

Smart DC/DC Converter Reversible

CONVY 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

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
	40 - 60 V	4 kW				93%	SINGLE	CONV-DCDC-04KW-ABBC-01-H
	35 - 70 V		6 kW			92%	SINGLE	CONV-DCDC-06KW-ABFI-01-H
	50 - 100 V			6 kW		91%	SINGLE	CONV-DCDC-06KW-ABJN-01-H
	80 - 150 V		10 kW			95%	SINGLE	CONV-DCDC-10KW-BCFI-01-H
	150 - 250 V			18 kW		96%	SINGLE	CONV-DCDC-18KW-CEJN-01-H
	300 - 400 V			30 kW		97%	SINGLE	CONV-DCDC-30KW-FHJN-01-H
	350 - 450 V				20 kW	97%	SINGLE	CONV-DCDC-20KW-GILS-01-H

REGULATION MODES

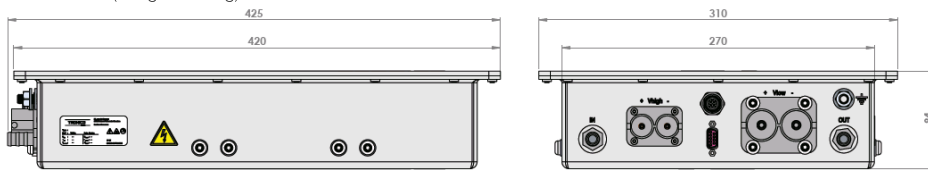
	CURRENT	VOLTAGE	POWER
According to Low side	Available	Available	Available
According to High side	Available	Available	Available

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)

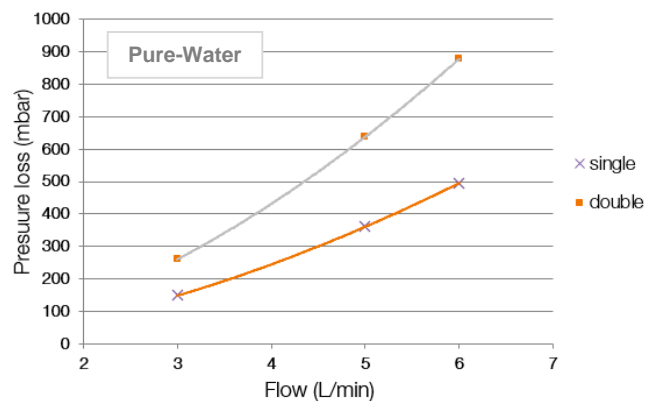


CONNECTORS

	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 (1min 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