

Smart DCDC Converter Reversible

CONVY productline - Liquid cooled version

FEATURES

- Programmable DCDC 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 (current source or power source modes only)
- Liquid cooled
- Insulated CAN 2.0B connectivity

APPLICATIONS

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

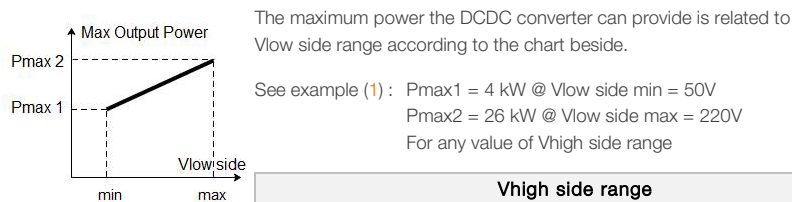


SINGLE unit



DOUBLE unit

PERMANENT MAX OUTPUT POWER



	Vlow side range	Vhigh side range					Eff. @Pmax	Size	Reference
		200 ... 400V	300 ... 500V	500 ... 700V	600 ... 700V	550 ... 950V			
Vlow side range	35 ... 120V	4 - 7kW (*)					98%	SINGLE	CONV-DCDC-07KW-ACDH-01-H
		8 - 14kW (*)						DOUBLE	CONV-DCDC-14KW-ACDH-01-K
	50 ... 220V		4 - 26kW (1)				98%	SINGLE	CONV-DCDC-26KW-AEFJ-01-H
			8 - 52kW					DOUBLE	CONV-DCDC-52KW-AEFJ-01-K
	50 ... 220V			5 - 14kW			98%	SINGLE	CONV-DCDC-14KW-AEJN-01-H
				10 - 28kW				DOUBLE	CONV-DCDC-28KW-AEJN-01-K
	150 ... 400V			16 - 32 kW			98%	SINGLE	CONV-DCDC-32KW-CHJN-01-H
				32 - 64 kW				DOUBLE	CONV-DCDC-64KW-CHJN-01-K
	300 ... 400V				35 - 40 kW		97%	SINGLE	CONV-DCDC-40KW-FHNL-01-H
					70 - 80 kW			DOUBLE	CONV-DCDC-80KW-FHNL-01-K
	100 ... 450V					7 - 22 kW	98%	SINGLE	CONV-DCDC-22KW-BIKS-01-H
						14 - 44 kW		DOUBLE	CONV-DCDC-44KW-BIKS-01-K

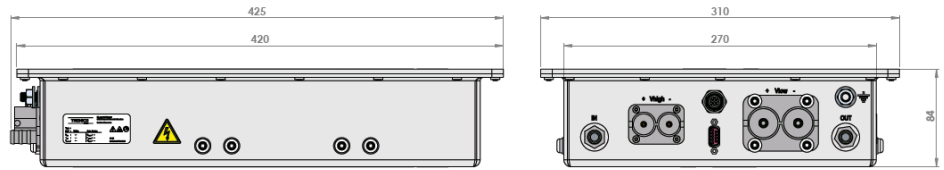
(*) : Boost only

COMMUNICATION AND MONITORING

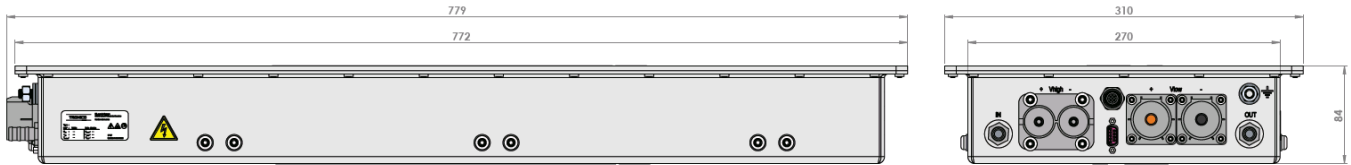
	MIN	TYP.	MAX	UNITS
CAN 2.0B bus speed	125		500	Kb/s
CAN periodicity		100		ms
Measured voltages accuracy		±0.7	±2	% of full scale
Measured Low Side current accuracy		±1.9	±3	% of full scale
Measured High Side current accuracy		±1.7	±2.5	% of full scale
Measured internal temperature accuracy		±1	±3	°C
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)

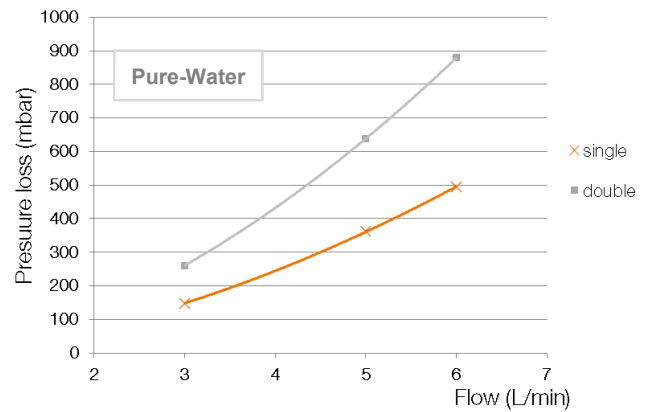


CONNECTORS

	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	6	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	10			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

REGULATION MODES

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

POWER CHART FOR CONVERTER REFERENCES

