



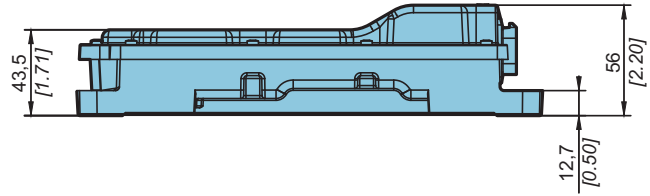
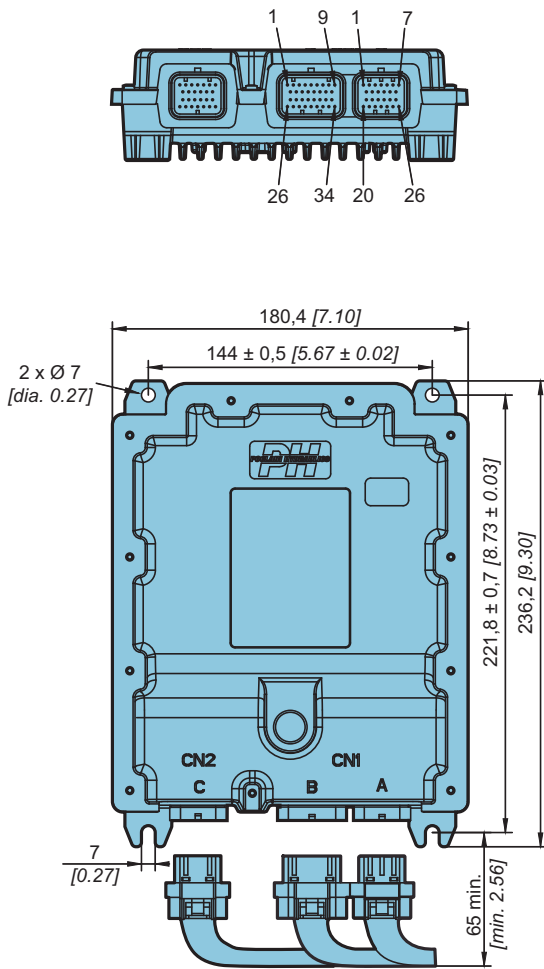
SMARTDRIVE™ CT ECU



Commercial name		SD-CT-200	SD-CT-300
Part number		A46841P	A46842Q
Operating voltage		8 V to 32 V	
Operating temperature		- 40°C to 85°C [-40 °F to 185°F]	
Overall dimensions		See below	
Material		- Aluminum AlSi ₉ Cu ₃ (Box) - PA66 plastic with 20% of fiberglass (cap) - Silicon (seal)	
Mass		1,270 kg ±10% [2,76 lb] ±10%	
Mounting		4 x Ø 7 mm 4 x [0.275" dia.]	
Controller Ingress Protection with counterpart connectors mounted		IP 67 (according to EN60529 oct 1992)	
Max. quiescent current consumption (ignition switched off)		5 mA	
12V system max current		35,4 A	
24V system max current		17 A	
Maximum usage profile:	12V System: (Supply voltage 16V)	- 6 HSD PWM outputs 400Hz, 95% 8 Ω loads - 4 HSD digital outputs on, 6.15 Ω loads	- 8 HSD PWM outputs 400Hz, 95% 8 Ω loads - 4 HSD digital outputs on, 6.15 Ω loads - 4 HSD digital outputs on, 8Ω loads
	24V System: (Supply voltage 32V)	- 6 HSD PWM outputs 400Hz, 95% 32Ω loads - 4 HSD digital outputs on, 32Ω loads	- 8 HSD PWM outputs 400Hz, 95% 32Ω loads - 8 HSD digital outputs on, 32Ω loads
Performance level		Capacity to reach PL d level according to ISO13849:2006 standard	
Mean Time To Failure (MTTF)		85,1 years (ambient temperature of 40°C [104°F] with operating profil of 11,87% (4 hours per day, 5 days per week, 52 weeks per year)	66,7 years (ambient temperature of 40°C [104°F] with operating profil of 11,87% (4 hours per day, 5 days per week, 52 weeks per year)
Mean Time To Dangerous Failure (MTTFd)		224.2 years	173.1 years
Diagnostic Coverage (DC)		90,9% (medium)	90,7% (medium)
Category		2	2
Electrical protection		Over-voltage, reverse polarity, ground and battery short circuit	
Microcontroller		One 32 bits microcontroller and one 8 bits microcontroller	
ECU programming		Programming with a PC using the PHASES™-CT software application	
ECU set-up		Set-up with the software PHASES™-CT	
Universal inputs (UN)		9	15
Analog inputs (AN)		11	17
Frequency inputs (FIN)		5	8
Wake-Up Input (WUI)		1	1
Ground sense input (GND_SENSE)		1	1
HSD PWM 2A outputs		6	8
HSD DIG 2,6A outputs		4	4
HSD DIG 2A outputs		0	4
Low Side Digital output (LSD) 4A		0	3
Low Side Digital output (LSD) 5,2A		3	3
Sensor supply 5V		1	1



Overall dimensions of the ECU



Electronic control units

Displays

Electronic components

Connectors

Cables

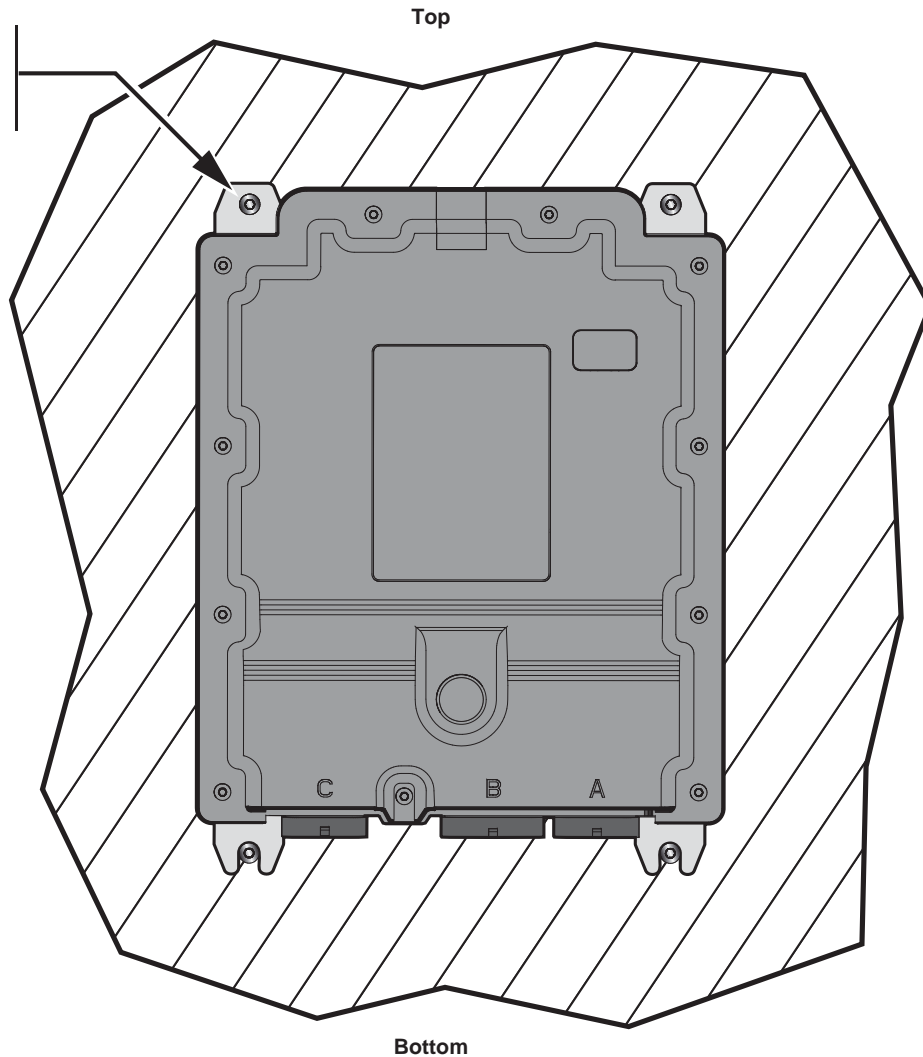


Fitting the controller

The controller must be fixed on a rigid support. Make sure that there is enough space to fit the connector (min. 65 mm [*min. 2.56 in*]). The controller shall be preferably mounted in vertical position (connectors at the bottom) to enhance ventilation and avoid dust accumulation on cooling fins.

The controller's housing has to be connected to the ground (chassis) of the vehicle and to be installed on a flat surface (flatness of 0,5/100x100mm [*3.94x3.94 in*]).

- Screw (X4): M6
- Nut (x4): M6
- Shim (x4) : M6
- Tightening torque: 6 Nm



Electrical connections	Commercial name	Part number	
SmartDrive™ CT main connector	KIT-CONNECT-SD-CT-200	A48149L	page 66
	KIT-CONNECT-SD-CT-300	A48140B	
SmartDrive™ CT communication connector	KIT-CONNECT-COM-M-SD-CT	A48693C	page 68
Connector kit 120Ω	KIT-PLUG-120-DTM-2S	A52539H	page 70
SmartDrive™ CT-200 cable	CABLE-SD-CT-200-60-5000	A48878D	page 89
SmartDrive™ CT-300 cable	CABLE-SD-CT-300-86-5000	A48877C	page 89