

## Smart DC/DC Converter Reversible

COMET productline - Liquid cooled version

### FEATURES

- Programmable DC/DC Smart Converter as current or voltage source
- Regulation according to Voltage, Current or Power
- Regulation of the Input or the Output
- Buck / Boost transition controlled by CAN command
- Parallel operations of several modules for higher power delivery without limitations (in current source mode only)
- Liquid cooled
- 19" form factor available
- Insulated CAN 2.0B connectivity

### APPLICATIONS

- Fuel cell power
- Battery systems
- Super capacitors
- Chargers



SINGLE unit



DOUBLE unit

### PERMANENT MAX POWER & REFERENCES

		Vhighside				Eff. @Pmax	Type	Main reference
		70 - 110 V	300 - 450 V	500 - 700 V	600 - 950 V			
Vlowside	24 - 40 V	3.5 kW				90%	SINGLE	CONV-DCDC-3KW5-AABC-04-H
		7 kW					DOUBLE	CONV-DCDC-07KW-AABC-04-K
	40 - 60 V	4 kW				93%	SINGLE	CONV-DCDC-04KW-ABBC-01-H
		8 kW					DOUBLE	CONV-DCDC-08KW-ABBC-01-K
	35 - 70 V		6 kW			92%	SINGLE	CONV-DCDC-06KW-ABFI-01-H
			12 kW				DOUBLE	CONV-DCDC-12KW-ABFI-01-K
	50 - 100 V			6 kW		91%	SINGLE	CONV-DCDC-06KW-ABJN-01-H
				12 kW			DOUBLE	CONV-DCDC-12KW-ABJN-01-K
	80 - 150 V			10 kW		95%	SINGLE	CONV-DCDC-10KW-BCFI-01-H
				20 kW			DOUBLE	CONV-DCDC-20KW-BCFI-01-K
	150 - 250 V			18 kW		96%	SINGLE	CONV-DCDC-18KW-CEJN-01-H
				36 kW			DOUBLE	CONV-DCDC-36KW-CEJN-01-K
	300 - 400 V			30 kW		97%	SINGLE	CONV-DCDC-30KW-FHJN-01-H
				60 kW			DOUBLE	CONV-DCDC-60KW-FHJN-01-K
	350 - 450 V				20 kW	97%	SINGLE	CONV-DCDC-20KW-GILS-01-H
					40 kW		DOUBLE	CONV-DCDC-40KW-GILS-01-K

### REGULATION MODES

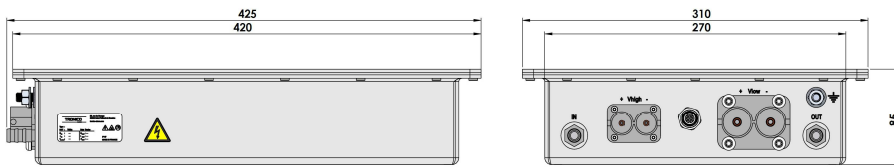
	CURRENT	VOLTAGE	POWER
According to Low side	Available	Available	Available
According to High side	Available	Available	Available

### COMMUNICATION AND MONITORING

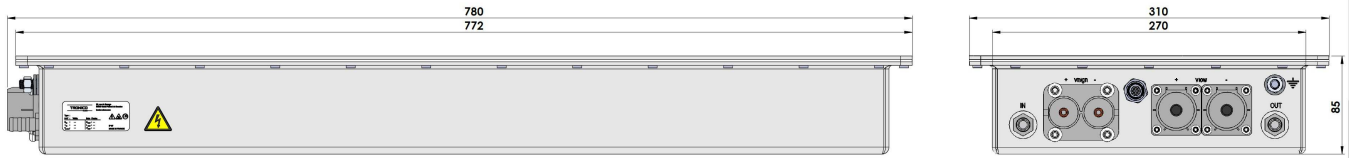
	MIN	TYP.	MAX	UNITS
CAN 2.0B bus speed	125		500	Kb/s
CAN periodicity		100		ms
Measured voltages accuracy		±0.7	±2	% of full scale
Measured Low Side current accuracy		±1.9	±3	% of full scale
Measured High Side current accuracy		±1.7	±2.5	% of full scale
Measured internal temperature accuracy		±1	±3	°C
Service Power Supply - Voltage	10.5		32	V
Service Power Supply - Power consumption (SINGLE / DOUBLE)	2		6 / 12	W

## MECHANICAL DATA

SINGLE unit (Weight : 11 kg)



DOUBLE unit (Weight : 22 Kg)

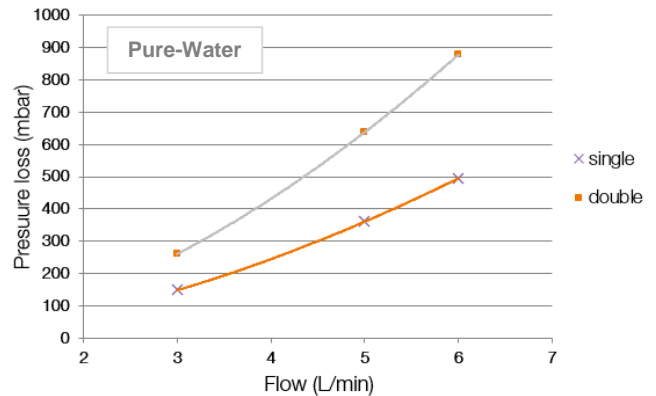


## CONNECTORS

	SUPPLIER	SINGLE unit	DOUBLE unit
V Low side	AMPHENOL	PL082X-300	PL00X-500 & PL00Y-500
V High side	AMPHENOL	PL082X-120	PL082X-300
CAN + Service voltage	PHOENIX CONTACT	1441655 - A Coded - 5 positions	
Cooling connectors	LEGRIS	0931 10 13	
Casing grounding	-	M8 x 17 mm Threaded rod	
HVIL	-	DB9 female	

## COOLING PARAMETERS

	MIN	TYP.	MAX	UNITS
Flow rate	3	5	7	L/mn
Pressure			5	Bar
Inlet liquid temperature	0		+65	°C



## ENVIRONMENT DATA

	MIN	TYP.	MAX	UNITS
Galvanic insulation between power circuit and chassis-control interface (1 min test)			3.0	kV
Insulation resistance	2			MΩ
Ambient temperature (operating)	-40		85	°C
Ingress Protection		IP65		-

## STANDARDS USED FOR DESIGN

EMC	R10
Control circuit supply voltage	ISO 16750-2 mode D
Mechanical loads	ISO 16750-3
Climatic loads	ISO 16750-4 code G
Chemical loads	ISO 16750-5 mounting location A
Electrical vehicle safety	R100