

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202211029288 A

(19) INDIA

(22) Date of filing of Application :21/05/2022

(43) Publication Date : 22/12/2023

(54) Title of the invention : DOUBLE STAGE VERTICAL AXIS TWIN BLADE TURBINE

(51) International classification :F03D0003000000,  
F03B0017060000,  
F03D0003060000,  
F03B0013260000,  
F03D0001020000

(31) Priority Document No :NA  
(32) Priority Date :NA  
(33) Name of priority country :NA  
(86) International Application No :NA  
Filing Date :NA  
(87) International Publication No :NA  
(61) Patent of Addition to Application Number :NA  
Filing Date :NA  
(62) Divisional to Application Number :NA  
Filing Date :NA

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(57) Abstract :

A double stage vertical axis twin blade turbine (100), comprising: a body (102) to house components of the turbine (100); a static inlet base (104) equipped with inlets (106a-106d) to enable fluid to flow inside the turbine (100); a shaft (108) to provide support to the turbine (100), wherein a base of the shaft (108) comprises a groove (112) to create sliding connection between the shaft (108 ) and the static inlet base (104); a first blade assembly (114) having first set of blades (118a-118b) and first set of outlets (120a-120b); a second blade assembly (116) having second set of blades (122a-122b) and second set of outlets (124a-124b), wherein the first blade assembly (114) and the second blade assembly (116) are embedded with protrusion end plates (126a-126b) and vertical protrusions (128a-128d) of varying size to create a net positive torque for converting kinetic energy of the fluid into mechanical energy.

No. of Pages : 21 No. of Claims : 10