

## LocoMoco Specification Sheet

	LocoMoco 130	LocoMoco 400	Unit
$V_{in(HV)}$ (max continuous)	165	450	[V <sub>DC</sub> ]
$P_{out}$ (rated power)	5.2	24	[kW]
Efficiency <sup>1</sup> (nominal)	99.3	99.5	[%]
$I_{phase(max)}$ (continuous) <sup>2</sup>	40	60	[A <sub>RMS</sub> ]
$I_{phase(max)}$ (60 seconds) <sup>2</sup>	80	120	[A <sub>RMS</sub> ]
$V_{LL (max)}$	100% of $V_{in(HV)}$	100% of $V_{in(HV)}$	[V]
$V_{in (LV)}$	9 - 36	9 - 36	[V <sub>DC</sub> ]
$P_{in (LV nominal)}$	3.5	4.5	[W]
$\omega_{max (electrical)}$ <sup>5</sup>	2750	3000	[rad/s]
$L_{motor (phase)}$	>15	>150	[ $\mu$ H]
$R_{motor(phase)}$	>50	>50	[m $\Omega$ ]
Motor position	Hall, Resolver, Sensorless		
Sensorless speed	>2	>5	[V <sub>LN RMS</sub> ]
Motor temperature	2x 10k $\Omega$ or 2x 100k $\Omega$ NTC		
Data interface	CAN2.0B		
Calibration interface	Ethernet		
Protections	Over and under voltage, phase over current, motor over temperature, DC overcurrent, LV reverse- and over-voltage, HV interlock		
Features	Torque and speed control, thermal throttling		
Operating temperature <sup>3</sup>	0 - 50	-20 - 70	[°C]
IP rating	IP67		
Cooling	Air cooled (natural convection)		
Size	300 x 200 x 48.4	300 x 200 x 48.4	mm
Weight <sup>4</sup>	1900	1900	[g]

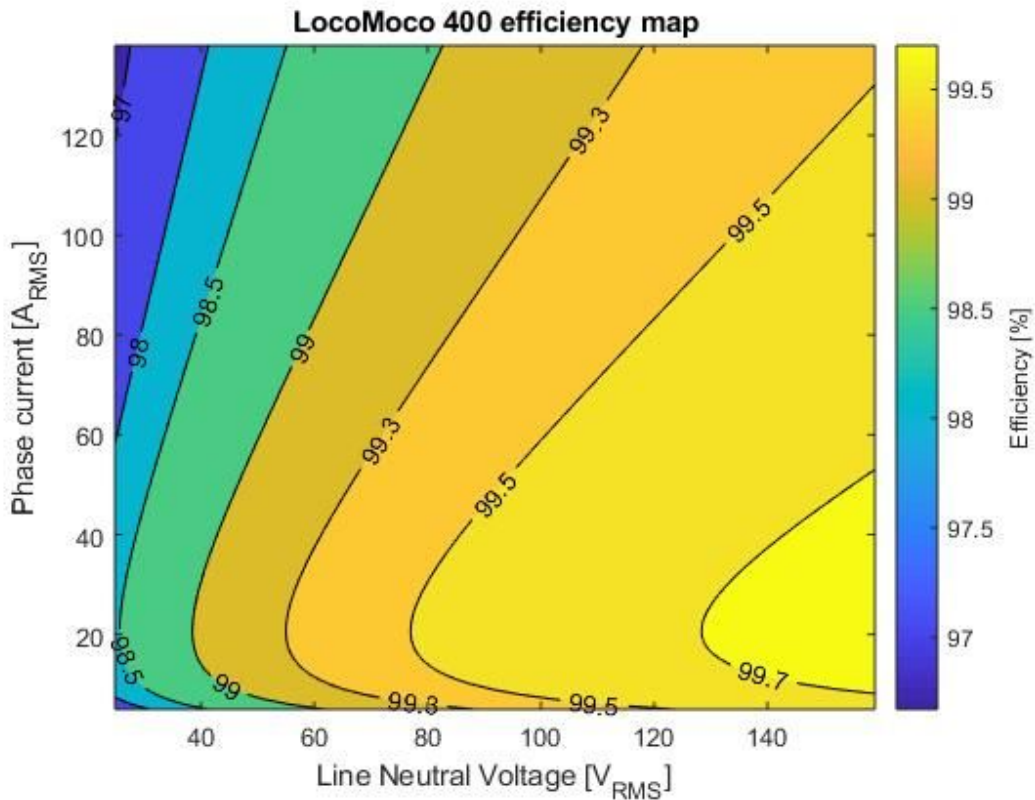
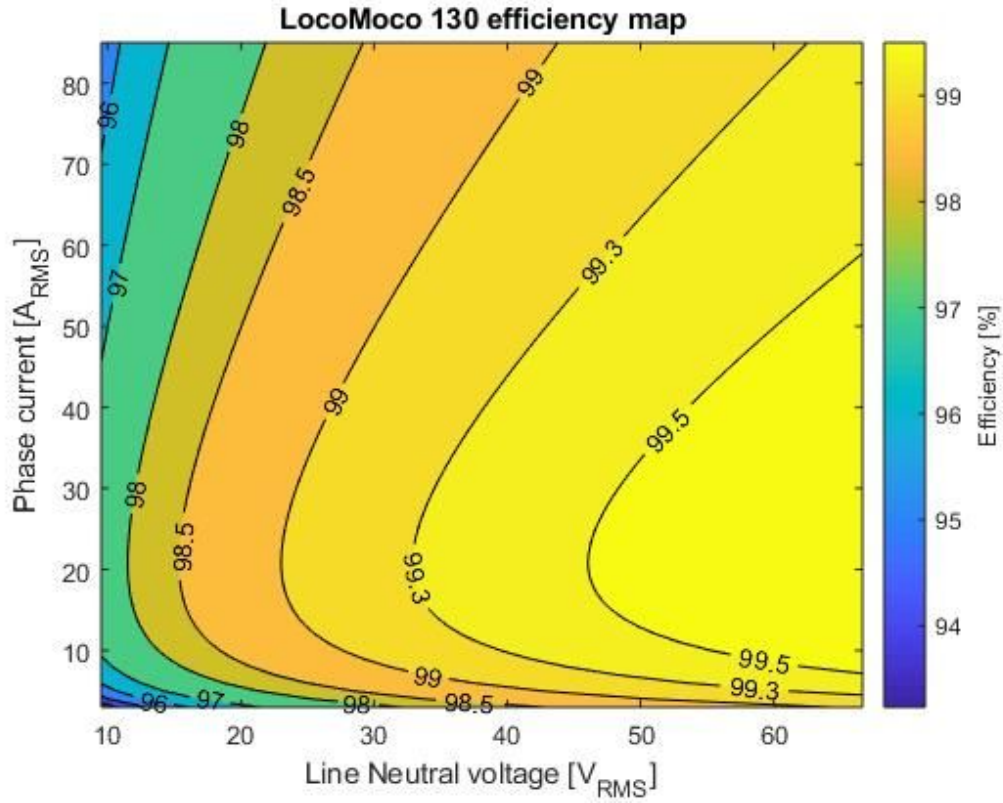
<sup>1</sup> In nominal operating point, see figures on the next page for full efficiency plots

<sup>2</sup> Thermally limited, spec at 45°C ambient

<sup>3</sup> Maximum current spec might be reduced due to thermal throttling

<sup>4</sup> Without connectors and heatsink

<sup>5</sup> Higher possible on request



Efficiency plots are made at 20°C ambient, input voltages are 130V and 400V respectively.