



Spec sheets of Ferraris Tolenoid C[®] products

June 2019 *(Updated January 3, 2020)*



▪ Tolenoid C[®] (Contactless power supply)

Tolenoid C[®] (1.30 / 2.48 inches)



Line thickness
Under 1.30 inches



Line thickness
Under 2.48 inches



Split form factor

- Tolenoid C[®] convert magnetic energy around power line into electric power form for various electric devices.
- Tolenoid C[®] can be installed into power lines regardless of its voltage such as high voltage distribution lines, underground lines as a form factor of splittable one which make them possible easy install Tolenoid C[®].
- Tolenoid C[®] can save electric device installation cost and time compare to conventional way which requires transformer and complex wiring process for 110 or 220Vac power line.
- Maximize efficiency of induction electricity generation by effective Core design and manufacturing process from Ferraris technology.
- Secure electric power energy generation from 10 ~ 650 Ampere power line.
- Water proof case design. (IP65 ~ IP68)
- Electric power generation capacity depends on the current of the primary power line and this can be controlled Ferraris designed SMPS type.

Specifications	Under 1.30 "	Under 2.48 "
Primary power line current (A)	10 ~ 650 A	
Primary power line voltage (V)	~ 30 kV	
Primary power line wire thickness (inches)	~ 1.30	~ 2.48
Output current type	AC output	
Working temperature (°F)	- 40 ~ 185	
Waterproof (IP)	IP 65 ~ 68 (KS C IEC 60529)	
Size (W*D*H inches)	5.12 * 3.94* 4.33	6.69 * 3.94 * 5.90
Weight (lb)	4.70	7.05
Case material	PC GF 20	

▪ SMPS (Switching mode power supply)

SMPS (12V 20W / 60W)



Output : connector to system

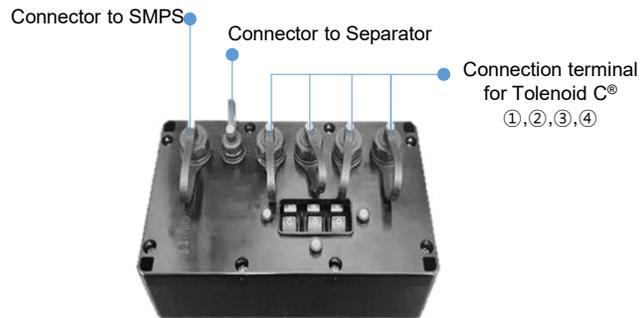


Input : connector to multi-adapter

- SMPS block is a semiconductor based circuit board which convert AC input from Tolenoid C[®] into to a DC output for the user requirement or multi-adapter for multiple Tolenoid C[®].
- Ferraris SMPS block is basically composed of two component. Incoming AC signal is converting into DC signal by regulator sub-block and this DC signal is smooth by advanced SMPS block for stable DC output.
- Ferraris SMPS block has the following features.
 - 1) Preventing overvoltage, overcurrent, overload feature
 - 2) Line regulation less than 1%
 - 3) Control maximum output controllability
 - 4) Incoming input controllability
- Available IP65 to IP68 case design available.
- Scalable power output capacity is possible depending on customer need.

Specifications	12V/20W	24V/60W
Input	Output of Tolenoid C [®]	
Output	DC 12V/20W	DC 24V/60W
Working temperature (°F)	- 40 ~ 185	
Waterproof (IP)	IP 65 ~ 68 (KS C IEC 60529)	
Size (W*D*H inches)	3.54 * 5.51 * 2.36	
Weight (lb)	1.87	
Case material	PC GF 20	

Multi-adapter



Multi-adapter

- Multi-adapter is a sub-block tool that allows multiple Tolenoid C[®] to be connected and operated.
- This one make system allow output power scalability, such as increasing power from 10 to 40Watt and also reducing the required minimum current of power line for Tolenoid C[®] power generation.
- The multi-adapter has four Tolenoid C[®] connectors and one for each SMPS and Separator.
- For the future usage, Tolenoid C[®] connectors can be added more, such as up to eight.
- Deliver generated power from these multiple Tolenoid C[®] to SMPS block.
- Separator is for safe installing and disassembling Tolenoid C[®] to SMPS block. This is mandatory one for safety.
- You can switch on and off each Tolenoid C[®] by pressing switch even if you connect them up to multiple Tolenoid C[®].

Tolenoid C [®]	Up to 4ea
Separator	For installation/de-installation
SMPS	SMPS connections based on desired voltage and output
Working temperature (°F)	- 40 ~ 185
Waterproof (IP)	IP 65 ~ 68 (KS C IEC 60529)
Size (W*D*H inches)	7.09 * 3.94 * 1.77
Weight (lb)	2.09
Case material	PC GF 20

▪ Separator



Separator

- The Separator is tool for safe installation or de-installation of Tolenoid C[®] at active power line without shutting down power line.
- The Separator make it possible of demagnetization of Tolenoid C[®] occurred when the Tolenoid C[®] is installed in the magnetic field around the active power line.
- Install or de-installation using physical force or other equipment without the Separator causes a safety problems such as finger jammed in between and there is a risk of injury by cutting surface of the core.
- With Separator on, you can install or de-install Tolenoid C[®] at active power line without physical force or other big tools.
- Be sure to sue the designated Separator for Tolenoid C[®] check product serial numbers.

Specifications	
Working temperature (°F)	- 40 ~ 185
Waterproof (IP)	IP 40 (KS C IEC 60529)
Size (W*D*H inches)	1.93 * 2.60 * 1.50
Weight (lb)	0.29
Case material	Plastic

■ **Cable and Connector** - Obtain UL & CUL Certification, Waterproof test pass - IP 68



Cable

- Internal wiring of electrical electronic equipment

Cable Connector

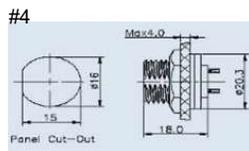
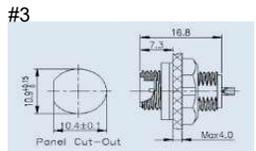
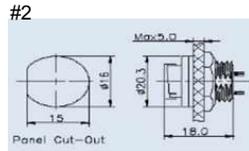
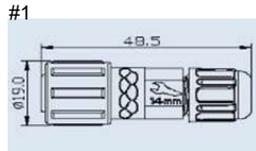
- #1 Connector connected to cable
- male & female pin (screw type, solder)

Output Connector

- #2 Tolenoid C®, Multi-adapter output connector, panel mount & female pin (lock bayonet type, solder)
- #3 SMPS output Connector, rear panel mount & male (screw type, solder)

Input Connector

- #4 Multi-Adapter, SMPS input connector, panel mount & male pin (screw type, solder)



Interface Cables	
Rated	(UL) 221°F 300V
Insulation vessel	UL 1007, UL 1061 Type
Flammability	VW-1, FT-1 Satisfied
Application specification	UL Subject 758, 1581 CSA C22.2 No. 210

Cable Connector	
Panel thickness (inches)	0.138 ~ 0.268 inches
Environmental protection	IP 67 or 68 (IEC 60529)
Mechanical life	500 Mating cycles
Operating temperature (°F)	- 49 ~ 221
Voltage rating	110 V
Rated current (104 °F)	5 A

Output Connector	
Panel thickness (inches)	Max 0.196 inches
Environmental protection	IP 67 or 68 (IEC 60529)
Mechanical life	500 Mating cycles
Operating temperature (°F)	- 49 ~ 221
Voltage rating	30 ~ 300 V
Rated current (104 °F)	2 ~ 10 A

Input Connector	
Panel thickness (inches)	Max 0.157 inches
Environmental protection	IP 67 or 68 (IEC 60529)
Mechanical life	500 Mating cycles
Operating temperature (°F)	221
Voltage rating	30 ~ 300 V
Rated current (104 °F)	2 ~ 10 A