

Squirrel Cage Three Phase Induction Motors

21 Series

Frame Size 250 and over
Capacity 37 kW ~ 20,000 kW
(50 HP ~ 26,800 HP)



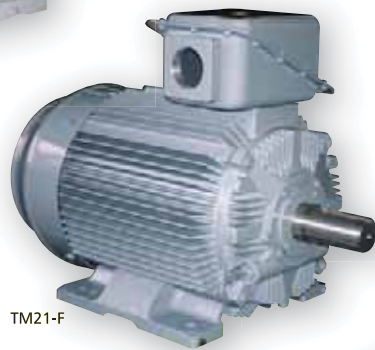
TM21-L



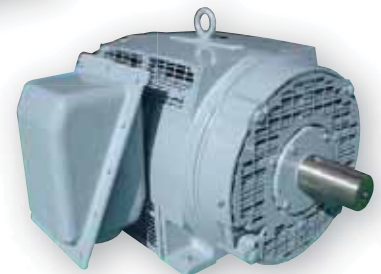
TM21-M



TM21-VLL



TM21-F

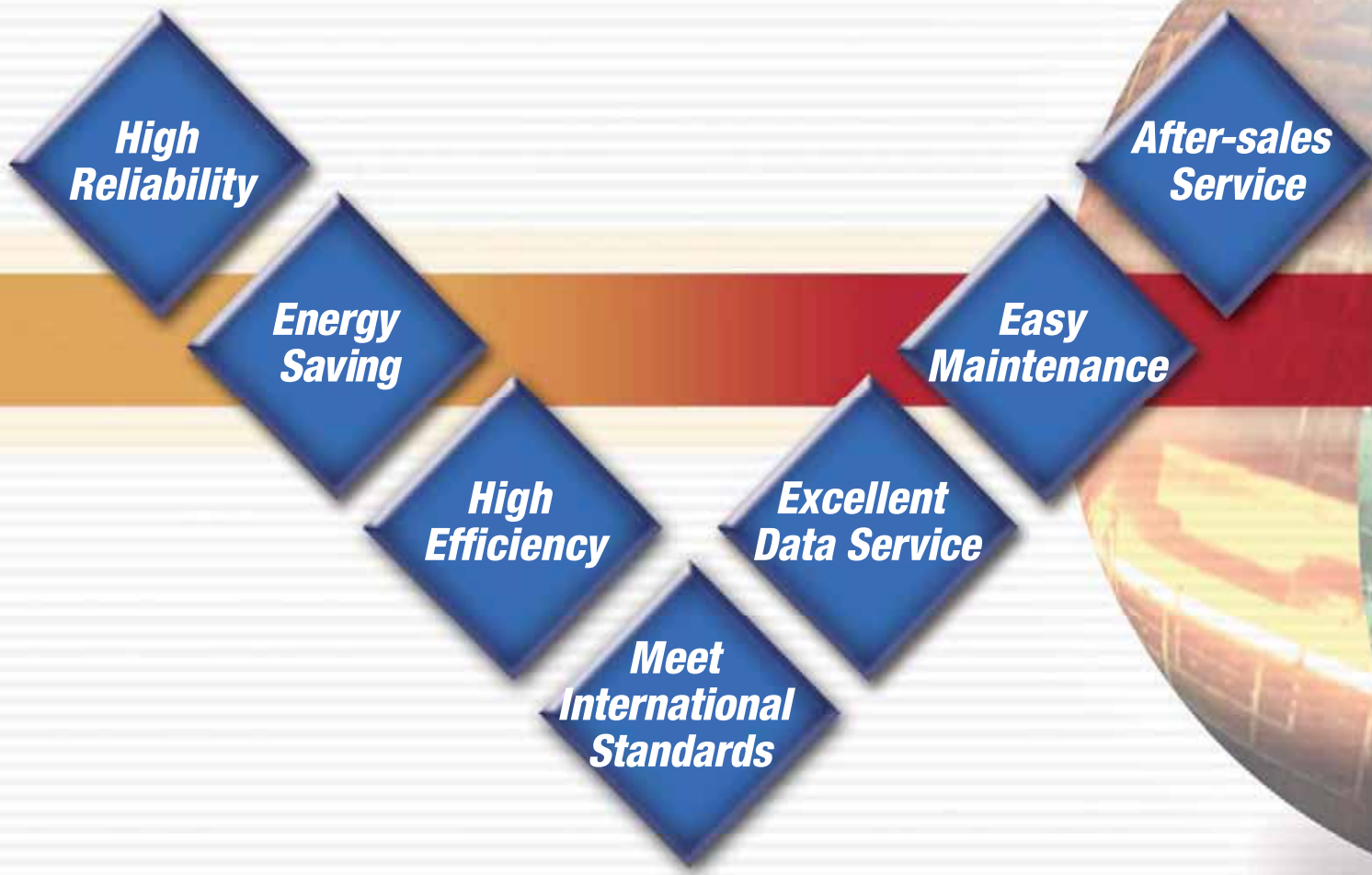


TM21-D

**Evolution
Type**

21 Series

The **21** Series offers advanced technology, focusing on application requirements, high quality, low cost, and high performance.



Lower life cycle cost and product improvements



Meets International Standards

Meets the following standards:

IEC

NEMA

BS

AS

CSA

API

CAE Technique Develops High-Efficiency

Use of CAE Technique to Analyze motor factors that effect high efficiency:

- Heat transfer
- Flux density distribution of the core
- Cooling characteristics
- Deformation of stator coil end

Advanced Insulation Technique

- The evolution of insulation materials and manufacturing techniques result in a longer life
- Surge capability for inverter drive applications

Full Data Service

- Performance data, drawings and technical details are provided in electronic format.

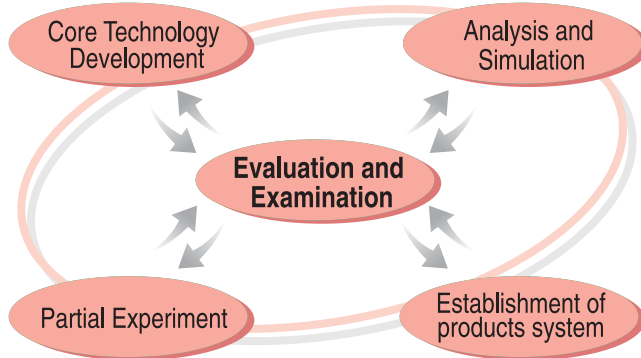
High Quality and Reliability

- Improvements for the 21 Series are based on operation in the field and input from our customers.
- Highly reliable insulation, low vibration, suitable bearing selection and standardization of components contribute to quality and reliability.

Easy Maintenance & After-Sales Services

- L10 life of rolling bearings is 100,000 hours; regreasing interval is also extended
- World wide standard sleeve bearing
- After sales service is available through TMEIC

The 21 Series of motors has been developed through research, design, testing, field experience, and CAE analysis.



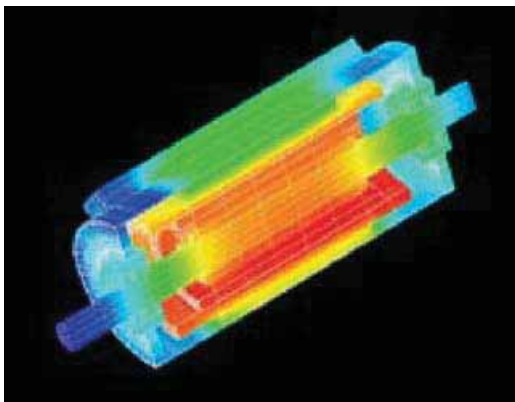
● Insulation Technology

Improved insulation

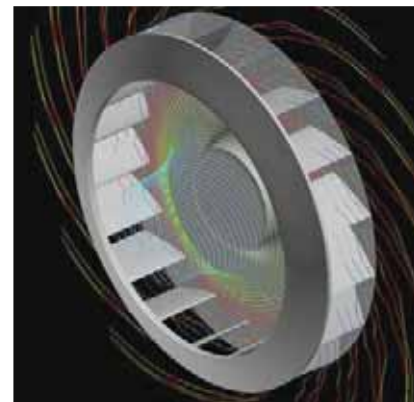


● Analysis Technology

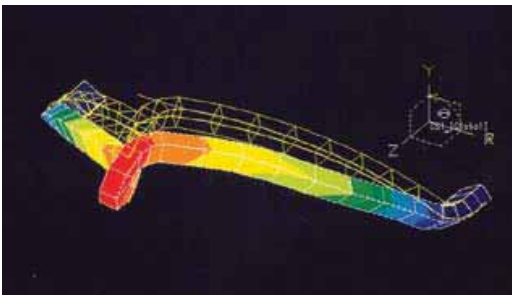
Three-dimensional heat transfer analysis



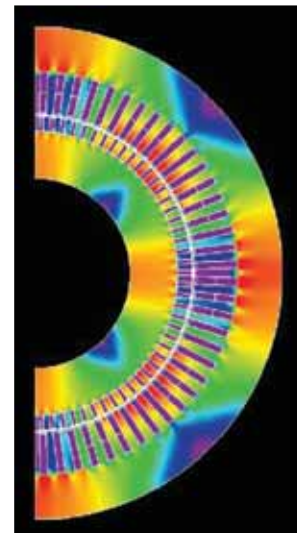
Cooling characteristics analysis



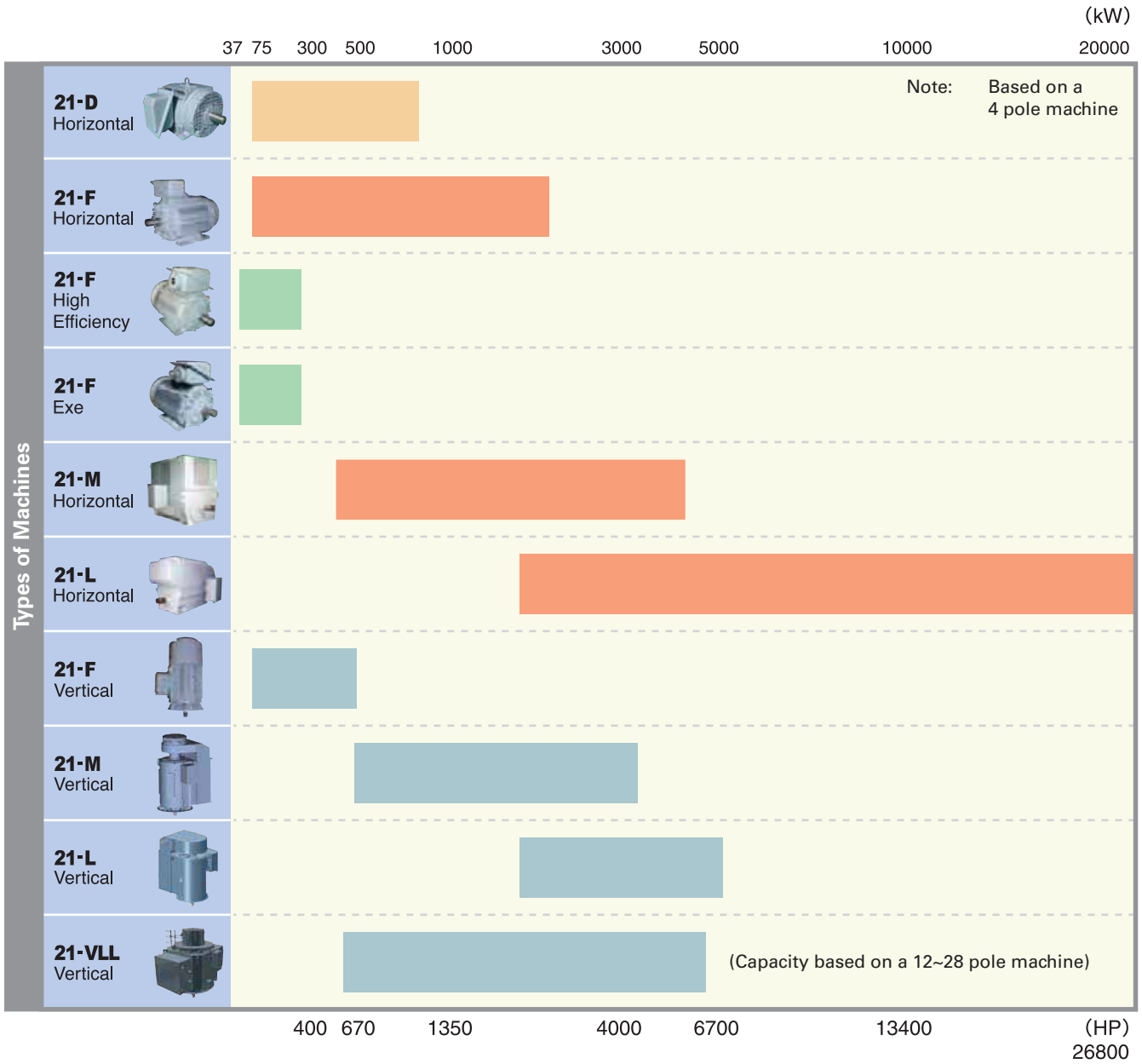
Deformation analysis of stator coil end



Electromagnetic analysis



21 Series Line up



Types		Definition	Frame Size
Horizontal	Open Drip	21-D	ODP
	Totally Enclosed Fan Cooled	21-F	TEFC
	Totally Enclosed Fan Cooled High-Efficiency Series		TEFC
	Increased Safety Explosion Exe		TEFC
	Drip Proof		TEFC
	Open Drip Weather Protected	21-M & 21-L	DP
	Totally Enclosed Air to Air Cooled		WP
	Totally Enclosed Water to Air Cooled		TEAAC
Totally Enclosed Water to Air Cooled	TEWAC		
Vertical	Totally Enclosed Fan Cooled	21-F	TEFC
	Drip Proof	21-M & 21-L	DP
	Open Drip Weather Protected		WP
	Totally Enclosed Air to Air Cooled		TEAAC
	Totally Enclosed Water to Air Cooled		TEWAC
Totally Enclosed Water to Air Cooled	21-VLL		

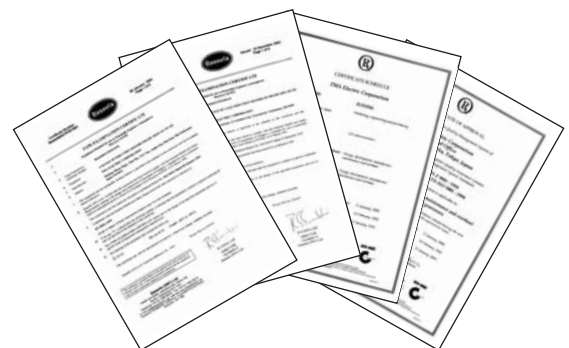
Our World Wide Application Experience

Our expertise has been gained through world wide application experiences in the Steel, Petrochemical, Mining, Power, Water Treatment and Paper industries. This experience has provided a wealth of important technical information that has been a catalyst for the development and refinement of the **21 Series Motors**.



Quality-Certified by Third Parties

21 Series motors are manufactured to meet ISO9001 and ISO14001 standards, and are certified by third parties such as Baseefa, CSA, LLOYD's, etc.



Manufacturing Location, Service & Support

- Quick response from our world wide service network
- Diagnostic instrumentation for preventive maintenance
- Technical data provided through the internet.

Manufacturing Facilities



Overseas Network





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