ATEX DUST VACUUM

Tiger-Vac C-10 EX (IT-40L) CFE HEPA

ATEX vacuum with an INERT immersion bath for combustible and self-heating dust, II 1/3D. Available as the EN17348 version with a by-pass motor and as the BLSD version with a brushless motor.



Tiger-Vac C-10 EX (IT-40L) CFE HEPA ATEX vacuum with immersion bath

ATEX Directive 2014/34/EU – II 1/3D – LCIE 15 ATEX 3061 (notified body 0081) · External: Ex h tc IIIC T200 °C Dc IP6X (T85 °C for BLSD) · Internal: Ex h IIIC T200 °C Da (T85 °C for BLSD) · 0 °C ≤ Ta ≤ +40 °C · IECEx LCIE 15.0048 · EN 17348:2022 WT (both versions)

Combustible dust bound in water

The C-10 EX (IT-40L) CFE HEPA is Tiger-Vac's ATEX vacuum with an immersion bath. Combustible and self-heating dust is drawn into water and bound there, which makes it inert. Tiger-Vac designed it for 3D printing and additive manufacturing, and according to Tiger-Vac it meets the requirements for a Liquid Precipitation Collector for metal dusts in NFPA 484.

The AISI 304 stainless steel tank is filled with 12.3 litres of water, and the machine may only be used with water, not oil. The dust is collected in a conductive wet recovery bag that holds 3 litres. A HEPA-grade coalescing filter element removes moisture from the air, and six aluminium mist arrestor screens hold back water droplets. A degassing vent lets gas escape from the unit automatically, and a liquid level indicator shows the water level.

Externally the machine is certified for zone 22, and inside the tank it has protection level Da, which corresponds to zone 20. It stands on a 4-wheel dolly, is 89 cm tall and weighs 28.1 kg.

The difference between EN17348 and BLSD

	C-10 EX (IT-40L) CFE HEPA EN17348	C-10 EX (IT-40L) CFE HEPA BLSD
Part number	113178B-17348	113178B-BLSD
Motor	2-stage by-pass motor	Brushless motor
Power / current	1.2 kW / 5 A	1.1 kW / 8 A
Air flow	194 m³/h	216 m³/h
Vacuum	2,504 mmH_2O (approx. 246 mbar)	2,250 mmH_2O (approx. 221 mbar)
Sound level (EN ISO 11203)	70 dB(A)	76 dB(A)
Max. surface temperature	T200 °C	T85 °C
Weight	28.1 kg	28.1 kg

	C-10 EX (IT-40L) CFE HEPA EN17348	C-10 EX (IT-40L) CFE HEPA BLSD
EN 17348:2022 (WT)	Yes	Yes

The brushless motor has no carbon brushes to wear, and Tiger-Vac states that it lasts longer. It delivers more air but slightly less vacuum, and it is 6 dB(A) louder. Its maximum surface temperature is T85 °C against T200 °C for the by-pass motor. The BLSD version always comes with 4 × HEPA H14.

EN 17348 WT – what it means for you

Both versions are designed, tested and marked to EN 17348:2022, the harmonised standard for vacuum cleaners in potentially explosive atmospheres. WT stands for wet type, i.e. wet recovery. Because the standard is harmonised, it gives a presumption of conformity with the essential requirements of both the ATEX Directive and the Machinery Directive.

Technical data

ATEX marking	II 1/3D Ex h tc IIIC T200 °C Dc IP6X (external) – Ex h IIIC T200 °C Da (internal) – 0 °C ≤ Ta ≤ +40 °C – EN 17348 WT – LCIE 15 ATEX 3061 – IECEx LCIE 15.0048. BLSD version: T85 °C instead of T200 °C.
Zone internal / external	20 / 22
Recovery	Combustible and self-heating dust into a water bath
Liquid in the tank	12.3 L water (water only, no oil)
Recovery bag	Conductive wet bag, 3 L
Filters	HEPA-grade coalescing filter element (99.97 % at 0.3 µm) and HEPA filters 215372 and 211854 (H14)
Mist arrestor	6 aluminium mesh screens (218282)
Tank	AISI 304 stainless steel
Suction inlet	Ø 38 mm (1.5" camlock)
Resistance to earth	Less than 10 Ω
Voltage	220–240 V / 50–60 Hz / 1~
Cord	10.6 m, plug not included
Cart	4-wheel dolly
Dimensions (L × W × H)	480 × 460 × 890 mm
Weight	28.1 kg
Ambient temperature	0 °C … +40 °C

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