

Three-Phase DC-AC Converter DA04

PRODUCT OVERVIEW:

DC-AC converters utilizes advanced Digital Power Processing with high frequency magnetic design to provide efficient and high bandwidth dynamic response for voltage and current regulations with input and output voltage and current and power limits protections. The cost effective high frequency proven magnetic design with robust redundant control provides fast response, flexibility, reliability, light weight and volume product for Fuel Cell and alternative energy industry. Extensive diagnostics via CAN-J1939 and RS232.

FEATURES:

- DC Input Voltage Range: 450-700V_{DC}
- AC output, 110/220 V_{AC} or 208V_{AC}, 3Φ, 52A, 15KW
- Efficiency: 92% rated,
- Short Circuit, OC, O/U V and OT protection.
- Stand alone operation.
- CAN command, control and diagnostics. Output voltage, Input and output current/power can be regulated or limited via CAN command.
- Output voltages, currents, power, temperature and STATUS reporting.
- CAN communication parameters reconfigurable by user through RS232 interface.



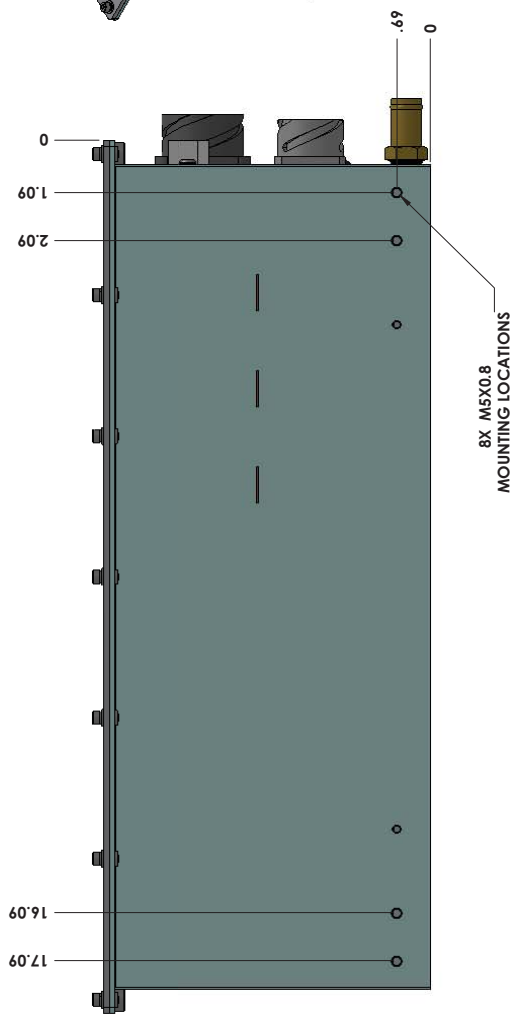
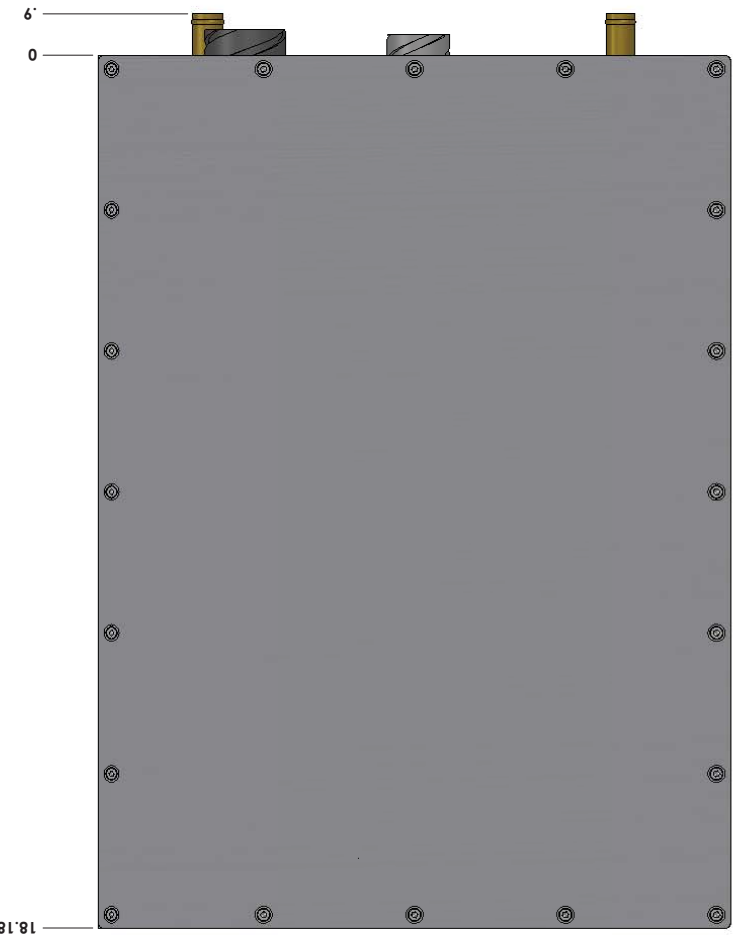
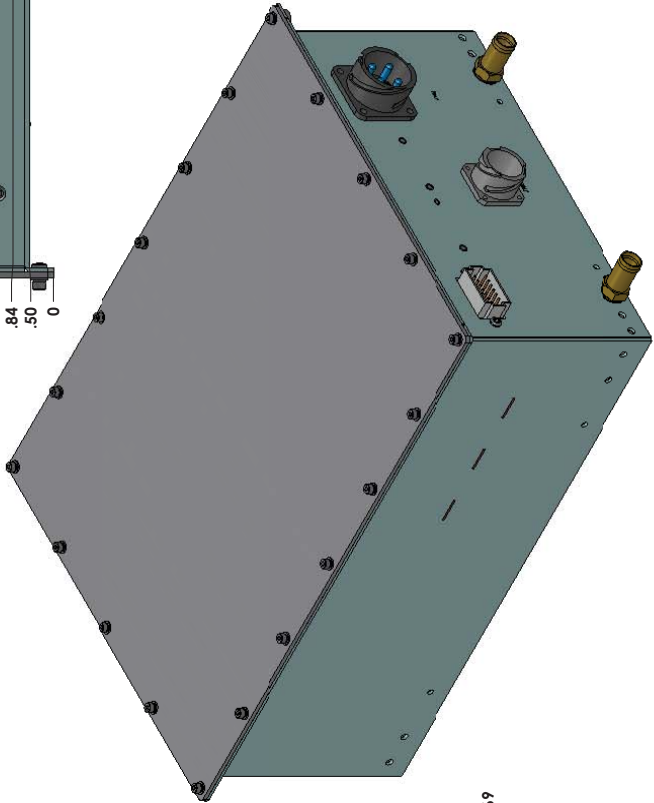
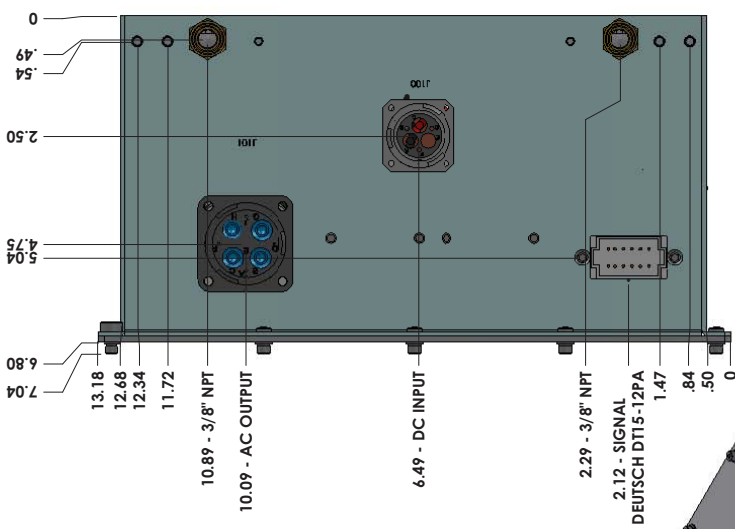
APPLICATIONS:

Hybrid Electric and Fuel Cell Vehicles and Renewable Energy Systems.

Signal Connector: DEUTSCH DT15-12PA		Line regulation ($\pm 10\%$)	$\pm 2\%$
1	GND	Load regulation	$\pm 2\%$
2	PWR_ON (Opto, 10-30V)	Ripple	$< \pm 1\% + 300$ mVp-p
3	12V_POS	Load transient (10-90%)	$< 5\%$ typical
4	12V_NEG	Response time	250 ms typical
5	VOUT_ANALOG_CMD	Turn-on rise time	Soft-start, 450 ms typical
6	ANALOG_RTN	Output protection	Overload and short circuit
7	#FAULT (active low OC)	Cooling	Liquid cooled $< 60^\circ\text{C}$, 12 Lpm
8	CAN_H	Operating temperature	-20°C to $+70^\circ\text{C}$
9	CAN_L	Load de-rating	2.5% / $^\circ\text{C}$ from 60°C liquid
10	RS232_RX	Storage temperature	-40°C to $+105^\circ\text{C}$
11	RS232_TX	Efficiency	$> 92\%$
12	#PROGRAM	Isolation resistance	> 1 M Ω at 500Vdc
DC Input Power Connector: ITT		Weight	42 kg.
AC Output Power Connector: ITT		Dimensions (mm)	L=475, W=345, H=180



NAME	DATE	REV
F. ERICSSON	01-13-10	A
TITLE:		
30kW AUX POWER INVERTER		
OUTLINE & MOUNTING		
CHECKED	DATE	REV
ENG. APPR.		
MFG. APPR.		
G.A.		
PROPRIETARY AND CONFIDENTIAL		
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SIZE	DWG. NO.	REV
C	DA020000DA	A
SCALE: 1:2		SHEET 1 OF 1



NOTES: UNLESS OTHERWISE SPECIFIED

1. INVERTER WEIGHT: 1.64 kg (36 LBS.)
2. COOLANT: 50/50 ETHYLENE GLYCOL / WATER.
3. MIN FLOW: 11.4L / MIN (3.0 GPM).
4. PRESSURE DROP: 14.05 kPa (2.1 PSI)@40 °C.
5. INLET TEMP: -20 °C TO 60 °C.
6. OPTIONAL HOSE FITTINGS: 3/8", 1/2", 5/8", 3/4" OR 90 DEG. FITTINGS.