





# **Direct Drive Motor**

# Forward-curved blade centrifugal fans Double inlet series with direct drive motor



The direct drive motor series TMD is composed by double inlet centrifugal fans manufactured in galvanized steel, quality Z-275, with closed type motor (IP54), single-phase or three-phase, 4 or 6 poles, 1 or 3 speeds, with insulation class F and internal thermal protection, directly coupled to the impeller and secured to the side plate by a specially designed bracket with natural rubber mounts.

The forward type impeller is manufactured with tabbed construction which gives the fan great rigidity and high performance.

TMD fans are designed for low pressures and belong to the light series of the TDA family.

They cover 9 sizes, from 5/8 to 15/15, with flow rates up to  $10,000 \text{ m}^3$ /h and static pressures up to 520 Pa. The assembly is allowed in four possible orientations, and the covered temperature range is from -20°C to 50°C.

<u>"TECNIFAN fans are</u> <u>manufactured with high</u> <u>precision machinery</u> <u>designed by our I+D+i</u> <u>department</u> (Investigation, <u>Research &</u> <u>Innovation), under the</u> <u>ISO 9001 Quality</u> <u>Standard Regulation</u> <u>certified by</u> <u>Internationally Acredited</u> <u>Certification Organism".</u>



# **Quality features**

Side Plates

plates.

Manufactured in a single piece, they are fixed to the scroll by electrical spot weldings. The inlet cones, aerodynamically designed to achieve better performances, are embedded in the side

#### Forward-Type Impeller

Double inlet impeller integrated by: inserted blades (tabbed construction), central plates, side crowns and fixing hub for the shaft connection.



# Support Bracket

Specially designed supports fixed to the fan side plate by screws. Natural rubber antivibration mounts are placed among the motor and the bracket.

#### **IP54 Motor**

Motor closed type (IP54), single-phase or three-phase, 4 or 6 poles, 1 or 3 speeds. Specially designed and manufactured for TMD series.

#### Deflector

Aerodynamically designed to avoid possible turbulences. The union to the scroll is realized by means of a system of cuts and screws that allows its disassembly for an easy extraction of the impeller.

#### Support Feet (optional)

Manufactured in galvanized steel with stamped reinforcements, supplied with screws and rubber antivibration mounts for the assembly.



# Components that make the difference

### Impeller

Tecnifan's impellers are manufactured through a system of mechanical latching (tabbed construction), which gives them great rigidity and allows to achieve an excellent mechanical performance. All the impellers are balanced after its manufacture according to VDI 2060 standard (balance degree Q 6.3).





## Housing and welding system

The housings are mounted by electrical spot welding. All the welded spots are covered with an anti-rust painting. This assembly system, together with the used thickness of the steel sheet and the nerves stamped on the proper sheet, contribute to allow a great strength and rigidity to the housing assembly.

### **IP54 Motor**

Motor with aluminium housing, asynchronous, closed with protection IP54, insulation class F, 4 or 6 poles. Single-phase 220-240 V 50/60 Hz of 1 and 3 speeds. Three-phases 220-240/380-420 V, 1 speed, all for 50/60 Hz. Specially designed and manufactured for the TMD fans. Provided with integrated junction box with cable gland, hosting the power trip connection.





## **ErP 2015 Ecodesign Directive**

Thanks to the continuous improvement and to the fast adaptation of our products through the development by the department of Research, Innovation and Investigation of Tecnifan, all our fans with incorporated motor comply with the Ecodesign Directive ErP 2009/125/EC from 1<sup>st</sup> January 2015.

# **Dimensions**

Fan	Α	в	с	D	Е	F	G	н	Т	L	М	ØT
TMD 5/8*	198	202	255	100	123	100	5	253	-	-	-	-
TMD 7/7	307	326	232	208	180	146	27	228	55	258	280	10x15
TMD 9/7	375	400	249	265	218	180	33	280	75	273	292	10x15
TMD 9/9	375	400	298	265	218	180	33	280	75	324	342	10x15
TMD 10/8	427	452	274	290	245	207	38	317	80	296	316	10x15
TMD 10/10	427	452	326	290	245	207	38	317	80	348	370	10x15
TMD 12/9	498	530	309	341	292	236	38	400	82	330	355	10x16
TMD 12/12	498	530	386	341	292	236	38	400	82	406	430	10x16
TMD 15/15	578	622	473	402	343	271	38	460	91	500	527	12x20

\*The TMD 5/8 is exempted from the ErP 2015 compliance because its electric power is lower than 125 W. Incorporating an open motor (IP21)

# TMD 5/8 TMD 7/7 - 15/15

# **Applications**





Ventilation



**Parking Ventilation** 



**Shopping Centers** 

Accessories (optionals)

**Kitchens** 



**Outlet Flange** 



Single-phase Speed Regulator



Support Feet



**EPOXY** Painting





TDA L



NTPF



TDA T2R





