



# **KONMOS**

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## **TECHNOLOGIES PVT. LTD.**

# **PRESENTATION**

## **OUTLINE**

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| <b>03</b> | <b>Our vision &amp; mission</b>     |
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## ABOUT US

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KONMOS TECHNOLOGIES is engaged in manufacturing of most advanced powertrain for an electric vehicle application based in Rajkot City of Gujarat in India.

At KONMOS , we offers a " Quality Products, Timely Delivery and Excellent after-sales Services". To meet the ever-increasing needs of the customers and to serve them better, the company has large scale manufacturing facility.

Bringing vast experience and knowledge of electric vehicles, electric machines and power electronics of more than 20 years, KONMOS aims at developing most advanced and reliable drivetrain solutions for the electric vehicle industry in order to improve the EV ecosystem.

The company has pleasure of working with the industry clientele serving small and large-scale companies with same dedication and instant response has resulted in strengthening the loyalty of customers.

The company has vast experience in manufacturing motors for Crompton Greaves, Siemens, ABB and many other .

## OUR VISION

Build the best Motors, cause no unnecessary harm to the Environment,  
Use business to inspire and implement solutions to the environmental friendly Auto Mobility.

## OUR MISSION

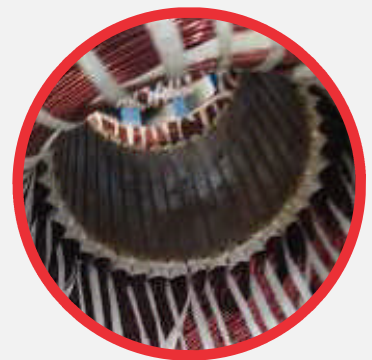
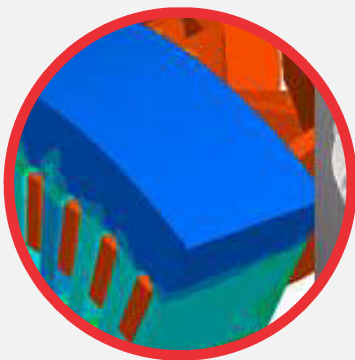
To be the world's recognize powertrain company, energizing world with green automobile growth.

## DESIGN CAPABILITIES

Bringing vast experience and knowledge of electric vehicles, electric machines, thermal management, electromagnetics, software design, mechanical design, power electronics & controls, testing and quality assurance which enables us to develop most advanced and reliable powertrain solutions for the electric vehicle industry.

We have nearly 20 licensed software dedicated to the EV traction motor and its compatible drives design and development in every aspect of the motor drive performance. Few of the software's are motion cad, Ansys, Maxwell 2D, Maxwell 3D etc.

Konmos contributes to the highest possible energy conversion efficiencies through its expertise in permanent magnet motors, power electronics, thermal management, coil winding, motor and inverter control algorithms.



## TEAM WORK

From product designing to production, our team of 20 – 25 highly qualified experts works closely with customers to offer state of the art electric powertrains as per their requirements.

# PRODUCT RANGE

## KONMOS TECHNOLOGIES

Permanent Magnet Synchronous Motor (PMSM) and Drive

Power range : 0.5 to 50 kW

Speed range : 1000 to 12000 RPM



**Yanak** (यानक)  
Electric Vehicle Motors ( PMSM )



**Samarth** (समर्थ)  
Industrials Motors ( PMSM )



**Payas** (पयस)  
Water Submerged Pump Motors ( PMSM )

## Electric Vehicle Motors ( PMSM )

	Model	Output (kW)	Voltage (V <sub>DC</sub> )	Speed (RPM)	Torque (Nm)	Connection	Efficiency (%)	Insulation Class
1	KTY1P0R30V1	1.0	48	3000	3.3	Star	>93	F
2	KTY2P0R30V1	2.0	48	3000	6.5	Star	>93	F
3	KTY3P0R30V1	3.0	48	3000	9.6	Star	>93	F
4	KTY4P0R30V1	4.0	48	3000	12.7	Star	>93	F
5	KTY5P0R42V1	5.0	72	4200	11.4	Star	>93	F
6	KTY6P0R42V1	6.0	72	4200	13.7	Star	>93	F



## Industrials Motors ( PMSM )

	Model	Phase	Output (kW)	Output (HP)	Voltage (V)	Speed (RPM)	Torque (Nm)	Connection	Efficiency (%)	Insulation Class
1	KTS1P5R30V1	1-Φ	1.5	2.0	230	3000	4.7	Star	>93	F
2	KTS1P5R30V2	3-Φ	1.5	2.0	400	3000	4.7	Star	>93	F
3	KTS2P2R30V1	1-Φ	2.2	3.0	230	3000	7.0	Star	>93	F
4	KTS2P2R30V2	3-Φ	2.2	3.0	400	3000	7.0	Star	>93	F
5	KTS3P7R30V1	3-Φ	3.7	5.0	400	3000	11.9	Star	>93	F
6	KTS5P5R30V1	3-Φ	5.5	7.5	400	3000	17.4	Star	>93	F
7	KTS1P5R15V1	1-Φ	1.5	2.0	230	1500	9.5	Star	>93	F
8	KTS1P5R15V2	3-Φ	1.5	2.0	400	1500	9.5	Star	>93	F
9	KTS2P2R15V1	1-Φ	2.2	3.0	230	1500	14.0	Star	>93	F
10	KTS2P2R15V2	3-Φ	2.2	3.0	400	1500	14.0	Star	>93	F





## Water Submerged Pump Motors ( PMSM )

	Model	Phase	Output (kW)	Output (HP)	Voltage (V)	Speed (RPM)	Torque (Nm)	Connection	Efficiency (%)	Insulation Class
1	KTP1P5R40V1C	1-Φ	1.5	2.0	230	4000	3.5	Star	>93	F
2	KTP2P2R40V1C	3-Φ	2.2	3.0	400	4000	5.2	Star	>93	F
3	KTP3P7R40V1C	3-Φ	3.7	5.0	230	4000	8.9	Star	>93	F
4	KTP5P5R40V1C	3-Φ	5.5	7.5	400	4000	13.1	Star	>93	F
1	KTP0P7R40V1S	1-Φ	0.75	1.0	230	4000	1.8	Star	>93	F
2	KTP1P1R40V1S	1-Φ	1.1	1.5	230	4000	2.6	Star	>93	F
3	KTP1P5R40V1S	1-Φ	1.5	2.0	230	4000	3.5	Star	>93	F



# MOTOR DESIGN FEATURES

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Interior permanent magnet synchronous motor (IPMSM)

Vector controlled drive operation

Maximum torque per ampere (MTPA) control

High temperatures rare earth magnets

Compact size

High power density

Thermal optimized design

Durable bearing

Low noise

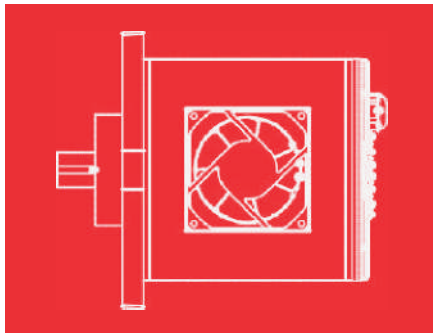
Fan (IP 69k) with  $< 3W$  power consumption

Tangential cooling with directional vent

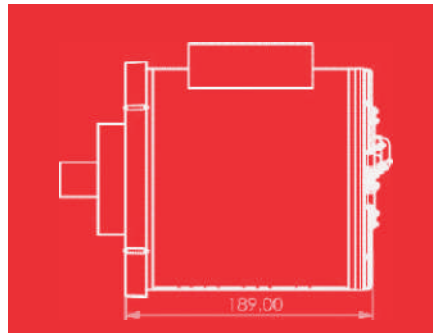
Circular fins for heat dissipation in center region

IP 65 protection

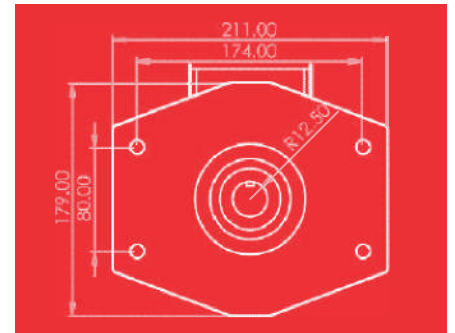
Mechanical strengthen body



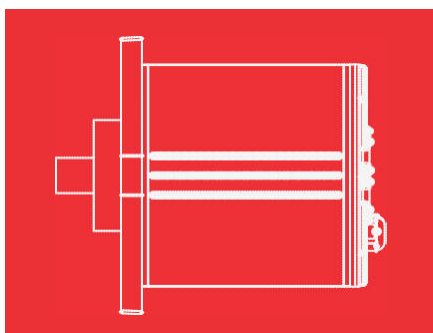
**Top View**



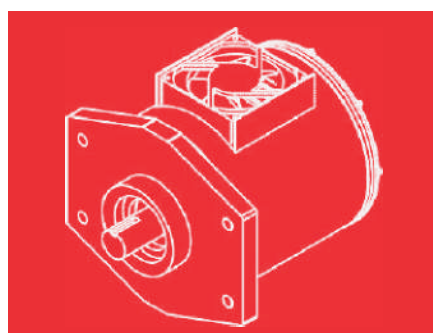
**Front View**



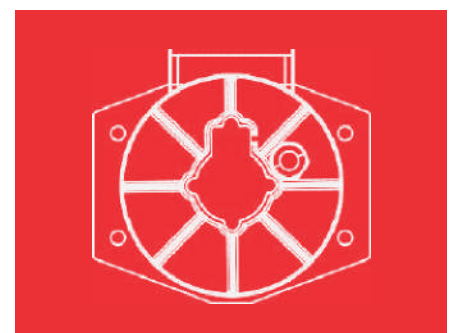
**Left Hand View**



**Bottom View**



**3D View**

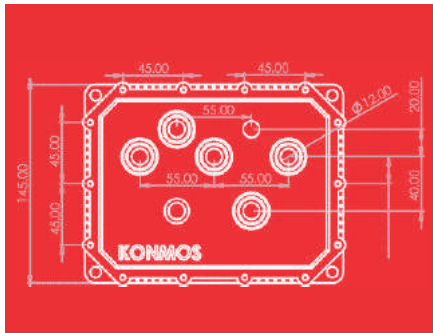


**Right Hand View**

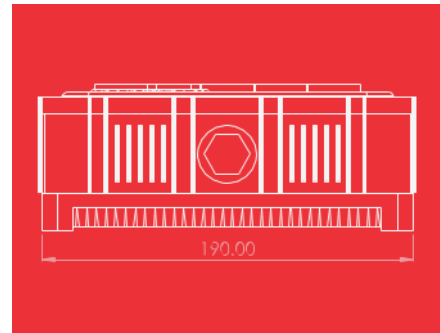
# CONTROLLER DESIGN FEATURES

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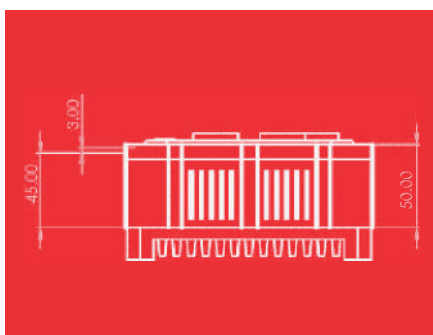
- Multiple driving mode
- Programmable current limit
- Torque and speed control
- Efficient algorithm
- Communication enabled
- Compact size
- Multiple protections
- Thermal optimized design
- Operating temperature upto 65 °C
- High efficiency > 96%
- IP 65 protection
- Aluminum Body for heat dissipation



**Top View**



**Front View**



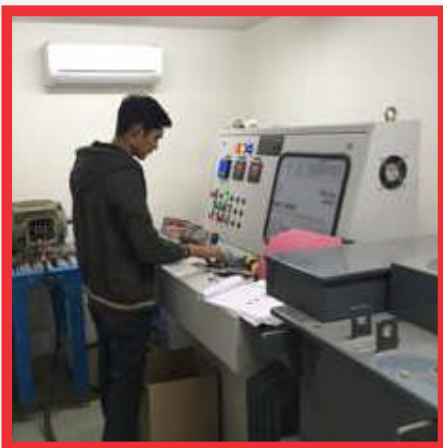
**Side View**



**Isometric View**

## Motor ASSEMBLY PLANT

- The use of reliable and efficient manufacturing equipment, ensure that subassemblies, components and complete assembly of motor are produced to the highest technical standards.
- Significant investments in production line equipment, shortest lead time and manufacturing excellence led us to the leading choice for the contract manufacturing.
- Our engineers can handle OEM most demanding applications, uprating horsepower and efficiency with state-of-the-art materials and technologies.



Believe it, Achieve it!

## WE ARE ONE

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**Dr. Kuman Siddhapura**

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More than 18 years of experience in motor and drives design & development, industrial solution provider.



**Nilesh Patel**

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More than 15 years of experience in marketing and management  
Out of which experience of more than 10 years to work in UK.



**Snehal Thummar**

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More than 15 years of experience in new product development, Project management, Operations and management.



**Rasik Patel**

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More than 20 years of experience in motor manufacturing.



**Jitesh Dodiya**

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More than 5 years of experience in electric vehicle design & development

## KONMOS ADVANTAGE

- Highly skilled & experienced R&D team & Manufacturing team
- Providing continuous improvement & up gradation from design to manufacturing
- Highly cost effective product solution
- Adoption of intelligent process line to reduce manufacturing time.
- Ethical approach for deliverables time & schedule.
- Zero tolerance quality approach
- Understand customer exact requirement
- Large manufacturing facility