

BUEL®

THE THRUSTER

www.dellnerbubenzner.com



BUEL[®]_H
HIGH SPEED

BUEL[®]_G
GREEN

BUEL[®]_S
STRONG

 **DELLNER
BUBENZER**

MADE IN GERMANY

BUEL®

THE THRUSTERS

BUEL® thrusters have been developed on the basis of decades of experience in power transmission. Highest quality standards in each DELLNER BUBENZER business unit is the basis for excellent reliability and safety. Temperatures deviating from the standard range are possible after consultation.

Our experts will assist you to find your best solution with BUEL®.

YOUR ADVANTAGES

Unlimited Possibilities

BUEL® thrusters are operated with 3 phase voltages between 220 and 690V with 50 or 60 Hz.

Protection Class: IP 65 + IP 67

All electrical components of the BUEL® thrusters are protected from the elements inside the BUEL®.

Space Saving

BUEL® thrusters require remarkably less space than conventional thrusters.

Fast

BUEL® thrusters can reach a set time of less than 100ms.

Pure Power

BUEL® thrusters have 25% more power than conventional thrusters.

Saves Energy

BUEL® thrusters fulfill the requirements of DIN EN ISO 50001 Energy Management Systems.

Long Life & Less Maintenance

BUEL® thrusters score high for least maintenance cycles.

Hydraulic Medium

BUEL® thrusters are filled with a high performance synthetic oil, type Titan CHF 11S (former PENTOSIN CHF 11S).

This oil insures a trouble-free operation in the entire temperature range, indicated above. Biodegradable oil is available as an option.

-50°C to Over +75°C

BUEL® thrusters are applicable worldwide, between temperatures of -50°C to over +75°C.



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INNOVATION
IS THE DIFFERENCE



BUEL® GREEN

The BUEL® Model G is a family member of the DELLNER BUBENZER brand BUEL®. It is a compact thruster to feed active or passive hydraulic brakes and emergency brakes. It is also suitable for small capacity hydraulic cylinders. Operational pressure can be up to 250 bar. Our experts will assist you to find your best solution with BUEL®.

More information: www.dellnerbubenzner.com

Electrical design

All BUEL® thrusters are operated with 3-phase voltages between 220 V to 690 V at 50 Hz or 60 Hz.

Protection class

All electric components of the BUEL® thrusters are located inside, for best protection against environmental influences. BUEL® thrusters are rated IP 65. Protection class IP 67 is possible as an option.

Operating modes

BUEL® thrusters are designed for intermittent duty, independent from the required operating mode of the associated drive. No limitation of the BUEL® thruster duty cycle is required, because after reaching full pressure, (brake released) the motor is switched off. If full pressure is not reached in 4 seconds, the internal thruster motor switches off.

Ambient temperature range

BUEL® thrusters are suitable for ambient temperatures between -30°C to +75°C*. For deviating ambient temperatures, please contact us for support.

Protection against moisture

For applications in maritime or tropic environments, the optional use of a small heater to protect the motor windings from moisture is recommended.

Heater voltages:

- > 110 to 120 V AC 50 Hz or 60 Hz
- > 220 to 240 V AC 50 Hz or 60 Hz

Hydraulic medium

BUEL® Model G thrusters are operated with a high performance synthetic oil type Titan CHF 11S (former PENTOSIN CHF 11S). This oil insures a trouble-free operation in the entire temperature range, indicated above.

Biodegradable oils can be used as an option.

Delivered ready to Install

BUEL® Model G thrusters offer the advantage to be delivered with a brake, ready to install*. In this case the BUEL® Model G is installed on the brake console, hydraulically connected to the brake, filled with oil and bled.

After electrical connection and brake set-up it is ready to operate.

► Alternative the BUEL® Model G is available as separate unit, suitable for the delivered brake. In such case, the hydraulic connection to the brake, oil filling and bleeding must be done whilst installation of the components. In this case the oil filling is not scope of supply.

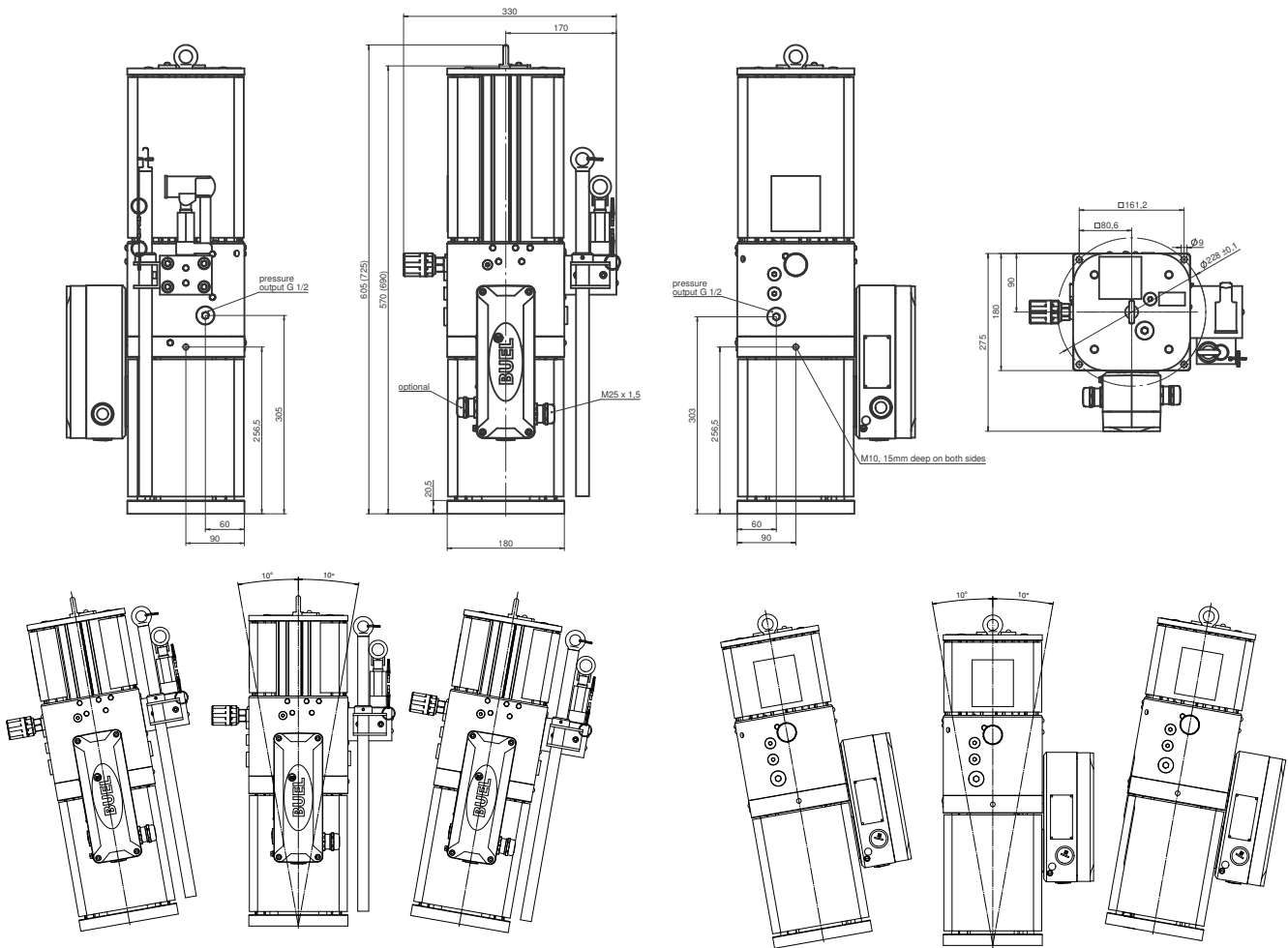
Properties

- > Compact design
- > Fail safe principle
- > Variable tank capacity, small filling quantity
- > Use of bio-degradable oils possible
- > Redundant valve system
- > Energy saving by limited duty cycle
- > Automatic compensation of pressure losses, by short time actuation
- > Hydraulic parts protected inside the housing
- > 2 pressure outlets
- > Internal generation of the control voltage for valves and sensors
- > Overload protection by monitoring of the working pressure
- > External manual release incl. "dead-man-handle"
- > Integrated bursting pressure protection
- > Options for additional functions and monitoring

BUEL® G	Max. pressure (bar)	Max. power (kW)**	Max. current consumption (A)**	Max. flow rate (l/min.)**	Weight with oil (kg)	Mode of operation (c/h)
100	100	2,20	4,2	7	39	180
210	210	3,30	5,5	7	39	180
240	240	4,70	6,5	7	39	180
100L	100	2,20	4,2	7	41	180
210L	210	3,30	5,5	7	41	180
240L	240	4,70	6,5	7	41	180

* Option W

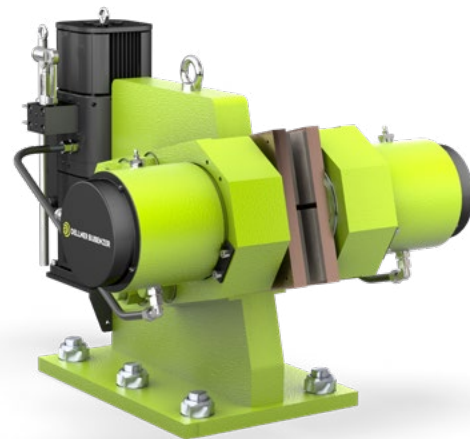
** Technical data relates to 3 phase 400 V, 50 Hz.



Installation positions:

BUEL® Model G thrusters have to be operated in vertical position (tank on top). A deviation of +/- 10° from the vertical axis is permitted.

Brake type	No. of cylinder units/ BUEL G®	Type BUEL G®
BSC 50.2, BSC 95.5	2/4	100
BSC 100.5	2/4	210
SF 10	2/4	210
SF 15	2/4	210
SF 24	2	210
	4	210 L
SF 26	2	240
	4	240 L
SF 30, SF 32	2	240 L
	4	240 L
SF 40	2	240 L
	4	240 L
SF 50	4	240 L
SFRA5 - 12	2/4	210



Note: SFRA brakes have one brake cylinder per brake. The SF 50 brakes have two brake cylinders per brake half, i.e. four per brake. The other brakes have one brake cylinder per brake half, i.e. two per brake".

G	Type
210	Max. working pressure (bar)
A	Heater
C	Increased corrosion protection
D	Pressure monitoring
E	Biodegradable oil
I	Protection class IP67
L	Big tank housing
M	Shut-off valve latching, non-latching
N	Level monitoring
O	Optical status control
R	Shut-off valve latching
T	Temperature monitoring
V	SOS/BOSS® application
W	High temperature execution
X	Special external certificates like e.g. UL
Z	Two stage braking action
xxx V, yy Hz	Voltage, frequency



OPTION O (VISUAL CONDITION MONITORING)

Visual indication for „operating pressure reached“.
All BUEL® Model G can be equipped with a visual condition monitoring, which makes it possible to monitor the operating pressure.

> red: Operating pressure not reached
> green: Operating pressure reached
The LED's are extremely bright.
An indication even in direct sunlight is ensured.

CERTIFICATE OF COMPLIANCE

Certificate Number UL-US-2146288-2
Report Reference E492639-20181005
Date 23-Feb-2022

Issued to: DELLNER BUBENZER Germany GmbH
Friedrichshuttenstr 1 Kirchen-Wehbach 57548
Germany

This is to certify that representative samples of NMTR - Power Circuit and Motor-mounted Apparatus
See Addendum Page for Product Designation(s).

Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.

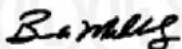
Standard(s) for Safety: UL 508, 18th Ed., Issue Date: 2018-03-30

Additional Information: See the UL Online Certifications Directory at <https://iq.ulprospector.com> for additional information

This Certificate of Compliance does not provide authorization to apply the UL Mark. Only the UL Follow-Up Services Procedure provides authorization to apply the UL Mark.

Only those products bearing the UL Mark should be considered as being UL Certified and covered under UL's Follow-Up Services.

Look for the UL Certification Mark on the product.



Bruce Mahrenholz, Director North American Certification Program

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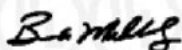
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This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements

Model	Category Description
BUEL G models. Buel G 100, may be followed by A, C, D, E, K, M, N, R, T, V, X or Z, or in any of these combinations	Enclosed Type Electrical Break Thruster
BUEL G models. Buel G 210, may be followed by A, C, D, E, K, M, N, R, T, V, X or Z, or in any of these combinations	Enclosed Type Electrical Break Thruster
BUEL G models. Buel G 240, may be followed by A, C, D, E, K, M, N, R, T, V, X or Z, or in any of these combinations	Enclosed Type Electrical Break Thruster



Bruce Mahrenholz, Director North American Certification Program

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