

Commeo energy storage block high energy

esbC15PR / esbC15ER

FOR 48 V SYSTEMS

commeo
energy storage solutions

system component
for battery systems

technical data

technology description	pluggable Lithium ion battery (NMC)
nom. energy	1.5 kWh
nom. voltage	51.1 V $\approx$
nom. capacity (0.2C charge/discharge)	29.5 Ah
nom. discharge power	1.5 kW (cont.) 3.0 kW (puls)
energy density	220 Wh/l
specific energy	144 Wh/kg
cycle life (80 % SoH; 0.5C charge, 1C discharge)	> 500 @ 100 % DoD and 25 °C > 1000 @ 90 % DoD and 25 °C
operating voltage range	42.1 – 58.8 V $\approx$
installation site	indoors, non-condensing
international protection code	IP20
international protection marking	2
operating temperature	0 – 40° C
expected operating life (calendric)	12 years
dimensions	200 x 200 x 170 mm
weight	10.4 kg
communication interface	CAN-Bus

operation window

operation mode	guided by the State-of-Power (SoP) according to the specifications of the battery management system (BMS)		
charge current	14.75 A (0.5C)		
end-of-charge voltage	58.8 V $\approx$		
end-of-charge current	2.95 A (0.1C)		
discharge current	59 A (2C)		
end-of-discharge voltage	42.1 V $\approx$		
rel. humidity	< 80 % (temperature-dependent), non-condensing		
operating temperature range	0 – 45 °C		
max. operating current of the contacts	200 A		
temperature range	transport storage	< 1 month < 6 month	-20 – 45 °C -20 – 25 °C
max. operating altitude	5 000 m above sea level		
relay switching cycles @ 60 V $\approx$	mechanical -2 A $\leq$ I $\leq$ 0 I < -60 A	400 000	
		50 000	
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The user manual has to be strictly followed. The operating window of the battery has to be complied with. The warranty terms agreed upon are bound to the compliance.



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