

Project information	
Company	
Project name	
Application	
Date	
Executed by	

Signature

	Requirements / Criteria	Value	Notes
<b>Battery modules</b>			
Model			
Serialnumbers			Make drawing of actual battery location(s) Make drawing of CAN-bus cable wiring order
Firmware version	Latest release		
Clearances	Top	>50mm	
	Right side	>50mm	
	Left side	>50mm	
	Front	>50mm	
	Rear	>50mm	
Exhaust	Connected?		
	Diameter of ducting?		
	Material of ducting?	Stainless steel	
Location	Separate battery room?		
	Room ventiation present?		
	External heat sources next to the batteries?		
	Fire detection sensor present?		Type: CO / other:
	Gas detection sensor present?		
	Fire extinguishing system present?		PPS tanks and the possibility to add CO2 to the battery box from outside.
	Warning signs of high DC voltage and possible presence toxic and explosive gasses inside battery room present?		
	Is battery room used as storage space?		This is not allowed!

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	Onboard availability of protective clothing / gas masks for entering batteryroom in case of emergency.		
Environmental conditions	Condensing environment?		
	Air temperature control present?		
Fixation	Rack present?		
	All batteries tightened?		
PPS	Connected?		
	Pressure?	2 - 3 Bar	
	Pressure switch installed?		If not installed then pressure need to be checked regularly.
Battery configuration	Series		
	Parallel		
Connection configuration	Parallel groups		
Maximum charge current			
Maximum discharge current			
Cable diameter used			
<b>Liquid cooling system</b>			
Type of system	Closed or open?		
	Maximum pressure?	0,6 Bar	Test with no flow.
	Flow?	1-2 L/min. Per battery.	
Parallel and/or series connection	How many parallel and how many in series connected?	All parallel	
Check inlet and outlet connection	Inlet connected to the inlet and outlet connected to the outlet?		

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	Connection method to the module?		
Over pressure protection system present	Pressure rating?	0,7 Bar on the input, 0,3 Bar at the output.	
<b>MG Master HV</b>			
Model			
Serialnumber			
Firmware version	Latest release		
Mounting position	Vertical / Horizontal		
System voltage			
Fuses	Battery		
Configuration	Check configuration and special settings		Make screenshot
	Configure parallel and series to a fixed number		
	E-Stop (SIL) relay present?	E-Stop status output connected to Master and input setup as "Warning" input	
	Liquid cooling present?	Cooling leakage detection connected to Master and input setup as "Warning" input	
	PPS leakage detection present?	PPS system leakage detection connected to Master and input setup as "Warning" input	

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Cable check: Power			
Check Amphenol locks		Need to be locked	
Check connectivity	Battery series and parallel	Conform schematics	
Insulation resistance of system			Measured from negative pool to enclosure with alle batteries connected. Master HV was disconnected.
Check equipotention bonding/shielding	Connected?		Batteries are connected to the rack with special rings for good connections.

Cable check: Communication and I/O			
BMS-CAN check	All batteries connected?		
	Terminators present?		
AUX-CAN check	Used?		Interfaced to:
	Interface is working?		
Allow-to-charge	Used?		Interfaced to:
Allow-to-discharge	Used?		Interfaced to:
Emergency stop	Used?	Used as emergency or looped?	
Check communication @ full charge/discharge		CAN-Bus needs to be stable at full charge/discharge.	

Operation			
Check function of start/stop and reset function via AUX. CAN-bus.		Function properly	
Check charge/discharge limit function	Connect simulation battery and change temperature and cell voltages	Function properly	
Allow-to-charge		Function properly	
Allow-to-discharge		Function properly	

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Interlock functionality			Remove retrun path CAN-bus cable (bottom right connector)
Interlock voltage	Check return path to Master	>=9V	
24V supply ground	Not floating from shield		
Check diagnostics in diagnostic tool			Make screenshot
Reset Tracking values			
Reset Events			
Check date/time of Master			Check start-up event time
Charge batteries to synchronize SOC			

Remarks