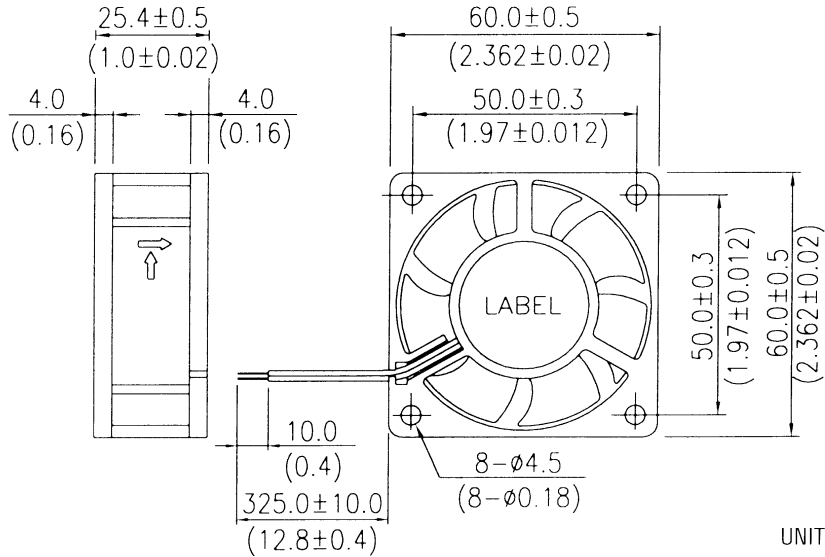


# DC Fans



## Model 281

Size: 60 mm x 25 mm (2.36" x 1")

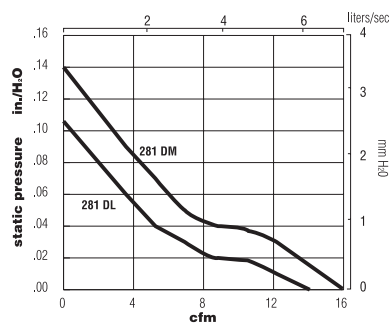


UNIT :  $\frac{\text{mm}}{\text{INCH}}$

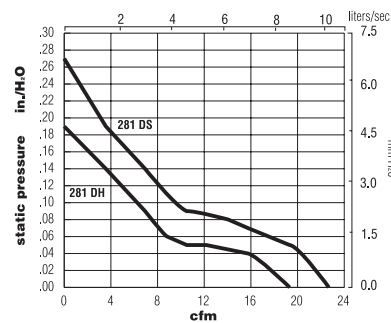
Part Number	Bearings	Voltage	Voltage Range	Current(mA)	Input(watts)	Noise(dBA)	Speed(rpm)	Airflow(cfm)	Air Pressure (In H2O)
281DS-1LP11-000	Ball	12	7.0-13.8	180	2.16	33	5000	23	0.27
281DS-2LP11-000	Ball	24	14.0-27.6	90	2.16	33	5000	23	0.27
281DH-5LP11-000	Ball	5	4.5-5.5	310	1.55	28	4250	19.4	0.19
281DH-1LP11-000	Ball	12	7.0-13.8	120	1.44	28	4250	19.4	0.19
281DH-2LP11-000	Ball	24	14.0-27.6	80	1.92	28	4250	19.4	0.19
281DM-5LP11-000	Ball	5	4.5-5.5	220	1.10	24.5	3600	16.2	0.14
281DM-1LP11-000	Ball	12	7.0-13.8	80	0.96	24.5	3600	16.2	0.14
281DM-2LP11-000	Ball	24	14.0-27.6	60	1.44	24.5	3600	16.2	0.14
281DL-5LP11-000	Ball	5	4.5-5.5	150	0.75	22.5	3100	14.1	0.10
281DL-1LP11-000	Ball	12	7.0-13.8	60	0.72	22.5	3100	14.1	0.10
281DL-2LP11-000	Ball	24	14.0-27.6	50	1.20	22.5	3100	14.1	0.10

Optional frequency generator or rotation detector versions available. Consult factory.

### 281DL/DM Performance Curve



### 281DH/DS Performance Curve



# ETRI Model 281 DC FANS

Size: 60 mm x 25 mm (2.36" x 1")



## ELECTRICAL SPECIFICATIONS

Item	Specification	Conditions/Tolerances
Motor type	DC	brushless
Input current	at nominal voltage	±10%
Input power	at nominal voltage	±10%
Max air flow / Back pressure	All tested in submerged orifice chamber	±4% cfm/±8% pressure
Dielectric strength	5 mA leakage @ 500 VAC, 60 Hz.	1 minute between frame and (+) terminal
Electrical connection	UL 1007 awg 24	305 mm (12"), (+) red (-) black
Speed	at nominal voltage	±4%

## MECHANICAL SPECIFICATIONS

Item	Specification	Conditions/Tolerances
Life expectancy	50,000 hours	continuous operation @ 25°C, 65% relative humidity
Bearing	ball bearing	top and bottom
Airflow direction	air intake over impeller	
Housing material	PBT plastic - 30% glass fiber	UL 94V-0
Mounting type	flange	
Impeller	PBT plastic - 20% glass fiber	UL 94V-0
Weight	.077 kg (2.72 oz.)	
Rotation	clockwise viewed from nameplate	

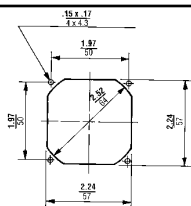
## ENVIRONMENTAL SPECIFICATIONS

Item	Specification	Conditions/Tolerances
Operating temperature	- 10 to + 70°C	
Storage temperature	- 40 to + 75°C	
Drop test	one drop ea. 3 faces	30 cm height onto 10 mm thick wooden board
Shock test	50 g peak acceleration	duration - 11 ms
Vibration test	x,y,z direction, 1 hour	frequency - 10-55-10 Hz, amplitude - 0.75 mm
Acoustical	anechoic chamber at free air	microphone - 1 meter away

## PROTECTION

Item	Specification	Conditions/Tolerances
Locked rotor	impedance protected	72 hours @ rated voltage
Polarity protected	will withstand pos and neg lead reversal	
Insulation class	UL class A	
Auto restart	automatic restart by timer	locked rotor condition
Agency approvals	UL, CSA, VDE, CE	
Warranty	3 years	

## PANEL CUT-OUT



## ACCESSORIES

ETRI fans are available with a wide range of accessories, from finger guards to filter assemblies to special termination. Request our accessories brochure or call your nearest distributor for complete details.



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