

► Leagues:

- Great league ($CP \leq 1500$),
- Ultra league ($CP \leq 2500$),
- Master league (no CP limit).

- **Moves:** They are all defined differently from PvE. In PvP, a move is defined by its power (the amount of damage it deals), its energy (the amount of energy it generates or uses) and its duration (the number of turns the move lasts, each turn lasts for 0.5s).

Three measures can be defined:

- DPT stands for Damage per turn. Equivalent to DPS in non-PvP scenarios. Higher is better. Only for fast moves.
- EPT stands for Energy per turn. Equivalent to EPS in non-PvP scenarios. Higher is better. Only for fast moves.
- DPE stands for Damage per energy. DPE describes how efficiently you deal damage in comparison to the energy spent. Higher is better. Only for charge moves.

Examples of PvP stats for fast moves are:

| Move | Power | Energy | Duration (s) | DPT | EPT |
|-----------------|-------|--------|--------------|------|------|
| 🔴 Mud Shot | 3 | 9 | 2 | 1.50 | 4.50 |
| 🔴 Psycho Cut | 3 | 9 | 2 | 1.50 | 4.50 |
| 🟡 Thunder Shock | 3 | 9 | 2 | 1.50 | 4.5 |

Examples of PvP stats for charge moves are:

| Move | Power | Energy | DPE |
|----------------|-------|--------|------|
| 🔵 Hydro Cannon | 90 | 40 | 2.25 |
| 🟢 Frenzy Plant | 100 | 45 | 2.22 |
| 🟠 Blast Burn | 110 | 50 | 2.20 |
| 🟢 Avalanche | 90 | 45 | 2.00 |
| 🔵 Draco Meteor | 150 | 75 | 2.00 |

For more details:

► [PvP fast moves](#)

► [PvP charge moves](#)

- The **Effective Health (EH)** measures the bulkiness of a Pokémon and is computed via the formula:

$$EH = \frac{1}{900} \times (\text{DEF at considered level}) \times (\text{HP at considered level})$$

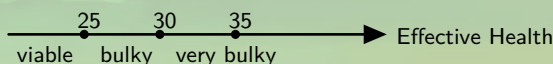
where DEF at considered level = $(\text{Base DEF} + \text{IV DEF}) \times \text{coeff_level}$

and HP at considered level = $(\text{Base HP} + \text{IV HP}) \times \text{coeff_level}$

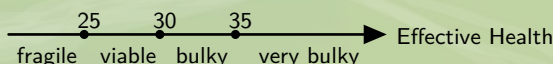
Examples of coefficients are

| Level | Level 20 | Level 25 | Level 30 | Level 35 | Level 40 |
|-------------|----------|----------|----------|------------|----------|
| coeff_level | 0.5974 | 0.667934 | 0.7317 | 0.76156384 | 0.7903 |

- For Great league ($CP \leq 1500$), a good effective health must be higher than 25.



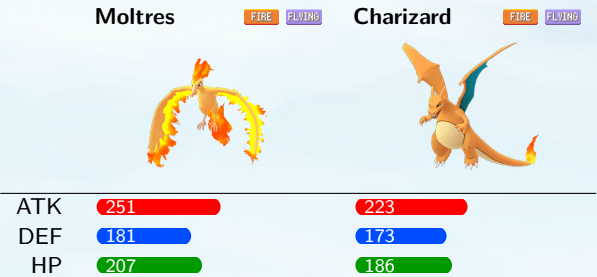
- For Ultra league ($CP \leq 2500$) and Master league (no CP limit), a good effective health must be higher than 30. Below, the Pokémon remains fragile. The Pokémon can be considered as very bulky if its effective health is higher than 35.



Best Pokémon for PvP

► **Optimal IV and level (only for Great and Ultra leagues)**

We would like to compare Moltres and Charizard



For Moltres, the effective stats are

| ATK IV | DEF IV | HP IV | LVL | CP | ATK | DEF | HP | SUM | EH |
|--------|--------|-------|------|------|-----|-----|-----|-----|-------|
| 15 | 15 | 15 | 25 | 2475 | 177 | 130 | 148 | 455 | 19240 |
| 13 | 15 | 14 | 25.5 | 2500 | 178 | 132 | 149 | 459 | 19668 |
| 0 | 15 | 3 | 27.5 | 2499 | 175 | 137 | 147 | 459 | 20139 |
| 1 | 3 | 15 | 27.5 | 2499 | 176 | 128 | 155 | 459 | 19840 |

For Charizard, the effective stats are:

| ATK IV | DEF IV | HP IV | LVL | CP | ATK | DEF | HP | SUM | EH |
|--------|--------|-------|------|------|-----|-----|-----|-----|-------|
| 15 | 15 | 15 | 30.5 | 2497 | 174 | 138 | 147 | 459 | 20286 |
| 15 | 0 | 0 | 35.5 | 2495 | 181 | 132 | 142 | 455 | 18744 |
| 0 | 15 | 15 | 34.5 | 2494 | 169 | 142 | 152 | 463 | 21584 |
| 15 | 13 | 14 | 31 | 2498 | 175 | 137 | 147 | 459 | 20139 |

Moltres (13, 15, 14) has better statistics for Ultra league than Moltres (15, 15, 15). For each league, there is an optimal IV set and level that maximises attack, defence and HP statistics. For Master league, the optimal IV set is (15, 15, 15) and optimal level is 40. Furthermore, Charizard (15, 13, 14) at level 31 and Moltres (0, 15, 3) at level 27.5 have exactly same statistics. To determine which one is most interesting in PvP, we must look at their moves.

For more details:

► [More details on optimal IV](#)

► **PvP simulator:**

► [Pokebattler](#)

► [PvPoke](#)

► Once you got your three medals, don't forget to steal their look:



Examples of Pokémon for Great league (CP ≤ 1500)

Altaria

DRAGON FLYING



Bastiodon

ROCK STEEL



Skarmory

STEEL FLYING



Ideal moveset
 • Dragon Breath
 • Dragon Pulse
 • Sky Attack

• Smack Down
 • Stone Edge
 • Flamethrower

• Air Slash
 • Sky Attack
 • Flash Cannon

ATK 141

94

148

DEF 201

286

226

HP 181

155

163

Optimal IV / Level (0,14,15), level 29

(8,15,15), level 40

(0,14,15), level 27.5

Weaknesses ICE ROCK DRAGON FAIRY

FIGHT GROUND WATER

FIRE ELECTRIC

Medicham

FIGHT PSYCHIC



Deoxys (D)

PSYCHIC



Azumarill

WATER FAIRY



Ideal moveset
 • Counter
 • Power Up Punch
 • Ice Punch

• Counter
 • Psycho Boost
 • Rock Slide

• Bubble
 • Ice Beam
 • Play Rough

ATK 121

144

112

DEF 152

330

152

HP 155

137

225

Optimal IV / Level (15,15,15), level 40

(0,15,15), level 25.5

(8,15,15), level 40

Weaknesses FAIRY GHOST FLYING

GHOST DARK BUG

ELECTRIC GRASS POISON

Venusaur

GRASS POISON



Umbreon

DARK



Lucario

FIGHT STEEL



Ideal moveset
 • Vine Whip
 • Frenzy Plant
 • Sludge Bomb

• Snarl
 • Foul Play
 • Last Resort

• Counter
 • Power Up Punch
 • Shadow Ball

ATK 198

126

236

DEF 189

240

144

HP 190

216

172

Optimal IV / Level (0,14,15), level 21

(0,15,15), level 27.5

(1,15,15), level 20.5

Weaknesses ICE FIRE PSYCHIC GROUND

FIGHT FAIRY BUG

FIGHT GROUND FIRE



Examples of Pokémon for Ultra league (CP ≤ 2500)

Giratina (A)

GHOST DRAGON



Cresselia

PSYCHIC



Blastoise

WATER



Ideal moveset

- Shadow Claw
- Dragon Claw
- Ancient Power

- Psycho Cut
- Future Sight
- Moonblast

- Water Gun
- Ice Beam
- Hydro Cannon

ATK

187

152

171

DEF

225

258

207

HP

284

260

188

Optimal IV / Level

(0,14,15), level 28

(0,13,15), level 37.5

(15,15,15), level 40

Weaknesses

FALSY GHOST DARK DRAGON ICE

GHOST DARK BUG

ELECTR GRASS

Giratina (O)

GHOST DRAGON



Lucario

FIGHT STEEL



Steelix

STEEL GROUND



Ideal moveset

- Shadow Claw
- Shadow Ball
- Dragon Pulse

- Counter
- Power Up Punch
- Shadow Ball

- Dragon Tail
- Earthquake
- Crunch

ATK

225

236

148

DEF

187

144

272

HP

284

172

181

Optimal IV / Level

(0,13,14), level 25.5

(1,15,15), level 38.5

(15,15,15), level 40

Weaknesses

FALSY GHOST DARK DRAGON ICE

FIGHT FIRE GROUND

FIRE GROUND WATER FIGHT

Venusaur

GRASS POISON



Lapras

WATER ICE



Snorlax

NORMAL



Ideal moveset

- Vine Whip
- Frenzy Plant
- Sludge Bomb

- Ice Shard
- Ice Beam
- Surf

- Lick
- Body Slam
- Outrage

ATK

198

165

190

DEF

189

174

169

HP

190

277

330

Optimal IV / Level

(1,15,14), level 39

(6,15,13), level 40

(0,12,15), level 29.5

Weaknesses

ICE FIRE PSYCHIC GROUND

ELECTR ROCK GRASS FIGHT

FIGHT

Examples of Pokémon for Master league (no CP limit)

Giratina (O)

GHOST DRAGON



Dialga

STEEL DRAGON



Lugia

PSYCHIC FLYING



| | | | |
|---------------|-----------------------------|---------------|------------------------------|
| Ideal moveset | Shadow Claw | Dragon Breath | Dragon Tail |
| | Shadow Ball | Iron Head | Sky Attack |
| | Dragon Pulse | Thunder | Hydropump |
| ATK | 225 | 275 | 193 |
| DEF | 187 | 211 | 310 |
| HP | 284 | 205 | 235 |
| Weaknesses | Fairy Ghost Dark Dragon Ice | Fight Ground | Electric Rock Ice Ghost Dark |

Garchomp

DRAGON GROUND



Metagross

STEEL PSYCHIC



Melmetal

STEEL



| | | | |
|---------------|------------------|-------------------|------------------------|
| Ideal moveset | Mud Shot | Bullet Punch | Thunder Shock |
| | Earthquake | Meteor Mash | Rock Slide |
| | Outrage | Earthquake | Thunderbolt |
| ATK | 261 | 257 | 226 |
| DEF | 193 | 228 | 190 |
| HP | 239 | 190 | 264 |
| Weaknesses | Ice Dragon Fairy | Fight Ground Fire | Ghost Dark Fire Ground |

Giratina (A)

GHOST DRAGON



Mewtwo

PSYCHIC



Tyranitar

ROCK DARK



| | | | |
|---------------|-----------------------------|----------------|--|
| Ideal moveset | Shadow Claw | Psycho Cut | Smack Down |
| | Dragon Claw | Shadow Ball | Stone Edge |
| | Ancient Power | Focus Blast | Crunch |
| ATK | 187 | 300 | 251 |
| DEF | 225 | 182 | 207 |
| HP | 284 | 214 | 225 |
| Weaknesses | Fairy Ghost Dark Dragon Ice | Ghost Dark Bug | Fight Bug Fairy Ground Steel Water Grass |