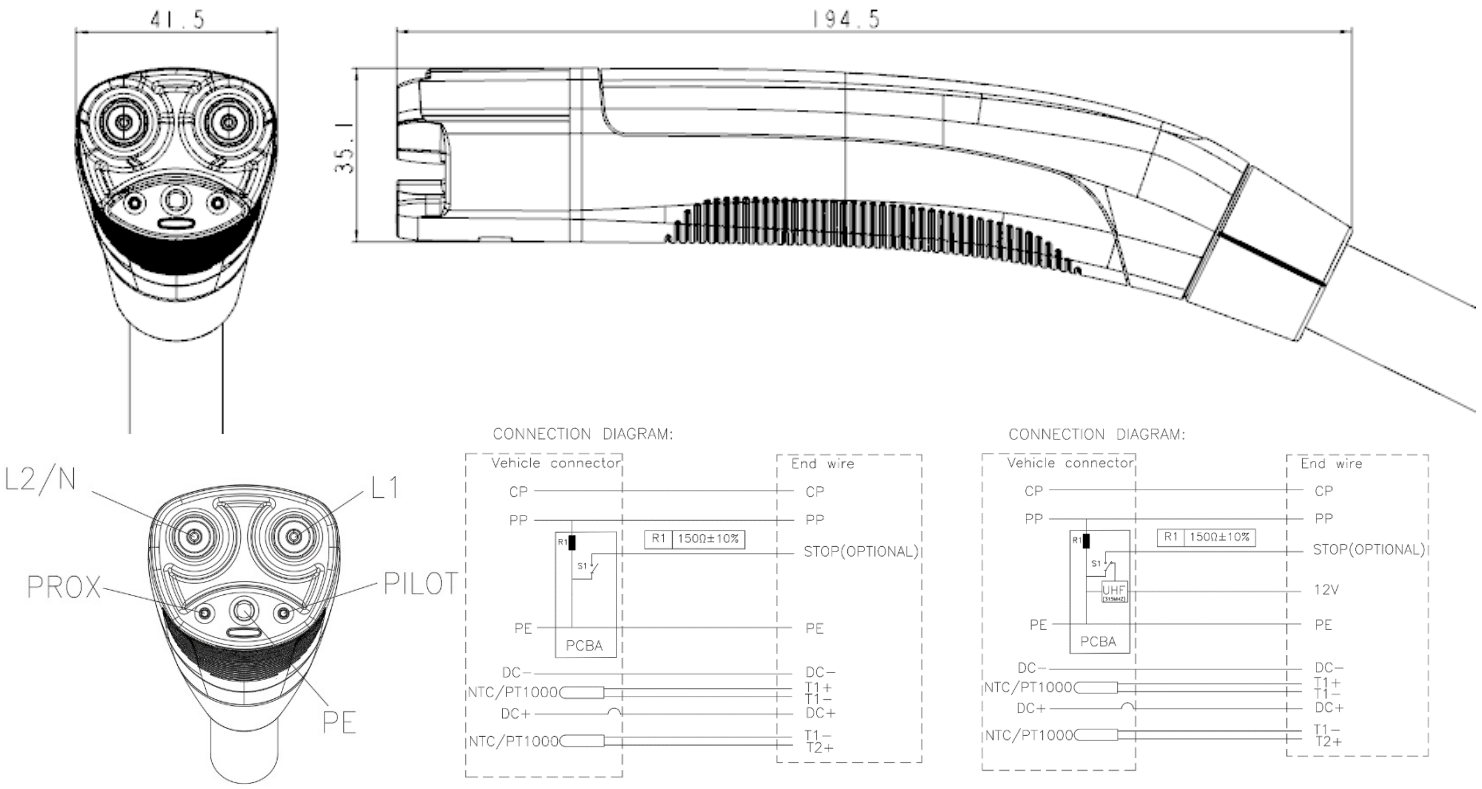
NACS 40/50A DC
Charging Cable

PRODUCT DEFINITION		
Charging Standard	SAE J3400	
Approvals & Certification	UL 2251, CSA C22.2 NO. 282	
DIMENSIONS CHARGING CONNECTOR		
Width	41.5 mm	
Height	35.1 mm	
Depth	194.5 mm	
Cable Length & End Treatment	5.5 m, 6.1 m, 7.6 m or On Request	
AMBIENT CONDITIONS		
Ambient Temperature (Operation)	-40°C to +50°C	
Ambient Temperature (Storage / Transport)	-40°C to +105°C	
Max. Altitude	4000 m (above sea level)	
Operating Humidity	Up to 95% RH, Condensing	
UV Resistance	F1 per UL 746C	
Degree of Protection (Unmated)	Type 4 / IP67	
ELECTRICAL PROPERTIES		
Number of Phases	1	
Rated Voltage for Power Contacts	1000V DC	
Rated Current for Power Contacts	32A / 40A	48A / 50A
Maximum Charging Power	32 kW / 40 kW	48 kW / 50 kW
Number of Power Contacts	3 (DC+, DC-, PE)	
Temperature Sensor Type	NTC 10K or Pt1000	
Temperature Sensor Threshold	75°C (NTC on PCBA) 90°C (NTC on Terminal)	
Number of Signal Contacts	2 (CP, PP)	
Note on the Connection Method	Crimp Termination (cannot be disconnected)	
Resistor Coding (between PE and CS)	150 Ω	
UHF Transmitter	Silicon Labs Si4010-C2-ATR	
UHF Transmitter Frequency	315 MHz	
Withstanding voltage	3000V	
MECHANICAL PROPERTIES		
Mating Cycles	> 10,000	
Insertion Force	< 90 N	
Withdrawal	< 90 N	
Rated Drop Resistance	200 Drops	

NACS 40/50A DC MECHANICAL DRAWING



MATERIAL		DESIGN	
Material Housing / Handle Area	Plastic	**Housing / Handle Area Colour**	Black
Material Mating Face	Plastic	**Mating Face / Locking Lever Colour**	Black
Flammability Rating	V-0	**Housing with Customer Logo**	On Request
Material Contacts	Cu-Alloy		

CABLE

CABLE IS UL-R (SET APPROVAL IS REQUIRED WHEN USING UL-R CABLE)

AMPERAGE	CABLE STRUCTURE	CABLE O.D.	PHASE
32A / 40A	EVC 3 x 10 AWG + 4 x 22 AWG	12 mm	1 Phase
48A / 50A	EVC 2 x 8 AWG + 1 x 10 AWG + 4 x 22 AWG	14.5 mm	

CABLE RESISTANCE AT 20°C		
8 AWG	**10 AWG**	**22 AWG**
≤ 2.23 Ω/km	≤ 3.51 Ω/km	≤ 56.8 Ω/km

Cable Standard	UL 2263
Type of Conductor	Per Above Construction
Outer Sheath Material	TPE
Outer Sheath Colour	Black

ENVIRONMENTAL PRODUCT COMPLIANCE	
REACH SVHC	Compliant
China RoHS	Compliant
EU RoHS	Compliant

Contact us at **sales@volex.com**
for assistance in finding the right solution for your needs.