

SIGMA

60 · 540 kW

MODULARITY - IMPROVES EQUIPMENT RELIABILITY

VERSATILITY - SIMULTANEOUS CHARGING

3 - UP TO THREE OUTPUTS FROM A SINGLE DEVICE

80% MORE POWER COMPARED TO AN ECI 100

LOW HARMONIC DISTORSIONS

INTEROPERABLE ACCORDING TO ISO15118

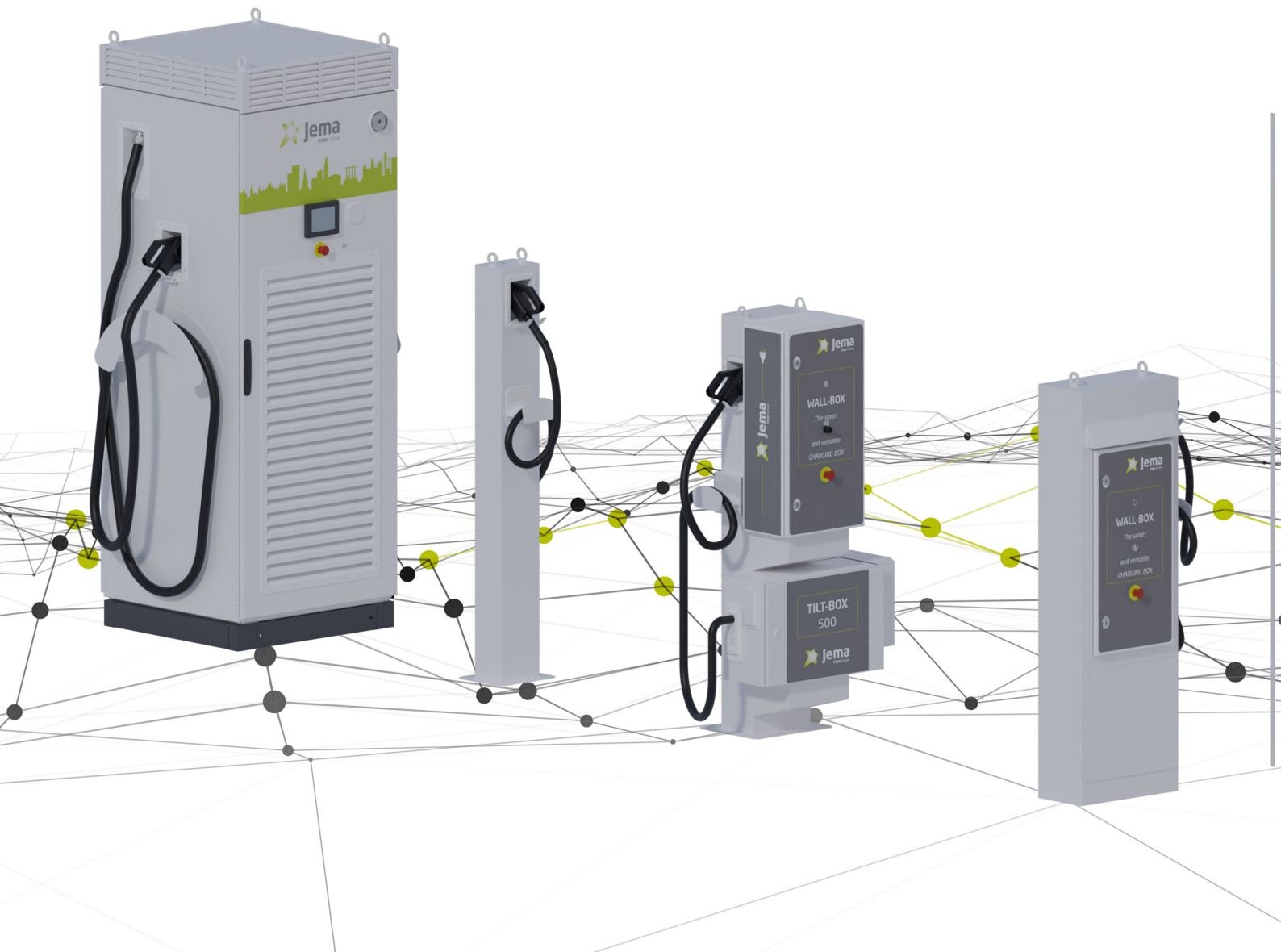




First Jema's modular chargers



*SIGMA: modularity and multiple DC output
possibility (from 60 kW to 540 kW)*



SIGMA

60 · 90 · 120 · 150 · 180



INPUT

	60	90	120	150	180
Input. voltage	400 V _{AC} 3Ph + N + PE / 480 VAC 3Ph + N + PE				
Max. input power	64 kVA	95 kVA	125 kVA	155 kVA	186 kVA
Max. input current	93A/116 A	138A/174 A	181A/232 A	224A/290 A	269A/348 A
Harmonic distortion	<5% 0.99				
Efficiency	> 95%				
Frequency	50/60 Hz				
Galvanic isolation	Yes				

THE MOST VERSATILE AND
MODULAR RANGE OF
HEAVY-DUTY VEHICLE
CHARGERS IN JEMA'S HISTORY

OUTPUT

	60	90	120	150	180
Output power (P _{nom}) ⁽¹⁾	60 kW	90 kW	120 kW	150 kW	180 kW
Output voltage range	150-1000 V _{DC}				
Number of outputs available	1	1	1	1	1
Vehicle interface type possible per output ⁽²⁾	CCS 5m (3) air cooled up to 250A or liquid cooled up to 500a or Hooded "up" Pantograph or Top-Down inverted "down" Pantograph up to 375A				
Max. output current	200 A	250 A	250 A	250 A	CCS 250 A / Panto: 375 A
Control structure	Logical control and DSP technology, SVM				
Soft Start	Yes				

GENERAL DATA

	60	90	120	150	180
Vehicle connection	CCS: 5 (200 A)	CCS: 5m (250 A) or Pantograph			
Communications /OCPP	Ethernet communication port/ 1.6				
Standard	EC MARKING. IEC-61851, IEC 61000, DIN 70121, ISO 15118				
Operating temperature	-20 °C a +40 °C nominal power ⁽²⁾				
Relative humidity	10% a 95% non-condensing				
Altitude	2000 m.a.s.l ⁽³⁾				
Dimensions h / l / d (mm)	2150 x 800 x 800				
Colour	White structure (RAL7035)				
Weight	425 kg	430 kg	450 kg	450 kg	480 kg
Access protection (IP)	IP54/IK10				
Polution degree/Corrion leve	P3/C4M				
Ventilation	Forced Air				
Disconnected consumption	Without pre-heating <180W / with heating <850W				

(1) V nominal voltage; (2) hooded "up" pantograph >50m distance; Top-down-inverted "down" pantograph; CCS air cooled > 8m length, third CCS; liquid cooled CCS involve installation of remote wall-box and/or dispenser; (3) other lengths available upon request; (4) above 40°C contact technical dept.; (5) above 2000 m.a.s.l. contact technical dept.

SIGMA

60D · 90D · 60T



INPUT	60D	90D	60T
Input voltage	400 V _{AC} 3Ph + N + PE / 480 VAC 3Ph + N + PE		
Max. input power	125 kVA	186 kVA	186 kVA
Max. input current	181A/232 A	269A/348 A	269A/348 A
Harmonic distortion	< 5% 0.99		
Efficiency	> 95%		
Frequency	50/60 Hz		
Galvanic isolation	Yes		

OUTPUT	60D	90D	60T
Output power(Pnom) ⁽²⁾	2 x 60 kW/ 1 x 120 kW	2 x 90 kVA / 1 x 180 kW 1 x 60 kW + 1 x 120 kW	3 x 60 kW / 1 x 180 kW 1 x 60 kW + 1 x 120 kW
Output voltage range	150-1000 V _{DC}		
N° of outputs available	2	2	2
Vehicle interface type possible per output (2)	CCS 5m (3) air cooled up to 250A or liquid cooled up to 500A or Hooded "up" Pantograph or Top-down-inverted "down" Pantograph up to 375A		
Max. output current	CCS 250 A Pantograph. 375 A	CCS 2 x 250 A Pantograph 2 x 375 A	CCS 3 x 250 A Pantograph 3 x 375 A
Control structure	Logical control and DSP technology		
Soft Start	Yes		

GENERAL DATA	60D	90D	60T
Vehicle connection	2 CCS outputs: 5m (250 A) Pantograph output		3 CCS outputs: 5m (250 A) with remote box Pantograph output
Communications /OCPP	Ethernet communication port / 1.6		
Standards	EC. IEC-61851, IEC 61000, DIN 70121, ISO 15118		
Operating temperature	-20 °C a +40 °C nominal power ⁽²⁾		
Relative humidity	10% a 95% non-condensing		
Altitude	2000 m.a.s.l ⁽³⁾		
Dimensions h / l / d (mm)	2150 x 800 x 800		
Colour	White structure (RAL7035)		
Weight	450 kg		480 kg
Access Protection (IP)	IP54/IK10		
Polution degree/ Corrosion level	P3		
Ventilation	Forced Air		
Disconnected consumption	Disconnected consumption <180W / Heating consumption <850W		

(1) V nominal voltage; (2) hooded "up" pantograph >50m distance; Top-down-inverted "down" pantograph; CCS air cooled > 8m length, third CCS; liquid cooled CCS involve installation of remote wall-box and/or dispenser; (3) other lengths available upon request; (4) above 40°C contact technical dept.; (5) above 2000 m.a.s.l. contact technical dept.

SIGMA



240 · 300 · 360 · 120D · 180D · 120T

INPUT	240	300	360	120D	180D	120T
Input. voltage	400 V _{AC} 3Ph + N + PE / 480 VAC 3Ph + N + PE					
Max. input power	250 kVA	310 kVA	375 kVA	248 kVA	375 kVA	375 kVA
Max. input current	261A/464A	448A/580A	542A/696A	361A/464A	542A/696A	542A/696A
Harmonic distortion	<5% 0.99					
Efficiency	> 95%					
Frequency	50/60 Hz					
Galvanic isolation	Yes					

OUTPUT	240	300	360	120D	180D	120T
Output power (P _{nom}) ⁽¹⁾	240 kW	300 kW	360 kW	2 x 120 kW / 1 x 240 kW	2 x 180 kW / 1 x 360 kW / 1 x 120 kW + 1 x 240 kW	3 x 120 kW / 1*120 kW + 1*240 kW / 1 x 360 kW
Output voltage range	150-1000 V _{dc}					
Vehicle interface type possible per output	CCS 5m (3) air cooled up to 250 A or liquid cooled up to 500 A Hooded "up" Pantograph or Top-down inverted "down" Pantograph up to 700 A					
Max. output current	700 A (2 cabinets' out1 in parallel)			2 x 700 A (2 cabinets's out1, out2 in parallel)		3 x 700 A (2 cabinets's out1, out2, out3 in parallel)
Control structure	Logical control and DSP technology					
Soft Start	Yes					

GENERAL DATA	240	300	360	120D	180D	120T
Communications /OCPP	Ethernet communication port/ 1.6					
Standard	EC MARKING. IEC-61851, IEC 61000, DIN 70121, ISO 15118					
Operating temperature	-20 °C a +40 °C nominal power ⁽²⁾					
Relative humidity	10% a 95% non-condensing					
Altitude	2000 m.a.s.l ⁽³⁾					
Dimensions h / l / d (mm)	2 x (2150 x 800 x 800) + 1 x (1810 x 400 x 800)					
Colour	White structure (RAL7035)					
Weight	500kg + 480kg + 200kg					
Access protection (IP)	IP54/IK10					
Polution degree/Corrosion level	P3/C4M					
Ventilation	Forced Air					
Auxiliary consumption	Without pre-heating <360W / With preheating <1650W					

(1) V nominal voltage; (2) hooded "up" pantograph >50m distance; Top-down-inverted "down" pantograph; CCS air cooled > 8m length, third CCS; liquid cooled CCS involve installation of remote wall-box and/or dispenser; (3) other lengths available upon request; (4) above 40°C contact technical dept.; (5) above 2000 m.a.s.l. contact technical dept.

SIGMA

450 · 540 · 270D · 180T



INPUT	450	540	270D	180T
Input voltage	400 V _{AC} 3Ph + N + PE / 480 VAC 3Ph + N + PE			
Max. input power	469 kVA	565 kVA	565 kVA	565 kVA
Max. input current	677A/870A	816A/1044A	816A/1044A	816A/1044A
Harmonic distortion	< 5% 0.99			
Efficiency	> 95%			
Frequency	50/60 Hz			
Galvanic isolation	Yes			

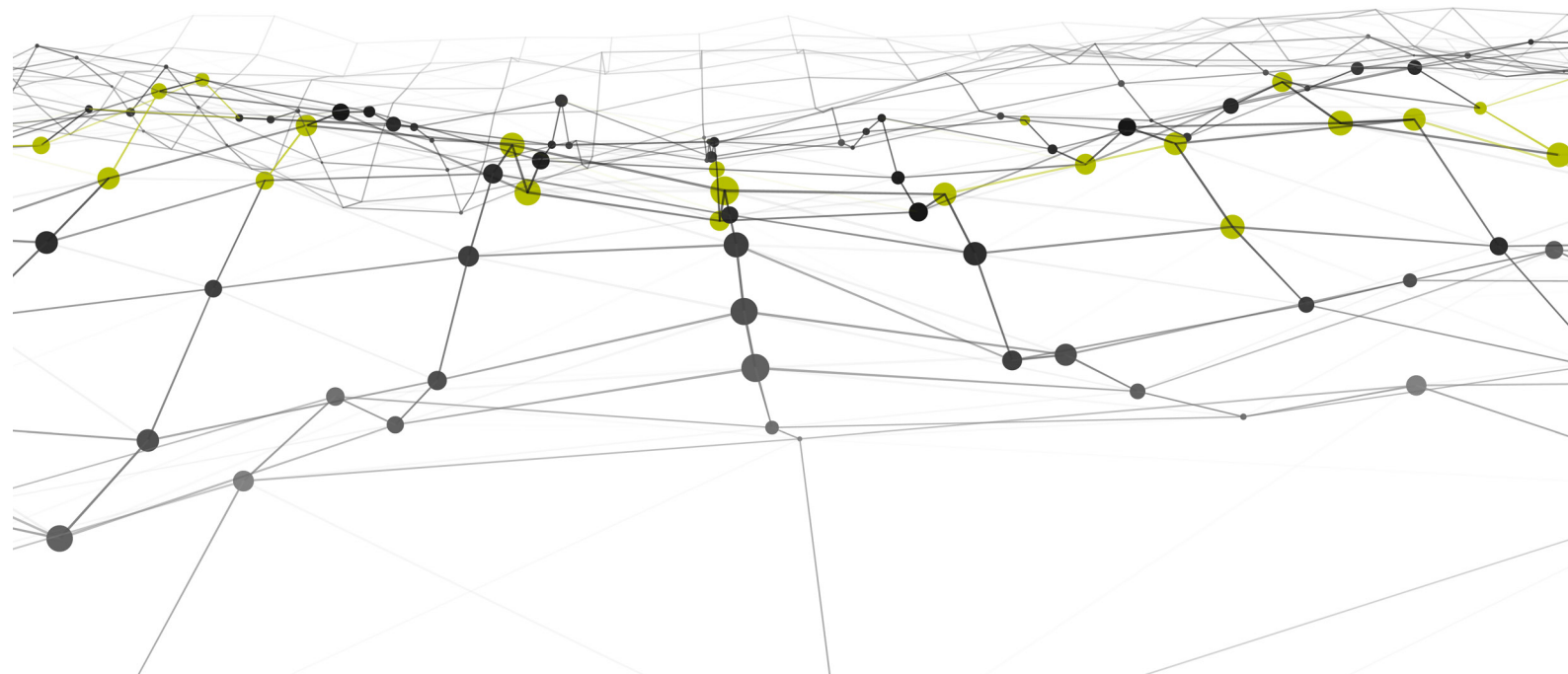
OUTPUT	450	540	270D	180T
Output power(P _{nom}) ⁽²⁾	450 kW	540 kW	2x270 kW/1x540kW/1x180kW+1x240 kW	3x180 / 1x540/ 1x180+1x240
Output voltage range	150-1000 V _{DC}			
N° of outputs available	1	1	2	2
Vehicle interface type possible per output (2)	CCS 5m (3) air cooled up to 250A or liquid cooled up to 500A or Hooded "up" Pantograph or Top-down-inverted "down" Pantograph up to 375A			
Max. output current	1000A		2x1000A	3x1000A
Control structure	Logical control and DSP technology			
Soft Start	Yes			

GENERAL DATA	450	540	270D	180T
Communications /OCPP	Ethernet communication port / 1.6			
Standards	EC, IEC-61851, IEC 61000, DIN 70121, ISO 15118			
Operating temperature	-20 °C + 40 °C nominal power ⁽²⁾			
Relative humidity	10% - 95% non-condensing			
Altitude	2000 m.a.s.l ⁽³⁾			
Dimensions h / l / d (mm)	3 x (2150 x 800 x 800) + 1 x (1810x400x800)			
Colour	White structure (RAL7035)			
Weight	500 + 480 + 480 + 200			
Access Protection (IP)	IP54/IK10			
Pollution degree/ Corrosion level	P3/C4M			
Ventilation	Forced Air			
Auxiliary consumption	Without pre-heating <540W / With heating <2550W			

(1) V nominal voltage; (2) hooded "up" pantograph >50m distance; Top-down-inverted "down" pantograph; CCS air cooled > 8m length, third CCS; liquid cooled CCS involve installation of remote wall-box and/or dispenser; (3) other lengths available upon request; (4) above 40°C contact technical dept.; (5) above 2000 m.a.s.l. contact technical dept.



Do you want more information
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systems solutions?



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