MOSE-S

Title:

Personal Protective Equipment (PPE)

List of Standard Personal Protective Equipment for MV Drives personnel from ABB Switzerland Ltd.

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1 OBJECTIVE

This document describes the Standard Personal Protective Equipment (PPE) for MV Drives personnel from ABB Switzerland MOSE, which they bring along for onsite services on construction and production facilities.

It is our policy to provide information to maintain a high level of health and safety measures for our employees which are consistent with the best practices of the construction industry.

Safety, Environmental and Quality principles and objectives are based on the following:

- ABB strives to provide a safe and healthy working environment at all sites and facilities and to take adequate steps to prevent incidents and injury to health arising out of the course of work by minimizing or eliminating so far as is reasonably practicable, the causes of hazards inherent in the working environment.

- Occupational Health and Safety Standards and Guidelines should ensure that all activities are in compliance with occupational health and safety standards, in order to ensure that activities that potentially could present hazards to employees or contractors are performed in a way which prevents or reduces risks.

2 VALIDITY

These standards are valid for all onsite services on construction and production facilities provided by Global Service Center (GSC), MV Drives Service Switzerland (MOSE-S)

3 REFERENCE DOCUMENTS

ABB Switzerland Ltd, Motion Service (MOSE), is certified by Swiss Association for Quality and Management Systems SQS for:

- Environmental System / ISO 14001:2004

[1] 3BHS827563 E01 Customer Letter about MV Drives Health & Safety Policy
[3] 3BHS829864 E01 MOSE-S Requirements for Health, Safety and Environment plan for onsite services
[5] 3BHS817511 D05 ABB Elektrosicherheitskonzept
STANDARD PERSONAL PROTECTIVE EQUIPMENT (PPE)

Personnel dispatched by ABB Switzerland are equipped with standard personal protection equipment (PPE) according to Table 1. Depending on the planned site activity four Levels of PPE are defined:

- **Level 1** PPE for **Site Visit**
- **Level 2** PPE for **Mechanical Work** or Field Service on de-energized equipment (lock out/tag out)
- **Level 3** PPE for **Field Service tasks**
- **Level 4** Additional PPE available for Field Service tasks

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<th>L1</th>
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<th>Picture</th>
<th>Applicable standards</th>
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<tbody>
<tr>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>Safety helmet</td>
<td>El. Schutzhelm mit ABB Logo, weiss</td>
<td><img src="safety_helmet.png" alt="Image" /></td>
<td>EN 397, - 20* 440V</td>
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<td>Safety helmet</td>
<td>ST-E-MAN-7000/WE (53-62 cm) Elektriker-Schutzhelm 7kA, 1000V mit integriertem Visier u. Crash-Box mit ABB-Logo und Reflektionsstreifen</td>
<td><img src="safety_helmet_2.png" alt="Image" /></td>
<td>EN 397, EN 50365, EN 166, EN 167, EN 168, EN 170, GS-ET-29 (Kl. 2), EN 61482-1-2 (Kl. 2)</td>
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<td>Ear muffs</td>
<td>ST-E-MAN-OHR Gehörschutz zu ST-E-MAN</td>
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<td>Ear plugs</td>
<td>97325 200 uvex Gehörschutztoppsel x-fit</td>
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<td>Protective eye glasses</td>
<td>096515 Komfort-Schutzbrille i-vo UVEX</td>
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<td>Insulation arc flash gloves</td>
<td>CG-ISOARC/xx Gr.8 bis 12 Lichtbogenfeste Gummihandschuhe 7kA</td>
<td><img src="arc_gloves.png" alt="Image" /></td>
<td>Störlichtbogen 7kA/0.5s in Anlehnung an EN 61482-1-2 (Kl. 2), Box Test = 4kA/7kA, ATPV = 21.6 cal/cm², 1kV (5kV)</td>
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<td>Working gloves</td>
<td>094350 Gr. 9 oder 10 Ansell Feinstrickhandschuhe</td>
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<td>Safety shoes</td>
<td>Haix Black Eagle Safety 40 Low auch in Rot/Schwarz Gr.35 bis 49</td>
<td><img src="safety_shoes.png" alt="Image" /></td>
<td>CE EN ISO 20345:2011 S3 HI RO CI WR SRC, DIN EN 61340-4-3:2002</td>
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<td>Safety boots</td>
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<td>High visible safety vests</td>
<td>4 21139 06 547501 Gr.M bis XXL Warnweste gelb</td>
<td><img src="safety_vests.png" alt="Image" /></td>
<td>Zertifikat ZH1 055219 nach: EN471:2000 (Klasse 2)</td>
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<td>Arc flash clothing</td>
<td>4 21139 041 Gr. S-3XL Nomex Sweat-Shirt</td>
<td><img src="arc_clothing_3.png" alt="Image" /></td>
<td>Zertifikat Z 4458/09 – 5711/10 nach: EN 11612:2008 (A1, B1, C1) EN 61482-1-2:2007 Klasse 1</td>
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Table 1: Standard Personal Protective Equipment (PPE)
USE OF PERSONAL PROTECTIVE EQUIPMENT

Our dispatched personnel is trained and certified to use and maintain their standard PPE.

For each task the used PPE must be in line with the following regulations and requirements:
- Job requirements according to the standard risk assessment defined in [3]
- Internal ABB regulations, particularly:
  - ABB Elektrosicherheitskonzept [5]
- Measures according performed “Stop & Check Procedure” and “Last Minute Risk Assessment”
- Site requirements and other local regulations

If different requirements are in conflict with each other, a specific risk assessment is needed to decide if the job can be done in the planned manner and which PPE shall be used.

However, for any service tasks on a construction site the minimum PPE to be worn are:
- safety shoes
- Long-sleeved workwear
- the remaining standard PPE as per Level 1 are always to be at hand.

Remarks:
On timely request by the customer, ABB Switzerland’s dispatched personnel, will bring additional PPE according to Level 4.
In the case further PPE is required for a specific construction site, the Site Responsible Unit shall provide suitable extra PPE for our ABB service staff including a corresponding induction if appropriate. Our personnel is only allowed to use such PPE if the ABB safety standards are still met.

![Figure 1: Example of PPE for Site Visit (Level 1)](image1)
![Figure 2: Example of PPE for Mechanical Work (Level 2)](image2)
![Figure 3: Example of PPE for Field Service Engineers (Level 3)](image3)
## REVISION

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<td>H. Künzi / D. Fenz DMDR-SP</td>
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