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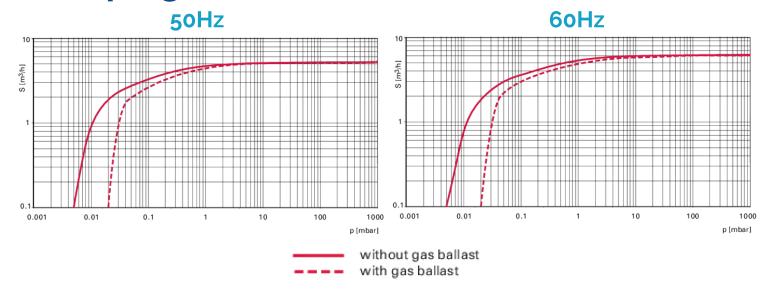
# Pfeiffer DUO 5, DUO 5M

### **Technical Specifications**

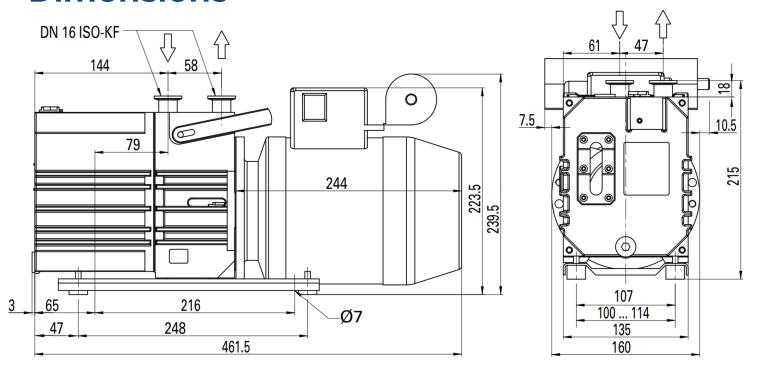
Duo 5 M, 1-phase motor, 200–240 V,         50 Hz   208–240 V, 60 Hz         Flange (in)       DN 16 ISO-KF         Flange (out)       DN 16 ISO-KF         Pumping speed at 50 Hz       5 m³/h   2.94 cfm   83.33 l/min         Pumping speed at 60 Hz       6 m³/h   3.53 cfm   100 l/min         Ultimate pressure with gas ballast       7 ⋅ 10-3 hPa   5.25 ⋅ 10-3 Torr   7 ⋅ 10-3 mbar         Ultimate pressure without gas ballast       4 ⋅ 10-3 hPa   3 ⋅ 10-3 Torr   4 ⋅ 10-3 mbar         Exhaust pressure, max.       1,500 hPa   1,125 Torr   1,500 mbar         Exhaust pressure, min.       250 hPa   187.5 Torr   250 mbar         Rotation speed at 50 Hz       1,500 rpm   1,500 min-1         Rotation speed at 60 Hz       1,800 rpm   1,800 min-1         Cooling method, standard       Air         Motor protection       Bimetal         Motor version       1-ph motor         Ambient temperature       12-40 °C   53.6-104 °F   285-313 K         Emission sound pressure level without gas       ≤ 57 dB(A)
Flange (in)  Flange (out)  DN 16 ISO-KF  Pumping speed at 50 Hz  5 m³/h   2.94 cfm   83.33 l/min  Pumping speed at 60 Hz  6 m³/h   3.53 cfm   100 l/min  Ultimate pressure with gas ballast  7 · 10-3 hPa   5.25 · 10-3 Torr   7 · 10-3 mbar  Ultimate pressure without gas ballast  4 · 10-3 hPa   3 · 10-3 Torr   4 · 10-3 mbar  Exhaust pressure, max.  1,500 hPa   1,125 Torr   1,500 mbar  Exhaust pressure, min.  250 hPa   187.5 Torr   250 mbar  Rotation speed at 50 Hz  1,500 rpm   1,500 min-1  Rotation speed at 60 Hz  1,800 rpm   1,800 min-1  Cooling method, standard  Air  Motor protection  Bimetal  Motor version  1-ph motor  Ambient temperature  12-40 °C   53.6-104 °F   285-313 K
Pumping speed at 50 Hz  5 m³/h   2.94 cfm   83.33 l/min  Pumping speed at 60 Hz  6 m³/h   3.53 cfm   100 l/min  Ultimate pressure with gas ballast  7 · 10-³ hPa   5.25 · 10-³ Torr   7 · 10-³ mbar  Ultimate pressure without gas ballast  4 · 10-³ hPa   3 · 10-³ Torr   4 · 10-³ mbar  Exhaust pressure, max.  1,500 hPa   1,125 Torr   1,500 mbar  Exhaust pressure, min.  250 hPa   187.5 Torr   250 mbar  Rotation speed at 50 Hz  1,500 rpm   1,500 min-¹  Rotation speed at 60 Hz  1,800 rpm   1,800 min-¹  Cooling method, standard  Air  Motor protection  Bimetal  Motor version  1-ph motor  Ambient temperature  12-40 °C   53.6-104 °F   285-313 K
Pumping speed at 60 Hz  Of m³/h   3.53 cfm   100 l/min  Oltimate pressure with gas ballast  Oltimate pressure without gas ballast  Oltimate pressure with gas ballast  Oltimate pressure of not of NPa   3.53 cfm   100 l/min  Oltimate pressure with gas ballast  Oltimate pressure with gas ballast  Oltimate pressure with gas ballast  Oltimate pressure without gas ballast  Oltimate pressure without gas ballast  Oltimate pressure vithout gas ballast  Oltim
Ultimate pressure with gas ballast  7 · 10 <sup>-3</sup> hPa   5.25 · 10 <sup>-3</sup> Torr   7 · 10 <sup>-3</sup> mbar  4 · 10 <sup>-3</sup> hPa   3 · 10 <sup>-3</sup> Torr   4 · 10 <sup>-3</sup> mbar  Exhaust pressure, max.  1,500 hPa   1,125 Torr   1,500 mbar  Exhaust pressure, min.  250 hPa   187.5 Torr   250 mbar  Rotation speed at 50 Hz  1,500 rpm   1,500 min <sup>-1</sup> Rotation speed at 60 Hz  1,800 rpm   1,800 min <sup>-1</sup> Cooling method, standard  Motor protection  Bimetal  Motor version  1-ph motor  Ambient temperature  12-40 °C   53.6-104 °F   285-313 K
Ultimate pressure without gas ballast  4 · 10 <sup>-3</sup> hPa   3 · 10 <sup>-3</sup> Torr   4 · 10 <sup>-3</sup> mbar  1,500 hPa   1,125 Torr   1,500 mbar  250 hPa   187.5 Torr   250 mbar  Rotation speed at 50 Hz  1,500 rpm   1,500 min <sup>-1</sup> Rotation speed at 60 Hz  1,800 rpm   1,800 min <sup>-1</sup> Cooling method, standard  Air  Motor protection  Bimetal  Motor version  1-ph motor  Ambient temperature  12-40 °C   53.6-104 °F   285-313 K
Exhaust pressure, max.  1,500 hPa   1,125 Torr   1,500 mbar  250 hPa   187.5 Torr   250 mbar  Rotation speed at 50 Hz  1,500 rpm   1,500 min <sup>-1</sup> Rotation speed at 60 Hz  1,800 rpm   1,800 min <sup>-1</sup> Cooling method, standard  Air  Motor protection  Bimetal  Motor version  1-ph motor  Ambient temperature  12-40 °C   53.6-104 °F   285-313 K
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Motor protection  Bimetal  1-ph motor  Ambient temperature  12-40 °C   53.6-104 °F   285-313 K
Motor version 1-ph motor  Ambient temperature 12-40 °C   53.6-104 °F   285-313 K
Ambient temperature 12-40 °C   53.6-104 °F   285-313 K
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Emission sound pressure level without gas < 57 dB(A)
ballast at 50 Hz
Switch Yes
Mains requirement: voltage (range) ±5 %
Mains requirement: voltage 50 Hz 200 – 240 V
Mains requirement: voltage 60 Hz 208 – 240 V
Mains cable Yes
Operating fluid P3
Operating fluid filling 0.75 I
Leak rate safety valve $\leq 1 \cdot 10^{-5}$ Pa m <sup>3</sup> /s $  \leq 7.5 \cdot 10^{-5}$ Torr I/s $  \leq 1 \cdot 10^{-4}$ mbar I/s
Rated power 50 Hz 0.37 kW
Rated power 60 Hz 0.37 kW
Protection category IP55
Magnetic coupling Yes
Weight 25 kg   55.12 lb

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## Pfeiffer DUO 5, DUO 5M **Pumping Curves**



#### **Dimensions**



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## Pfeiffer DUO 5, DUO 5M **Features & Benefits**

- two stage rotary vane pump
- integrated gas ballast & HV safety valve
- magnetically coupled
- · long service life
- clean & environmentally friendly
- various motor voltages for worldwide employment
- integrated, hydraulically controlled high-vacuum safety valve
- · compact design & optimized cooling make for great system integration
- integrated connection for oil return simplifies retrofitting of oil mist filter

### **Applications**

· low & medium vacuum · backing pump for turbo & roots · general laboratory use · analytics · chemical laboratory · freeze drying



