

Introduction

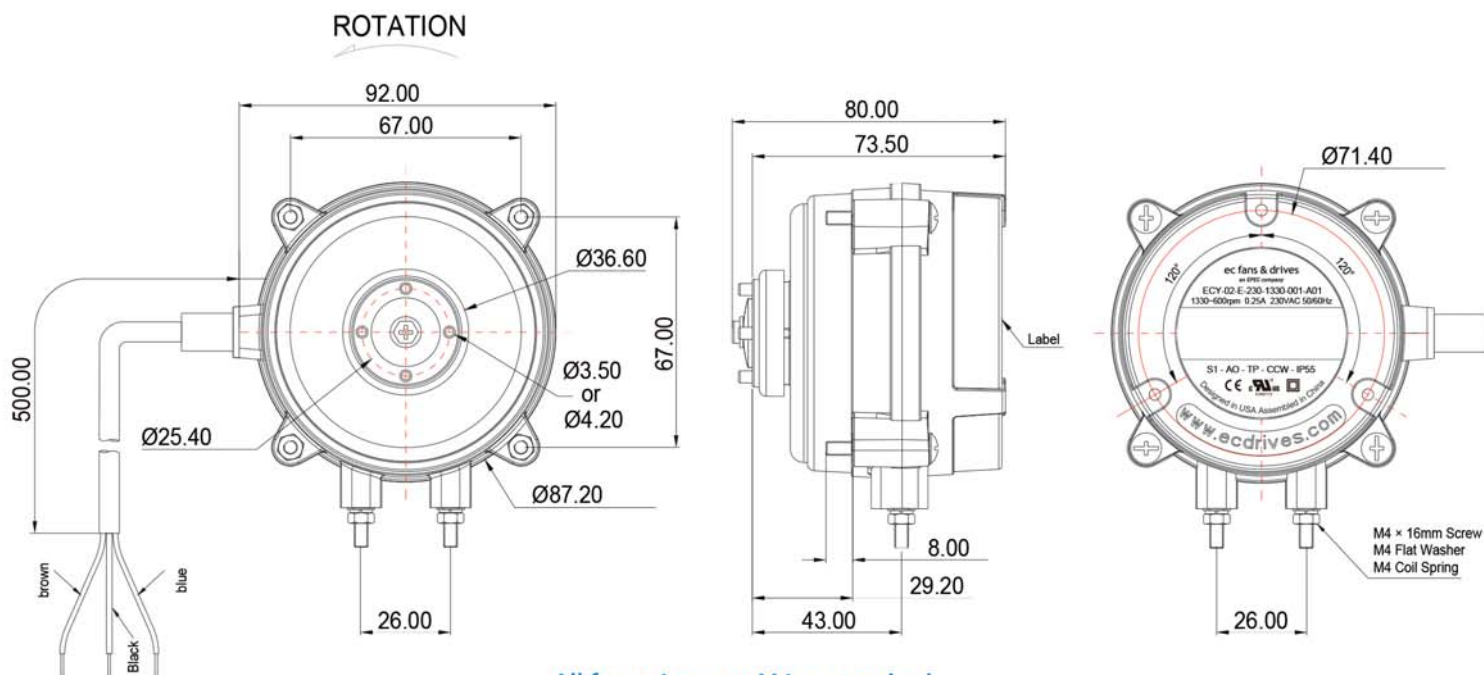
ECY-02 is a single voltage, single direction, 2-speed, electronically commutated (EC) motor developed for commercial refrigeration and ventilation applications

Outline Specification

Input Voltage Range.....	120VAC 50/60Hz (90-138VAC) 230VAC 50/60Hz (190-265VAC)
Output Power Range.....	0-20 Watt
Speed Range.....	Speed 1 = 600-2100 rpm (constant) Speed 2 = 550-2000 rpm (constant)
Maximum Input Power.....	30 Watt
Maximum Input Current.....	0.25 Amp @ 230VAC 50/60Hz 0.45 Amp @ 120VAC 50/60Hz
Insulation Class.....	Class B (130°C)
Thermal Protection.....	Electronically & thermally protected
Motor Protection.....	Locked rotor, soft start function on start-up and current limit
Earthing Protection.....	Double insulated
IP rating.....	IP55 (per ISO/EN 60529:2013)
Housing Material.....	UL recognised (V0 rated) plastic material
Bearing System.....	High precision sealed ball bearings
L10 Life Expectancy.....	40,000 hours at 40°C
Operating Temp. Range.....	-40°C to +50°C (-40°F to +122°F)
Storage Temp. Range.....	-40°C to +80°C (-40°F to +176°F)
Weight.....	0.62kg (1.3lb)
Approvals.....	UL, CUL, CE



Outline Dimensions



All fastenings are M4 as standard

Airflow Illustration

Ø Fan Blade	Pitch	600rpm			1330rpm			1550rpm		
		CFM	M3/Hr	Watts	CFM	M3/Hr	Watts	CFM	M3/Hr	Watts
Ø 154mm (6")	28°	35	59	1.1	80	136	2.6	93	158	3.4
	34°	45	76	1.1	105	178	3.3	125	212	4.3
Ø 172mm (7")	28°	50	85	1.1	130	221	3.2	150	255	4.2
	34°	71	121	1.2	161	274	4.2	192	326	5.8
Ø 200mm (8")	28°	112	190	1.4	195	331	4.1	225	382	5.6
	34°	131	223	1.6	250	425	5.8	290	493	8.6
Ø 230mm (9")	28°	140	238	1.5	281	477	5.8	340	578	8.4
	34°	184	313	2.2	342	581	7.3	392	666	10.9
Ø 254mm (10")	28°	235	399	2.6	526*	894*	21.3	589*	1001*	28.1
	34°	277	471	3.1	580*	985*	24.0	620*	1053*	28.9

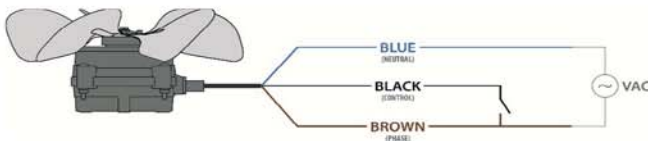
Above Flow Rates Tested In Accordance To ANSI/AMCA 210-07 (Fan Air Performance Test Standard)

Above Flow Rates Were Recorded With ECY Series Motor & Fan Blade Assembled To Appropriate Diameter Fan Ring

Above Flow Rates Are Maximum Flow At Zero Static Pressure With Motor Running At Free Air

* = The Nominal Speed May Not Be Reached At Higher Static Pressure Points Due To Electronic Protection Being Enabled

ECY-02 Wiring Detail



ECY-01 motor should be wired so that motor powers 'on' when compressor starts its cycle and switches to second speed (trickle) when compressor stops its cycle
For safety reasons the motor should be wired that it powers 'off' when door to cabinet is opened

Mounting Options

Foot Mount	2 x M4 Screws on 26mm Centres
Rear Mount	3 x M4 Brass Inserts @ 120° on PCD 71.40mm
Fan Ring Mount	4 x M4 Fixing Screws
Drive Plate	4 Pin Drive Plate - EU Version (Ø 3.50mm) & USA Version (Ø 4.20mm)
Fan Blade Mount	Fan Secured on Drive Plate By M4 Screw With Conical Pre-Load Steel Washer

OEM Bespoke Options

Cable	Bespoke Cable Length Complete With Connectors & Moulded Plugs
Fastenings	Imperial Fastenings Available

Fan Assemblies

EC Fans & drives can supply the ECY-02 motor as a complete fan assembly with fan ring and blade already assembled to the motor. We have an extensive range of fan rings from Ø 154mm (6") to Ø 254mm (10") and numerous fan blades in either blowing or sucking airflow direction with various pitch configurations, therefore, ensuring the right flow rate for your individual application. Please contact your local EC fans & drives sales representative for more detailed information.

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