# ORCA™ Motors Power Supply Unit (PSU) Recommendations

| Part Image | Part Number | Cost (USD) | Voltage | Power | ORCA-3-12V | | | ORCA-3-36V | | | ORCA-6-LITE | | | ORCA-6-24V | | | ORCA-6-48V | | | ORCA-15-48V | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Stall Force | Max Speed | Power Surplus | Stall Force | Max Speed | Power Surplus | Stall Force | Max Speed | Power Surplus | Stall Force | Max Speed | Power Surplus | Stall Force | Max Speed | Power Surplus | Stall Force | Max Speed | Power Surplus |
|  | UHP-350-24 | $69 | 24 V | 350 W | 161 N | 3.2 m/s | 0% | 165 N | 2.1 m/s | 0% | 247 N | 1.5 m/s | 7% | 266 N | 2.1 m/s | 0% | 266 N | 1.4 m/s | 0% | 419 N | 0.9 m/s | 0% |
|  | RSP-750-24 | $222 | 24 V | 750 W | 182 N | 3.2 m/s | 40% | 189 N | 2.1 m/s | 38% | 247 N | 1.5 m/s | 57% | 389 N | 2.1 m/s | 0% | 287 N | 1.4 m/s | 46 % | 429 N | 0.9 m/s | 51 % |
|  | MSP-1000-24 | $263 | 24 V | 1000 W | 182 N | 3.2 m/s | 55% | 189 N | 2.1 m/s | 54% | 247 N | 1.5 m/s | 67% | 426 N | 2.1 m/s | 10% | 287 N | 1.4 m/s | 59% | 429 N | 0.9 m/s | 63 % |
|  | UHP-350-48 | $69 | 48 V | 350 W | 161 N | 6.5 m/s | 0% | 165 N | 4.2 m/s | 0% | The PSU voltage exceeds the motor's requirements. | | | 266 N | 4.3 m/s | 0% | 266 N | 2.8 m/s | 0% | 419 N | 1.7 m/s | 0% |
|  | RSP-1000-48 | $289 | 48 V | 1000 W | 272 N | 6.5 m/s | 0% | 278 N | 4.2 m/s | 0% | The PSU voltage exceeds the motor's requirements. | | | 426 N | 4.3 m/s | 10% | 449 N | 2.8 m/s | 0% | 708 N | 1.7 m/s | 0% |
|  | RSP-2000-48 | $520 | 48 V | 2000 W | 281 N | 6.5 m/s | 47% | 281 N | 4.2 m/s | 49% | The PSU voltage exceeds the motor's requirements. | | | 426 N | 4.3 m/s | 55% | 573 N | 2.8 m/s | 19% | 857 N | 1.7 m/s | 27% |
|  | RSP-3000-48 | $607 | 48 V | 3000 W | 281 N | 6.5 m/s | 64% | 281 N | 4.2 m/s | 66% | The PSU voltage exceeds the motor's requirements. | | | 426 N | 4.3 m/s | 70% | 573 N | 2.8 m/s | 46% | 857 N | 1.7 m/s | 51% |

Disclaimer: This table is for illustration purposes only. In some applications, power supplies with higher power capacity might be needed. Costs presented are approximate costs.

**Stall Force:** Max force achievable at room temperature with the given PSU, when the motor has no speed.
**Max Speed:** Unloaded speed limit achievable at the supplied voltage.
**Power Surplus:** Indicates the excess power available from the supply when fully powering a single stalled motor.
**Note:** Power surplus is calculated for a stalled motor. Motors applying force at high speeds will draw (and regenerate) extra power

**Please contact sales@irisdynamics.com with specifics on your application for more information.**