a percentage will not return an appropriate calculation
- [6] In real number format (for a 36.6% bonus, simply right 36.6). Adding a percentage will not return an appropriate calculation
- [7] Currently not used in any calculations. For future-proofing
- [8] Currently not used in any calculations. For future-proofing
- [9] Currently not used in any calculations. For future-proofing
- [10] Currently not used in any calculations. For future-proofing
- [11] Currently not used in any calculations. For future-proofing
- [12] Note that food with similar effects do not stack. Any overlap on stats will remove the previously consumed food
- [13] Not required in calculations except in Stat Ratios, since most calculations use the Total ATK stat
- [14] Requires entry in Character ATK and Weapon ATK
- [15] Affects all DMG% modifiers. An existing effect of this is Geo Resonance bonus
- [16] Currently not used in any calculations. For future-proofing
- [17] Currently not used in any calculations. For future-proofing
- [18] Currently not used in any calculations. For future-proofing
- [19] If left blank, damage scale reduction will assume equal level
- [20] Effect on damage currently un-tested. If somehow the damage values return in-accurate due to inputs from this, please leave a comment (right click) on the source sheet
- [21] Stat Ratios after adding food, buff, and resonance effects.
- [22] Physical DPS + Electro DPS
- [23] Factors into account the following, when applicable:
- 5-hit combo
- Gaze of the Deep (C1)
- Weapon Effects

Under the assumption that the usual attack chain lasts 162 frames (credits to HailCorporate#2970)

[24] Factors into account the following, when applicable:

- Oz Attack DPS
- Oz Summon DPS
- Oz Burst Summon DPS (C4)
- Oz Burst Dive DPS
- Oz Undone Be Thy Sinful Hex DPS
- Oz Evernight Raven DPS (C6), based on Normal Attack uptime and attack speed of Fischl
- Electro-related Reaction DPS

Assumption that Oz has 80% uptime below C6, and 96% at C6

- [25] Note that formula used are empirical. Expect a difference of $\pm 10\%$ for larger numbers, though typical variance is < 1% after around Level 20.
- [26] Used exponential regression on lower values and the polynomial for >20
- [27] Assumes Elem RES = Electro RES unless a Pyro or Cryo RES modifier is specified.
- [28] Damage shown is each tick
- [29] The average expected number of seconds per instance of damage/reaction, or the average time in seconds between each instance of damage/reaction.
- [30] The average expected number of enemies hit per instance of damage/reaction.
- [31] Factors into account the following, when applicable:
- 5-Hit Combo
- Gaze of the Deep (C1)
- Weapon Effects

Under the assumption that the usual attack chain lasts 162 frames (credits to HailCorporate#2970)