

Connection system supplier response

# of cycles?	50 cycles is ok
maximum current?	Need a continuous current rating Temperature rating? Need a cyclical current rating (what is duty cycle?) off time? Temperature rating? Need a short circuit rating Temperature rating? Fused?
voltage drop?	USCAR specifies at mv/amp or resistance at a specified current Electric vehicle SAEJ1772 J541 Voltage drop for starting circuit What temperature? After what conditioning? Measure voltage drop in front of the crimp to take out crimp/cable variation or standardize the cable/crimp? Jones/Beer/Schramme to propose a standard test for evaluation of design proposals.
ambient temperature?	Most batteries today are specified at an ambient temperature of 60 ⁰ C to ~ 75 ⁰ C. Why 100 ⁰ C?
prevent electrical access to terminals?	Need to define "electrical access"? IEC 529 or IEC 1010
mate/unmate without tools?	Will not be required but will be evaluated for specific proposals Do we want engage verification?
accommodate electronic module?	Will be measured/evaluated for specific proposals
index for battery technology?	yes positive to negative terminal yes 3 indexes for battery technology on positive terminal only if proposed for a 12 V battery also, must index different from any of the above indexes
sizes of connections?	Let connection proposals recommend the number desired.
pigtail connections allowed?	Don't care from a connection perspective. Assume panel mount connection at battery for proposal

Battery terminal male or female?	Don't care - leave open for design competition
Connector to battery engage force	Maximum 75 N force for hand mating
Terminal bend resistance	leave out for now
Connector retention	use USCAR spec.
1008 hour current cycling assumption	leave out for now unless above mentioned group (Jones/Beer/Schramme) recommends it only one cable on harness side of connector - no doubles/tripples/etc.
maximum current allowed when disconnecting?	don't know - testing will be required
vibration/mechanical shock?	leave out for now unless above mentioned group (Jones/Beer/Schramme) recommends it
thermal shock?	leave out for now unless above mentioned group (Jones/Beer/Schramme) recommends it
temperature/humidity cycling?	leave out for now unless above mentioned group (Jones/Beer/Schramme) recommends it
sealed?	Will not be specified - suppliers will show how it could be done if required