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M3Or3A-06: [Invited] A high power two-pole quick connect junction between lightweight cryoresistive and superconducting aerospace power transmission cables

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A NASA University Leadership Initiative program with The Center for Cryogenic High-Efficiency Electrical Technologies for Aircraft (CHEETA) and a separate ARPA-E CABLES program have been developing cryogenic, medium voltage, high amperage, and lightweight aerospace electrical wiring and interconnection systems (EWISs). The research presented here includes the design and results of derisking tasks for the high power quick connect cryogenic junction unit between the ARPA-E (aluminum cryoresistive) and NASA (REBCO CORC^{TM}) cables and cable cryostats.

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