

**ENHANCE YOUR DRIVE WITH
INNOVATIVE EV SOLUTIONS**



**SHAKTI EV MOBILITY
ALL PRODUCT BOOKLET**

ABOUT THE COMPANY

- **SHAKTI PUMPS (INDIA) LIMITED** is foraying into the Electric Vehicle (EV) segment through its 100% wholly owned subsidiary company **SHAKTI EV MOBILITY PRIVATE LIMITED (SEVMPL)**. The subsidiary company will manufacture Induction, BLDC and PMSM Motor including Controller, Charger, VFD (EV Application) to optimize battery performance in EV automobiles.
- SEVMPL was incorporated as private limited company under Companies Act 2013 on December 16, 2021 and will leverage on Shakti group's 40 years of experience in making motors, and 5 years of experience in manufacturing Power Electronics Equipment.
- The manufacturing activity of SEVMPL will be carried out at Sector 5, Pithampur, Dist. Dhar (M.P), India with a total installed capacity of 1,32,000 (No.'s) each for Induction, BLDC, PMSM motor and controller. The plant is equipped with state of the art technology along with a full-fledged in-house R&D centre to continue innovation and pace up with current trends.

A FOUNDATION, STRONG & SOUND

The foundation of Shakti Pumps (India) Ltd. was laid in 1982. With a humble beginning, we have gone from strength to success in becoming India's largest manufacturer of submersible pumps, motors and solar controllers today.



An ISO 9001-2015, ISO 14001:2015 & ISO 45001:2018 company, our cutting-edge manufacturing facility with an installed capacity of 5,00,000 pumps per annum is located in Central India at Pithampur (M.P.).

QUALITY, A WAY OF LIFE AT SHAKTI

We accord paramount importance to quality. Be it practices, procedures or people, every aspect of our company comes together to ensure that customers get products and services of the highest quality. Our quality control and testing labs are amongst the most advanced set-ups in the country- enabling us to meet international quality standards consistently.



OUR TECHNOLOGY, OUR STRENGTH

We employ the finest technology from around the world to manufacture our products. Our state of the art plant has cutting-edge Japanese and European machinery. The use of robots ensures precision of the highest level. Ultra-modern CNC machines, stamping machines, cathode electrode deposition plants, etc. speak volumes about our technological strength.

APPLICATION

India's ARAI (I) Certified Motor Powertrain

SPM (Shakti Powertrain Motor) are customized to meet customer's special requirements. these motors provide high performance with features and solution for individual and industrial applications such as commercial vehicles car, Auto, L 5 Loader, Road sweeper machine, retro fitment, E-Rickshaws and E-Vehicles etc.

VEHICLE CATEGORY

VEHICLE CATEGORY: L1, L2

VEHICLE CATEGORY: L5 M, L5 N

VEHICLE CATEGORY: E-RICKSHAW

VEHICLE CATEGORY: E-CAR

PRODUCT FEATURES

High Performance Design :	<ul style="list-style-type: none"> Dynamically balanced rotors ensure smooth operation. Double shielded, high-temperature bearings for enhanced durability. 	
Efficient Cooling System :	<ul style="list-style-type: none"> Three-dimensional heat transfer principle in cooling fins design. 	
Operational Efficiency :	<ul style="list-style-type: none"> Minimized friction losses for optimal performance. Low noise operation ensures smooth running. 	
Ingress Protection :	<ul style="list-style-type: none"> IP67 rating protects against moisture, dust & water ingress. 	
Reliability & Ease of Use :	<ul style="list-style-type: none"> Reliable operation with easy maintenance. Short payback period for cost-effectiveness. 	

EV Motor 3Wheeler & 4 Wheeler (1-20 kW) (Upcoming)

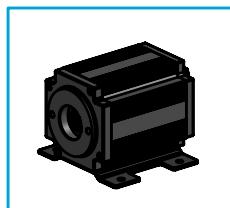
1.5kW, 2.2kW Fanless Steering Motor (Upcoming)

10 kW

15 kW

20 kW

3-15 kW Rare Earth Free Magnet Motor



SARATHI (STEERING AND COMPRESSOR DRIVE) (2 in 1)(UPCOMING)

Gearbox (1:6, 1:8, 1:10 & 1:12)



VEHICLE CATEGORY FOR 2W (L1, L2)



PRODUCT FEATURES

- Highly Efficient Motors 
- Regenerative Braking 
- Highly Durable 
- Water and Dust Resistant (IP 67) 
- CAN Communication 

SHAKTI HUB MOTOR SPECIFICATIONS

HUB MOTOR SPECIFICATIONS									
Three Phase PMSM Hub Motor									
10" Hub Motor									
Motor type									
Motor Category	Three Phase PMSM Hub Motor								
Motor code	9000032951	9000031138	9000032941	9000032942	9000032945	9000031140	9000033150	9000030977	9000032949
Rated Power Rating (Watt)	800	800	1000	1000	1200	1200	1500	1500	1500
Peak Power Rating (Watts)	1400	1800	1400	1800	2000	2500	2000	2500	2100
Voltage Range (V)	48	60	48	60	48	60	48	60	72
Max. Speed (RPM)	550	620	620	620	670	670	670	720	780
Max. Efficiency	90%	90%	90%	90%	90%	90%	90%	90%	90%
Peak Torque (Nm)	82	82	88	88	101	103	98	97	98
Peak ampere AC	73	73	88	88	104	106	100	100	100
idc	35	35	35	35	50	50	50	50	35
Vehicle Speed (KMPH)	45	51	51	51	55	55	55	59	64
Brake Type	Drum/Disc								
Rim Size (INCH)	10 X 2.15								
IP Rating	IP 67								
Thermal Insulation	H Class (Inverter Duty Class)								
Max. Working Temperature (deg. C)	50	50	50	50	50	50	50	50	50
Gradient (Degree)	8	8	8	8	8	8	10	10	10
GVW	235	235	235	235	235	235	235	235	235
Max. Current Adc	35	35	35	35	50	50	50	50	35

HUB MOTOR SPECIFICATIONS													
Motor type	Three Phase PMSM Hub Motor												
	12" Hub Motor												
Motor code	9000032954	9000031113	9000033152	9000033153	9000034359	9000031106	9000032955	9000033482	9000032961	9000032959	9000034536	9000033649	9000034537
Rated Power Rating (Watt)	1000	1000	1200	1200	1500	1500	1500	2000	2000	2000	3000	3000	3000
Peak Power Rating (Watts)	1400	1800	2000	2500	2000	2500	3000	4000	3800	3700	4400	5100	6100
Voltage Range (V)	48	60	48	60	48	60	72	48	60	72	48	60	72
Max. Speed (RPM)	519 / 569	650	620	650	620	660	750	800	800	950	860	910	950
Max. Efficiency	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%
Peak Torque (Nm)	104	105	107	108	107	113	113	148	146	146	165	164	171
Peak ampere AC	96	96	106	95	106	106	106	185	168	168	240	215	200
idc	35	35	50	50	50	50	50	95	75	60	110	100	100
Vehicle Speed (KMPH)	45 / 50	57	54	57	54	58	66	70	70	83	76	80	83
Brake Type	Drum/Disc												
Rim Size (INCH)	12 X 2.5												
IP Rating	IP 67												
Thermal Insulation	H Class (Inverter Duty Class)												
Max. Working Temperature (deg. C)	50	50	50	50	50	50	50	50	50	50	50	50	50
Gradient (Degree)	8	8	8	8	8	8	8	14	14	14	16	16	16
GVW	235	235	235	235	235	235	235	275	275	275	275	275	275
Max. Current Adc	35 / 50	35	50	50	50	50	50	95	75	60	110	100	100

HUB MOTOR SPECIFICATIONS													
Motor type	Three Phase PMSM Hub Motor												
	17" Hub Motor												
Motor code	9000034534	9000031107	9000032962	9000034535	9000031108	9000032963	9000033681	9000032964	9000031109				
Rated Power Rating (Watt)	1500	1500	1500	2000	2000	2000	3000	3000	3000				
Peak Power Rating (Watts)	2000	2500	3000	3900	3800	3700	4500	5100	5100				
Voltage Range (V)	48	60	72	48	60	72	48	60	72				
Max. Speed (RPM)	605	660	750	800	800	821	821	821	821				
Max. Efficiency	90%	90%	90%	90%	90%	90%	90%	90%	90%				
Peak Torque (Nm)	107	113	113	148	146	146	165	164	164				
Vehicle Speed (KMPH)	70	76	87	93	93	95	95	95	95				
Brake Type	Disc												
Rim Size (INCH)	17 x 2.5												
IP Rating	IP 67												
Thermal Insulation	H Class (Inverter Duty Class)												
Max. Working Temperature (deg. C)	50	50	50	50	50	50	50	50	50				
Gradient (Degree)	8	8	8	14	14	14	16	16	16				
GVW	235	235	235	275	275	275	275	275	275				
Max. Current Adc	50	50	50	95	75	60	110	100	100				

VEHICLE CATEGORY FOR 3W, 4W (L5M, L5N, E-CAR)



PRODUCT FEATURES

- ARAI & Natrax Certified (Govt. Approved)
- Highly Efficient Motor
- CAN Communication



- Long Working Life
- Water and Dust Resistant (IP 67)
- Regenerative Braking with Hill Assistant



SHAKTI L5M,L5N,E-CAR VEHICLE SPECIFICATION

MOTOR TYPE	Power train Motors for different Category Vehicles									
	E-Rickshaw			L5 Auto and Loader						
MOTOR CODE	BLDC	IPMSM	IPMSM	INDUCTION	INDUCTION	IPMSM	INDUCTION	IPMSM	INDUCTION	IPMSM
Rated Power Rating (Watt)	1.2	1.2	1.5	2	4	4	5	5	7.5	7.5
Peak Power Rating (Watts)	1.6	2.4	2.8	4	7	7	9	8	13	14
Voltage Range (V)	48	48/60	48/60	48	48/60	48/60	48/60	48/60	72	72
Max. Speed (RPM)	3800	3800	3800	5000	5500	5000	5500	5000	7000	6000
Max. Efficiency	88	90	90	85	88	92	88	92	89	94
Peak Torque (Nm)	28	28	33	36	74	56	86	69	82	95
Vehicle Speed (KMPH)	33	33/35	33/35	39	50	50	55	55	55	55
SHAFT TYPE	GEAR	GEAR	GEAR	SPLINE						
IP Rating	IP67	IP67	IP67	IP67	IP67	IP67	IP67	IP67	IP67	IP67
Thermal Insulation	H Class (Inverter duty class)	H Class (Inverter duty class)	H Class (Inverter duty class)	H Class (Inverter duty class)	H Class (Inverter duty class)	H Class (Inverter duty class)	H Class (Inverter duty class)	H Class (Inverter duty class)	H Class (Inverter duty class)	H Class (Inverter duty class)
Max. Working Temperature (deg. C)	50	50	50	50	50	50	50	50	50	50
Gradient (Degree)	7	7	7	7	7	7	7	7	7	7
GVW	600	600	700	650	750	750	800	800	1400	1400
Gear Ratio	1:10	1:10	1:10	1:6	1:8	1:6	1:6	1:6	1:10	1:10
Tyre Size	450 mm	450 mm	450 mm	419 mm	537 mm	537 mm				

AUTOMOTIVE SYSTEM MOTOR

STEERING/COMPRESSOR/TRACTION

INTRODUCTION

Empowering Electric Vehicles with Advanced Electric Motors.

The automotive system motor serves as the heart of electric vehicle technology, converting electrical energy into powerful mechanical motion. Designed for high performance and efficiency, our electric motors offer cutting-edge solutions for passenger cars, buses, and light commercial vehicles.

KEY FEATURES

- High Performance : Delivering robust power for enhanced driving experience.
- Efficient Electric Drive : Maximizing energy efficiency and reducing environmental impact.
- Versatile Applications : Ideal for steering systems, compressors, and traction motors.

WHY CHOOSE US?

- Innovative Technology : Leading the way in electric mobility solutions.
- Reliability : Built to withstand rigorous demands of automotive applications.
- Sustainability : Contributing to a cleaner and greener future.

TECHNICAL CHARACTERISTICS

COST EFFICIENCY

Lower operating costs lead to a shorter payback period.

High efficiency ensures optimal energy use & longer range.

ENHANCED DURABILITY

Better heat dissipation and reduce temperature rise.

Extended motor lifespan with "H" class insulation for reliable performance.

ENVIRONMENTAL IMPACT

Significant reduction in CO2 emissions.

Contributing to a cleaner, greener environment.

KEY CHARACTERISTICS

APPLICATION

- Steering Motor
- Compressor Motor
- Fans & Blowers
- Cranes, Hoist & Lift.

FEATURES & BENEFITS

High Performance Design :

- Dynamically balanced rotors ensure smooth operation
- Double shielded, high-temperature bearings for enhanced durability.

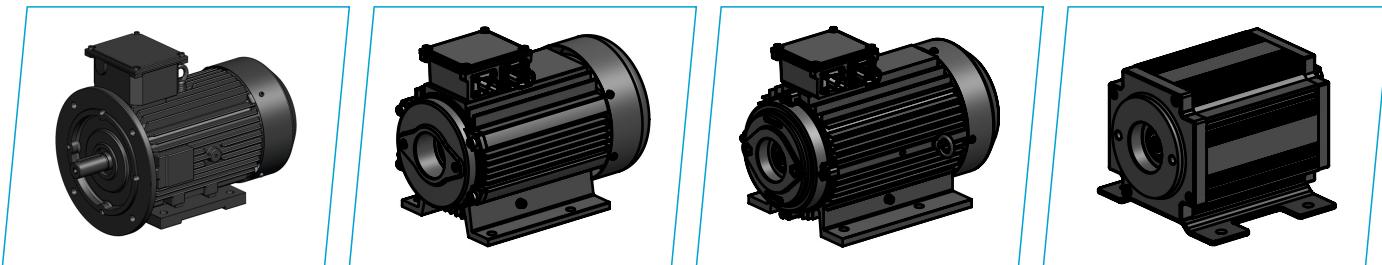
Robust Protection : • IP67 rating protects against moisture, dust & water ingress.

Efficient Cooling System : • Three-dimensional heat transfer principle in cooling fins design.

Operational Efficiency : • Minimized friction losses for optimal performance. • Low noise operation ensures smooth running.

Reliability & Ease of Use : • Reliable operation with easy maintenance. • Short payback period for cost-effectiveness.

STEERING MOTOR



Material Code	STEERING MOTOR								
	AC (CAST IRON)		AC (ALUMINIUM)		IPMSM (ALUMINIUM)				
9000030780	9000030706	9000032671	9000032597	9000032670	9000032916	9000033674	9000033574	9000033642	
MOTOR POWER (kW)	2.2	3.7	2.2	3.7	1.5	2.2	2.2	3	5
Peak Power (kW)	4.4* / 7**	7.4* / 8.5**	4.4* / 7**	7* / 8.5**	3* / 3.5**	4.4* / 7**	4.4* / 7**	5.4* / 8**	9* / 13.5**
Volts (V)	415	415	415	415	120	234	238	353	353
Rated Ampere (A)	4.7	7	5.1	8.1	10.3	6.2	6.2	7.4	12.4
Peak Ampere (A)	9	13	9.5	14	21	24	24	17	25
Rated RPM	1452	1457	1455	1455	1500	1200	1500	1500	1500
Rated Torque N-m	14.5	24.1	14.36	14.58	9.5	17.9	14	21.5	31.8
Peak Torque N-m	49.56	70	66.75	70	23	55.8	38.2	45.28	70.5
Max. Efficiency	82.3	87.9	86.7	88.4	86.7	89.8	90.3	91.4	91.4
Type	AC	AC	AC	AC	IPMSM	IPMSM	IPMSM	IPMSM	IPMSM
Shaft Type	Key way	Key way	Key way	Key way	Spline	Spline	Spline	Spline	Spline
Output Phase	3Ø	3Ø	3Ø	3Ø	3Ø	3Ø	3Ø	3Ø	3
Connection	DELTA	DELTA	DELTA	DELTA	SERIES-PARALLEL STAR				
Poles	4	4	4	4	6	6	6	8	8
Protection Type	IP67	IP67	IP67	IP67	IP67	IP67	IP67	IP67	IP67
Insulation class	H	H	H	H	H	H	H	H	H
Enclosure	TEFC	TEFC	TEFC	TEFC	TEFC	TEFC	TEFC	TENV	TENV
Frame	100	112	112	112	112	112	112	100	100
Mounting	B35	B35	B34	B34	B34	B34	B34	B34	B34
Ambient Temp.	-20 TO 55	-20 TO 55	-20 TO 55	-20 TO 55	-40 TO 85	-40 TO 85	-40 TO 85	-40 TO 85	-40°C TO 100°C
Cooling Method	Fan cooled	Fan cooled	Fan cooled	Fan cooled	Fan cooled	Fan cooled	Fan cooled	Natural Cooling	Natural Cooling

* Frequent Loading (60 Sec for Every 15 minute)

** momentarily overload (120 Second for 1-2 times a Day)

Note: If required, the above motors can also be utilized for compressor applications.

SIMHA PLUS UNIVERSAL DRIVE (FOR STEERING MOTOR)



ABOUT THE PRODUCT

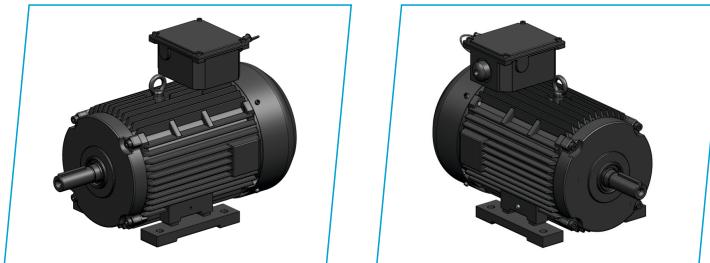
Shakti's Simha Universal Drive is a unique product designed, developed and manufactured in India. It supports wide varieties of motors by virtue of its universal design. It's IP65 design and rust-proof metallic enclosure provides protection from foreign particles (e.g. rain, dust, oil) which obsoletes the need for extra outer case. Remote Monitoring system, Wide temperature range and electrically safe user handling are its additional features.

APPLICATION

All in one solution for driving of various motors like AC-IM, PMSM, IPMSM, S4RM, etc.

Product	
Model No.	96-161
Power	15 HP
Input(DC)	
DC Voltage Ranges	200-850 V
AC Voltage Ranges (if applicable)*	200-480 VAC (3PH)
Output (AC)	
Nominal AC Voltage Ranges	0-480VAC
Frequency	0-400Hz
Max. AC Current	25 A
Rated Power at AC Side	14000 W
Power Factor	0.7 – 1 (at full load)
THD	70-150%
Slope	8300 V/uS
Peak	850
Connection Phases	3 Phase only
Efficiency	
Max Efficiency	>93%
General Data	
Protection	Short Circuit, Lightning/Surge, Over Temperature, Over Current, Over voltage, Dry Run
Ingress Protection	IP 65
Operating Temperature Range	-20 °C to 70 °C (45°C to 70°C with derating)
Certificates	IS 16221-2(IEC62109-2), IEC60529, EN 50530

COMPRESSOR MOTOR



COMPRESSOR MOTOR						
Material Code	AC (CAST IRON)		AC (ALUMINIUM)			
	9000030781	9000030680	9000033346	9000033368	9000026295	9000026296
MOTOR POWER (kW)	2.2	3.7	2.2	3.7	5.5	7.5
Peak Power (kW)	4.4* / 5.2**	7.4* / 8.5**	4.4* / 5.2**	7.4* / 8.5**	11* / 12.5**	15* / 17.5**
Volts (V)	415	415	415	415	415	415
Rated Ampere (A)	5.3	7.3	5.2	7.7	10.7	14
Peak Ampere (A)	10	14	9	13.5	21	28
Rated RPM	964	953	1440	1452	1453	1462
Rated Torque N-m	21.76	37.24	9.08	14.62	20.96	28.32
Peak Torque N-m	47.3		30.5	47.5	76.5	101
Max. Efficiency	80.1	83.8	88.2	89	84.3	85.3
Type	AC	AC	AC	AC	AC	AC
Shaft Type	KEY WAY	KEY WAY	KEY WAY	KEY WAY	KEY WAY	KEY WAY
Output Phase	3Ø	3Ø	3Ø	3Ø	3Ø	3Ø
Connection	DELTA	DELTA	DELTA	DELTA	DELTA	DELTA
Poles	6	6	4	4	4	4
Protection Type	IP67	IP67	IP67	IP67	IP67	IP67
Insulation class	H	H	H	H	H	H
Enclosure	TEFC	TEFC	TEFC	TEFC	TEFC	TEFC
Frame	112	132	100	112	132	132
Mounting	B3	B3	B3	B3	B3	B3
Ambient Temp.	-20 TO 55	-20 TO 55	-20 TO 55	-20 TO 55	-20 TO 55	-20 TO 55
Cooling Method	Fan cooled	Fan cooled	Fan cooled	Fan cooled	Fan cooled	Fan cooled

* Frequent Loading (60 Sec for Every 15 minute)

** momentarily overload (120 Second for 1-2 times a Day)

CONSTRUCTION VEHICLE APPLICATION MOTOR



Material Code	MOTOR POWER (kW)	Volts (V)	Rated Ampere (A)	Rated RPM	Max. Efficiency	Type	Shaft Type	Phase	Connection	Poles	Protection Type	Insulation class	Enclosure	Frame	Mounting	Ambient Temp.	Cooling Method
9000034565	50	415	84	2955	92	INDUCTION	KEY WAY	3	DELTA	2	IP55	F	TEFC	225	B35	-20 TO 55	Fan cooled

SHAKTI EV CONTROLLER

Shakti EV Controller for L1,L2 Category



MCU2W50A



MCU2W100A

KEY FEATURES

1. Parking and drive modes functionality.
2. Multiple speed modes: Three standard and a sport mode.
3. Vector control with speed sensor integration.
4. High Brake Mode.
5. Side stand safety protection.
6. Throttle control functionality.
7. Forward and reverse mode control.
8. Regenerative braking control.

PROTECTIONS

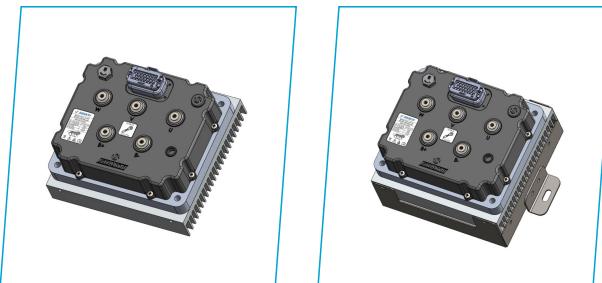
1. Short circuit protection.
2. Motor over temperature.
3. Controller over temperature.
4. DC Bus over voltage.
5. DC Bus under voltage.
6. Throttle signal error.
7. Hall Sensor signal error

SPECIFICATIONS

PARAMETERS		SHAKTI EV CONTROLLER		
Material Code	8600000002	8600000004	8600000010	
Voltage	40-71 V	40V-84V	62V-84V	
Max Input Current	50 A	100 A	50A	
Maximum Power	3000 W	8400 W	3600 W	
OUTPUT(AC)				
Nominal AC Voltage range	0-42 VAC	0-60 VAC	0-50 VAC	
Frequency	0-400 Hz	0-500 Hz	0-400 Hz	
Power Factor Range	0.8- 1	0.8- 1	0.8- 1	
Connection Phases	3 phase only	3 phase only	3 phase only	
EFFICIENCY				
Max Efficency	> 95%	> 95%	> 95%	
COMMUNICATION				
Communication Protocols	CAN	CAN	CAN	
GENERAL DATA				
Cooling Method	Natural Cooling	Natural Cooling	Natural Cooling	
Ambient Humidity	0-90%	0-90%	0-90%	
Position Feedback	Hall Sensor	Hall Sensor	Hall Sensor	
Mounting	Horizontal (tentative)	Horizontal (tentative)	Horizontal (tentative)	
Noise (dBa)	< 20 dBA	< 20 dBA	< 20 dBA	
Operating Temperature Range	-20°C to 60°C	-20°C to 60°C	-20°C to 60°C	
IP Rating	IP 67	IP 67	IP 67	
Dimensions (L*W*H)	200mm x 125mm x 65mm	190mm x 111mm x 72mm	200mm x 125mm x 65mm	
Net Weight	1KG	1.3 KG	1 KG	

SHAKTI EV CONTROLLER

Shakti EV Controller for L5 Category – 7.5 kW



MCU3W150A

MCU3W7.5KW

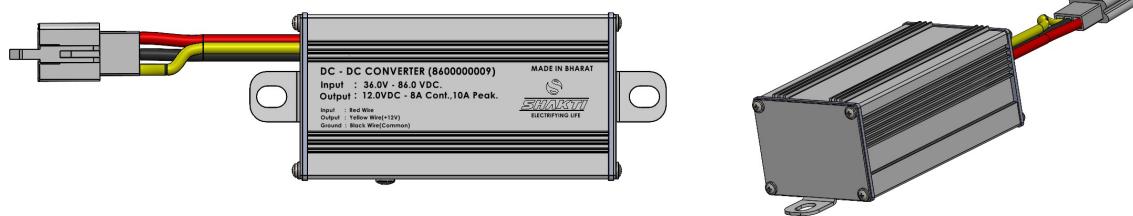
SPECIFICATIONS

Parameters	Specifications for 5 kW Controller	Specifications for 7.5 kW Controller
Material Code	8600000006	8600000019
Input Voltage Range	40-84 V	40-84 V
Max Input Current	200 A	210 A
Nominal AC Voltage range	0-60 VAC	0-60 VAC
Cooling Method	Natural Cooling	Air forced cooling
Power Factor Range	0.8-1	0.8-1
Max Efficency	> 95%	> 95%
Communication Protocols	CAN	CAN
Rated Output Power	5 kW	7.5 kW
Peak Output Power	10 kW	14 kW
Ambient Humidity	0-90%	0-90%
Position Feedback	Encoder	Encoder
Mounting	Horizontal (tentative)	Horizontal (tentative)
Noise (dBA)	< 20 dBA	< 25 dBA
Operating Temperature Range	-25 °C to 65 °C	-25 °C to 65 °C
Dimensions (L*W*H)	(193mm x 183 mm x 106 mm) +- 1.50	(242 mm x 187 mm x 157.65 mm) +- 1.50
Net Weight	4 KG	5.3 KG
Output Current (Rated)(RMS)	150 A	
Output Max Current(RMS)	365 @ 2 min(Duration is settable)	460 A @ 2 min(Duration is settable)
Output Frequency	0-800 Hz	
Ingress Protection	IP67	
Throttle Voltage	5V	
Pre-charger Contactor	Required	
Protections	Short circuit Protection/ Under voltage/over voltage/ Motor and controller temperature fault	

FEATURES

Features Of Shakti EV Controllers (5 & 7.5 kW)	
Fault Indicator	Beep/ Alarm Sound/ Through CAN
Speed Modes	First, Second and Third Mode (Settable as per customer requirement)
Forward and Reverse Mode	Yes
Regenerative braking	Yes
High Brake and Hand brake	Yes
Interlock	Yes
Hill Assist	Yes (For 5 sec)
CAN communication	Yes (Internal 120 ohm connected)
Aux Supply	FAN control and other loads (Max 1.5A)
Parking Mode	Yes

DC-DC Converter



ABOUT THE PRODUCT

The Shakti DC-DC Converter is a high-performance power module designed for Electric Vehicle (EV) applications. It efficiently converts the EV battery voltage, ranging from 36V to 86V DC, into a stable 12V DC output capable of supplying up to 10A of current. This converter provides reliable power for auxiliary systems such as lighting, horn, cluster, etc. Built with advanced protection features including over-voltage, over-current, and thermal safeguards.

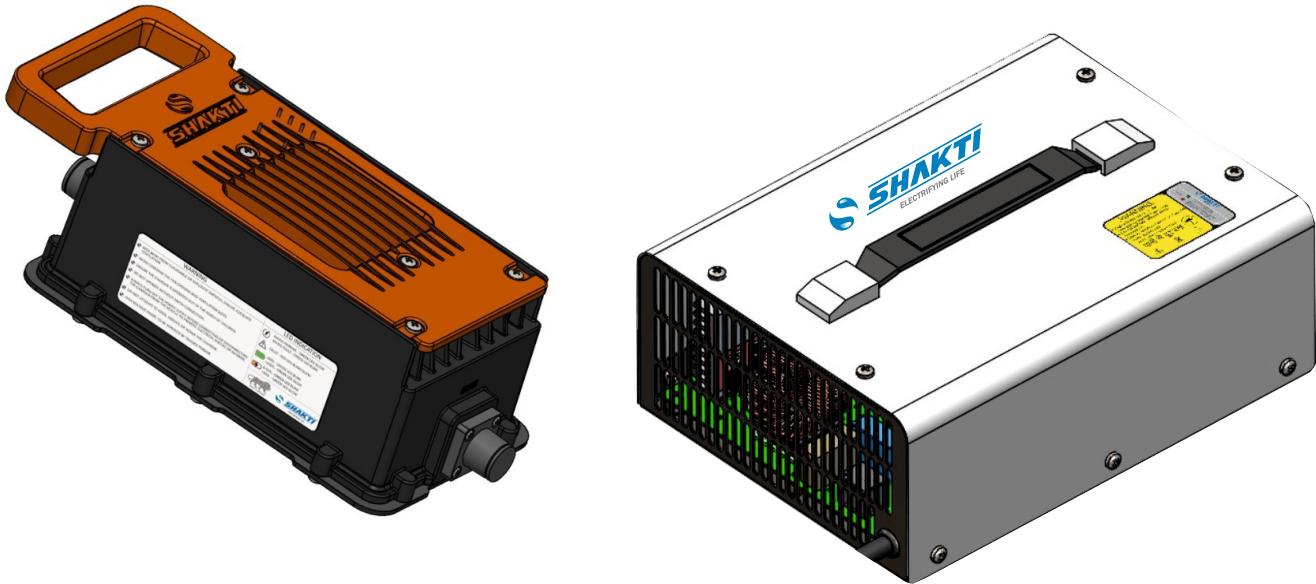
The Shakti DC-DC Converter delivers reliable, efficient, and stable power conversion, ensuring safe operation even under harsh automotive and high-transient EV conditions.

SPECIFICATIONS

DC-DC Converter Specifications	
Input(DC)	
Voltage	36V-86V
Current	3A
Maximum Power	130W
Output (DC)	
Voltage	12V
Peak Current	10A
Continuos Current	8A
Maximum Power	120W
Max Efficiency	> 90%
General Data	
Protection	Input Under Voltage, Input Over Voltage, Over Temperature, Output Over Current, Output Under Voltage, Output Over Voltage, Short Circuit Protection, IP67
Cooling Method	Natural Cooling
Mounting	Vertical (tentative)
Operating Temperature Range	(-20°C to +60°C)
Dimensions (L*W*H)	123.7*50*40.9
Net Weight	200gm

SHAKTI EV CHARGER

The Shakti EV Charger is a powerful and efficient solution for charging electric two-wheelers and three-wheelers, proudly designed and developed in India. It operates on a single-phase mains supply, with near to unity power factor and low THD in current which ensures high energy efficiency. The charger is capable of charging both lithium-ion and lead-acid batteries, with settings configured via CAN communication protocol & Shakti EV software.



KEY FEATURES

- Battery reverse polarity protection.
- Operate at unity power factor which makes it energy efficient.
- Better charging profiles to improve battery health.
- LED indications for different charging levels, faults & warnings.
- No battery connected detection.
- Audio alarm during power on.
- Beep sound on full battery charge.
- Portable with easy handling.
- Automatically protects the battery from over charging.
- Compatible with all commercial batteries available in the market.

APPLICATIONS

1. Perfect for vehicles such as electric scooters and e-rikshaw.
2. Suitable for charging different types of batteries(Lead acid/ Lithium ion).

BENEFITS

1. Promotes Sustainability.
2. Energy efficient and cost saving.

PROTECTIONS

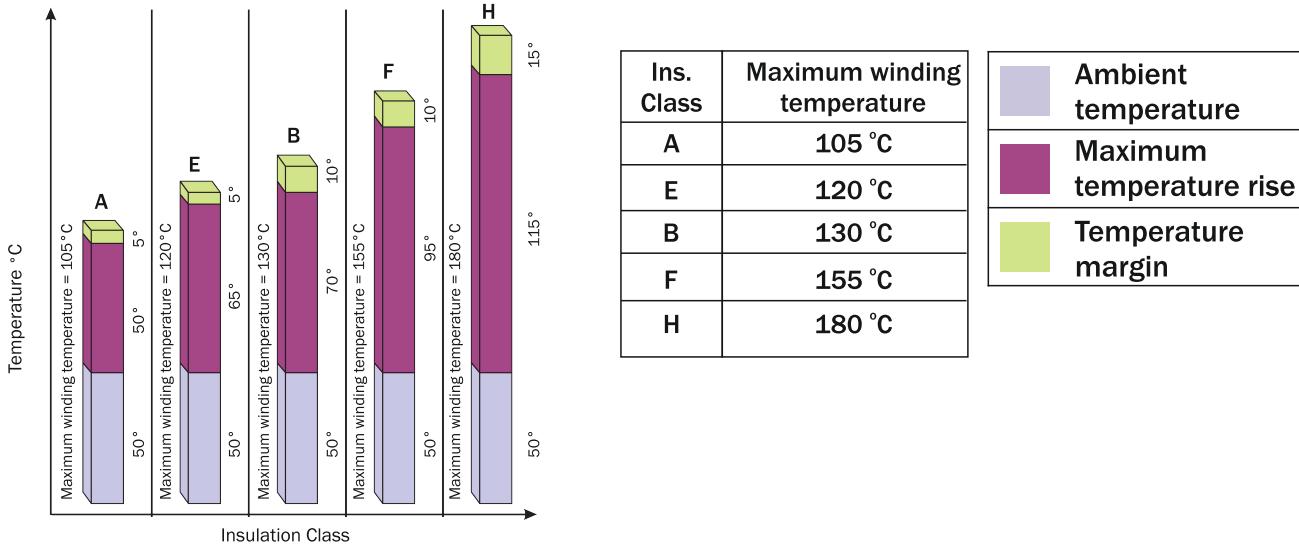
1. Input under/over voltage protection.
2. Output under/over voltage protection.
3. Output over current protection.
4. Over temperature protection.
5. Short circuit protection.
6. Reverse polarity protection.

SPECIFICATIONS

Parameters	SHAKTI EV CHARGER						
	1.2 kW	1.5 kW	750 W	900 W			
INPUT PARAMETERS							
Input Voltage (V)	190 – 265						
Input Current (A)	< 7	< 9	< 5	< 6			
Input Frequency (Hz)	50						
Power Factor	> 0.98						
Efficiency (%)	92						
OUTPUT PARAMETERS							
Output Voltage Range (V)	40 – 72	40 – 72	56 – 84	40 – 60	47 – 73		
Maximum Output Current (A)	20	25	20	12	12		
Output Power (W)	1200	1500	720	876			
Output Ripple Voltage	<1 %						
Line Regulation	< 2%						
Load Regulation	< 2%						
USER INTERFACE AND COMMUNICATION							
Indicator	LED						
Auto Indicator	Buzzer			NA			
Communication	CAN, UART						
PHYSICAL							
L X W X H	260 mm x 185 mm x 90 mm			291 mm x 134 mm x 93 mm			
Net Weight/ Gross Weight	Approx 3 kg						
OTHER INFORMATION							
Operating Temperature (deg. C)	0 to 50			- 5 to 55			
Relative Humidity (% RH)	0-95 (Non – condensing)						
Noise (dB)	< 45						
IP Degree of Protection	IP 20			IP 67			
Output Connector	SB50 WITHOUT CAN, SB75 WITH CAN						
Cooling	Air Forced Cooling						

Understanding the Insulation Class & Temperature

Motors are manufactured with class 'H' insulation. The reserve thermal capacity helps to maintain the integrity of the insulation and motor life. Temperature rise and maximum temperature at the hottest points of winding is according to temperature classes IS 325/ IEC 60034-1



OUR PRESENCE



TOLL FREE NO. 1800 103 5555

SHAKTI EV MOBILITY PRIVATE LIMITED

Address : Plot No.4, Integrated Industrial Area, Pithampur Sector-5,

Dhar Road, Pithampur, District Dhar - 454774 Madhya Pradesh

Tel : +91 7292 410500, Email: info@shaktiev mobility.com, www.shaktiev mobility.in

Group Company - **SHAKTI PUMPS (INDIA) LIMITED**

www.shaktipumps.com