### OD1238 XJ Series

**DC Fan 12V**

120x38mm (4.7”x 1.5”)

<table>
<thead>
<tr>
<th>Frame &amp; Impeller</th>
<th>PBT, UL94V-O plastic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connection</td>
<td>3x Lead wires *</td>
</tr>
<tr>
<td>Motor</td>
<td>Brushless DC, auto restart, polarity protected.</td>
</tr>
<tr>
<td>Bearing System</td>
<td>Dual ball bearing</td>
</tr>
<tr>
<td>Insulation Resistance</td>
<td>Min. 10M at 500VDC</td>
</tr>
<tr>
<td>Dielectric Strength</td>
<td>1 minute at 500 VAC, max leakage &lt; 500 MicroAmp</td>
</tr>
<tr>
<td>Temperature Range</td>
<td>-10C ~ +70C</td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>-40C ~ +80C</td>
</tr>
<tr>
<td>Life (L10)</td>
<td>70,000 hours (40C)</td>
</tr>
</tbody>
</table>

**Part Number**

OD1238-12HBXJ01A

**Nominal Voltage**

12V DC

**Voltage Range**

7 ~ 13.2V DC

**Rated Current**

3.70 A

**Rated Power**

44.4 W

**Rated Speed (RPM)**

6000

**Airflow (CFM)**

250

**Noise Level (dB)**

69

**Max. Static Pressure**

1.48” H₂O

*Output type.................Open collector type

*Electrical design suggestion:

![Electrical Schematic](image)

- **Transistor Q1 at "ON" position**
  - Collector current.................Ić=10mA Max
  - Saturation Voltage.................VCE=1.0V Max
  - (Between Collector and Emitter at Ić=10mA)

- **Transistor Q1 at "OFF" position**
  - Release Voltage.................V_{OH}=15V Max

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* Knight Electronics, Inc.
  10557 Metric Drive
  Dallas, Texas 75243
  214-340-0265

* Orion Fans
  RoHS Compliant

* Information and data is subject to change without prior notification.
### OD1238 XJ Series

**DC Fan 12V**

120x38mm (4.7”x 1.5”)

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**Frame & Impeller**
- PBT, UL94V-O plastic

**Connection**
- 4x Lead wires *

**Motor**
- Brushless DC, auto restart, polarity protected.

**Bearing System**
- Dual ball bearing

**Insulation Resistance**
- Min. 10M at 500VDC

**Dielectric Strength**
- 1 minute at 500 VAC, max leakage < 500 MicroAmp

**Temperature Range**
- -10C ~ +70C

**Storage Temperature**
- -40C ~ +80C

**Life (L10)**
- 70,000 hours (40C)

**Part Number**
- OD1238-12HBXJ10A

<table>
<thead>
<tr>
<th>Nominal Voltage</th>
<th>12V DC</th>
</tr>
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<tbody>
<tr>
<td>Voltage Range</td>
<td>7 ~ 13.2V DC</td>
</tr>
<tr>
<td>Rated Current</td>
<td>3.70 A</td>
</tr>
<tr>
<td>Rated Power</td>
<td>44.4 W</td>
</tr>
<tr>
<td>Rated Speed (RPM)</td>
<td>6000</td>
</tr>
<tr>
<td>Airflow (CFM)</td>
<td>250</td>
</tr>
<tr>
<td>Noise Level (dB)</td>
<td>69</td>
</tr>
<tr>
<td>Max. Static Pressure</td>
<td>1.48” H2O</td>
</tr>
</tbody>
</table>

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*Connection
- UL1007, 24AWG, ~320mm
- Red (+)
- Black (-)
- White Tachometer
- Blue PWM

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**Weight:** ~ 375 g

---

(External signal function design is decided by customer)
OD1238 XJ Series

DC Fan 12V
120x38mm (4.7”x 1.5”)

Frame & Impeller | PBT, UL94V-O plastic
Motor | Brushless DC, auto restart, polarity protected.
Bearing System | Dual ball bearing
Insulation Resistance | Min. 10M at 500VDC
Dielectric Strength | 1 minute at 500 VAC, max leakage < 500 MicroAmp
Temperature Range | -10°C ~ +70°C
Storage Temperature | -40°C ~ +80°C
Life (L10) | 70,000 hours (40°C)

Part Number | OD1238-12MBXJ01A
Nominal Voltage | 12V DC
Voltage Range | 7 ~ 13.2V DC
Rated Current | 2.30 A
Rated Power | 27.6 W
Rated Speed (RPM) | 5000
Airflow (CFM) | 207
Noise Level (dB) | 63
Max. Static Pressure | 1.04” H₂O

*Output type: Open collector type
*Electrical design suggestion:

- Transistor Q1 at "ON" position
  - Collector current...I_c=10mA Max
  - Saturation Voltage...V_C=E=1.0V Max
  (Between Collector and Emitter at I_c=10mA)
- Transistor Q1 at "OFF" position
  - Release Voltage...V_{OH}=15V Max

Weight: ~ 375 g

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* Connection
UL1007, 24AWG, ~320mm
Red (+)
Black (-)
White Tachometer
Blue PWM

Weight: ~ 375 g

Connection
4x Lead wires *

(Bearings System)
Dual ball bearing

Connection
4x Lead wires *

(Insulation Resistance)
Min. 10M at 500VDC

(Dielectric Strength)
1 minute at 500 VAC, max leakage < 500 MicroAmp

(Temperature Range)
-10°C ~ +70°C

(Storage Temperature)
-40°C ~ +80°C

(Life (L10))
70,000 hours (40°C)

(Dual ball bearing)

(UL1007, 24AWG, ~320mm)
Red (+)
Black (-)
White Tachometer
Blue PWM

(Weight: ~ 375 g)

(4x Lead wires *)

(1 minute at 500 VAC, max leakage < 500 MicroAmp)

(-10°C ~ +70°C)

(-40°C ~ +80°C)

(70,000 hours (40°C))

(4x Lead wires *)

(Bearings System)
Dual ball bearing

(UL1007, 24AWG, ~320mm)
Red (+)
Black (-)
White Tachometer
Blue PWM

(Weight: ~ 375 g)

(4x Lead wires *)

(1 minute at 500 VAC, max leakage < 500 MicroAmp)

(-10°C ~ +70°C)

(-40°C ~ +80°C)

(70,000 hours (40°C))

(4x Lead wires *)

(Bearings System)
Dual ball bearing

(UL1007, 24AWG, ~320mm)
Red (+)
Black (-)
White Tachometer
Blue PWM

(Weight: ~ 375 g)

(4x Lead wires *)

(1 minute at 500 VAC, max leakage < 500 MicroAmp)

(-10°C ~ +70°C)

(-40°C ~ +80°C)

(70,000 hours (40°C))
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<tr>
<td>Nominal Voltage</td>
<td>24V DC</td>
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<tr>
<td>Voltage Range</td>
<td>17 ~ 26.4V DC</td>
</tr>
<tr>
<td>Nominal Current</td>
<td>1.75 A</td>
</tr>
<tr>
<td>Nominal Power</td>
<td>42 W</td>
</tr>
<tr>
<td>Rated Speed (RPM)</td>
<td>6000</td>
</tr>
<tr>
<td>Airflow (CFM)</td>
<td>250</td>
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* Connection UL1007, 24AWG, ~320mm Red (+) Black (-) White Tachometer

* Transistor Q1 at "ON" position
Collection current.................I = 10mA Max
Saturation Voltage.................Vce = 1.0V Max
(Between Collector and Emitter at I = 10mA)
* Transistor Q1 at "OFF" position
Release Voltage.................Vce = 30V Max

* Output type..............Open collector type
* Electrical design suggestion:
(External signal function design is decided by customer)