

# SAFETY INSTRUCTIONS



Read carefully and completely before installing, operating, or maintaining the equipment this manual.

Legend:

H01R(B) means H01R or/and H01B. For other application terms in this instruction sheet, this is equivalent.



## DANGER



**Hazardous Voltage!**  
**Danger of life or serious injury!**



**Any work on electrical equipment may only be performed by qualified electricians in accordance with the National or local codes.**

### Before starting work:

- Disconnect power mains
- Prevent reconnection with OSHA lockout/tagout procedures!
- Test for absence of harmful voltages!
- Ground and short circuits!
- Cover or close of nearby live parts!



**Reliable functioning of the equipment is only guaranteed with approved MERZ Schaltgeräte GMBH + CO KG components!**

## Storage and transport

- Dry and dust free
- Storage temperatures min./max.: -25°C/+50°C [-77°F/+122°F]
- During transport secure against shock and/or falling

## Installation and commissioning



- Confirm rating of device is sized properly for application
- Do not use damaged units in application
- The device specifications must be complied with
- Laws, regulations, guidelines and standards that apply in the country of operation must be followed

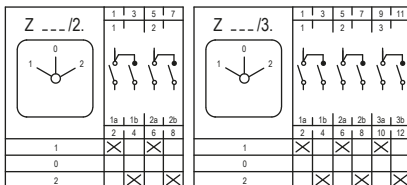
## Specifications acc. UL and CSA

Type		251	451	656
GENERAL PURPOSE 600 Vac, 3-ph	A	25	32	80
Motor 3-ph 110/120 V	hp	3	7.5	-
220/240 V	hp	7.5	7.5	25
440/480 V	hp	15	20	50
550/600 V	hp	20	20	50
Motor 1-ph 2-pole 110/120 V	hp	1.5	-	7.5
220/240 V	hp	3	3	15
440/480 V	hp	7.5	10	15
550/600 V	hp	10	15	15
Max. surrounding air temperature (open type)	°C [°F]	40 [104]	40 [104]	40 [104]

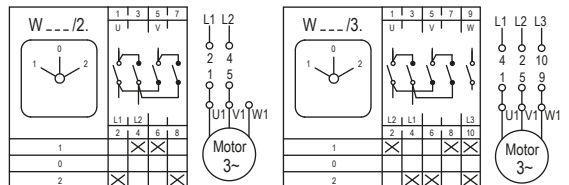
Suitable for use on a circuit capable of delivering not more than 5 kA rms symmetrical amperes, 600 Volts maximum.

## Contact diagrams

### Change-over switches



### Reversing switches



## Connection

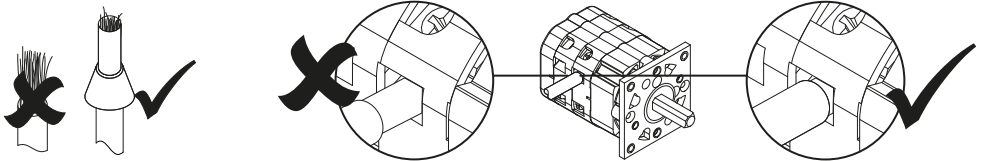
**!** Use Copper (CU) wire only, 75°C or higher.

**!** Verify that all connections (including bridging link connections) are tightened to the manufacturer's required torque before energization.

Type		251	451	656
Terminal cross section	AWG	14 - 8	14 - 6	14 - 4
Single or multi-core	mm <sup>2</sup>	1 - 6	1.5 - 10	1.5 - 25
Finely stranded with sleeve	mm <sup>2</sup>	1 - 4	1.5 - 6	1.5 - 16
Stripping distance connector cable	mm [in]	10 [0.39]	12 [0.47]	15 [0.59]
Torque terminal screw	Nm [in-lb]	4.5 [40]	5.1 [45]	4.5 [40]
Screw driver terminal screws		PZ2/PH2	PZ2/PH2	PZ2/PH2

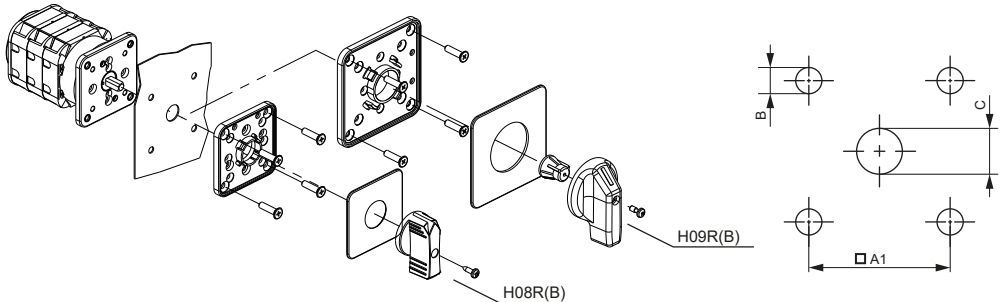
**Note:** Pozi Drive set can be ordered at [automationdirect.com](http://automationdirect.com).

Part number: 05057460055 and 05073220055 (WERA).



**!** Ensure there are no loose stray wire strands.

## 4-hole mounting



Application	A1 mm [in]	B mm [in]	C mm [in]	Screw driver mounting screw	Torque Nm [ft.lb]	Screw driver handle screw	Torque Nm [ft.lb]
H08R(B)	48 [1.89]	5.2 [13/64]	12 [15/32]	PZ2/PH2	1.2 [0.89]	PZ2/PH2	1.2 [0.89]
H09R(B)	68 [2.68]	5.2 [13/64]	15 [19/32]	PZ2/PH2	1.2 [0.89]	PZ2/PH2	1.0 [0.74]

**Note:** Pozi Drive set can be ordered at [automationdirect.com](http://automationdirect.com). Part number: 05057460055 and 05073220055 (WERA).

## Replacement screw sets

**ML-SKT-4:** includes all necessary screws for H08R(B), H09R(B)

**Subject to change without notice. Store for use at a later date.**

**For more information please contact: [www.automationdirect.com](http://www.automationdirect.com)**

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