

# SEAD Global Efficiency Medal for Electric Motors



SEAD's Global Efficiency Medal competition encourages the production and sale of super-efficient equipment, appliances, and electronics by recognizing the world's most energy-efficient products.

This winner-takes-all competition spurs innovation among manufacturers and guides early-adopting consumers who want to buy top-performing, super-efficient products. SEAD's annual competition encourages manufacturers to develop and nominate innovative products that set higher energy-efficiency benchmarks for their industries—and to share their best practices throughout the marketplace.



## International Award Winners

This competition identified the following commercially-available induction motors as international winners for demonstrating the greatest efficiency in two size categories among three regions: Australia, India, and North America.

### 4 kW Category

Nanyang Explosion Protection Group Company Limited  
Winning Model: YZTE4-112M



Full load efficiency: 91.2%  
Efficiency Class: IE4

### 11 kW Category

Nanyang Explosion Protection Group Company Limited  
Winning Model: YZTE4-160M

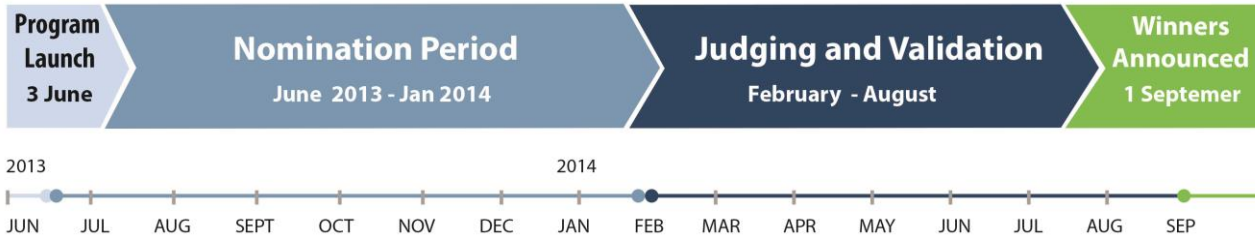


Full load efficiency: 93.5%  
Efficiency Class: IE4

## Competition Rationale

According to the International Energy Agency, motor-driven systems account for 40 percent of electricity consumption globally. Motor-driven systems are by far the largest consumers of end-use electricity, responsible for more than 6,000 megatonnes of CO<sub>2</sub> emissions annually - equivalent to the yearly emissions of more than 1 billion cars.

By recognizing and promoting super-efficient electric motors, this SEAD competition helps buyers make informed purchasing decisions that can lower energy bills and spur greater innovation among manufacturers.



## Selection Criteria and Timeline

On 3 June 2013, SEAD launched the motor awards competition. SEAD invited interested manufacturers to nominate products in one or more categories.

For each winning product, entrants provided randomly-selected samples so that energy efficiency claims could be verified. Sponsoring governments validated each product's energy efficiency at full and partial loads.

Regional awards were presented at the 2014 Motor Summit in Zurich, Switzerland. International awards will be presented at the sixth Clean Energy Ministerial in Mérida, Mexico on 27 May 2015.

## Comparing Efficiency: SEAD Award-winning products vs. Average Products Sold

	Size	Average Product Efficiency	Winning Product Efficiency	Efficiency Improvement
North America	5 hp	89.3%	91.1%	2.0%
	15 hp	92.2%	93.6%	1.5%
Australia	4 kW	88.2%	91.2%	3.4%
	11 kW	90.8%	93.5%	3.0%
EU	4 kW	85.5%	---	---
	11 kW	89.1%	---	---
India	3.7 kW	83.1%	88.4%	6.4%
	11 kW	87.6%	91.5%	4.4%

Note: Average efficiency data is based on 2013 sales for each size category, as determined by [IHS Technology \(NYSE: IHS\)](http://www.ihs.com) through market analysis.

The Global Efficiency Medal competitions demonstrate the levels of efficiency that are possible today, and shine a spotlight on innovative new technologies that can further push efficiency boundaries and slash energy consumption.

## Regional Winners

SEAD also recognized the following regional winners:

Australia	Nanyang 4 kW YZTE4-112M	Nanyang 11 kW YZTE4-160M
Europe	---	---
India	Siemens Limited (India), 3.7 kW 1LA21134NA80	Siemens Limited (India), 11 kW 1LA21634NA80
North America	Nanyang 5 hp NSPE184T	Nanyang 15 hp NSPE254T

About SEAD // The Super-efficient Equipment and Appliance Deployment (SEAD) Initiative of the Clean Energy Ministerial (CEM) and the International Partnership for Energy Efficiency Cooperation (IPEEC) helps turn knowledge into action to accelerate the transition to a clean energy future through effective appliance and equipment energy efficiency programs. SEAD is a multilateral, voluntary effort among Australia, Brazil, Canada, Chile, the European Commission, Germany, India, Indonesia, Japan, South Korea, Mexico, Russia, South Africa, Sweden, the United Arab Emirates, the United Kingdom, and the United States.