



Easy Compatible Chargers











2 Wheelers

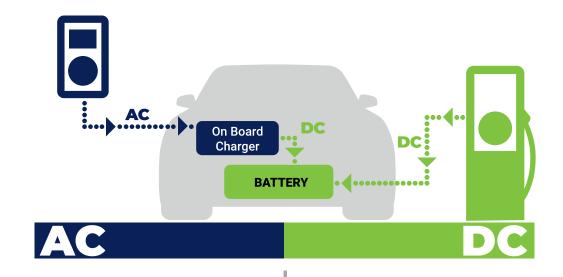
E-Rickshaw

3 Wheelers

4 Wheelers

Buses

All-EV-Friendly Charging Solutions



AC Charging

All electric vehicles include inbuilt chargers that can convert current before supplying it to the battery. Because they are less expensive to make, install, and run, AC chargers are more ubiquitous in the EV ecosystem.

DC Charging

The converter for a DC charger is included inside the charger itself. That means it can supply power straight to the vehicle's battery, bypassing the onboard charger. When it comes to EVs, DC chargers are bigger, faster, and an amazing development.



Which EV Charger to go for?

Configure your EV needs to different charger specifications:

EV CHARGER TYPE						
Locations	ACOO1, 3.3kW-7.2kW	11kW - 22AC	15kW - 30kW DC	50/60 kW DC	100 kW - 240 kW DC	
Residential						
Work Place	•	•	•			
Commercial (Parking, Hospitals, Malls)	•	•	•			
Leisure (Hotels, Museum, Parks)	•	•	•			
Highways	•	•	•	•	•	





AC Chargers Features

- Smart charging solution takes care of grid load and varying charging demand
- Supports IEC60309 & IEC 62196 standard connectors
- User-friendly app for EV owners to monitor charging and billing information
- · Able to manage power loads, keeping it in sync with the charging load
- · Grid responsive metering and billing

Benefits

- Compact Design
- Charging Interface Support
- User Authorization
- Easy Installation

Application

- Commercial
- Parking

- Residential
- Fleet

DC Chargers Features

- Smart charging solution takes care of grid load and varying charging demand
- Supports CCS-2 connector
- User-friendly app for EV owners to monitor charging and billing information
- Smart card, QR/App Server-based online payment
- · Able to manage power loads, keeping it in sync with the charging load
- · Grid responsive metering and billing

Benefits

- Interoperability
- Fast Charging
- Connectivity
- Interactive Display
- Set-and-Go
- Charge-all-Together

Application

- EV Bus Station
- Commercial Operators
- Parking

- Parking Garage
- Highway Fuel Stations
- Fleet

AC Chargers



SKY LIVE ENERGY AC EV Charger enables connectivity with the vehicle control system and to assure the vehicle's and crew's safety. Furthermore, depending on how busy the grid is, the charger informs the car of the maximum current it can draw at that time. So that the network is not overburdened, the AC charging station regulates charging based on the current capabilities of the house or charging point.



3.3 kW Charger

- Compatible with 2/3 wheelers
- User authentication via WiFi/GSM/OCPP1.6
- Input voltage: 230 VAC, 50Hz
- Single Phase

7.2 kW Charger

- Compatible with 4 wheelers
- User authentication through WiFi/GSM/OCPP1.6/RFID
- Input voltage: 230 VAC, 50Hz
- Single Phase





10 kW AC 001 Charger

- Supports BEVC-ACO01 Specifications
- Compatible with 2/3 wheelers
- User authentication via
 WiFi/GSM/OCPP1.6/RFID/Ethernet
- Input voltage: 415 VAC, 50Hz
- Three Phase

AC Chargers





11 kW Charger

- Compatible with 4 wheelers
- User authentication via
 WiFi/GSM/OCPP1.6/RFID/Ethernet
- Input voltage: 415 VAC, 50Hz
- Three Phase

14 kW Hybrid Charger

- Compatible with 4 wheelers
- User authentication via
 WiFi/GSM/OCPP1.6/RFID/Ethernet
- Input voltage: 415 VAC, 50Hz
- Three Phase





22 kW Charger

- Compatible with 4 wheelers
- User authentication via
 WiFi/GSM/OCPP1.6/RFID/Ethernet
- Input voltage: 415 VAC, 50Hz
- Three Phase

AC Chargers - Technical Specs



		3.3 KW	3.3 KW	7 KW	7 KW	10KW	14 KW	14 KW	22 KW
Parameters	Details	Without HMI	WITH HMI	Without HMI	WITH HMI	WITH HMI	Model 1	Model 2	WITH HMI
Input Power	Rated Power	3.3 KW	3.3 KW	Type 2: 7.2kw	Type 2: 7.2kw	10 KW (3 No. Industrial Socket 3.3 KW)	Hybrid 14 KW (1 No. Domestic Socket -3.3 KW, 2. 1 No. Industrial Socket 3.3 KW, 3. 1 No. type 2 Gun Sungle Phase)	Hybrid 14 KW (1 No. Domestic Socket -3.3 KW, 2. 1 No. Industrial Socket 3.3 KW, 3. 1 No. type 2 Gun Sungle Phase)	Type 2: 22kw
	Input Voltage	230 V +/- 10%	230 V +/- 10%	7.2 KW -230V AC single phase	7.2 KW -230V AC single phase	10 KW Three phase -415V (+6% and - 10%) a	14 KW Three phase	14 KW Three phase	22KW Three Phase 3L + N + PE, 415V AC +- 10% , 50Hz (Three phase)
Output Power	Number of output	One	One	one type -2 Gun	one type 2 Gun	3 No. Industrial Socket 3.3 KW	1 No. Domestic Socket -3.3 KW , 2. 1 No. Industrial Socket 3.3 KW , 3. 1 No. type 2 Gun	1 No. Domestic Socket -3.3 KW , 2. 1 No. Industrial Socket 3.3 KW , 3. 1 No. type 2 Gun	one type 2 Gun
	Output current range	0-16 A for 3.3KW	0-16 A for 3.3KW	0-16 A for 3.3kw	, 0-32A for 7.2 kw Amp per phase		0-16 Amp per phase		32A / Phase
	Output charging outlet	Domestic 5 Pin Socket	Industrial IEC 60309	F == F == -7		60309 or Type 2 IEC	62196		Type 2 IEC 62196
	Output voltage	230 V AC	230 VAC	230V AC/	230V AC/415 V AC 230V (+6% and -10%) single phase			phase	Three Phase 3L + N + PE, 415V AC +- 10%, 50Hz (Three phase)
Battery Backup	For Billing (optional)	15 Min	15 Min	15 Min	15 Min	15 Min (for Billing) Optional	15 Min	15 Min	15 Min
User interface and control function	DISPLAY	NIL	4.3 TFT LCD with touch	NIL	4.3 TFT LCD with touch	4.3 TFT LCD with touch	2.3 Inch LCD	4.3 TFT LCD with touch	4.3 TFT LCD with touch
	Status Indicator	LED Light	LED Light	Provided	Provided	Provided	Provided	Provided	Provided
	Push button	Yes	Yes	Emergency Stop		Provided		-	Emergency Stop
	User authentication	QR Code +OCPP 1.6	QR code + RFID +OCPP1.6	QR CODE + RFID +OCPP1.6	QR CODE + RFID +OCPP1.6	QR CODE /RFID + OCPP1.6v	QR CODE /RFID + OCPP1.6v	QR CODE /RFID + OCPP1.6v	QR CODE /RFID + OCPP1.6v
Environment	Ambient temperature Storage	-30 to 55 deg C							
	temperature Operational								
	Temp Altitude	-30 to do deg 5 -30 to do deg 5 < 2000 meters							
	Humidity								
Communication	External (GSM - Optional)	WiFi +4G +LAN +OCPP1.6v	WiFi +4G +LAN +OCPP1.6v	WiFi +4G +LAN +OCPP1.6v	WiFi +4G +LAN +0CPP1.6v	WiFi +4G (optional) +OCPP1.6v	WiFi +4G +LAN +OCPP1.6v	WiFi +4G +LAN +OCPP1.6v	WiFi +4G +LAN +OCPP1.6v
	Meeting and billing	Wifi/ GSM with SIM APP server based online Payment, with OCPP based authentication	Grid Responsive metering - QR code scan/RFID card/APP server based online Payment	scan/RFID card//	netering - QR code APP server based 'ayment	Grid Responsive metering - QR code scan/RFID card/APP server based online Payment	Grid Responsive metering - QR code scan/RFID card/APP server based online Payment t Scan RFID /Scan Code/ App APP based authentication		Grid Responsive metering - QR code scan/RFID card/APP server based online Payment
	Charging operation	Scan Code/ App APP based authentication	RFID /Scan Code/ App APP based authentication	RFID /Scan Code authen	/ App APP based tication	Swipe card/Scan Code APP based authentication			RFID /Scan Code/ App APP based authentication
Protection	Input/Output protection	Over/Under voltage protection, Overload protection, Short circuit protection, Current leakage protection Grounding protection, Surge protection, Over/Under temperature protection	Over/Under voltage protection, Overload protection, Short circuit protection, Current leakage protection Grounding protection, Surge protection, Over/Under temperature protection	Over/Under voltage protection, Overload protection, Short circuit protection, Current leakage protection Grounding protection, Surge protection, Over/Under temperature protection ("protections are optional and based on user requirements) Over/Under voltage protection, Overload protection, surge protection, Over/Under temperature protection ("protection, Surge protection, Over/Under temperature protection, Over/Under temperature protection, Over/Under voltage protection, Overload protection, Surger protection, Over/Under voltage protection, Overload protection, Surger protection, Over/Under voltage protection, Overload protection, Surger protection, Over/Under voltage prote		tection Grounding ider temperature	Over/Under voltage protection, Overload protection, Short circuit protection, Current leakage protection forounding protection, Surge protection, Over/Under temperature protection ("protections are optional and based on user requirements)		
	Mechanical	<u></u>							
	protection Cooling	IP 54 Natural Cooling							
Regulation	As per	IEC 61851-1:201	IEC 61851-1:201			IEC 61851-1:2	017, IEC 61851-21-2		
	Safety CE Certificate ARAI/NABL								
	Optional Accessories Optional	Mounting Column / Piller							
	Mounting								

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DC Chargers

SKY LIVE ENERGY DC chargers are capable of providing DC power to the car right away. The vehicle does not need to convert DC EV charging to AC. Because this method eliminates a stage, it can charge an electric vehicle considerably more quickly. Some of the fastest DC chargers can fully charge a vehicle in less than an hour.

DC Charging Station

15kW | 20kW

- Charging Gun as per CCS 2 Standard
- 1 Output for Charging Port
- Input Voltage- 3 Phase
- User Authentication- RFID/ QR Code Scan/ OCPP 1.6 J
- Network Connection- 4G Module/Wifi/ Ethernet





DC Charging Station

30kW

- Charging Gun as per CCS 2 Standard.
- 1-2 Output for Charging Port
- Input Voltage- 3 Phase
- User Authentication- RFID/ QR Code Scan/ OCPP 1.6 J
- Connectivity- GSM / Ethernet / WiFi



DC Charging Station

30kW

- Charging Gun as per CCS 2 Standard.
- 1 Output for Charging Port
- Input Voltage- 3 Phase
- User Authentication- RFID/ QR Code Scan/ OCPP 1.6 J
- Connectivity- GSM / Ethernet / WiFi



DC Chargers - Technical Specs



	Voltage Rating	3-Phase, 265-475Vac (+10 %,-10%)	0 Ph (15)				
			3-Pnase, 415Va	ac (+10 %,-10%)			
<u> </u>	Max. Input Current	40A 50 Amp (30 KW)					
	Input Frequency	45-66 Hz 50 Hz ± 1.5Hz or better					
	Current THD	<=5%(50% to 100% load)					
AC Input		RFID					
	User Authentication	QR-Code Scan					
		Password					
		OCPP1.6 or better based Mobile App Interface Optional					
Charger interface	Interfacing to App		Ethernet, 3G/4G, Wifi,				
Backup Power- Optional In	nput Supply Failure backup for billing unit	-		ate for the control system and billing ait.			
	No. of Output Ports		1 Nos . CCS Type 2, 5 meter cable length				
<u>_</u>	Output Cable	As per Applicable AIS standard					
DC Output	Output Current per gun		100 Amp				
<u>_</u>	Power factor	> 0.98					
	Output Voltage		200-750 V DC				
Minimum efficient			92%				
Electrical metering			to comply with IEC 62052-11 and IEC 62053-21				
_	AC Voltage Protection		AC Over-Voltage, AC Under-Voltage				
_	AC Current Protection		AC Over Current / Short Circuit				
	-		Residual current / Ground fault				
AC Input Protections	-		Earth Presence/Connection Monitoring				
	AC Safety Protections	Surge Protection 4kV DM					
		Lightning Protection					
		Reverse Battery Connection					
Charging Mode	IEC 61851-1	Over temperature					
Charger and Vehicle	Power Line Communication (PLC)	IEC 61851-1					
Communication ESD	Emergency shut down button	Power Line Communication (PLC) Emergency Shut Button (ESD)					
Energy Metering Inc	dependent AC Energy Meter for each output and cummulative	Independent AC Energy Meter for each output and cummulative					
Operating Temperature	Operating Temperature	-10 to 55 degC					
Humidity	Enclosure Protection		95% relative humidity, Non-condensing				
Enclosure Protection	Enclosure Protection	IP54 or better					
Cooling Method	Natural / Forced	Natural / FAN Cooling					
Applications	To Charge	4 wheelers compatible with CCS-2					
Altitude			Upto 2000 m				
Keypad Me	etallic/Membrane type /Touch screen		Alpha numeric keypad with minimum 12 keys If touch screen is offered it can be integral part of display				
c.Ti Display d. e.	CD or equivalent screen The following shall be displayed a.KWhr consumed while charging b.Date and time in DD/MM/YYYY, HH:MM (Total KWHr consumed (Totaliser) - On selection thru key pad .Output DCV and Amp while charging s.Event logs - On selection basis thru keypad f.Alarms g.All error logs on selection basis on selection basis	4.3 Inch, Color Touch Screen	10 inch LCD or equivalent screen The following shall be displayed a.KWhr consumed while charging b.Date and time in DD/MM/YYYY, HH:MM c.Total KWHr consumed (Totaliser) - On selection thru key pad d.Output DCV and Amp while charging e.Event logs- On selection basis thru keypad f.Alarms g.All error logs on selection basis	4.3 Inch , Optional -Tinch LCD The following shall be displayed a.KWhr consumed while charging b.Date and time in DD/MM/YYYY, HH:MM c.Total KWHr consumed (Totaliser) - On selection thru key pad d.Output DCV and Amp while charging e.Event logs- On selection basis thru keypad f.Alarms g.All error logs on selection basis on selection basis h. Price per unit f. Total amount incremented during charging			
CEA comliance Ch	hargers to comly with CEA guidelines	Chargers to comly with CEA guidelines					
		To store last 50 event logs To store last 50 charging transactions					
Memory storage			To have memory of storing price o	f charging per unit with in the unit			
			To store total charging units (cumulative in KWHr) Charging unit shall be able to take price per unit and billing inform				
Enclosure	Metal sheet	Metal Sheet IK10					
Enclosure Protestion			I IN				
Enclosure Protection Pr	rotection against mechanical impact Weight	35-45KG	65 Kg	62 Kg			

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DC Charging Station



60kW | 120kW

- Charging Gun as per CCS 2 Standard.
- 2 Output for Charging Port
- Input Voltage- 3 Phase
- User Authentication RFID/
- QR Code Scan/ OCPP 1.6 J
- Connectivity- GSM / Ethernet / WiFi



DC Charging Station



180kW | 240kW

- Charging Gun as per CCS 2 Standard.
- 2 Output for Charging Port
- Input Voltage- 3 Phase
- User Authentication- RFID/

QR Code Scan/ OCPP 1.6 J

• Network Connection- 4G Module/

Wifi/ Ethernet





DC Charging Station



360kW

- · Charging Gun as per CCS 2 Standard.
- 2 Output for Charging Port
- Input Voltage- 3 Phase
- User Authentication- RFID/

QR Code Scan/ OCPP 1.6 J

• Connectivity- GSM / Ethernet / WiFi





DC Charging Station - Technical Specs

Parameters	Detais	Specifications 50-60kW	Specifications 120 kW	Specifications 240kW	Specifications 360kW				
	Voltage Rating		3-Phase, 415Vac (+10 %,-1	0%) 360V-460 V					
	Max. Input Current	150 Amp	200 A, +-5%	As per 240 KW @ 415 V 3 Phase	660 A, +-5%				
	Input Frequency	50 Hz ± 1.5Hz or better							
AC Input	Insolation	one number MCCB at input in Charger							
	User Authentication	RFID , QR-Code Scan, OCPP based Mobile App Interface Any future upgradation (latest version of OCPP or any other upgraded protocol) till the completion of CAMC period, vendor would upgrade the same at no extra cost to OMCs.							
Backup Power	Input Supply Failure backup	Battery backup for minimum 15 minute for the control system and billing unit. The data logs should be synched with CMS during backup time, is case of drain out.							
	No. of Output Ports		meter cable length at a height between (
	Output Cable	As per Applicable IEC 62196-3 standard with a voltage range up to 1000V (DC). Connector must fulfill IATF 16949 automotive standard and ISO 9001. It is to be tested by ARAI at Indian atmospheric condition or at an ambient temperature of 50 deg which ever is higher.							
	Power factor	> 0.98							
DC Output	Current & voltage THD	Compliant with IEC 61000-3-12							
	Output Current	200 A (max) per Gun 250 A (max) per Gun 300 A (max) per Gun 400 A (max) per Gun							
	Output Voltage		200-1000V		•				
	Rated outputs and maximum output power	As per IEC 61851 - 23,101.2.1.1 exc	ept for the ambient temperature range. 1	emp range to be -20 °C to 55 °C as per l	ndian climatic conditions.				
Minimum efficiency			94% for load more	than 50%					
Internal Cabling			Should be FR	grade					
Electrical metering			to comply with IEC 62052-1	I and IFC 62053-21					
Charge Option			Auto Charge, Mode Selection (Tin	ne/amount/Power/SOC)					
Splitter	Splitting of power output between two guns	Unit shall have a splitter provision so When One gun is connected, then it shall be able to dispense maximum charger capacity and when both CCS charger connectors/guns are in parallel operation, the charger will share the power between both the connectors.							
	AC Voltage Protection		AC Over-Voltage, AC U						
	AC Current Protection AC Safety Protection	AC Over Current / Short Circuit Residual current / Ground fault- (ELCB Required 30 ma)							
	Earth Monitoring	Earth Presence/Connection Monitoring							
AC Input Protections	Ground Fault Protection Surge Protection- 4 KV DM	Ground Fault Protection Surge Protection minimum Class B SPD. SPD should have valid test report from NABL accredited Lab having facility as per IEC 61643-11/KEMA/VDE - 4KV DM							
	Temperature Protection		Over tempera	iture					
ESD			Emergency Shut Bu						
EMI/EMC		As per IEC 61000 for complete unit Immunity to electroststic discharge (IEC 61000-4-2) Supply Volatge Dips and Interruptions (IEC 61000-4-11) Fast Transient (IEC 6100-4-4) Volatge surges (IEC 61000-4-5) Redisted Electro Magnetic Disturbances							
Fnermy	Metering	Radiated Electro Magnetic Disturbances Independent DC and AC Energy Meter for each output and input and with cumulative							
Operating Temperature	Operating Temperature	independent Do una /	-10 to 55 de						
Humidity	Enclosure Protection		95% relative humidity, N						
Enclosure Protection Cooling Method	Enclosure Protection Natural / Forced	IP55 or better Natural / FAN Cooling							
Applications	To Charge		4 wheelers compatible						
Communication between charger and EV	CCS2 : IEC 61851, PLC - DIN 70121 and ISO 15118		CCS2: IEC 61851, PLC - DIN 7	0121 and ISO 15118					
Software			Software Upgradation through backen	d System through over the air					
Altitude			Upto 2000						
	Metallic/Membrane type		Alpha numeric keypad with						
Keypad	/Touch screen		If touch screen is offered it can b						
Display	7" or bigger LCD or equivalent screen	>7* Industrial grade LCD or equivalent screen The following shall be displayed (a)KWhr consumed while charging (b)Date and time in DD/MM/YYYY, HH:MM c.Total KWHr consumed (Totalizer) - On selection thru key pad/touchscreen d.Output DCV and Amp while charging							
CEA compliance	Chargers to comply with CEA	Chargers to co	mply with CEA guidelines and equipmer	nt related guidelines given by PNGRB in N	rogue				
Certification	guidelines		ARAI / ICAT (or any Govt/NABL approv						
Oci anoation		OG UNOUGH HOH							
Memory storage		To store last 50 event logs							
		To store last 50 charging transactions							
		To have memory of storing price of charging per unit with in the unit							
		To store total charging units (cumulative in KWHr)							
		Charging unit shall be able to take price per unit and billing information inputs thru key pad and store for calculation of amount							
Enclosure Protection	Protection against mechanical impact & stability	IK10,As per IEC 61851-1 Section 11.11.2 including charger Display							

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60KW