



# E-Fill Electric

(EFEV Charging Solutions Pvt Ltd.)

## E-FILL X1 V2 7kW AC EVSE PRODUCT TECHNICAL SPECIFICATIONS

E-Fill AC 7kW (Type2) Charger Specifications			
Sl. No	Parameter	Description	E-Fill_X-Series_7kW
<b>General Requirement:</b>			
1	EVSE Type	AC	AC
2	Energy Transfer Mode	Conductive	Conductive
<b>Input Requirements:</b>			
1	AC Supply System	1-Phase, 3 Wire AC system (1Ph+N+E)	1-Phase, 3 Wire AC system (1Ph+N+E)
2	Nominal Input voltage	1 $\emptyset$ , 230V (+6% and -10%) as per IS12360	1 $\emptyset$ , 230V (+6% and -10%) as per IS 12360
3	Input Frequency	50Hz, $\pm$ 1.5Hz	50Hz, $\pm$ 1.5Hz
<b>Environmental Requirements:</b>			
1	Ambient Temperature Range	0°C to 55°C	0°C to 55°C
2	Ambient Humidity	5 to 95%	5 to 95%
3	Ambient Pressure	70 kpa to 106 kpa	70 kpa to 106 kpa
4	Storage Temperature	0 to 60°C	0 to 60°C
<b>Mechanical Requirements:</b>			
1	Suggested cable Security	PMAO and the vehicle connector outlet to have provision for locking mechanism during charging to ensure the safety of the cable	Yes
2	Mechanical Stability	Shall not be damaged by mechanical impact energy: 20 J (5 kg at 0.4 m)	Yes
3	IP Ratings	IP 65	IP 65
4	Cooling	Air cooled	Air cooled
<b>Output Requirements</b>			
1	Number of outputs	1	1
2	Type of output	230V (+6% and -10%) single phase, 32A	230V (+6% and -10%) single phase, 32A.
3	Output Details	1 charging output via Type-2 gun	1 charging output via Type-2 gun



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Sonipat, Haryana – 131029

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4	Output Current	One Vehicle charging at 32A output current	One Vehicle charging at 32A output current
5	Output Connector Compatibility	IEC 62196-2 (Type 2)	IEC 62196-2 (Type 2)
6	Limiting output current	Circuit breaker for outlet limited to 40A current output. Breaker should be reset to resume operation	Circuit breaker for outlet limited to 40A current output. Breaker should be reset to resume operation.
<b>User Interface &amp; Display Requirements</b>			
1	Emergency stop switch	Mushroom type Push button with locking type in Red Color	Yes
2	Visual Indicators	Error indication, Presence of input supply indication, State of charge process indication	Yes
6	User Authentication	RFID card, Mobile app, Mobile App based QR Code.	RFID card, Mobile app, Mobile App based QR Code
<b>Communication Requirements</b>			
1	Communication between EVSE and Central Server	Ocpp v1.6 or later	Ocpp v1.6 or later
		<b>Ethernet, Wi-Fi, 4G SIM</b>	Wi-Fi, 4G SIM, Ethernet
2	Metering	Grid responsive metering as per units' consumption of each vehicle	Yes
3	Interface between charger and central management system (CMS)	<b>Ethernet, Wi-Fi &amp; 4G SIM</b>	Wi-Fi, 4G SIM, Ethernet



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<b>Protection &amp; Safety Requirements</b>			
<b>Protection requirement: Have been specified as per applicable standards. Bidder to provide specification &amp; details of adherence to each of the categories.</b>			
1	Safety Parameters	<ul style="list-style-type: none"> <li>• Over current</li> <li>• under voltage</li> <li>• over voltage</li> <li>• Residual current</li> <li>• Surge protection</li> <li>• Short-circuit</li> <li>• Earth fault</li> <li>• Emergency shutdown</li> <li>• Over temperature</li> <li>• Protection against electric shock</li> </ul>	<ul style="list-style-type: none"> <li>• Over current</li> <li>• under voltage</li> <li>• over voltage</li> <li>• Residual current</li> <li>• Surge protection</li> <li>• Short-circuit</li> <li>• Earth fault</li> <li>• Emergency shutdown</li> <li>• Over temperature</li> <li>• Protection against electric shock</li> </ul>
2	Power failure	If there is a power failure, user is indicated about this. The charging resumes when power comes on. If the user wants to terminate the session during power failure, the user can shut-off the switch and remove the plug	In case of power failure charging would be stopped and bills would be generated. Power resume feature is not valid as any other can misuse this to charger other vehicles. User has to start a new session when power comes on.
3	Protection against Electric Shock	as per AIS 138	as per AIS 138
4	Protection against Direct Contact to Live parts	as per AIS 138	as per AIS 138
5	Voltage Surge	as per AIS 138	as per AIS 138
6	Over-voltage / Under-voltage protection	as per AIS 138	as per AIS 138
7	Ground fault detection	as per AIS 138	as per AIS 138
8	Internal Residual Current Detection	as per AIS 138	as per AIS 138
9	Under Voltage Shutdown Voltage	as per AIS 138	as per AIS 138
10	Over Voltage Shutdown Voltage	as per AIS 138	as per AIS 138
11	Insulation Type	as per AIS 138	as per AIS 138
12	Insulation resistance	as per AIS 138	as per AIS 138



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Thanks, and Regards

**YOURS FAITHFULLY,**  
For E-FILL CHARGING SOLUTIONS PVT. LTD.

