

## CONV-DCDC-40KW-IMMQ-06-F NON ISOLATED BUCK DC/DC CONVERTER Air cooling

TAME-POWER DC/DC converters allow to transfer up to 1 megawatt on 35V to 950V input and output voltage ranges.

TAME-POWER high voltage DC/DC converters perfectly adapt to applications of the on-road, off-road, stationary, aeronautics and marine markets and easily embed architectures integrating: fuel cells, batteries, super-caps and auxiliary power supplies.

As a specialist in high-reliability power conversion solutions, TAME-POWER brings over 50 years of expertise in electronic systems to the table. Our commitment lies in providing tailored products that blend efficiency, performance, and power density to address diverse mobile and fixed application needs. At TAME-POWER, we understand that every customer comes with unique requirements. Therefore, our philosophy revolves around partnering with clients throughout the product development process to ensure we deliver solutions that precisely match their specifications.

### AIR COOLING DC/DC HVHV CONVERTER

- Air cooling DC/DC HVHV converter module
- Increase power density and ensures power optimization up to 40kW



### FEATURES

- Programmable smart DC/DC converter allowing regulation according to voltage, current or power, input or output
- Buck/boost transition controlled by CAN command
- Operations controlled through insulated CAN 2.0B
- Parallelization of DC/DC modules for higher power delivery (in current source mode only)
- Air cooling

## GENERAL DATA AND OPERATING CONDITIONS

PARAMETER	CONV-DCDC-40KW-IMMQ-06-F	Remark
High side range	630 V – 820 V	-
Low side range	430 V – 630 V	-
Rated output current	150 A	-
Power max	40 kW	-
Efficiency	>98%	-
Cooling	Air cooling	-
Relative humidity	10% to 90%	-
Regulation modes (at both sides)	Current/ Voltage/ Power	* Special regulation for batteries application is available.
Main supply voltage 12V option	9V - 13.5V	-
Main supply voltage 24V option	18V - 28V	-
Power supply consumption	30W max	-
Power supply current	1.0 A	-

\* For more details, please refer to user manual or send an email to [contact@tame-power.com](mailto:contact@tame-power.com)

## CAN 2.0B

CAN 2.0B		Units
Default speed	500	kbits/s
CAN frames periodicity	100	ms
Frame Id (extend frame identifier)	29	bits

## COOLING PARAMETERS

	Value	Units
Flow rate	268	m <sup>3</sup> /h
Inlet air temperature	-20 to +55	°C
Over temperature protection	+55 to +70	Derating

## ENVIRONMENT DATA

	Value	Units
Galvanic insulation between power circuit and chassis-control interface	3.0	kV
Insulation resistance	2	MΩ
Operating ambient temperature	-20 to +55	°C
Storage temperature range	-40 to +70	°C
Ingress Protection	IP20	-
Altitude (full performance)	2000	m

## APPLICATION EXAMPLES

- Boost - Fuel Cell to Battery



- Buck - Battery to Battery



- Buck and Boost - Super Capacitors to Battery



## STANDARDS

Isolation	CEI 60664-1
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
Shock and Vibration	ISO 16750-3
Electrical safety	ISO 6469-3

## MECHANICAL DATA

Connectors	Reference
$V_{LOW}$ side	Copper Bus bar 5 × 16 mm section
$V_{HIGH}$ side	
CAN + Service voltage*	Female DB15

\*Match with our TAME-POWER starter kit

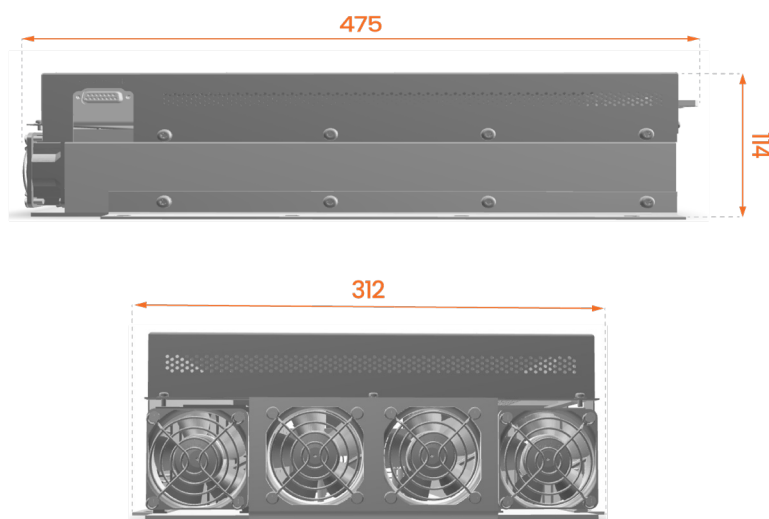
## MOUNTING CONFIGURATION IN 19" CABINET

- Quadruple unit, 19» rack mounting
- Single unit 3U, 19» rack mounting



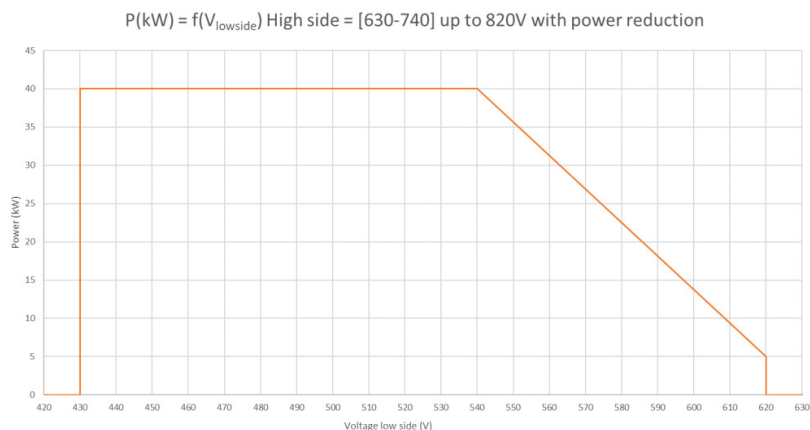
## WEIGHT AND DIMENSIONS

Weight	11 kg
Housing material	Aluminum
Lenght	475 mm
Width	312 mm
Height	114 mm



## POWER CHART

To match the expectations of Guinault we enlarged the usable ranges of voltages. Guinault will have make sure that the converter stays below the maximum output power indicated in the powermap below.



For any detailed information please contact our sales team: [contact@tame-power.com](mailto:contact@tame-power.com)

## OTHER PRODUCTS AND ACCESSORIES

Below you can find the other product families created by TAME-POWER. Each product can be fully customized to meet specific requirements.

### STARTER KIT

- This kit for liquid or air cooled DC/DC converters allows controlling a DC/DC converter unit by direct connection to a power supply and a PC or a laptop.
- Include CAN communication probe and service power cables.
- The provided HMI software propose a user-friendly access to the main functions of the converter.



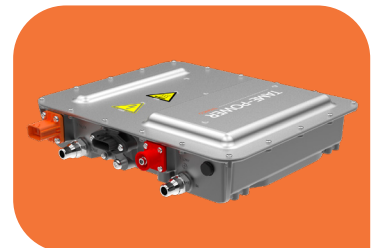
### POWER CABLES

- High side and low side power connection cables to transfer energy between the converter and your systems.
- The choice of cables will depend on the type of converter - single or double.
- Cables have open end on one side to allow custom connectors application.



### CISO: New HVLV isolated converter

- Isolated Buck DC/DC converter in a liquid cooled version.
- Allow regulation according to input voltage.
- Applicable to battery systems and electric vehicles.



### COMET V2.4 : HVHV non-isolated converter

- Non-isolated reversible DC/DC converter in a liquid cooled version.
- Allows regulation according to voltage, current or power, input or output.
- Applicable to fuel cell power, battery systems, super capacitors, chargers, loads and motors.



### COMET V2.3 : HVHV non-isolated converter

- Non-isolated reversible DC/DC converter in a liquid cooled version.
- Allows regulation according to voltage, current or power, input or output.
- Applicable to fuel cell power, battery systems, super capacitors, chargers, loads and motors.

