Advanced Powertrain Research Facility

Downloadable Dynamometer Database (D[3])- Test Summary Sheet

2014 Chevrolet Cruze Diesel

Vehicle architecture	Conventional
Document date	5/15/2015
Revision Number	1
Notes:	

Vehicle Setup Information

Test cell location	ANL APRF Bdg 371
Vehicle dynamometer Input	
Test weight [lb]	3808
Target A [lb]	22.636
Target B [lb/mph]	1.23944
Target C [lb/mph^2]	0.001929
Test Fuel Information	
Fuel type	2007 Cert Diesel HF0582
Fuel density [g/ml]	0.851
Fuel Net HV [BTU/lbm]	18399

Test information				Test cell information			Test cell setup		Vehicle setup						Electric energy consumption			
Test ID [#]	Cycle	Cold start (CS) Hot start [HS]	Date	Test Cell Temp [C]	Test Cell RH [%]	Test Cell Baro [in/Hg]	Vehicle cooling fan speed: Speed Match [SM] or constant speed [CS]	Solar Lamps [W/m2]	Veicle Climate Control settings	Hood Position [Up] or [Closed]	Window Position [Closed] or [Down]	Cycle Distance [mi]	Cycle Fuel economy [mpg] (Emiss Bag)	Cycle Fuel Consumed [gal] (Emiss Bag)	Cycle HV battery Integrated net current [DC Ah]	Cycle HV battery Average Zero crossing Voltage [V]	Cycle HV battery Net Energy [DC Wh]	Cycle HV battery Net Energy Consumption [DC Wh/mi]
61410028	UDDS CS	Cs	10/28/14	-6	6	29	SM	0	Cold FTP	Closed	Closed	7.44	24.5	0.303				
61410029	UDDS HS #1	Hs	10/28/14	-6	5	29	SM	0	On	Closed	Closed	7.45	32.7	0.228				
61410030	UDDS HS #2	Hs	10/28/14	-6	5	29	SM	0	On	Closed	Closed	7.45	33.3	0.224				
61410031	UDDS HS #3	Hs	10/28/14	-6	5	29	SM	0	On	Closed	Closed	7.49	33.4	0.224				
61410032	HWYx2, Ph 2	Hs	10/28/14	-5	7	29	SM	0	On	Closed	Closed	10.28	51.1	0.201				
61410033	US06x2, Ph 3+4	Hs	10/28/14	-5	6	29	SM	0	On	Closed	Closed	8.03	35.1	0.229				
61410012	UDDS CS	Cs	10/24/14	23	44	29	SM	0	Off	Closed	Down	7.45	30.9	0.241				
61410013	UDDS HS #1	Hs	10/24/14	23	44	29	SM	0	Off	Closed	Down	7.45	34.0	0.219				
61410015	HWY	Hs	10/24/14	25	35	29	SM	0	Off	Closed	Down	10.28	54.5	0.189				
61410016	US06	Hs	10/24/14	25	38	29	SM	0	Off	Closed	Down	8.04	37.0	0.217				
61410017	Passing Manuevers-0, 3 & 6% grade	Hs	10/24/14	26	35	29	SM	0	Off	Closed	Down	9.99	22.8	0.439				
61410008	SSS 0-80-0 0% Grade	Hs	10/23/14	24	40	29	SM	0	Off	Closed	Down	11.56	50.2	0.230				
61410007	WOTs x3	Hs	10/23/14	23	41	29	SM	0	Off	Closed	Down	2.36						
61410004	WLTP	Hs	10/23/14	24	38	29	SM	0	Off	Closed	Down	14.36	41.2	0.348				
61410005	NEDC	Hs	10/23/14	23	46	29	SM	0	Off	Closed	Down	6.88	37.7	0.183				
61410021	UDDS CS	Cs	10/27/14	35	40	29	SM	850	AC Max	Closed	Closed	7.44	23.7	0.314				
61410022	UDDS HS #1	Hs	10/27/14	36	38	29	SM	850	AC Max	Closed	Closed	7.49	25.5	0.293				
61410024	HWY	Hs	10/27/14	39	30	29	SM	850	AC Max	Closed	Closed	10.27	44.9	0.228				
61410025	US06	Hs	10/27/14	40	29	29	SM	850	AC Max	Closed	Closed	8.04	31.0	0.259				
61410026	SC03	Hs	10/27/14	37	34	29	SM	850	AC Max	Closed	Closed	3.60	26.7	0.135				

Summary notes

For the highway and US06, SC03, cycles only the second (hot) test results are presented in this summary.

Electric energy consumption:

HV battery Integrated net current --> Integrated current as reported by power analyzer

HV battery Average Zero crossing Voltage --> Calculated Average Zero crossing Voltage over the phase or cycle

HV Net Energy --> Integrated power as reported by power analyzer

Note that HV Net Energy is not equal to the product of HV battery Integrated net current times Average Zero crossing Voltage.

* Target Coefficients developed during AVTE coast down testing

Advanced Powertrain Research Facility Data referencing:

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