
Use Case

**Lighter weight,
outstanding performance:
enabling higher volume
and lower-cost shipments**

Executive summary

ECR[®] 2 motors are packed for shipping up to 33% more densely than their competitors, delivering lower total procurement costs and simplifying logistics in warehouses and production facilities.

Challenges

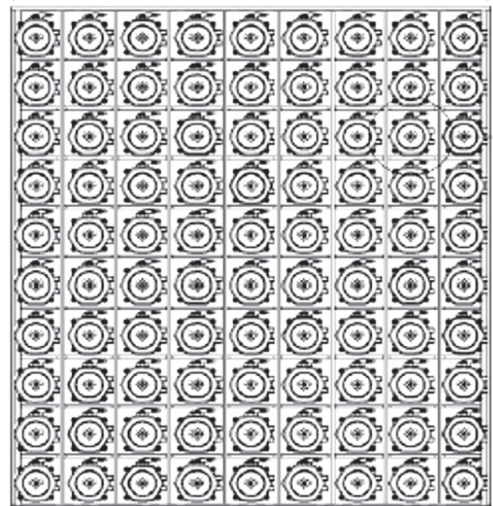
Refrigeration OEMs producing a range of products demand a reliable and cost-effective supply chain to boost the productivity of their production environments. Given the unpredictable timing and costs associated with international shipping, it makes sense to work with a partner that understands these challenges and maximizes an OEMs operating efficiency by optimizing product volumes in every shipment.



AoFrio's optimized motor design ensures maximum cost efficiency

As a global leader in motor design with over 30 years of experience, AoFrio's **ECR 2** motor bodies have been designed using advanced plastic resins that are exceptionally strong and much lighter weight than traditional iron or other metals that other manufacturers use. Without compromising performance, this special construction delivers a host of unique advantages to the ECR 2; including corrosion resistance, a smaller size, and a weight that is up to 40% less than some competitors.

The ECR 2 motor's lower weight and smaller size facilitate higher product density on each pallet. This enables up to 33% more motors to be shipped with each order – often without significantly increasing shipment cost. Since each shipment is palletized, this also means that the motors are also moved more efficiently, often with lower drayage. The net result is that ECR 2's are delivered to our OEM partners reliably, safely, and extremely cost effectively.



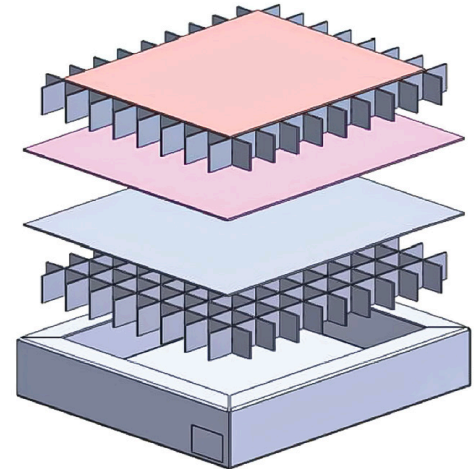
Shipment volume is maximized with 90 motors on each layer and up to 16 layers per carton

The ECR 2 motor is also exceptionally programmable. Each motor arrives preprogrammed to operate at up to three different speeds between 300-1800 RPM, including reversing direction. This enables the same motor to be used for many different SKUs.

Some OEMs have reported SKU reductions of over 57:1 using ECR 2, which drove inventory reductions of 23-31%. Consolidating SKUs also means more of the same ECR 2 motor can be used, resulting in faster inventory turns. Upon request, AoFrio establishes a safety stock of motors, protecting OEMs from potential supply chain disruptions.

The ECR 2 motor is proven to improve working capital, reduce logistical costs, and results in more profitable operations – all without sacrificing performance or supply chain integrity.

Your customers expect the best, and most OEMs can't afford unnecessary logistics costs or supply chain failures. Can you afford not to get the best value for your motors?



Cartons are packaged and protected to ensure motors arrive anywhere in the world without damage

Let's make the world better

AoFrio exists to deliver trusted technology for the real world that solves our customers unique problems. We believe that by collaborating with our OEM partners and placing our technology in every location, we will ensure a sustainable future with safe foods, beverages, and medicines for our families and future generations. We invite you to learn more about how AoFrio can partner with you and build a better world together.

Specifications	
Input voltage range	70-264V, 50-60Hz (all models)
Output power range	0-13W
Speed range	300-1800 RPM
Max. input power	20.5W
Max. input current	0.10A (@230V), 0.20A (@115V)
Power factor	Up to 0.95 depending on load and voltage
EMC protection	4000V (per EN61000-6-2)
Noise	SWL 37 dBA @ 1300 RPM (per ISO1680)
Insulation class	Class A (105°C)
Thermal protection	Electronic protection. Locked rotor and automatic thermal derating also included
Refrigerant compatibility	HFC, CO2 and hydrocarbon (per IEC 60335-2-89 Annex BB)
ATEX (EX)	IEC 60079-7 Group 2, Category 3G
IP rating	IP67
Operating temp. range	-30°C to +50°C (-22°F to +122°F)
Storage temp. range	-40°C to +80°C (-40°F to +176°F)
Weight	0.54kg (1.2lb)
Approvals	