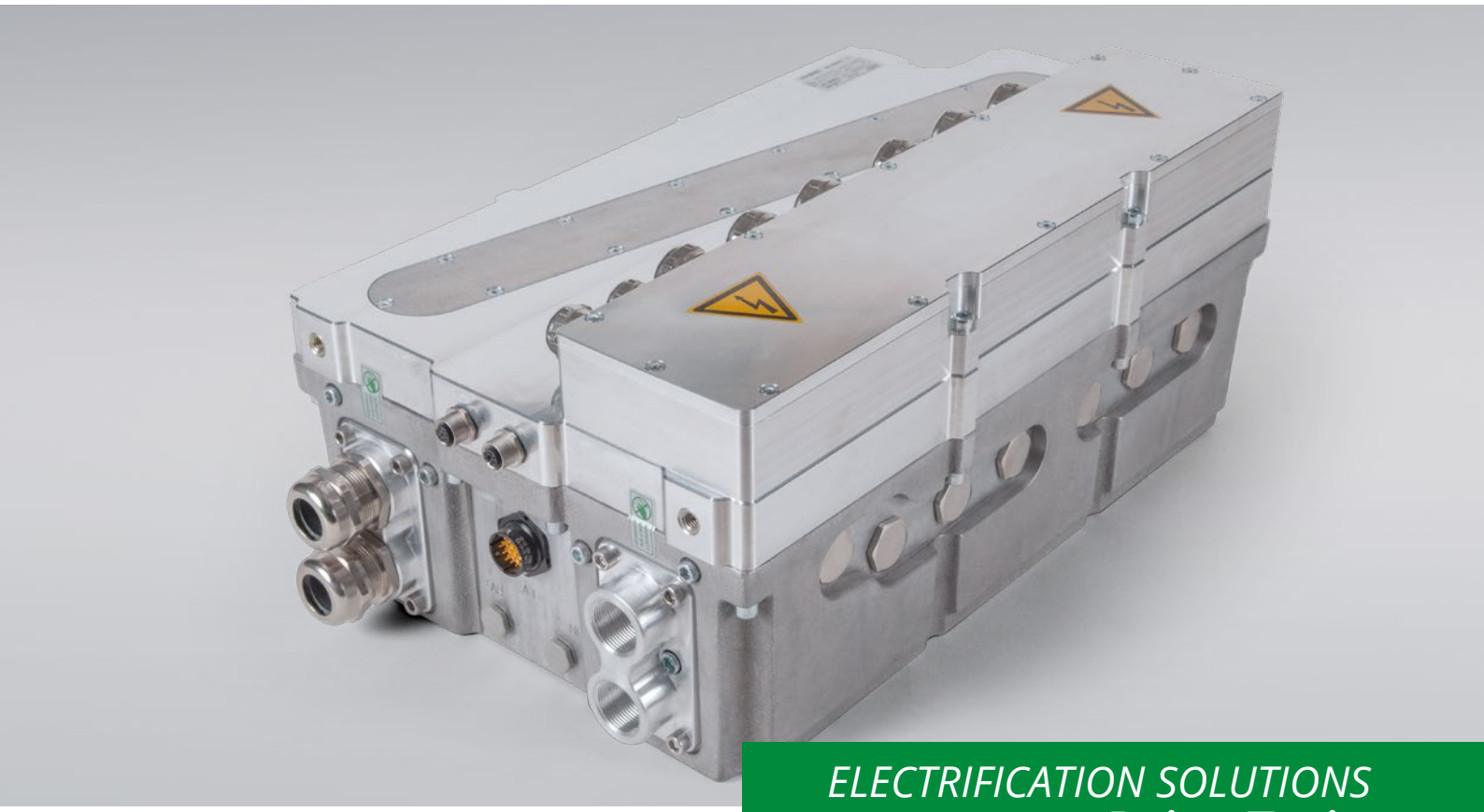
Automation, Connectivity and
Electrification of Mobile Machines



ELECTRIFICATION SOLUTIONS
Drive Train

TECHNICAL DATA power MELA -WRC

www.sensor-technik.com

powerMELA-WRC Inverter

The powerMELA inverter is designed for mobile machines with IT-network. Liquid cooling allows the compact design of the inverter. Thanks to the modular construction different applications can be combined in the one device. One AC machine with up to 160 kW (6-phase) or two AC machines with up to 80 kW (3-phase) can be controlled independently in 4-quadrant operation.

Technical Data

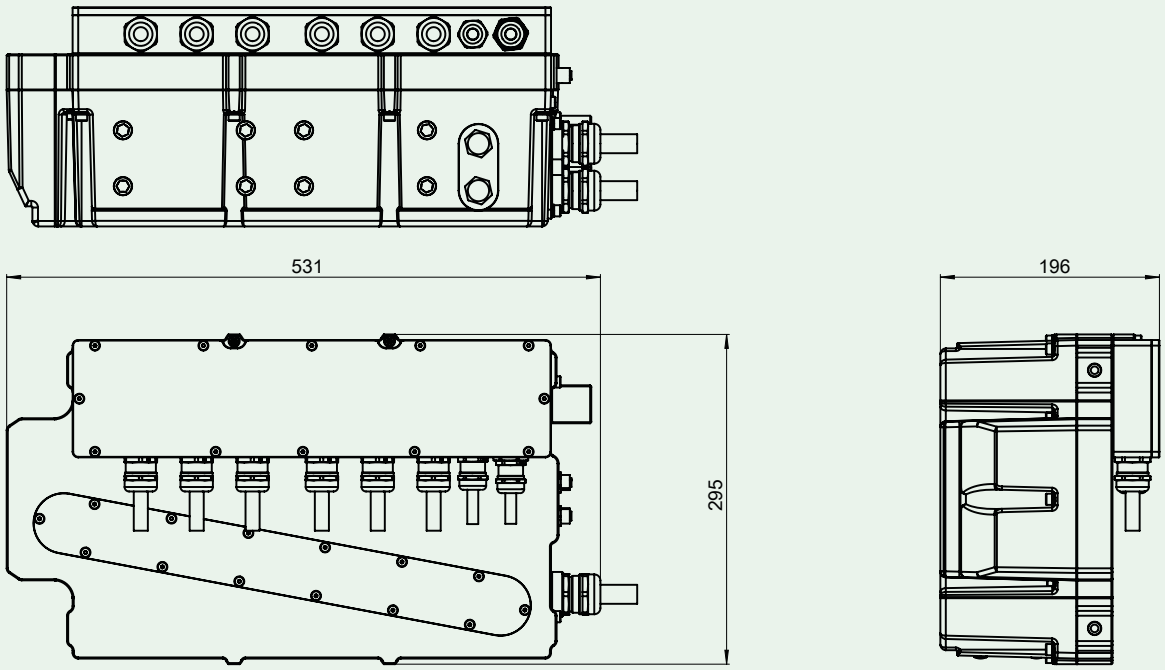
Inverter version	[kW]	160	2 x 80	
Phases		1 x 6	2 x 3	
Earthing System		IT		Stand-alone operation only, not connected to the grid
Protection class		IP6K9K		Communication Connector IP67

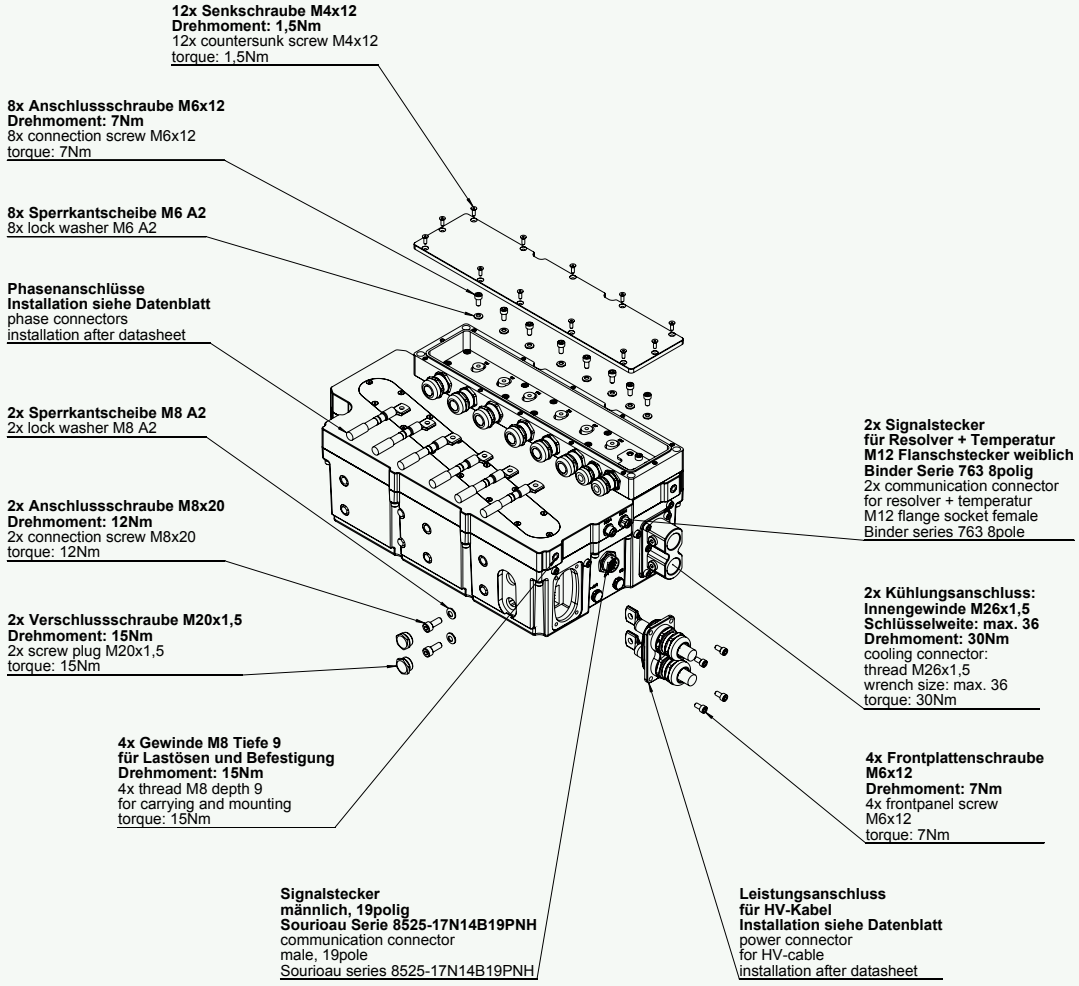
Operation Data				
Nominal power	[kW]	160	2 x 80	
Nominal voltage DC	[V]	650		other voltages on request
Operating voltage range DC	[V]	400 ... 695		
Temporary overvoltage DC	[V]	< 730		for max. 5 seconds, according to DIN EN 60664
Nominal output current per phase	[A_{eff}]	120		
Maximum output current per phase	[A_{eff}]	200		
Switching frequency	[kHz]	4 ... 10		
Output frequency	[Hz]	0 ... 600		
Encoder		Resolver		
Control modes		Torque, voltage, speed (master/slave mode)		
LV Power supply DC	[V]	9 ... 32		

Mechanical data			
Weight	[kg]	36	
Maximum Cooling fluid temperature	[C°]	60	Transformer oil 50 l/min
Cooling connector	amount	2	M26 x 1,5
Power connector	amount	2	70 mm² with 8 mm cable lug
Communication connector		19 pins	2 x CAN; I/O
Control interface		2 x CAN	
Ground connector connection		1 x 35 mm² with 8 mm cable lug	
Maximum impulse withstand voltage	[V]	4000	
Maximum altitude of use	m a.s.l.	5000	
Dimensions L x W x H (L x W x H)	mm (inch)	531 x 295 x 196 (20.9 x 11.6 x 7.8)	

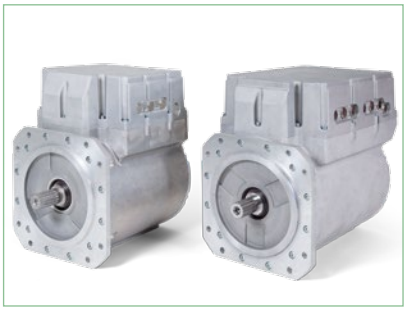
Please note: Isolation monitoring is required. DC link capaciator discharge time is maximum 60 seconds.

powerMELA-WRC Inverter

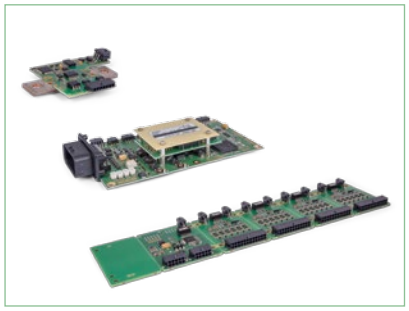




Other products from the powerMELA series:



powerMELA-C
(Permanent Magnet Synchronous Motor)



powerMELA-mBMS
(Battery Management System)

powerMELA-BC
(Brake Chopper)

Control Technology

Measurement Technology

Teleservice

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