

# 4 Speed Electric Drill D 38 RLE



Original operating instructions

# **Technical Data**

Voltage   2     Current input   50 - 6     Frequency   50 - 6     Weight   6     Weight auxiliary screw mounted handle (optional)   0     Collar dia.   77     Nominal no-load speed   1st gear     1   2nd gear     2nd gear   no = 120     3rd gear   no = 120     Max. drilling diameter in steel   1st gear     2nd gear   2nd gear     2nd gear   2nd gear     2nd gear   2nd gear     2nd gear   2nd gear     3rd gear   11     Max drilling diameter in wood   1st gear     3rd gear   3rd gear     3rd gear   3rd gear     3rd gear   3rd gear     2nd gear   50     3rd gear   3rd gear     3rd gear   3rd gear     3rd gear   3rd gear     3rd gear   3rd gear     3rd gear			
Current input   50 - 6     Frequency   50 - 6     Weight   6     Weight auxiliary screw mounted handle (optional)   0     Collar dia.   71     Nominal no-load speed   1st gear   no = 120     2nd gear   no = 210   3rd gear   no = 210     Max. drilling diameter in steel   1st gear   33   33     Max. drilling diameter in steel   1st gear   32     Max. drilling diameter in wood   1st gear   14     Max drilling diameter in wood   1st gear   14     Max drilling diameter in wood   1st gear   37     Drilling spindle cone   3rd gear   32     Reversing switch   2   2     Continuously adjustable speed force control   4   2			2000 w
Frequency     50 - 6       Weight     6       Weight auxiliary screw mounted handle (optional)     7       Collar dia.     77       Nominal no-load speed     1st gear     n <sub>0</sub> = 120       2nd gear     n <sub>0</sub> = 210     3rd gear     n <sub>0</sub> = 380       4th gear     n <sub>0</sub> = 650     4th gear     360 = 650       Max. drilling diameter in steel     1st gear     37     37       2nd gear     21     3rd gear     31       Max drilling diameter in steel     1st gear     31     31       2nd gear     21     3rd gear     31     31       2nd gear     22     3rd gear     31     31     31       2nd gear     31     31     31     31     31     31       Max drilling diameter in wood     1st gear     31			230 V
Weight     6       Weight auxiliary screw mounted handle (optional)     7       Collar dia.     77       Nominal no-load speed     1st gear     n0 = 120       2nd gear     n0 = 210     3rd gear     n0 = 380       4th gear     n0 = 650     4th gear     650       Max. drilling diameter in steel     1st gear     3rd gear     3rd gear       2nd gear     2nd gear     210     3rd gear     3rd gear       Max. drilling diameter in steel     1st gear     3rd gear     3rd gear     3rd gear     3rd gear     3rd gear     3rd gear     1st gear     3rd gear     3rd gear     1st gear     3rd gea	urrent input		10 A
Weight auxiliary screw mounted handle (optional)CCollar dia.74Nominal no-load speed1st gear2nd gear $n_0 = 120$ 2nd gear $n_0 = 210$ 3rd gear $n_0 = 380$ 4th gear $n_0 = 650$ Max. drilling diameter in steel1st gear2nd gear213rd gear213rd gear21Max drilling diameter in wood1st gear4th gear11Max drilling diameter in wood1st gear3rd gear312nd gear314th gear11Max drilling diameter in wood1st gear3rd gear312nd gear322nd gear323nd gear323nd gear323nd gear323nd gear323nd gear<	requency		50 - 60 Hz
Collar dia.74Nominal no-load speed1st gear $n_0 = 120$ 2nd gear $n_0 = 210$ 3rd gear $n_0 = 380$ 4th gear $n_0 = 650$ Max. drilling diameter in steel1st gear2nd gear223rd gear123rd gear15Max drilling diameter in wood1st gear4th gear1592nd gear101st gear111st gear123rd gear131st gear141st gear151st gear163rd gear173rd gear182nd gear202nd gear213rd gear223rd gear3rd gear3rd gear3rd gear3rd gear3rd gear3rd gear203rd gear213rd gear223rd gear3rd	Veight		8,6 kg
Collar dia.74Nominal no-load speed1st gear $n_0 = 120$ 2nd gear $n_0 = 210$ 3rd gear $n_0 = 380$ 4th gear $n_0 = 650$ Max. drilling diameter in steel1st gear2nd gear223rd gear194th gear19Max drilling diameter in wood1st gear11st gear4th gear194th gear1911st gear11st gear11st gear23rd gear23rd gear23rd gear23rd gear23rd gear23rd gear23rd gear23rd gear33rd gear33rd gear23rd gear23rd gear33rd gear </td <td>leight auxiliary screw mounted handle (optional)</td> <td></td> <td>0,7 kg</td>	leight auxiliary screw mounted handle (optional)		0,7 kg
2nd gear $n_0 = 210$ 3rd gear $n_0 = 380$ 4th gear $n_0 = 650$ Max. drilling diameter in steel1st gear2nd gear223rd gear114th gear11Max drilling diameter in wood1st gear4th gear11Max drilling diameter in wood1st gear92nd gear103rd gear113rd gear123rd gear133rd gear213rd gear213rd gear223rd gear233rd gear243rd gear253rd gear373rd gear263rd gear273rd gear283rd gear293rd gear203rd gear203rd gear3rd gea	ollar dia.		70 mm
$3rd$ gear $n_0 = 380$ $4th$ gear $n_0 = 650$ Max. drilling diameter in steel1st gear $2rd$ gear $22$ $3rd$ gear $21$ $3rd$ gear $11$ Max drilling diameter in wood1st gear $4th$ gear $11$ Max drilling diameter in wood1st gear $3rd$ gear $3rd$ $2rd$ gear $3rd$ $3rd$ gear $3rd$ $4rd$ gear $2rd$ $2rd$ gear $3rd$ $3rd$	lominal no-load speed	1st gear	n <sub>0</sub> = 120 /min
4th gear   n <sub>0</sub> = 650     Max. drilling diameter in steel   1st gear   33     2nd gear   21     3rd gear   1st gear   21     Max drilling diameter in wood   1st gear   1st gear     Max drilling diameter in wood   1st gear   80     2nd gear   3rd gear   37     Drilling spindle cone   3rd gear   37     Reversing switch   20   21     Continuously adjustable speed force control   4th gear   21		2nd gear	n <sub>0</sub> = 210 /min
Max. drilling diameter in steel   1st gear   33     2nd gear   22     3rd gear   11     4th gear   11     Max drilling diameter in wood   1st gear     2nd gear   36     2nd gear   11     Max drilling diameter in wood   1st gear     2nd gear   36     2nd gear   36     2nd gear   37     2nd gear   37     2nd gear   36     2nd gear   37     2nd gear   37     2nd gear   36     2nd gear   37     2nd gear   36     2nd gear   37     2nd gear   36     2nd gear <td< td=""><td></td><td>3rd gear</td><td>n<sub>0</sub> = 380 /min</td></td<>		3rd gear	n <sub>0</sub> = 380 /min
Max. drilling diameter in steel   1st gear   33     2nd gear   22     3rd gear   11     4th gear   11     Max drilling diameter in wood   1st gear     2nd gear   36     2nd gear   11     Max drilling diameter in wood   1st gear     2nd gear   36     2nd gear   36     2nd gear   37     2nd gear   37     2nd gear   36     2nd gear   37     2nd gear   37     2nd gear   36     2nd gear   37     2nd gear   36     2nd gear   37     2nd gear   36     2nd gear <td< td=""><td></td><td>4th gear</td><td>n<sub>0</sub> = 650 /min</td></td<>		4th gear	n <sub>0</sub> = 650 /min
3rd gear   1     4th gear   1     Max drilling diameter in wood   1st gear   8     2nd gear   5     3rd gear   3     2nd gear   3     3rd gear   3     Quilling spindle cone   4th gear     Reversing switch   2     Continuously adjustable speed force control   4	fax. drilling diameter in steel		32 mm
4th gear 11   Max drilling diameter in wood 1st gear 80   2nd gear 50   3rd gear 31   4th gear 22   Drilling spindle cone 4th gear   Reversing switch 20   Continuously adjustable speed force control 20		2nd gear	23 mm
Max drilling diameter in wood 1st gear 8   2nd gear 5i   3rd gear 3i   4th gear 2i   Drilling spindle cone 2i   Reversing switch 2i   Continuously adjustable speed force control 3i		3rd gear	15 mm
2nd gear 50   3rd gear 31   4th gear 21   Drilling spindle cone 4th gear   Reversing switch 21   Continuously adjustable speed force control 21		4th gear	10 mm
3rd gear 3rd gear   4th gear 2rd   Drilling spindle cone 2rd   Reversing switch 2rd   Continuously adjustable speed force control 2rd	Max drilling diameter in wood	1st gear	80 mm
4th gear 2th   Drilling spindle cone 2th   Reversing switch 2th   Continuously adjustable speed force control 2th		2nd gear	58 mm
Drilling spindle cone Reversing switch Continuously adjustable speed force control		3rd gear	38 mm
Drilling spindle cone Reversing switch Continuously adjustable speed force control		4th gear	25 mm
Continuously adjustable speed force control	rilling spindle cone		MK 3
	eversing switch		
Maintenance-free due to permanent lubrication	Continuously adjustable speed force control		
	Aaintenance-free due to permanent lubrication		
On/Off switch with locking button for continuous operation			
Carbon brushes with automatic cut-out	arbon brushes with automatic cut-out		
CENELEC / EN 61029	ENELEC / EN 61029		
Interference-suppressed in accordance with EN 55014	terference-suppressed in accordance with EN 55014		

Specifications subject to change



- 1 Drill speed controller thumbwheel 2 Reversing switch
- 3 Fastening nut for auxiliary handle
- 4 Slot for ejector drift
- 5 Gear selector
- 6 Locking button for continuous operation
- 7 On/Off switch

# Applications

The four speed electric drill D 38 RLE is to be used only in combination with the drill stand and is suitable for drilling into steel, wood and synthetic material. The user is solely responsible for damages which result from improper use. Always comply with recognized accident prevention regulations and the accompanying safety precautions.

The hand held use of the drill has to be effected with the auxiliary handle (optional) and a safety clutch (max. torque 250 Nm).

## **Electrical connection**

Unplug the supply cord from the electrical socket to prevent unintentional starting before any work on the machine itself and before inserting and changing the tool.

The four speed electric drill D 38 RLE is a Class II device and is totally insulated. For this reason, the housing must **never be grounded** or drilled with holes, it must never be used if damaged, and it must always be kept dry. The voltage indicated on the rating plate must agree with the power supply voltage. Only use the extension lead with sufficient section approved for the field of application.

## Operation

Drilling with a drill stand :

Before starting work (the drill may not be attached to the electric socket), make sure that the drill is firmly mounted to the drill stand.

Hand-held drilling :

Before starting work (the drill may not be attached to the electric socket), make sure that the auxiliary handle is **firmly** screwed in and a safety clutch has been mounted to the spindle. Always hold the drill with both hands when working and maintain a firm stance.

#### Check the rotational direction

<u>Variable adjustment feature:</u> Under normal circumstances, the drill will be operated at maximum speed. This can, however, be infinitely variably adjusted by means of the thumbwheel, depending on the quality of the concrete or masonry and/or with starting of coring.

#### Continuous operation:

Press the on/off switch (7), push the locking button (6) upwards **Switch off :** 

Briefly press the on/off switch (7)

**Reversing operation:** Operate the reversing switch (2) on the the main handle

 ${\bf R}$  means cklockwise rotation.  ${\bf L}$  means counter-clockwise rotation.

Attention: When using the reversing switch the drill should be cut off.

#### Variable adjustment feature:

By means of the drill speed controller thumbwheel (1) the drill speed can be infinitely variably adjusted. The ergonomic positioning of the drill speed controller thumbwheel (1) permits adjustment even when drilling is taking place.

+ = max. speed, - = reduce speed

## Changing gears

The following speeds can be preselected by means of the gear selectors (5)

Gear	Positions gear selectors	Rotational speed
1st gear	1 + 2	$n_0 = 120 / min$
2nd gear	1 + 4	$n_0 = 210 / min$
3rd gear	2 + 3	n <sub>0</sub> = 380 / min
4th gear	3 + 4	n <sub>0</sub> = 650 / min

Change gear only when the motor is slowing down without using force.

# Lubrication

A sealed lubrication system provides the drill with permanent lubrication.

## Warranty

The warranty period is 12 months from the date of delivery, as shown on the warranty certificate or invoice. The warranty will be valid provided the machine has been operated and handled correctly and cleaned and serviced properly, in accordance with the operating instructions, and has not been tampered with by unauthorised persons. The warranty is limited to the free repair or replacement of parts which have become defective due to manufacturing or material faults only. Parts becoming defective as a result of normal wear or due to tampering by the customer or third parties are not covered by the warranty.

All other claims are excluded, i.e. **DUSS** will not be liable for direct or indirect defects or consequential damages, losses or expenses arising in connection with the use of the drill (or in its inability to be used) for any purpose whatsoever. Implied warranties of usability or suitability for a particular purpose are excluded.

If a defect is discovered, the machine must be sent for repair immediately to **DUSS** or a **DUSS** customer service centre. All previous written or verbal warranties are superseded by the above warranty terms and conditions.

## Service

Repairs may only be carried out by a qualified electrician. Failing this, the operator may be exposed to the risk of accidents. If a fault occurs, you are accordingly strongly recommended to return the machine to the following address:

Alternatively, send it to a **DUSS** customer service centre. Their experienced specialists and special equipment allow them to rectify faults properly and economically. In urgent cases, the repairs will be carried out within a day.

The **D 38 RLE** is to be returned complete, at the sender's risk and expense.

#### Notes

Have tool cutting edges reground in good time by an expert. Long tool life and optimum drilling performance can only be ensured if the tools are reground in good time.

## Safety precautions



## Read all the safety notes and instructions!

Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injuries.

Keep the safety notes and instructions for future reference.

#### Safety precautions

Wear appropriate protective equipment, e.g.



### Additional safety precautions:

#### Always wear ear protection.

Hold power tool by insulated gripping surfaces, when performing an operation where the cutting accessory may contact hidden wiring or its own cord.

Cutting accessory contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.

#### Take protective measures when dust can develop during working that is harmful to one's health, combustible or explosive.

Example: some dusts are regarded as carcinogenic. Wear a dust mask and work with dust extraction.

# Noise/vibration information

(in accordance with EN 60745)

Typical A-weighted noise levels of the machine are as follows :

Noise pressure level :	L <sub>pA</sub> = 86 dB(A)
Noise power level:	LWA= 97 dB(A)
Uncertainty:	K <sub>pA</sub> =K <sub>WA</sub> =3dB
Vear ear protection.	

#### Vibration data:

V

Drilling in steel:	a <sub>h,CHeq</sub> = 3,2 m/s²
Uncertainty:	K= 1,5 m/s <sup>2</sup>

The vibration emission level given in this information sheet has been measured in accordance with a standardized test given in EN 60745 and may be used to compare one tool with another.

It may be used for a preliminary assessment of exposure. The declared vibration emission level represents the main applications of the tool. However if the tool is used for different applications, with different accessories or poorly maintained, the vibration emission may differ.

This may significantly increase the exposure level over the total working period. An estimation of the level of exposure to vibration should also take into account the times when the tool is switched off or when it is running but not actually doing the job. This may significantly reduce the exposure level over the total working period. Identify additional safety measures to protect the operator from the effects of vibration such as: maintain the tool and the accessories, keep the hands warm, organization of work patterns.

### CE – Declaration of conformity

We declare on our sole responsibility that this product conforms to the following standards or standardisation documents:

EN 61029-1, EN 55014-1, EN 55014-2, EN 61000-3-2, EN 61000-3-3 as per the provisions laid down in Directive 2006/42/EG, 2014/30/EU, 2011/65/EU

When using the drill with the auxiliary handle and the safety clutch the following standard: EN 60745-1 and EN 60745-2-1 are fulfilled.

FRIEDRICH DUSS Maschinenfabrik GmbH & Co. KG 75387 Neubulach, Deutschland

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04/2016

Eugen O. Duss