

# the **Power** to Charge Electric Vehicles



Espen Technology is dedicated to delivering sustainable and environmentally progressive solutions.

As a manufacturer and designer of highly efficient lighting products, ESPEN has been a leader in the industry for some time. Our products reflect an emphasis on Sustainability, Quality, and reliability. Our product development is driven by a simple commitment to improve people's lives and build a better future for generations to come.

As we move forward into the 21st century, it is becoming clear that technologies that are environmentally responsible will have a greater and greater impact on improving people's lives. Thus, ESPEN has decided to enter the field of Electric Vehicle Charging. Electric Vehicles will likely be one of the major ways that we will achieve Carbon reduction and a positive environmental impact, so in the vain of environmental responsibility this field is a natural progression for ESPEN. We have brought our philosophy of sustainability, quality, and reliability to the area of EV Charging and are now offering a line of high quality EV Charger products.

Why ESPEN you might ask. If you are a partner to ESPEN already involved in energy reduction through Lighting retrofits, the step into installing EV Charging equipment is a natural one. With our industry leading lighting retrofit technologies, and now industry leading EV Charging equipment, ESPEN can help you put together the best possible solutions for both. Our industry leading warranty policy will help protect you in all aspects of your project. Stringent component qualifications and strict quality control guarantees a high quality project with long life and increased overall system longevity.





### **EVC Level 2, 32A Series**

#### **Specifications:**

Model Number	EVC/A22/116/EW	EVC/A22/116/EC	EVC/A22/116
Model Number	EVC/A32/J16/EW		EVC/A32/J16
Network Connectivity	Ethernet + Wi-Fi	Ethernet + 4G	N/A
Input Current	32A	32A	32A
Input Voltage (Single phase)	208/240 VAC / 60Hz	208/240 VAC / 60Hz	208/240 VAC / 60Hz
RFID+QR Code	Included	Included	N/A
Credit Card	Optional	Optional	N/A
Local Load Management	Included	Included	N/A
OTA Technology	Included	Included	N/A
Plug	SAE J1772 Type 1	SAE J1772 Type 1	SAE J1772 Type 1
Number of Port	Single	Single	Single
Charging Cable	16 ft	16 ft	16 ft
OCPP 1.6	Yes	Yes	N/A
Open ADR 2.0b Compliant	Yes	Yes	N/A
CTEP	Yes	Yes	N/A
AC Input Connection	L/N/GND	L/N/GND	L/N/GND
Max Output	32A / 7.68kW	32A / 7.68kW	32A / 7.68kW
Hardwired	Yes	Yes	Yes
Dimensions (H x W x D)	10.2 x 11.0 x 3.9 inch	10.2 x 11.0 x 3.9 inch	10.2 x 11.0 x 3.9 inch
Weight	8.8 Lbs with Plug	8.8 Lbs with Plug	8.8 Lbs with Plug
IP Protection	IP55 / NEMA 3R	IP55 / NEMA 3R	IP55 / NEMA 3R
Tamper Resistant	IK10	IK10	IK10
Cable Management	Optional	Optional	Optional
Operating Temperature	-22 to 122 °F	-22 to 122 °F	-22 to 122 °F
Humidity	Max 95%	Max 95%	Max 95%
Metering Accuracy	+/- 1%	+/- 1%	N/A
Input Protection	UVP, OVP, RCD, SPD	UVP, OVP, RCD, SPD	UVP, OVP, RCD, SPD
Output Protection	OCP, Control Pilot Fault	OCP, Control Pilot Fault	OCP, Control Pilot Fault
Internal Protection	OTP, MCU function Fault	OTP, MCU function Fault	OTP, MCU function Fault
Safety	UL2594	UL2594	UL2594
FCC Compliant	Yes	Yes	Yes
Energy Star Certified	Yes	Yes	Yes
Power Configurable	Built-in	Built-in	Built-in



#### **Pedestal & Retractor Compatibility:**

<b>Model Number</b>	Description
EVA/Hook 01	Cable Hook for one EVC Level 2 Charger
EVA/PED/P88S	Pedestal, for Single EVC Level 2 Charger, 88 inch Base
EVA/RET/R16S	Retractor, for Single EVC Level 2 Charger, Compatible with PED1/P88 Pedestal, 16ft Cable
EVA/PED/P88D	Pedestal, for Dual EVC Level 2 Charger, 88 inch Base
EVA/RET/R16D	Retractor, for Dual EVC Level 2 Charger, Compatible with PED2/P88 Pedestal, 16ft Cable



### EVC Level 2, 48A & 80A Series

### **Specifications:**

Model Number	EVC/A48/J16/EWG/5D	EVC/A80/J16/EWG/5D
Input Current	48A	80A
Input Voltage (Single phase)	200-240V / 60Hz	200-240V / 60Hz
Network Connectivity	Ethernet + Wi-Fi + 4G	Ethernet + Wi-Fi +4G
RFID+QR Code	Included	Included
Credit Card	Optional	Optional
Local Load Management	Included	Included
OTA Technology	Included	Included
Plug	SAE J1772 Type 1	SAE J1772 Type 1
Number of Port	Single	Single
Charging Cable	16 ft	16 ft
OCPP 1.6	Yes	Yes
Open ADR 2.0b Compliant	Yes	Yes
CTEP	Yes	Yes
AC Input Connection	L/N/GND	L/N/GND
Max Output, 60 Hz	48A / 11.5kW	80A / 19.2kW
Hardwired	Yes	Yes
Dimensions (H x W x D)	10.24 x 11.02 x 3.94 inch	10.24 x 11.02 x 3.94 inch
Weight (Lbs)	22 Lbs with Plug	22 Lbs with Plug
IP Protection	IP55 / NEMA 3R	IP55 / NEMA 3R
Tamper Resistant	IK10, except LCD & RFID	IK10, except LCD & RFID
Cable Management	Optional	Optional
Operating Temperature	-22 to 122 °F	-22 to 122 °F
Humidity	Max 85%	Max 85%
Metering Accuracy	+/- 1%	+/- 1%
Input Protection	UVP, OVP, RCD, SPD	UVP, OVP, RCD, SPD
Output Protection	OCP, Control Pilot Fault	OCP, Control Pilot Fault
Internal Protection	OTP, MCU function fault	OTP, MCU function fault
Safety	UL2594	UL2594
FCC compliant	Yes	Yes
Energy Star Certified	Yes	Yes
Power Configurable	Built-in	Built-in
LCD Display	5-inch LCD Display	5-inch LCD Display



#### **Pedestal & Retractor Compatibility:**

<b>Model Number</b>	Description
EVA/Hook 01	Cable Hook for one EVC Level 2 Charger
EVA/PED/P88S	Pedestal, for Single EVC Level 2 Charger, 88 inch Base
EVA/RET/R16S	Retractor, for Single EVC Level 2 Charger, Compatible with PED1/P88 Pedestal, 16ft Cable
EVA/PED/P88D	Pedestal, for Dual EVC Level 2 Charger, 88 inch Base
EVA/RET/R16D	Retractor, for Dual EVC Level 2 Charger, Compatible with PED2/P88 Pedestal, 16ft Cable



## POWER SELECTABLE EVC Level 2, 48A & 80A Series

### **Specifications:**

	VC/A48S/J18/EW/5D	EVC/A80S/J18/EW/5D
Model Number E	VC/A48S/J18/EG/5D	EVC/A80S/J18/EG/5D
nput Current 48	8/40/32/16A	80/48A
nput Voltage (Single phase) 20	00-240V / 60Hz	200-240V / 60Hz
Lativardi Canna attivitu	W version: Ethernet +WiFi	EW version: Ethernet +WiFi
Network Connectivity	G version: Ethernet + 4G	EG version: Ethernet + 4G
RFID+QR Code In	ncluded	Included
Credit Card O	ptional	Optional
ocal Load Management O	ptional	Optional
OTA Technology In	cluded	Included
Plug	AE J1772 Type 1	SAE J1772 Type 1
lumber of Port Si	ngle	Single
Charging Cable 18	8 ft	18 ft
OCPP 1.6	es	Yes
Open ADR 2.0b Compliant N,	/A	N/A
CTEP Ye	es	Yes
C Input Connection L/	/N/GND	L/N/GND
Max Output, 60 Hz 48	8A / 11.5kW	80A / 19.2kW
Hardwired Ye	es	Yes
Dimensions (H x W x D)	3.8 x 9.8 x 5.1 inch	13.8 x 9.8 x 5.1 inch
Veight (Lbs)	8.1 Lbs	19.8 Lbs
P Protection	P65 for Charger; IP54 for cable EMA 3	IP65 for Charger; IP54 for cable NEMA 3
		IKO8, except LCD & RFID
	ptional	Optional
	22 to 122 °F	-22 to 122 °F
P	lax 85%	Max 95%
· · · · · · · · · · · · · · · · · · ·	/- 1%	+/- 1%
	VP, OVP, RCD, SPD	UVP, OVP, RCD, SPD
	CP, Control Pilot Fault	OCP, Control Pilot Fault
•	TP, MCU function fault	OTP, MCU function fault
	L2594, UL2231-1/-2	UL2594, UL2231-1/-2
	es	Yes
	es	Yes
	uilt-in	Built-in
	-inch LCD Display	5-inch LCD Display



\*Cable Hook Included

### **Pedestal & Retractor Compatibility:**

<b>Model Number</b>	Description
EVA/HOOK2	Cable Hook for one EVC Level 2 Charger (power selectable)
EVA/PED/55S	Pedestal for Single charger Level 2 EVC, 55 inch Base
EVA/PED/55D	Pedestal for Dual chargers Level 2 EVC, 55 inch Base
EVA/PCM/55S	Pedestal with Cable Management for Single charger Level 2 EVC, 55 inch Base
EVA/PCM/55D	Pedestal with Cable Management for Dual chargers Level 2 EVC, 55 inch Base



### **EVC Level 3, DC Fast Series - 30kW**

### **Specifications:**

Model Number	EVC/W030/S15/EWG/B	EVC/M030/S15/EWG/B
Mount Type	Wall-Mount	Movable
Maximum Output Power	DC 30kW	DC 30kW
Max. Input Current	3Ф40Vac	3Ф40Vac
Voltage Rating	3Ф480Vac(+10%,-15%)	3Ф480Vac(+10%,-15%)
DC Charging Connector	Single 65A CCS1 15ft	Single 65A CCS1 15ft
Voltage Accuracy	±2%	±2%
Current Accuracy	±2%	±2%
Standby Power	< 100W	< 100W
Electrical Isolation	Between Input and Output	Between Input and Output
Load Management	Via OCCP 1.6 JSON	Via OCCP 1.6 JSON
Backend Support	OCPP 1.6 JSON	OCPP 1.6 JSON
Safety	UL2202,UL2231	UL2202,UL2231
FCC Compliant	Yes	Yes
Ingression Protection	IP55 NEMA 3R	IP55 NEMA 3R
Anti-Vandalism	IK10, not include LCD & RFID	IK10, not include LCD & RFID
Dimensions (WxDxH inch)	24 x 9.05 x 27.16 inch	23.1 x 24.4 x 38.8 inch
Weight	194 Lbs	176 Lbs
Power Factor	> 0.99 @full load	> 0.99 @full load
Efficiency (%)	> 94%, at optimize V/I point	> 94%, at optimize V/I point
Output Voltage Range	150Vdc ~ 950Vdc	150Vdc ~ 950Vdc
Maximum Output Current	31.5A@950Vdc	31.5A@950Vdc
Input Protection	OVP, OCP, OPP, UVP, RCD, SPD	OVP, OCP, OPP, UVP, RCD, SPD
Output Protection	tion OCP, OVP, LVP, OTP, IMD OCP, OVP, LVP, OTP, IMD	
Display	7-inch LCD	7-inch LCD
User Authentication	RFID, QR Code, Mobile APP	RFID, QR Code, Mobile APP
Operation Temperature	-22°F to 122°F	-22°F to 122°F
Relative Humidity	5%~95% RH, non-condensing	5%~95% RH, non-condensing
Cooling	Fan Cooling	Fan Cooling



### **Pedestal Compatibility:**

Model Number	Description
EVA/PED/65S	Pedestal for EVC Level 3 DC Fast Charger 30kW Wall





### EVC Level 3, DC Fast Series - 60kW & 120kW

### **Specifications:**

Model Number	EVC/D060/SS15/EWG/W	EVC/D120/SS15/EWG/W
Maximum Output Power	DC 60kW	DC 120kW
Max. Input Current	3Ф92Vас	3Ф183Vac
Voltage Rating	3Ф480Vac(+10%,-15%)	3Ф480Vac(+10%,-15%)
DC Charging Connector	Dual 200A CCS1 15ft	Dual 200A CCS1 15ft
Voltage Accuracy	±2%	±2%
Current Accuracy	±2%	±2%
Standby Power	< 100W	< 100W
Electrical Isolation	Between Input and Output	Between Input and Output
Load Management	Via OCCP 1.6 JSON	Via OCCP 1.6 JSON
Backend Support	OCPP 1.6 JSON	OCPP 1.6 JSON
Safety	UL2202,UL2231	UL2202,UL2231
FCC Compliant	Yes	Yes
Ingression Protection	IP55 NEMA 3R	IP55 NEMA 3R
Anti-Vandalism	IK10, not include LCD & RFID	IK10, not include LCD & RFID
Dimensions (WxDxH inch)	27.56 x 13.03 x 70.87 inch	31.50 x 25.60 x 74.80 inch
Weight	518 Lbs	925 Lbs
Power Factor	> 0.99	> 0.99
Efficiency	> 94%, at optimize V/I point	> 94%, at optimize V/I point
Output Voltage Range	150Vdc ~ 950Vdc	150Vdc ~ 950Vdc
Maximum Output Current	120A@150Vdc~500Vdc/63A@950Vdc	200A@600Vdc / 120A @ 500Vdc
Simultaneously Output Mode	0% , 50% , 100% (Note 1)	0% , 50% , 100% (Note 1)
Input Protection	OVP, OCP, OPP, UVP, RCD, SPD	OVP, OCP, OPP, UVP, RCD, SPD
Output Protection	OCP, OVP, LVP, OTP, IMD	OCP, OVP, LVP, OTP, IMD
Internal Protection	OTP, AC/DC contactor detection,	OTP, AC/DC contactor detection,
Internal Protection	Fuse detection	Fuse detection
Display	7-inch LCD	7-inch LCD
User Authentication	RFID, QR Code, Mobile APP	RFID, QR Code, Mobile APP
Operation Temperature	-22°F to 122°F	-22°F to 122°F
Storage Temperature	-40°F to 158°F	-40°F to 158°F
Relative Humidity	5%~95% RH, non-condensing	5%~95% RH, non-condensing
Cooling	Fan Cooling	Fan Cooling



### **Cable Management Compatibility:**

<b>Model Number</b>	Description
EVA/CM15/060	Cable Management for 15ft cable EVC Level 3 DC Fast Charger 60kW
EVA/CM15/120/180	Cable Management for 15ft cable EVC Level 3 DC Fast Charger 120/180kW



### **EVC Level 3, DC Fast Series - 180kW**

### **Specifications:**

Mandal Neurobau	EVC/D180/SS15/EWG/W	
Model Number	EVC/D180/SS23/EWG/W	
Maximum Output Power	DC 180kW	
Max. Input Current	3Ф274Vac	
Voltage Rating	3Ф480Vac(+10%,-15%)	
DC Charging Connector	SS15: Dual 300A CCS1 15ft	
DC Charging Connector	SS23: Dual 300A CCS1 23 ft	
Voltage Accuracy	±2%	
Current Accuracy	±2%	
Standby Power	< 100W	
Electrical Isolation	Between Input and Output	
Load Management	Via OCCP 1.6 JSON	
Backend Support	OCPP 1.6 JSON	
Safety	UL2202,UL2231	
FCC Compliant	UL2202	
Ingression Protection	IP55 NEMA 3R	
Anti-Vandalism	IK10, not include LCD & RFID	
Dimensions (WxDxH inch)	31.50 x 25.60 x 74.80 inch	
Weight	1102 Lbs	
Power Factor	> 0.99	
Efficiency	> 94%, at optimize V/I point	
Output Voltage Range	CCS1 150Vdc ~ 950Vdc	
Maximum Output Current	200A@900Vdc / 120A @ 500Vdc	
Simultaneously Output Mode	0% , 50% , 100%	
Input Protection	OVP, OCP, OPP, UVP, RCD, SPD	
Output Protection	OCP, OVP, LVP, OTP, IMD	
Internal Protection	OTP, AC/DC contactor detection, Fuse	
Internal Protection	detection	
Display	7-inch LCD	
User Authentication	RFID, QR Code, Mobile APP	
Operation Temperature	-22°F to 122°F	
Storage Temperature	-40°F to 158°F	
Relative Humidity	5%~95% RH, non-condensing	
Cooling	Fan Cooling	



### **Cable Management Compatibility:**

Model Number	Description
EVA/CM15/120/180	Cable Management for 15ft cable EVC Level 3 DC Fast Charger 120/180kW
EVA/CM23/120/180	Cable Management for 23ft cable EVC Level 3 DC Fast Charger 120/180kW



### **EVC Level 3, DC Fast Series - 360kW**

#### **Specifications:**

Model Number	EVC/D360/SS15/EWG/W	EVC/D360/SS15X2/EWG/W	
	- 360kW Power Cabinet	- 360kW Power Cabinet	
Configuration	- 1 unit of Dual Gun Dispenser;	- 2 units of Dual Gun Dispensers;	
	total of 2 Guns	total of 4 Guns	
Maximum Output Power	DC 360kW	DC 360kW	
Max. Input Current	Input Current 549A 549A		
Voltage Rating	3Ф480Vac(+10%,-15%)	3Ф480Vac(+10%,-15%)	
DC Charging Connector	1 Dispenser of Dual 300A CCS1	2 Dispensers of Dual 300A CCS1 15ft	
Voltage Accuracy	±2%	±2%	
Current Accuracy	±2%	±2%	
Standby Power	< 100W	< 100W	
Electrical Isolation	Between Input and Output	Between Input and Output	
Load Management	Via OCCP 1.6 JSON	Via OCCP 1.6 JSON	
Backend Support	OCPP 1.6 JSON	OCPP 1.6 JSON	
Safety	UL2202,UL2231	UL2202,UL2232	
FCC Compliant	UL2202	UL2203	
Ingression Protection	IP55 NEMA 3R	IP55 NEMA 3R	
Anti-Vandalism	IK10, not include LCD & RFID	IK10, not include LCD & RFID	
Dimensions (WxDxH	isions (WxDxH Power Cabinet: 55.12 x 31.50 x Power Cabinet: 55.12 x 31.50 x 74		
inch) 74.80 inch inch		inch	
Weight	Power Cabinet: 2,643 Lbs	Power Cabinet: 2,643 Lbs	
vveignt	Dispenser: 660 Lbs	Dispensers: 660 Lbs x 2 units	
Power Factor	> 0.99	> 0.100	
Efficiency	> 94%, at optimize V/I point	> 94%, at optimize V/I point	
Output Voltage Range	CCS1 150Vdc ~ 950Vdc	CCS1 150Vdc ~ 950Vdc	
Maximum Output	300A@950Vdc	300A@950Vdc	
Simultaneously Output Mode	0% , 50% , 100%	0% , 50% , 100%	
Input Protection	OVP, OCP, OPP, UVP, RCD, SPD	OVP, OCP, OPP, UVP, RCD, SPD	
Output Protection	OCP, OVP, LVP, OTP, IMD	OCP, OVP, LVP, OTP, IMD	
Internal Protection	OTP, AC/DC contactor detection,	OTP, AC/DC contactor detection,	
Internal Protection	Fuse detection	Fuse detection	
Display	7-inch LCD	7-inch LCD	
User Authentication	RFID, QR Code, Mobile APP	RFID, QR Code, Mobile APP	
Operation Temperature	-22°F to 122°F	-22°F to 122°F	
Storage Temperature	-40°F to 158°F	-40°F to 158°F	
Relative Humidity	5%~95% RH, non-condensing	5%~95% RH, non-condensing	
Cooling	Fan Cooling	Fan Cooling	



EVC/D360/SS15/EWG/W (Dispenser X 1)



EVC/D360/SS15X2/EWG/W (Dispensers X 2)

#### **Cable Management Compatibility:**

Model Number	Description
EVA/CM15/060	Cable Management for 15ft cable EVC Level 3 DC Fast Charger 60kW
EVA/CM15/120/180	Cable Management for 15ft cable EVC Level 3 DC Fast Charger 120/180kW



### **Accessories**

### **Pedestal, Retractor and Cable Management**

### **Specifications:**

Model Number	Description	Compatibility	Dimensions	
		,	(LxWxH) inch	
EVA/Hook 01	Cable Hook	SAE J1772		
EVA/PED/P88S	Pedestal for one EVC Level 2 Charger	Level 2 32A/48A/80A Chargers	12.9 x 8.2 x 88.5	
EVA/RET/R16S	Retractor, for Single EVC Level 2 Charger, Compatible with PED1/P88 Pedestal, 16ft Cable	Level 2 32A/48A/80A Chargers	12.9 x 8.2 x 88.5	
EVA/PED/P88D	Pedestal, for Dual EVC Level 2 Charger, 88 inch Base	Level 2 32A/48A/80A Chargers	12.9 x 8.2 x 88.5	
EVA/RET/R16D	Retractor, for Dual EVC Level 2 Charger, Compatible with PED2/P88 Pedestal, 16ft Cable	Level 2 32A/48A/80A Chargers	12.9 x 8.2 x 88.5	
EVA/PED/55S	Pedestal for Single charger Level 2 EVC, 55 inch Base	Level 2 48A/80A Power Selectable Chargers		
EVA/PED/55D	Pedestal for Dual chargers Level 2 EVC, 55 inch Base	Level 2 48A/80A Power Selectable Chargers		
EVA/PCM/55S	Pedestal with Cable Management for Single charger Level 2 EVC, 55 inch Base	Level 2 48A/80A Power Selectable Chargers		
EVA/PCM/55D	Pedestal with Cable Management for Dual chargers Level 2 EVC, 55 inch Base	Level 2 48A/80A Power Selectable Chargers		
EVA/CM15/060	Cable Management for 15ft cable EVC Level 3 DC Fast Charger 60kW	Level 3 FastDC 60kW Chargers		
EVA/CM15/120/180	Cable Management for 15ft cable EVC Level 3 DC Fast Charger 120/180kW	Level 3 FastDC 120/180kW Chargers		
EVA/CM23/120/180	Cable Management for 23ft cable EVC Level 3 DC Fast Charger 120/180kW	Level 3 FastDC 120/180kW Chargers		
EVA/CM15/360	Cable Management for 15ft cable EVC Level 3 DC Fast Charger 360kW	Level 3 FastDC 360kW Chargers		
EVA/CCR1	Credit card Reader			
EVA/NET1	Network Enhancing Package			









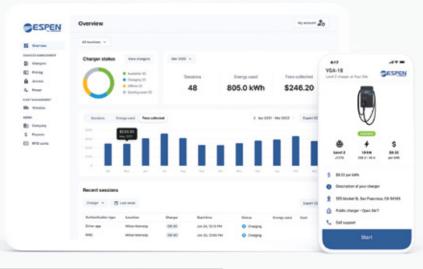




Cable Management for 23ft Cable



### **EV Charging Management Software**



Espen EV Network P	lans	Basic	Standard	Advanced
Connect your OCPP Chargers		√	1	1
API access		√	1	1
Dashboard access & repo	orting	√	1	1
24/7 EV driver support		√	1	1
Access control & user mana	agement		1	1
Usage fees & revenue col	lection		1	√
Power management				1
Vehicle Management for	fleets			1
3rd Party Integration	S			√
Model	for LEVEL 2	EVS/L2/MS/BSC	EVS/L2/MS/STD	EVS/L2/MS/ADV
(Options: 1, 3, or 5 years)	for LEVEL 3	EVS/L3/MS/BSC	EVS/L3/MS/STD	EVS/L3/MS/ADV
	for 4G Data	EVS/MS/4G	EVS/MS/4G	EVS/MS/4G

#### **Network Enhancing Package Includes:**

- Router, CradlePoint Model IBR900 with WiFi (600Mbps modem). Includes AC power supply and antennas
- NetCloud Service for IoT Plan for Three (3) year (Details see below)
- Two (2) SIM CARDs: Verizon and AT&T. A redundant design to enhance the up-rate (i.e. when one carrier is slow, it will automatically switch to the other)
- Data Rate: Free for the first year, 6 GB data included in the Package. Subsequent cost: \$95 annual after the first year
- NetCloud Service for IoT provides the reliability, security, management, and data orchestration for IoT applications. Each service includes:









Model	Description
EVA/NEP 1	Network Enhancing Package w/6GB data included annually; 1st year free



#### **HEADQUARTERS**

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