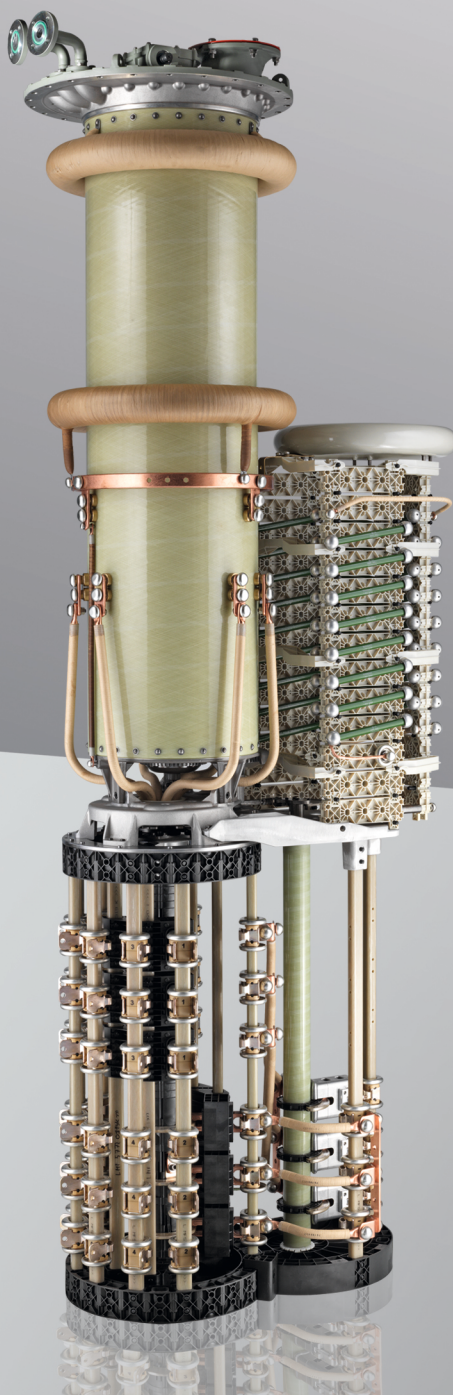




分接选择器等级 RC/RD/RDE/RE/RF

附页 / 技术数据

4360563/05 ZH



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上述文件编辑定稿之后，产品可能发生变更。

明确保留对技术数据、设计以及供货范围进行变更的权利。

原则上，在处理相应报价和订单时所提供的信息和相关约定都具有约束力。

原版使用说明书采用德语编制。



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1 简介

此技术文档用于为正确选择产品提供帮助。

有关如何安全且正确地安装、连接和调试产品的详细说明，请参见相关产品的安装和调试说明书。

相关产品的操作说明书中包含了在操作、排除故障和维护期间进行监视的详细说明。

此技术文件仅供受过专业培训的人员以及经授权人员使用。

1.1 有效性

本文档适用于以下产品：

- 带有分接选择器 RC、RD 和 RDE 的 VACUTAP® VM®
- 带有分接选择器 RC、RD、RDE、RE、RF 的 OILTAP® R
- 带有分接选择器 RC、RD 和 RDE 的 OILTAP® M

1.2 完整性

如果未提供支持文档，本技术文件将不完整。

以下文档为支持文档：

- 技术数据 TD 61 - 总则部分（可按要求提供）
- 技术数据 - 产品特定部分（可按要求提供），尤其适用于：
 - VACUTAP® VM®: TD 2332907
 - OILTAP® R: TD 115
 - OILTAP® M: TD 050
- 订单确认和交付时提供的技术文档。

使用时还需要遵守各个国家有关安全防范和环境保护的普遍有效的法律、标准、准则和规范。



2 总则

2.1 有载分接开关标识 VACUTAP® VM®

示例：VM III 650 Y - 72, 5/RC - 10 19 1W R

| 标识 | | 含义 | 设计 | 可用参数 |
|------|---|-------------------------|---------------------------------|-------------|
| VM | = | 类型 | VACUTAP® VM® | VM |
| III | = | 相数 | 单相 | I |
| | | | 二相 | II |
| | | | 三相 | III |
| 650 | = | I_{um} [A] = 最大额定通过电流 | VM I 651、VM II 652、VM III 650 Y | 650 |
| | | | VM I 802 | 800 |
| | | | VM I 1002 | 1000 |
| | | | VM I 1203 | 1200 |
| | | | VM I 1503 | 1500 |
| 650 | = | 装配的扇形件数 | 3 (针对 Y) | 0 |
| | | | 1 | 1 |
| | | | 2 | 2 |
| | | | 3 | 3 |
| Y | = | 应用 | 仅用于中性点 | Y |
| 72.5 | = | U_m [kV] = 设备最高工作电压 | | 72.5 |
| | | | | 123 |
| | | | | 170 |
| | | | | 245 |
| | | | | 300 |
| RC | = | 分接选择器等级 | | RC |
| | | | | RD |
| | | | | RDE |
| 10 | = | 不带转换选择器的最大工作位置数 | 圆周触头数: | |
| | | | 10 | 10 |
| | | | 12 | 12 |
| | | | 14 | 14 |
| | | | 16 | 16 |



| 标识 | | 含义 | 设计 | 可用参数 |
|----|---|-----------------|----|------|
| 10 | = | 不带转换选择器的最大工作位置数 | 18 | 18 |

表 1: VACUTAP® VM® (1) 的类型标识说明

| 标识 | | 含义 | 设计 | 可用参数 |
|----|---|--------------------------------|-------------------|------|
| 19 | = | 带转换选择器的最大工作位置数 (极性选择器或粗级分接) | 圆周触头数: | |
| | | | 10 | 19 |
| | | | 12 | 23 |
| | | | 14 | 27 |
| | | | 16 | 31 |
| | | | 18 | 35 |
| 1W | = | 中间位置 | 0 个中间位置 (不带转换选择器) | 0 |
| | | | 1 个中间位置 | 1 |
| | | | 3 个中间位置 | 3 |
| 1W | = | 转换选择器 | 极性选择器 | W |
| | | | 粗级分接 | G |
| R | = | 电位连接类型 | 附加电位电阻 | R |
| | | | 板上的电位开关和电位电阻 | S |
| | | | 带有附加电位电阻的电位开关 | P |

表 2: VACUTAP® VM® (2) 的类型标识说明



2.2 有载分接开关标识 OILTAP® M

示例: M III 600 Y - 72,5 / RC - 10 19 1W R

| 标识 | | 含义 | 设计 | 可用参数 |
|------|---|-------------------------|---------------------------------|-------------|
| M | = | 类型 | OILTAP® M | M |
| III | = | 相数 | 单相 | I |
| | | | 二相 | II |
| | | | 三相 | III |
| 600 | = | I_{um} [A] = 最大额定通过电流 | M I 601、M II 602、M III 600 Y | 600 |
| | | | M I 802 | 800 |
| | | | M I 1203 | 1200 |
| | | | M I 1503 | 1500 |
| 600 | = | 装配的扇形件数 | 3 (针对 Y) | 0 |
| | | | 1 | 1 |
| | | | 2 | 2 |
| | | | 3 | 3 |
| Y | = | 应用 | 仅用于中性点 | Y |
| 72.5 | = | U_m [kV] = 设备最高工作电压 | | 72.5 |
| | | | | 123 |
| | | | | 170 |
| | | | | 245 |
| | | | 不适用于 Y | 300 |
| RC | = | 分接选择器等级 | | RC |
| | | | | RD |
| | | | | RDE |
| 10 | = | 不带转换选择器的最大工作位置数 | 圆周触头数: | |
| | | | 10 | 10 |
| | | | 12 | 12 |
| | | | 14 | 14 |
| | | | 16 | 16 |
| | | | 18 | 18 |

表 3: OILTAP® M (1) 的类型标识说明



| 标识 | | 含义 | 设计 | 可用参数 |
|----|---|-----------------------------------------|-------------------|-----------|
| 19 | = | 带 转换选择器 的最大工作位置数 (极性选择器或粗级分接) | 圆周触头数: | |
| | | | 10 | 19 |
| | | | 12 | 23 |
| | | | 14 | 27 |
| | | | 16 | 31 |
| | | | 18 | 35 |
| 1W | = | 中间位置 | 0 个中间位置 (不带转换选择器) | 0 |
| | | | 1 个中间位置 | 1 |
| | | | 3 个中间位置 | 3 |
| 1W | = | 转换选择器 | 极性选择器 | W |
| | | | 粗级分接 | G |
| R | = | 电位措施 | 附加电位电阻 | R |
| | | | 板上的电位开关和电位电阻 | S |
| | | | 带有附加电位电阻的电位开关 | P |

表 4: OILTAP® M (2) 的类型标识说明



2.3 有载分接开关标识 OILTAP® R

示例: R III 1200 Y - 72, 5/RC - 10 19 1W R

| 标识 | | 含义 | 设计 | 可用参数 |
|------|---|-------------------------|------------------------------------------|-------------|
| R | = | 类型 | OILTAP® R | R |
| III | = | 相数 | 单相 | I |
| | | | 二相 | II |
| | | | 三相 | III |
| 1200 | = | I_{um} [A] = 最大额定通过电流 | R I 1201、R I 1202、R II 1202、R III 1200 Y | 1200 |
| | | | R I 2002、R I 2003 | 2000 |
| | | | R I 2402 | 2400 |
| | | | R I 3003 | 3000 |
| 1200 | = | 装配的扇形件数 | 3 (针对 Y) | 0 |
| | | | 1 | 1 |
| | | | 2 | 2 |
| | | | 3 | 3 |
| Y | = | 应用 | 仅用于中性点 | Y |
| 72.5 | = | U_m [kV] = 设备最高工作电压 | | 72.5 |
| | | | | 123 |
| | | | | 170 |
| | | | | 245 |
| | | | | 300 |
| | | | 仅作为钟罩式油箱设计 | 362 |
| RC | = | 分接选择器等级 | | RC |
| | | | | RD |
| | | | | RDE |
| | | | | RE |
| | | | | RF |
| 10 | = | 不带转换选择器的最大工作位置数 | 圆周触头数: | |
| | | | 10 | 10 |
| | | | 12 | 12 |
| | | | 14 | 14 |
| | | | 16 | 16 |



| 标识 | | 含义 | 设计 | 可用参数 |
|----|---|-----------------|----|------|
| 10 | = | 不带转换选择器的最大工作位置数 | 18 | 18 |

表 5: OILTAP® R (1) 的类型标识说明

| 标识 | | 含义 | 设计 | 可用参数 |
|----|---|--------------------------------|-------------------|------|
| 19 | = | 带转换选择器的最大工作位置数 (极性选择器或粗级分接) | 圆周触头数: | |
| | | | 10 | 19 |
| | | | 12 | 23 |
| | | | 14 | 27 |
| | | | 16 | 31 |
| | | | 18 | 35 |
| 1W | = | 中间位置 | 0 个中间位置 (不带转换选择器) | 0 |
| | | | 1 个中间位置 | 1 |
| | | | 3 个中间位置 | 3 |
| 1W | = | 转换选择器 | 极性选择器 | W |
| | | | 粗级分接 | G |
| R | = | 电位措施 | 附加电位电阻 | R |
| | | | 板上的电位开关和电位电阻 | S |
| | | | 带有附加电位电阻的电位开关 | P |

表 6: OILTAP® R (2) 的类型标识说明

3 技术数据

3.1 允许的电压应力

本节介绍了单相和多相有载分接开关的允许电压应力。

选择有载分接开关时，必须检查绝缘间距处的最高电压强度不得超过相关额定耐受电压。

3.1.1 绝缘间距，分接选择器等级 RC、RD、RDE、RE、RF

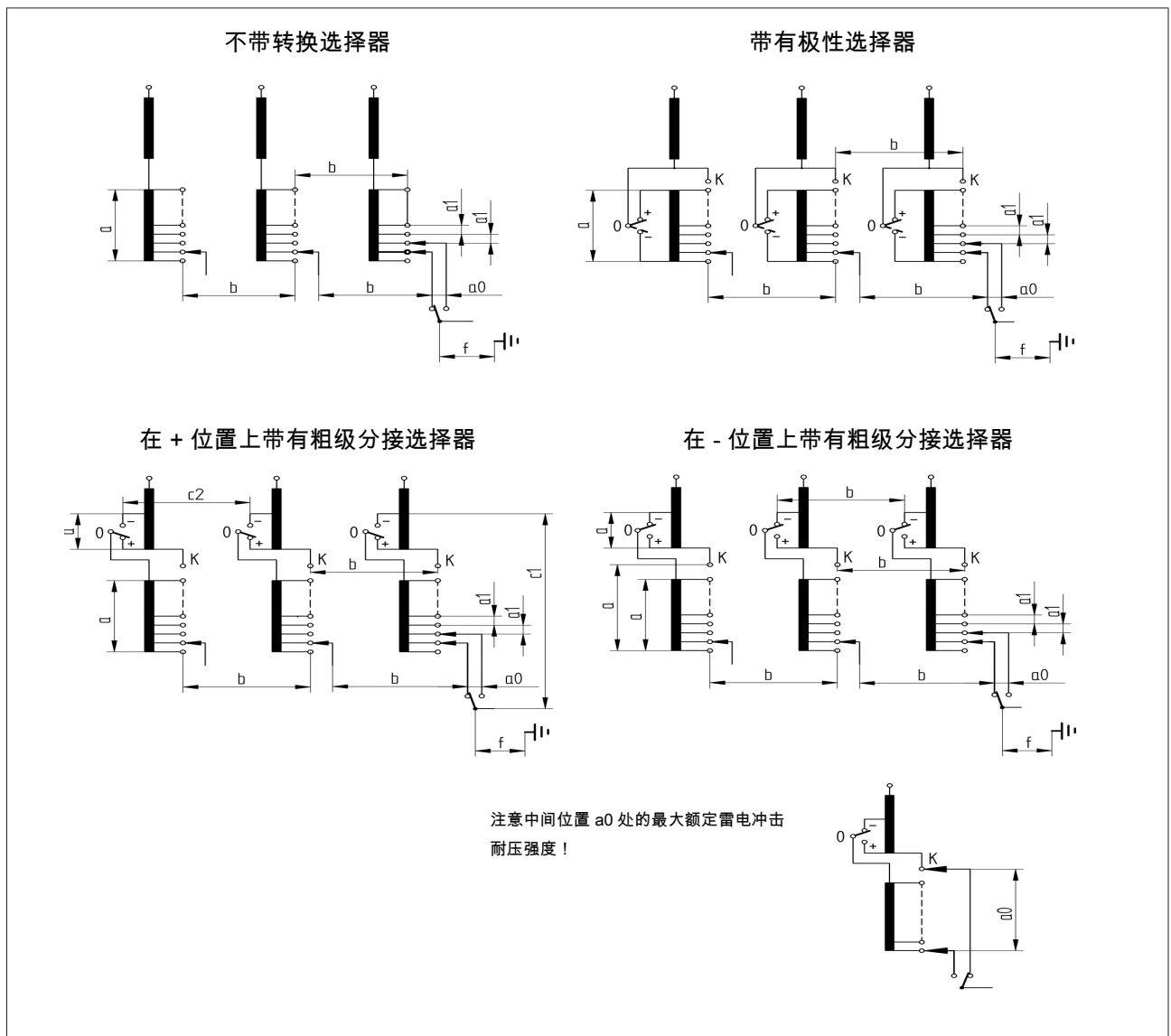


插图 1: 绝缘间距，分接选择器等级 RC、RD、RDE、RE、RF

| | |
|----|------------------------------|
| a0 | 在切换开关上的已选定和预选定分接头之间 |
| a1 | 在一个分接位置绕组的分接选择器端子（已连接或未连接）之间 |



| | |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a | 在细调分接绕组的起始端和末端之间，对于粗调分接绕组型号，也在粗调分接绕组的起始端和末端之间。 请注意转换选择器位置 (-) 的粗级分接选择器连接： 当施加冲击电压时，注意与 K 细调分接选择器触头相连接的粗调分接绕组终点和同相细调分接绕组终点上的分接选择器端子之间允许的耐压 "a" 必须符合要求。 |
| b | 在异相的分接选择器端子之间，和与细调分接绕组的起点/终点或分接选择器端子相连接的异相转换选择器的触头之间 |
| f | 在切换开关输出端子和地面之间 |
| 此外，对于转换选择器的位置 (+) 上的粗级分接选择器连接： | |
| c1 | 从一个 (-) 转换选择器的触头到同相的引出端子 |
| c2 | 在异相的转换选择器的触头 (-) 之间 |

注释：

只可在分接选择器等级 RC、RD 和 RDE 下组合有载分接开关 VACUTAP® VM® 和 OILTAP® M。

3.1.2 可实现的符合相应分接选择器等级的连接

可以为带有极性选择器和 3 个中间位置 (3W) 的转换选择器, 以及带有粗级分接和 3 个中间位置 (3G) 的转换选择器执行以下所列连接。

| 不带转换选择器 | | 带有极性选择器 | | 带有粗级分接选择器 | |
|---------|-----------------|---------|-----------------|-----------|-----------------|
| 连接 | 分接选择器等级 | 连接 | 分接选择器等级 | 连接 | 分接选择器等级 |
| 10050 | RC/RD/RDE/RE/RF | 10071W | RC/RD/RDE | 10071G | RC/RD/RDE |
| 10060 | RC/RD/RDE/RE/RF | 10081W | RC/RD/RDE | 10081G | RC/RD/RDE |
| 10070 | RC/RD/RDE/RE/RF | 10091W | RC/RD/RDE | 10091G | RC/RD/RDE |
| 10080 | RC/RD/RDE/RE/RF | 12101W | RC/RD/RDE | 12101G | RC/RD/RDE |
| 10090 | RC/RD/RDE/RE/RF | 14111W | RC/RD/RDE | 14111G | RC/RD/RDE |
| 10100 | RC/RD/RDE/RE/RF | 14121W | RC/RD/RDE | 14121G | RC/RD/RDE |
| 12110 | RC/RD/RDE/RE/RF | 16131W | RC/RD/RDE | 16131G | RC/RD/RDE |
| 12120 | RC/RD/RDE/RE/RF | 16141W | RC/RD/RDE | 16141G | RC/RD/RDE |
| 14130 | RC/RD/RDE/RE/RF | 18151W | RC/RD/RDE | 18151G | RC/RD/RDE |
| 14140 | RC/RD/RDE/RE/RF | 18161W | RC/RD/RDE | 18161G | RC/RD/RDE |
| 16150 | RC/RD/RDE/RE/RF | 10191W | RC/RD/RDE/RE/RF | 10191G | RC/RD/RDE/RE/RF |
| 16160 | RC/RD/RDE/RE/RF | 12231W | RC/RD/RDE/RE/RF | 12231G | RC/RD/RDE/RE/RF |
| 18170 | RC/RD/RDE/RE/RF | 14271W | RC/RD/RDE/RE/RF | 14271G | RC/RD/RDE/RE/RF |
| 18180 | RC/RD/RDE/RE/RF | 16311W | RC/RD/RDE/RE/RF | 16311G | RC/RD/RDE/RE/RF |
| | | 18351W | RC/RD/RDE/RE/RF | 18351G | RC/RD/RDE/RE/RF |

表 7: 可实现的连接

符合基本连接图 12111W(G) 的分接选择器需用 14111W(G)。

符合基本连接图 14131W(G) 的分接选择器需用 16131W(G)。

符合基本连接图 16151W(G) 的分接选择器需用 18151W(G)。

无法实现符合基本接线图 18171W(G) 的分接选择器。

注释:

只可在分接选择器等级 RC、RD 和 RDE 下组合有载分接开关 VACUTAP® VM® 和 OILTAP® M。



3.1.3 切换开关的额定绝缘水平

切换开关 VACUTAP® VM® 的额定绝缘水平

| 绝缘间距 a0 | VACUTAP® VM® |
|--------------------------------------------------------------------------------------|--------------|
| 雷电冲击 1.2/50 μs | ≤ 150 kV |
| 雷电冲击为 1.2/50 μs 时的压敏电阻响应电压 (U _{100%} (t) 标准化 ≠ U _{75%} (t) 标准化) | ≥ 45 kV |
| 峰值电流为 3 kA 时的残压: 70 kV | 56 kV |
| 50 Hz, 1 分钟 | 20 kV |

表 8: VACUTAP® VM® 绝缘间距 a0

切换开关 OILTAP® M 的额定绝缘水平

| 绝缘间距 a0 | OILTAP® M | |
|------------------------------------------------------------------------------------------|-----------|---------------|
| | 带火花间隙 | 带 ZnO 氧化锌避雷装置 |
| 雷电冲击 1.2/50 μs | ≤ 150 kV | ≤ 150 kV |
| 雷电冲击为 1.2/50 μs 时火花间隙的响应电压 | ≥ 90 kV | - |
| 雷电冲击为 1.2/50 μs 时的压敏电阻响应电压 (U _{100%} (t) (t) 标准化 ≠ U _{75%} (t) 标准化) | - | ≥ 45 kV |
| 峰值电流为 3 kA 时的残压: 70 kV | - | ≤ 120 kV |
| 50 Hz, 1 分钟 | 20 kV | 20 kV |

表 9: OILTAP® M 绝缘间距 a0

OILTAP® R 切换开关的额定绝缘水平

| 绝缘间距 a0 | OILTAP® R | | |
|--------------------------------------------------------------------------------------|-------------------------|------------------------------------------------|------------------------------------------------|
| | Um ≤ 72.5 kV 不带浪涌抑制器 | Um > 72.5 kV 带 ZnO 氧化锌避雷装置 R2 ≥ 2.33 Ohm | Um > 72.5 kV 带 ZnO 氧化锌避雷装置 R2 < 2.33 Ohm |
| 雷电冲击 1.2/50 μs | ≤ 140 kV | ≤ 150 kV | ≤ 150 kV |
| 雷电冲击为 1.2/50 μs 时的压敏电阻响应电压 (U _{100%} (t) 标准化 ≠ U _{75%} (t) 标准化) | - | ≥ 45 kV | ≥ 55 kV |
| 峰值电流为 3 kA 时的残压: 70 kV | - | ≤ 110 kV | ≤ 85 kV |
| 50 Hz, 1 分钟 | 30 kV | 22 kV | 27 kV |

表 10: OILTAP® R 绝缘间距 a0

3.1.4 R 分接选择器内绝缘的额定绝缘水平

各个分接选择器间距可容许的最大工作电压与以下所列的外加电压（AC）的半值相对应。

| 绝缘间距 | | 分接选择器等级 | | | | |
|------------------|-----|---------|-----|-----|-------|-------|
| | | RC | RD | RDE | RE | RF |
| a1 | LI | 150 | | | | |
| | LIC | 165 | | | | |
| | SI | 100 | | | | |
| | 交流 | 30 | | | | |
| a | LI | 400 | 500 | 550 | 670 | 670 |
| | LIC | 440 | 550 | 605 | 735 | 735 |
| | SI | 260 | 325 | 355 | 435 | 435 |
| | 交流 | 100 | 145 | 165 | 220 | 220 |
| b ¹⁾ | LI | 400 | 500 | 550 | 670 | 670 |
| | LIC | 440 | 550 | 605 | 735 | 735 |
| | SI | 260 | 325 | 355 | 435 | 435 |
| | 交流 | 120 | 160 | 180 | 220 | 280 |
| c1 | LI | 550 | 590 | 660 | 900 | 900 |
| | LIC | 605 | 645 | 725 | 990 | 990 |
| | SI | 355 | 385 | 430 | 585 | 585 |
| | 交流 | 180 | 210 | 250 | 320 | 320 |
| c2 ¹⁾ | LI | 550 | 590 | 660 | 930 | 1 000 |
| | LIC | 605 | 645 | 725 | 1 020 | 1 100 |
| | SI | 355 | 385 | 528 | 605 | 650 |
| | 交流 | 195 | 230 | 280 | 340 | 370 |

表 11: R 分接选择器内绝缘的额定绝缘水平

LI: 全波雷电冲击电压 (kV, 1.2/50 μ s)

LIC: 截波雷电冲击电压 (kV, 1.2/50/3 μ s)

SI: 开关冲击电压 (kV, 250/2500 μ s)

AC: 外加电压 (kV, 50 Hz, 1 min)

¹⁾ 不适用于单相分接开关

3.2 细调分接绕组电位连接

在其开关操作中，细调分接绕组将与主绕组通过极性选择器或粗级分接选择器短暂进行电气分离。随后它会针对这些绕组或接地零件采用邻近绕组和耦合电容的电压产生的电位。

因为一个触头始终连接到细调分接绕组而另一个触头始终连接到主绕组，所以细调分接绕组的此电位偏移将在开断的转换选择器的触头之间产生相应电压。该电压被称为 U_w 。

转换选择器的触头进行分开时，电容电流将被迫中断。该电流由上述细调分接绕组的耦合电容决定。该电流被称为开断电流 I_s 。

恢复电压 U_w 和开断电流 I_s 可能会使转换选择器上产生不允许的放电迹象。有关恢复电压 U_w 和开断电流 I_s 的允许范围，请参见下图：

Active Gas Inhibition System (AGIS) 减少了转换选择器运行期间气体的产生量。有关恢复电压和开断电流的更多信息，请参见技术数据 TD 61 - 基本信息部分。

不带电位电阻的恢复电压 U_w 和开断电流 I_s

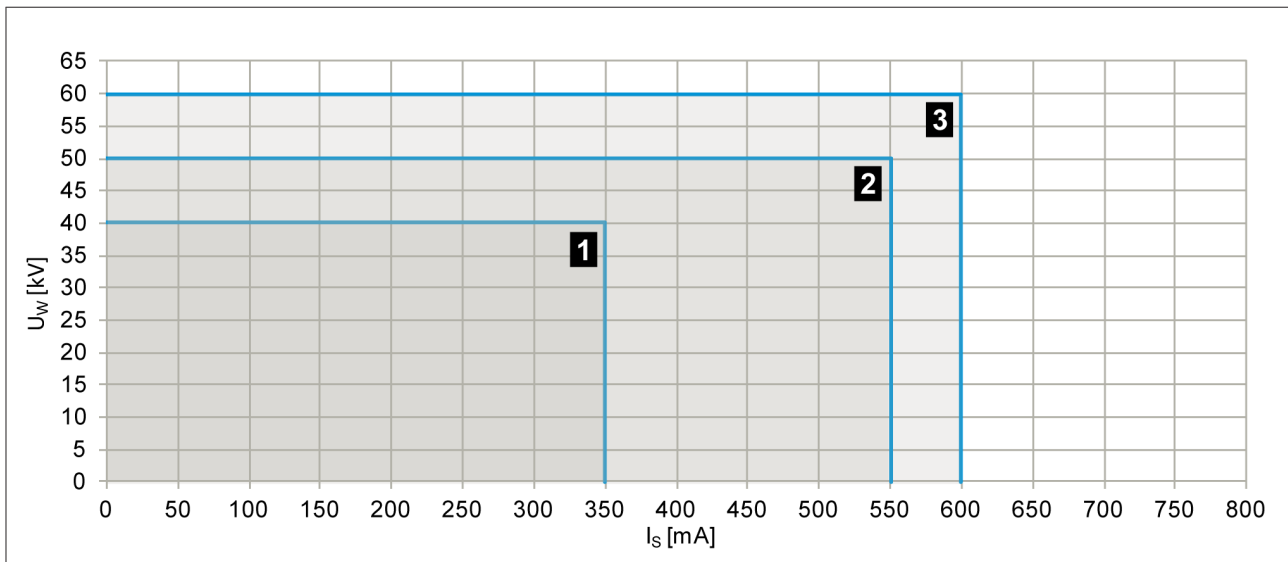


插图 2: 分接选择器等级为 RC、RD、RDE、RE、RF 的不带电位电阻 R_p 的 U_w 和 I_s 的参考值

- | | |
|------------------------------|------------------------------|
| 1 不带 AGIS 的分接选择器等级 RC、RD、RDE | 2 带有 AGIS 的分接选择器等级 RC、RD、RDE |
| 3 带有 AGIS 的分接选择器等级 RE、RF | |

带有电位电阻的恢复电压 U_w 和开断电流 I_s

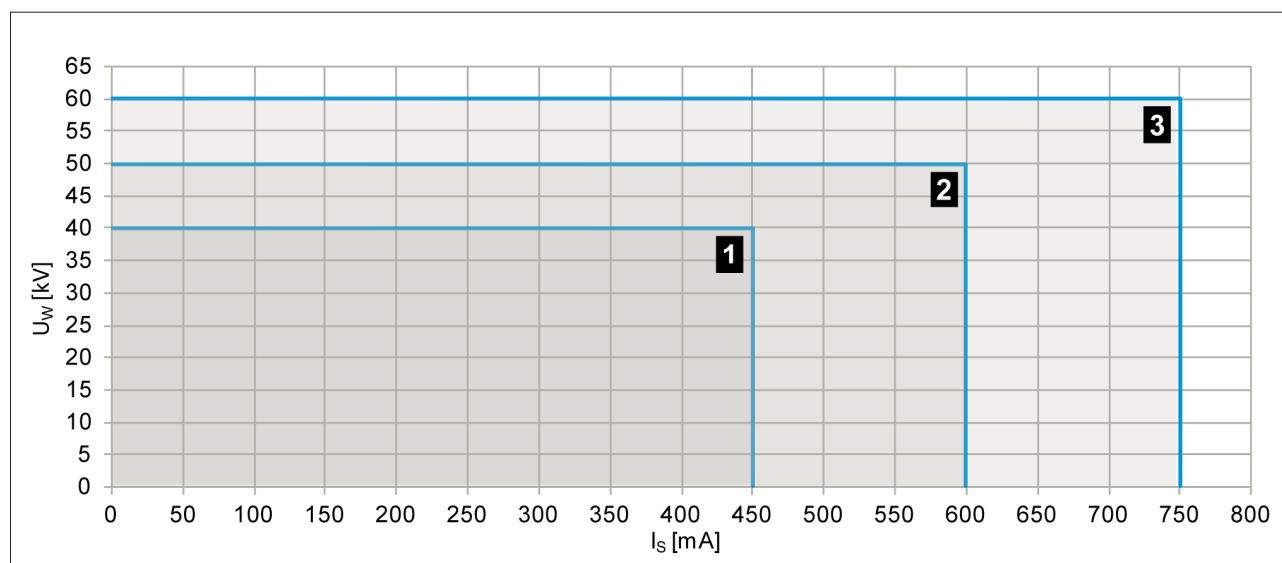


插图 3: 分接选择器等级为 RC、RD、RDE、RE、RF 的带有电位电阻 R_p 的 U_w 和 I_s 的参考值

- | | |
|------------------------------|------------------------------|
| 1 不带 AGIS 的分接选择器等级 RC、RD、RDE | 2 带有 AGIS 的分接选择器等级 RC、RD、RDE |
| 3 带有 AGIS 的分接选择器等级 RE、RF | |

4 特殊设计

4.1 用于并联的并联联片

并联联片可将电流分流至 2 或 3 选择器层的接线端子。并联联片只能用于以下有载分接开关：

VACUTAP® VM I 1503

OILTAP® M I 1503

OILTAP® R I 2002/2003 和 OILTAP® R I 3003

如果分接绕组被缠绕成两个或更多个支路且每个分支抽头都与分接选择器的触头相连接，则分接选择器端子上的并联联片为必备项。

此措施可靠地防止了以下几点：

- 环流输入到分接选择器和切换开关的电流回路
- 可移动分接选择器触头桥上的换向电弧
- 并联的相邻分接选择器端子间的过电压

4.2 用于角形接法的 VACUTAP® VM® 有载分接开关组合

有载分接开关 VM II 652 还可以与单柱有载分接开关 VM I 651 一起用作两柱有载分接开关组合 VM I 651/VM II 652，用来调节角形接法中变压器绕组的电压。

此组合被称为 VM III K（“K”在德语中代表组合“Kombination”）。应提供用于此类组合的分接绕组，如下图所示：

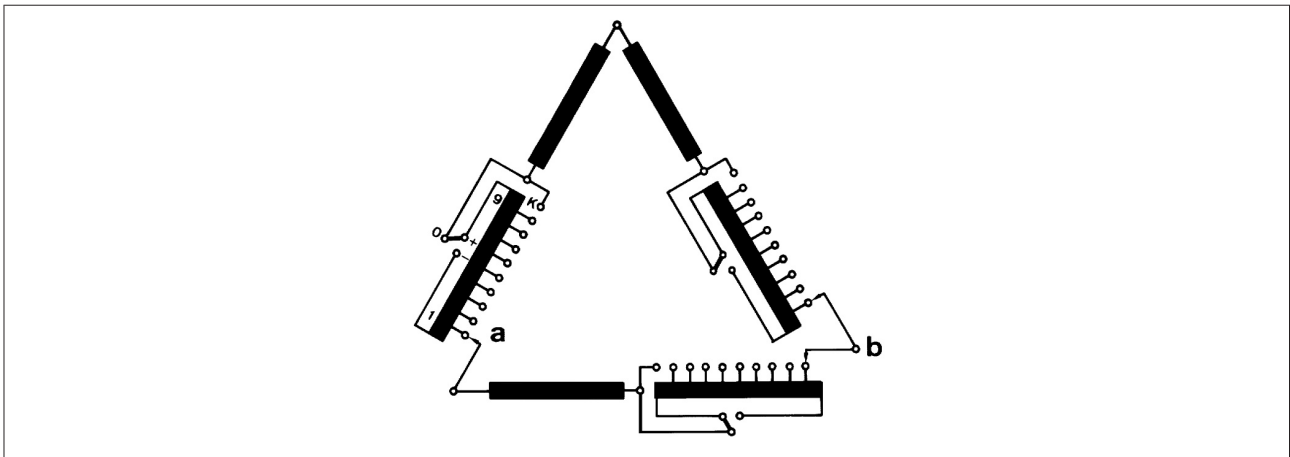


插图 4：用于角形接法的有载分接开关组合 VM III K：VM I 651/VM II 652（a = VM I 651，b = VM II 652）

4.3 用于角形接法的 OILTAP® M 有载分接开关组合

有载分接开关 M II 602 还可以与单柱有载分接开关 M I 601 一起用作两柱有载分接开关组合 M I 601/M II 602，用来调节角形接法中变压器绕组的电压。

此组合被称为 M III K (“K” 在德语中代表组合 “Kombination”)。应提供用于此类组合的分接绕组，如下图所示：

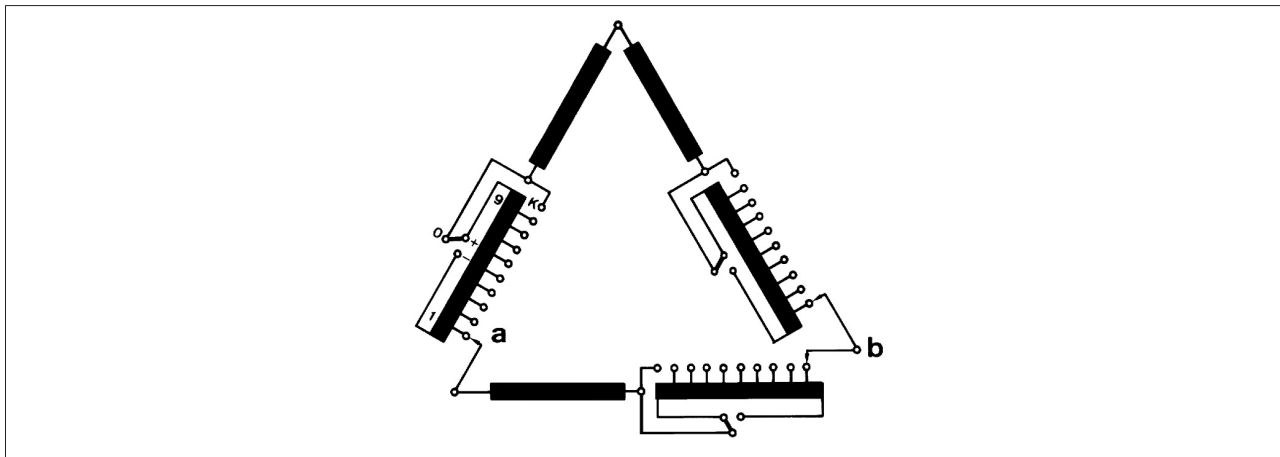


插图 5: 用于角形接法的有载分接开关组合 M III K: M I 601/M II 602 (a = M I 601, b = M II 602)

4.4 用于角形接法的 OILTAP® R 有载分接开关组

有载分接开关 R II 1202 还可以与单柱有载分接开关 R I 1201 一起用作两柱有载分接开关组 R I 1201/R II 1202，以便共同调节角形接法中变压器绕组的电压。

此组合被称为 R III K (“K” 在德语中代表组合 “Kombination”)。应提供用于此类组合的分接绕组，如下图所示：

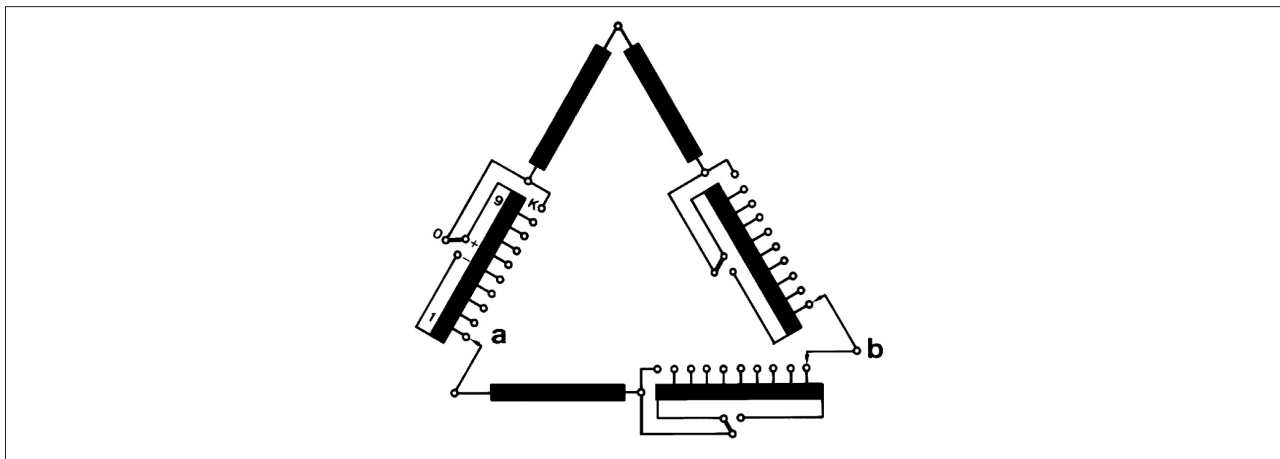


插图 6: 用于角形接法的有载分接开关组 R III K: R I 1201/R II 1202 (a = R I 1201, b = R II 1202)



5 图纸

5.1 VACUTAP® VM®、OILTAP® M 和 OILTAP® R 的类型总览

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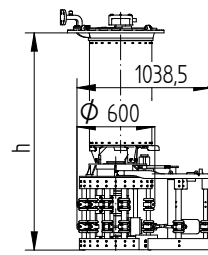
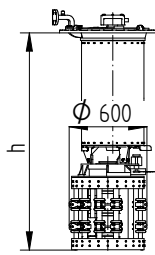
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| DATE | NAME | DOCUMENT NO. |
| DFTR. 18.01.2018 | RAEDLINGER | SED 4326940 001 02 |
| CHKD. 23.01.2018 | MENZELS | CHANGE NO. |
| STANDJ 23.01.2018 | PRODASTSCHUK | 1085481 |
| | | SCALE 1:20 |

WITHOUT CHANGE-OVER SELECTOR 0

WITH CHANGE-OVER SELECTOR
 (REVERSING / COARSE CHANGE-OVER SELECTOR) W, G

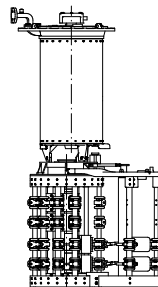
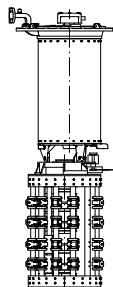
VM I 651
 VM I 802
 VM I 1002
 VM I 1203

 M I 601
 M I 802
 M I 1203



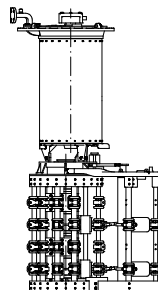
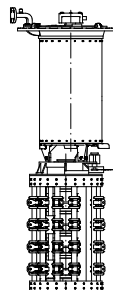
| Um [kV] | h [mm] | |
|---------|---------------|----------|
| | SELECTOR SIZE | |
| | RC | RD / RDE |
| 72,5 | 1665 | 1745 |
| 123 | 1795 | 1875 |
| 170 | 1925 | 2005 |
| 245 | 2025 | 2105 |
| 300 | 2177 | 2257 |

VM I 1503
 M I 1503



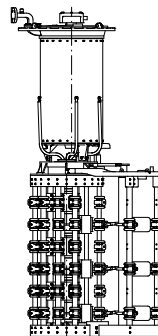
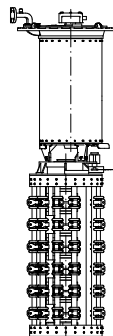
| Um [kV] | h [mm] | |
|---------|---------------|----------|
| | SELECTOR SIZE | |
| | RC | RD / RDE |
| 72,5 | 1965 | 2045 |
| 123 | 2095 | 2175 |
| 170 | 2225 | 2305 |
| 245 | 2325 | 2405 |
| 300 | 2477 | 2557 |

VM II 652
 M II 602



| Um [kV] | h [mm] | |
|---------|---------------|----------|
| | SELECTOR SIZE | |
| | RC | RD / RDE |
| 72,5 | 2005 | 2165 |
| 123 | 2135 | 2295 |
| 170 | 2265 | 2425 |
| 245 | 2365 | 2525 |
| 300 | 2517 | 2677 |

VM III 650 Y
 M III 600 Y



| Um [kV] | h [mm] | |
|---------|---------------|----------|
| | SELECTOR SIZE | |
| | RC | RD / RDE |
| 72,5 | 2345 | 2585 |
| 123 | 2475 | 2715 |
| 170 | 2605 | 2845 |
| 245 | 2705 | 2945 |

SELECTOR SIZE RC 72,5kV DISPLAYED

DIMENSION
 IN mm
 EXCEPT AS
 NOTED



ON-LOAD TAP-CHANGER OILTAP® M, VACUTAP® VM
 TYPE OVERVIEW - SELECTOR SIZE RC/RD/RDE

SERIAL NUMBER

MATERIAL NUMBER 100100081E SHEET 1/1

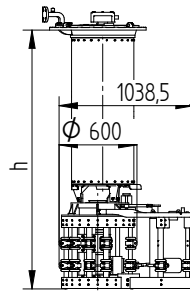
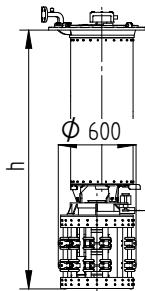
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| DATE | NAME | DOCUMENT NO. |
| DFTR. 15.01.2018 | RAEDLINGER | SED 4325111 001 02 |
| CHKD. 23.01.2018 | MENZELS | SCALE |
| STANDJ 23.01.2018 | PRODASTSCHUK | 1085481 |
| | | 120 |

WITHOUT CHANGE-OVER SELECTOR 0

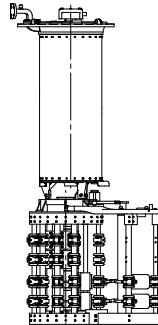
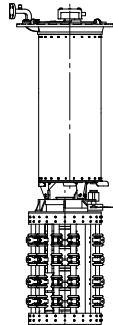
WITH CHANGE-OVER SELECTOR (REVERSING / COARSE CHANGE-OVER SELECTOR) W, G

R I 1201
R I 1202



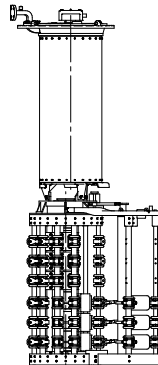
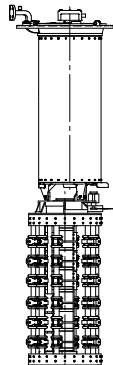
| Um [kV] | h [mm] | |
|---------|---------------|----------|
| | SELECTOR SIZE | |
| | RC | RD / RDE |
| 72,5 | 1984 | 2064 |
| 123 | 2114 | 2194 |
| 170 | 2214 | 2294 |
| 245 | 2314 | 2394 |
| 300 | 2460 | 2540 |
| 362 | 2590 | 2670 |

R I 2002
R I 2003
R I 2402



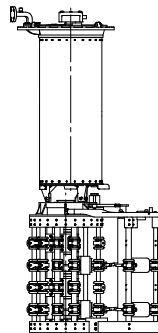
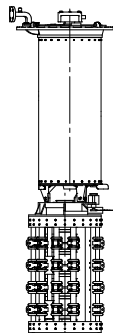
| Um [kV] | h [mm] | |
|---------|---------------|----------|
| | SELECTOR SIZE | |
| | RC | RD / RDE |
| 72,5 | 2284 | 2364 |
| 123 | 2414 | 2494 |
| 170 | 2514 | 2594 |
| 245 | 2614 | 2694 |
| 300 | 2760 | 2840 |
| 362 | 2890 | 2970 |

R I 3003



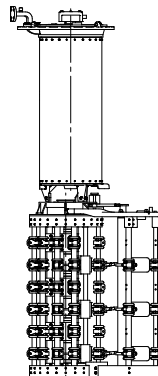
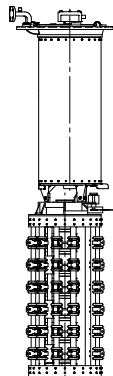
| Um [kV] | h [mm] | |
|---------|---------------|----------|
| | SELECTOR SIZE | |
| | RC | RD / RDE |
| 72,5 | 2584 | 2664 |
| 123 | 2714 | 2794 |
| 170 | 2814 | 2894 |
| 245 | 2914 | 2994 |
| 300 | 3060 | 3140 |
| 362 | 3190 | 3270 |

R II 1202



| Um [kV] | h [mm] | |
|---------|---------------|----------|
| | SELECTOR SIZE | |
| | RC | RD / RDE |
| 72,5 | 2324 | 2484 |
| 123 | 2454 | 2614 |
| 170 | 2554 | 2714 |
| 245 | 2654 | 2814 |
| 300 | 2800 | 2960 |
| 362 | 2930 | 3090 |

R III 1200 Y



| Um [kV] | h [mm] | |
|---------|---------------|----------|
| | SELECTOR SIZE | |
| | RC | RD / RDE |
| 72,5 | 2664 | 2904 |
| 123 | 2794 | 3034 |
| 170 | 2894 | 3134 |
| 245 | 2994 | 3234 |
| 300 | 3140 | 3380 |
| 362 | 3270 | 3510 |

SELECTOR SIZE RC 72,5kV DISPLAYED

DIMENSION IN mm EXCEPT AS NOTED



ON-LOAD TAP-CHANGER OILTAP® R
 TYPE OVERVIEW - SELECTOR SIZE RC/RD/RDE

SERIAL NUMBER

MATERIAL NUMBER 100100061E SHEET 1/1

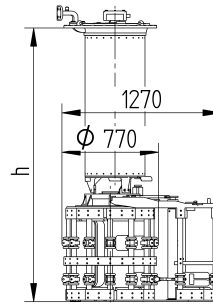
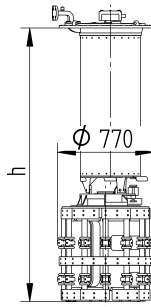
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| DATE | NAME | DOCUMENT NO. |
| DFTR. 18.10.2016 | CTETPRAKTIK2 | SED 5031275 001 01 |
| CHKD. 19.10.2016 | HILTNER | CHANGE NO. |
| STAND. 20.10.2016 | PRODASTSCHUK | 1077666 |
| | SCALE | 1:20 |

WITHOUT CHANGE-OVER SELECTOR 0

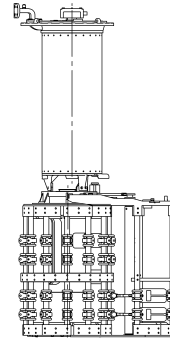
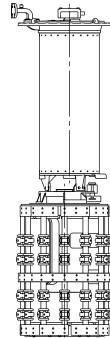
WITH CHANGE-OVER SELECTOR
(REVERSING / COARSE CHANGE-OVER SELECTOR) W, G

R I 1201
R I 1202



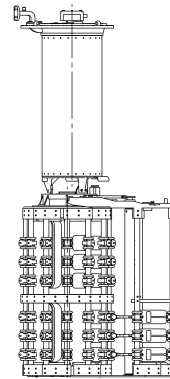
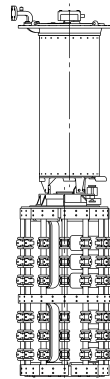
| Um [kV] | h [mm] | |
|---------|---------------|----|
| | SELECTOR SIZE | |
| | RE | RF |
| 72,5 | 2185 | - |
| 123 | 2315 | - |
| 170 | 2415 | - |
| 245 | 2515 | - |
| 300 | 2661 | - |
| 362 | 2791 | - |

R I 2002
R I 2003
R I 2402



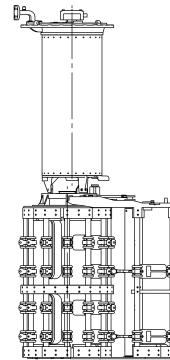
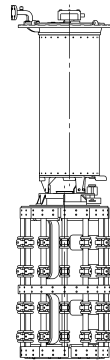
| Um [kV] | h [mm] | |
|---------|---------------|----|
| | SELECTOR SIZE | |
| | RE | RF |
| 72,5 | 2485 | - |
| 123 | 2615 | - |
| 170 | 2715 | - |
| 245 | 2815 | - |
| 300 | 2961 | - |
| 362 | 3091 | - |

R I 3003



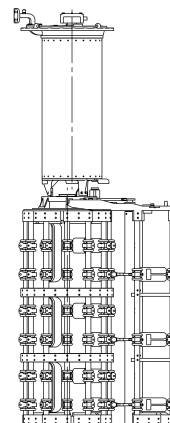
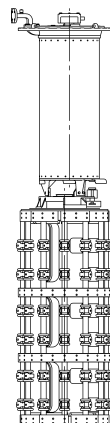
| Um [kV] | h [mm] | |
|---------|---------------|----|
| | SELECTOR SIZE | |
| | RE | RF |
| 72,5 | 2785 | - |
| 123 | 2915 | - |
| 170 | 3015 | - |
| 245 | 3115 | - |
| 300 | 3261 | - |
| 362 | 3391 | - |

R II 1202



| Um [kV] | h [mm] | |
|---------|---------------|------|
| | SELECTOR SIZE | |
| | RE | RF |
| 72,5 | 2645 | 2725 |
| 123 | 2775 | 2855 |
| 170 | 2875 | 2955 |
| 245 | 2975 | 3055 |
| 300 | 3121 | 3201 |
| 362 | 3251 | 3331 |

R III 1200 Y



| Um [kV] | h [mm] | |
|---------|---------------|------|
| | SELECTOR SIZE | |
| | RE | RF |
| 72,5 | 3165 | 3325 |
| 123 | 3295 | 3455 |
| 170 | 3395 | 3555 |
| 245 | 3495 | 3655 |
| 300 | 3641 | 3801 |
| 362 | 3771 | 3931 |

SELECTOR SIZE RE 72,5KV
DISPLAYED

DIMENSION
IN mm
EXCEPT AS
NOTED



ON-LOAD TAP-CHANGER OILTAP® R
TYPE OVERVIEW - SELECTOR SIZE RE/RF
DIMENSION DRAWING

SERIAL NUMBER

MATERIAL NUMBER
100169160E

SHEET
1/1

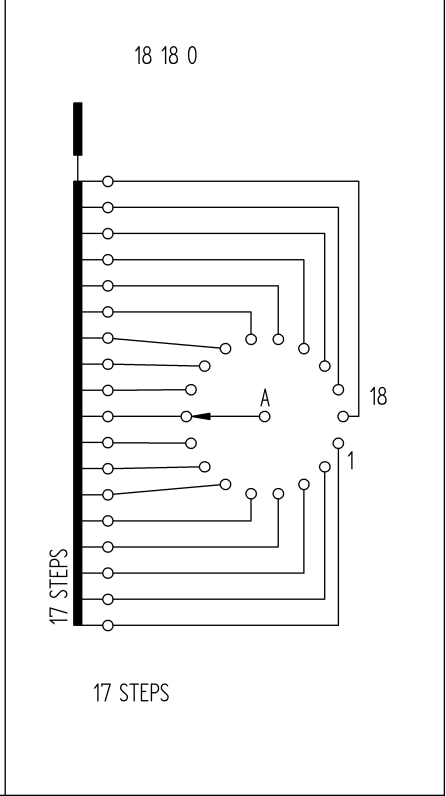
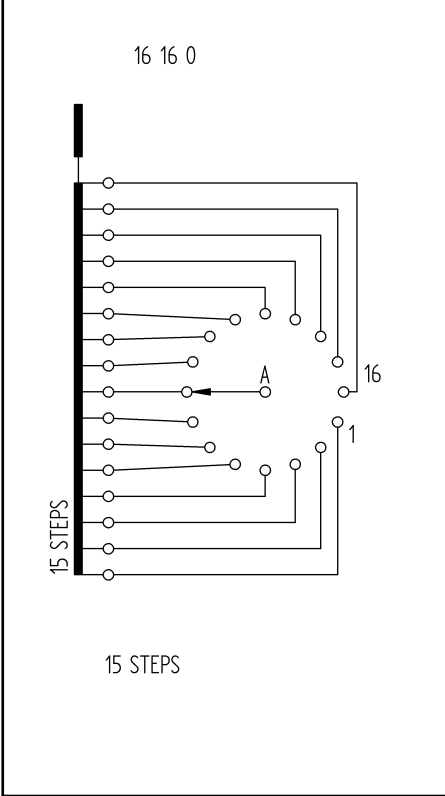
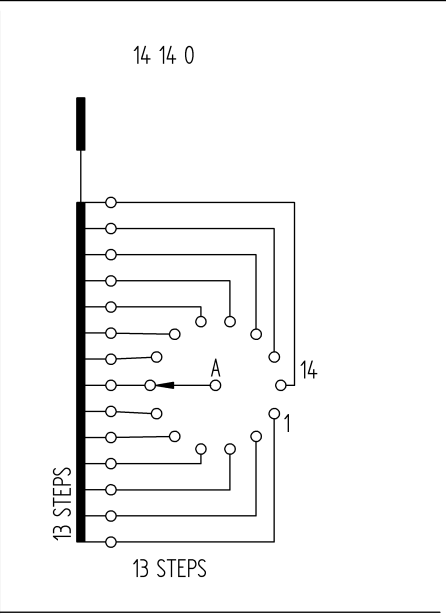
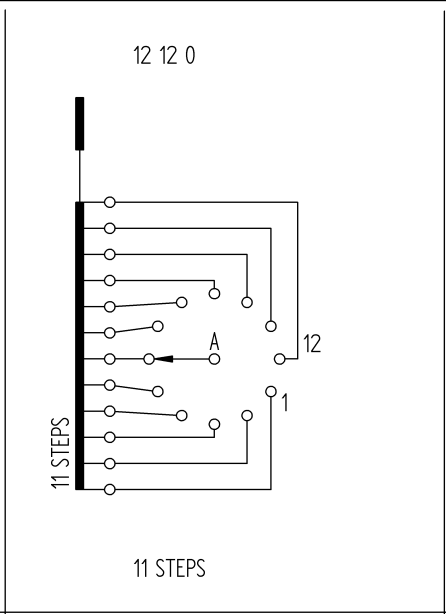
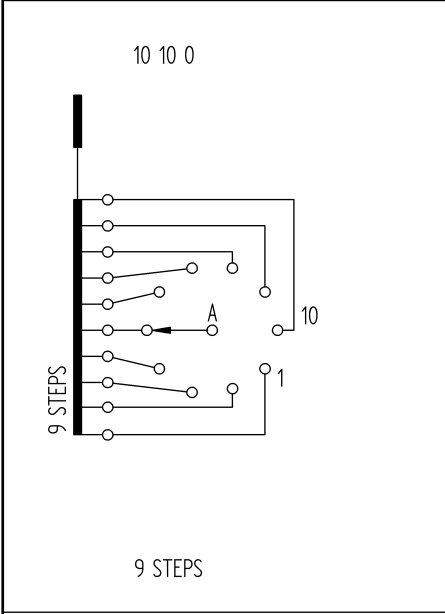


5.2 基本接线图，符合 MR 标准的触头标识

5.2 基本接线图，符合 MR 标准的触头标识

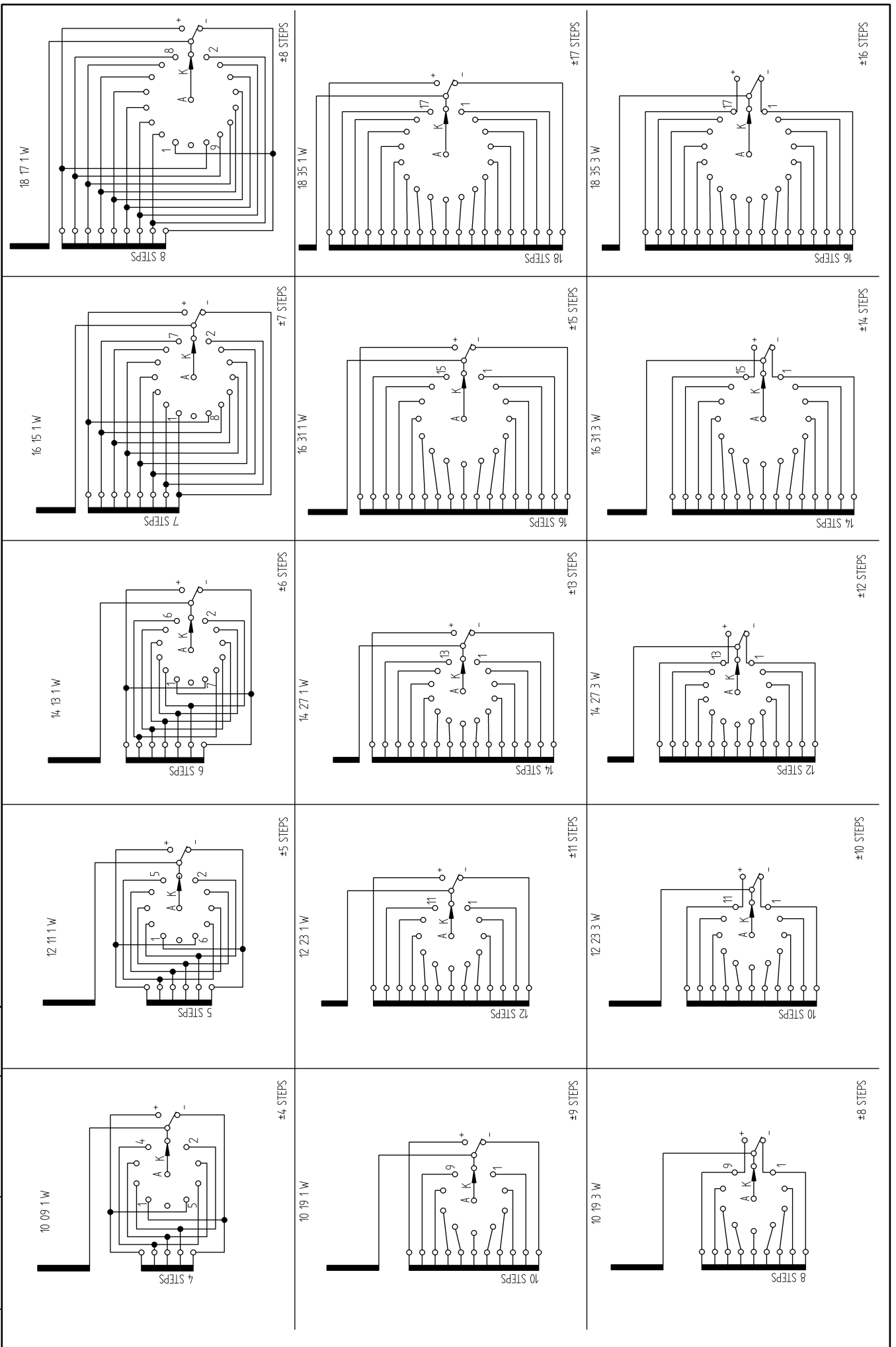
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| DATE | NAME | DOCUMENT NO. |
| 05.10.2016 | LIPINSKI | SED 4357321 001 02 |
| CHKD. 19.10.2016 | HILTNER | CHANGE NO. |
| STAND. 20.10.2016 | PRODASTCHUK | 1077666 |
| | | SCALE |
| | | - |



| | | | | | |
|------------------------------------------|--|--|--------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------|
| DIMENSION IN mm EXCEPT AS NOTED | | | ON-LOAD TAP-CHANGER OILTAP® M, RM, R, G AND VACUTAP® VM, VR BASIC CONNECTION DIAGRAMS WITHOUT CHANGE-OVER SELECTOR (WITHOUT 22 22 0) | | SERIAL NUMBER |
| | | | MATERIAL NUMBER 100103261E | SHEET 1 / 3 | |

| | | |
|-------------------|--------------|--------------------|
| DATE | NAME | DOCUMENT NO. |
| 05.10.2016 | LIPINSKI | SED 4357321 001 02 |
| CHKD. 19.10.2016 | HILTNER | CHANGE NO. |
| STAND. 20.10.2016 | PRODASTSCHUK | 1077666 |
| | | SCALE |
| | | - |



DIMENSION
IN mm
EXCEPT AS
NOTED



ON-LOAD TAP-CHANGER OILTAP® M, RM, R, G AND VACUTAP® VM, VR
BASIC CONNECTION DIAGRAMS
WITH REVERSING CHANGE-OVER SELECTOR

SERIAL NUMBER

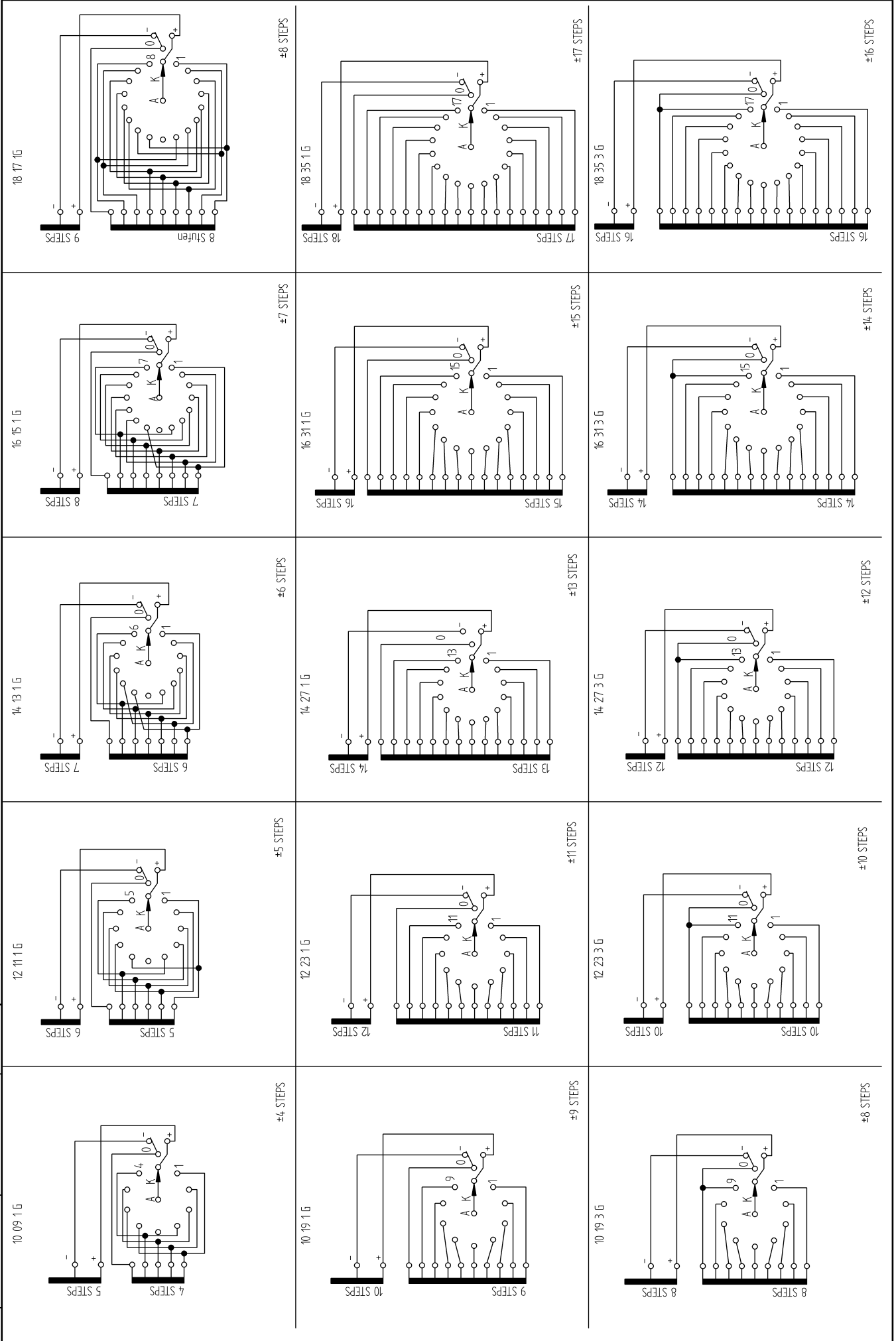
MATERIAL NUMBER
100103261E

SHEET
2 / 3

| | | |
|-------------------|-------------|--------------------|
| DATE | NAME | DOCUMENT NO. |
| 05.10.2016 | LIPINSKI | SED 4357321 001 02 |
| CHKD. 19.10.2016 | HILTNER | CHANGE NO. |
| SCALE | PRODAJSCHUK | 1077666 |
| STAND. 20.10.2016 | | - |

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DIMENSION
IN mm
EXCEPT AS
NOTED



ON-LOAD TAP-CHANGER OILTAP® M, RM, R, G AND VACUTAP® VM, VR
BASIC CONNECTION DIAGRAMS
WITH COARSE CHANGE-OVER SELECTOR

| | |
|-----------------|-------|
| SERIAL NUMBER | |
| MATERIAL NUMBER | SHEET |
| 100103261E | 3 / 3 |



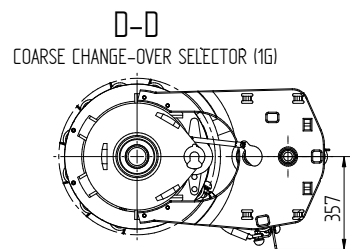
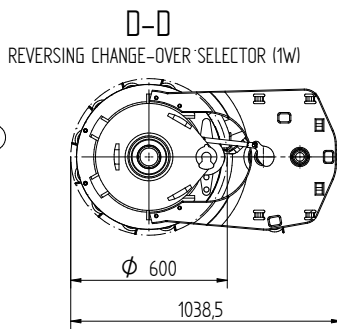
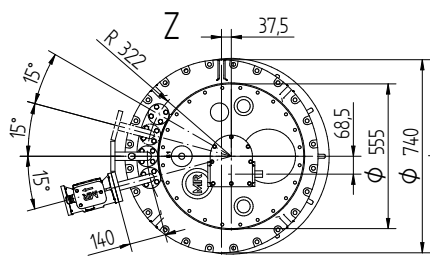
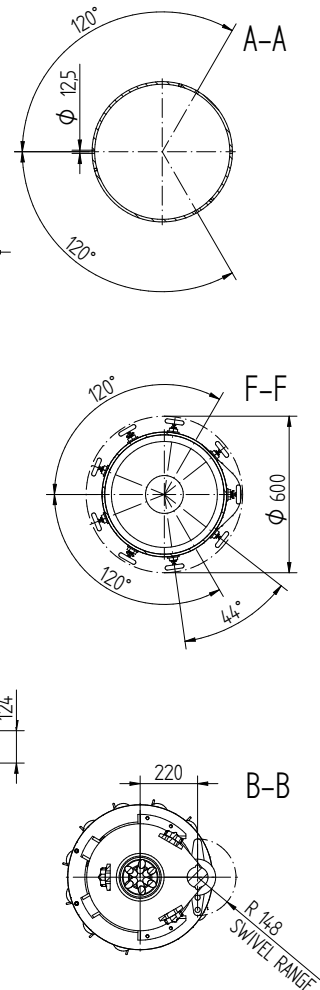
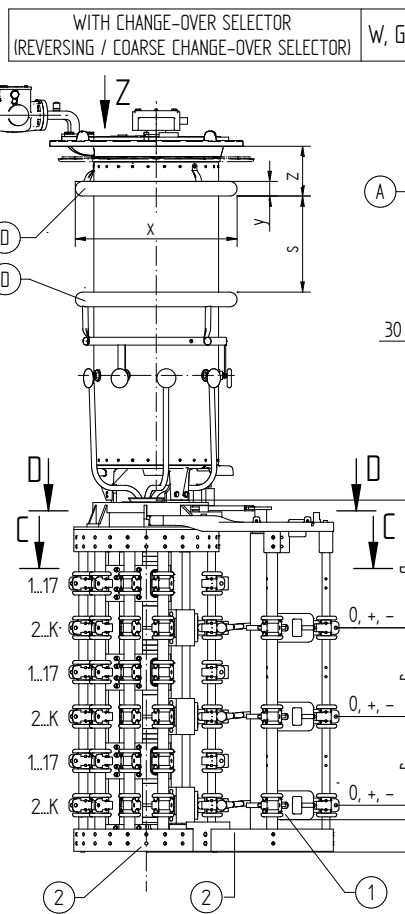
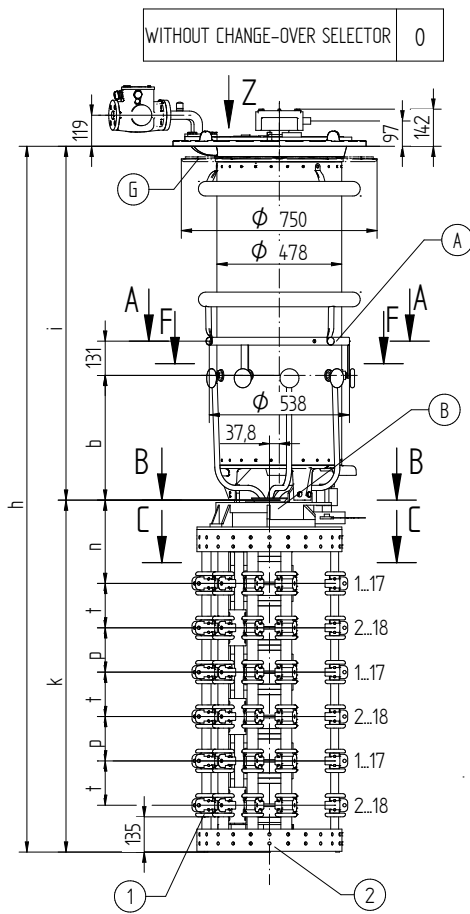
5.3 VACUTAP® VM® 和 OILTAP® M 的安装外形尺寸图

5.3 VACUTAP® VM® 和 OILTAP® M 的安装外形尺寸图



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|-------------------|--------------|--------------------|
| DATE | NAME | DOCUMENT NO. |
| DFTR. 09.01.2018 | RAEDLINGER | SED 4311295 001 04 |
| CHKD. 23.01.2018 | MENZELS | SCALE 1:10 |
| STANDJ 23.01.2018 | PRODASTSCHUK | CHANGE NO. 1085481 |



FOR THE TYPE OF OLTC-HEAD REFER TO ORDER-SPECIFIC DRAWING OF THE OLTC-HEAD AND DRIVE SHAFTS

- (M) - DRIVE SIDE OF SELECTOR
- (A) - ON-LOAD TAP-CHANGER CURRENT TAKE-OFF TERMINAL
- (B) - IS CONNECTED TO POTENTIAL OF (A)
- (D) - SHIELDING RINGS FOR UM OF 170 KV OR GREATER
- (G) - SUPPORTING FLANGE FOR BELL-TYPE TANK INSTALLATION IS OPTIONAL
- (1) - BOTTOM-MOST LIVE PARTS; THESE ARE CONNECTED TO THE POTENTIAL OF THE ASSOCIATED AND/OR WIRED CONNECTION CONTACT
- (2) - SELECTOR BASE IS MADE OF INSULATING MATERIAL

- THE DETAILED CONNECTION DIAGRAM IS BINDING FOR THE DESIGNATION OF THE CONNECTION CONTACTS AND PHASES
- C-C REFER TO 10009030
- D-D - TYPE WITH CONNECTING LEAD 3W/3G REFER TO 10010019
- FOR INHERENT DRAWINGS REFER TO 10009819

DIMENSION IN mm EXCEPT AS NOTED



ON-LOAD TAP-CHANGER OILTAP® M, VACUTAP® VM
 MIII600Y, VMIII650Y-72.5...245-RC/RD/RDE
 DIMENSION DRAWING

SERIAL NUMBER

MATERIAL NUMBER 100097912E SHEET 1/2

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OILTAP® M / VACUTAP® VM

| SELECTOR SIZE | | RC | | | | RD / RDE | | | | |
|--------------------|----|------|------|-------|-------|----------|------|-------|-------|-----|
| Um [kV] | | 72,5 | 123 | 170 | 245 | 72,5 | 123 | 170 | 245 | |
| DIMENSIONS [mm] | h | 2345 | 2475 | 2605 | 2705 | 2585 | 2715 | 2845 | 2945 | |
| | b | 478 | 478 | 478 | 478 | 478 | 478 | 478 | 478 | |
| | i | 996 | 1126 | 1256 | 1356 | 996 | 1126 | 1256 | 1356 | |
| | s | M | - | - | 309 | 409 | - | - | 309 | 409 |
| | | VM | - | - | 268 | 368 | - | - | 268 | 368 |
| | z | - | - | 191 | 191 | - | - | 191 | 191 | |
| | x | - | - | Ø 620 | Ø 620 | - | - | Ø 620 | Ø 620 | |
| | y | - | - | Ø 56 | Ø 56 | - | - | Ø 56 | Ø 56 | |
| | k | 1349 | | | | 1589 | | | | |
| | n | 319 | | | | 359 | | | | |
| | t | 170 | | | | 210 | | | | |
| | p | 170 | | | | 210 | | | | |
| | r | 340 | | | | 420 | | | | |
| | q | 489 | | | | 569 | | | | |
| OIL VOLUME [dm³] | | 130 | 150 | 170 | 190 | 130 | 150 | 170 | 190 | |
| DISPLACEMENT [dm³] | | 216 | 239 | 272 | 272 | 222 | 245 | 278 | 278 | |
| MAX. WEIGHT [kg] | M | 385 | 390 | 395 | 400 | 396 | 401 | 406 | 411 | |
| | VM | 415 | 420 | 425 | 430 | 426 | 431 | 436 | 441 | |

| DATE | NAME | DOCUMENT NO. |
|------------|--------------|--------------------|
| 09.01.2018 | RAEDLINGER | SED 4311295 001 04 |
| 23.01.2018 | MENZELS | CHANGE NO. |
| 23.01.2018 | PRODASTSCHUK | 1085481 |
| | | SCALE |
| | | 1:10 |

DIMENSION
IN mm
EXCEPT AS
NOTED



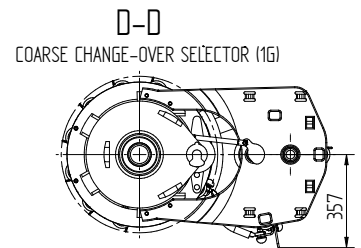
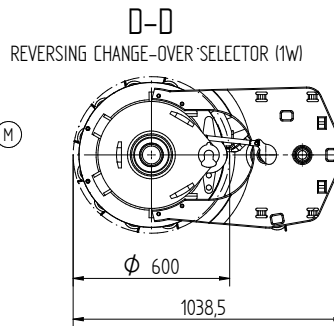
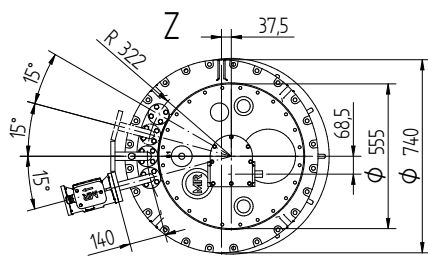
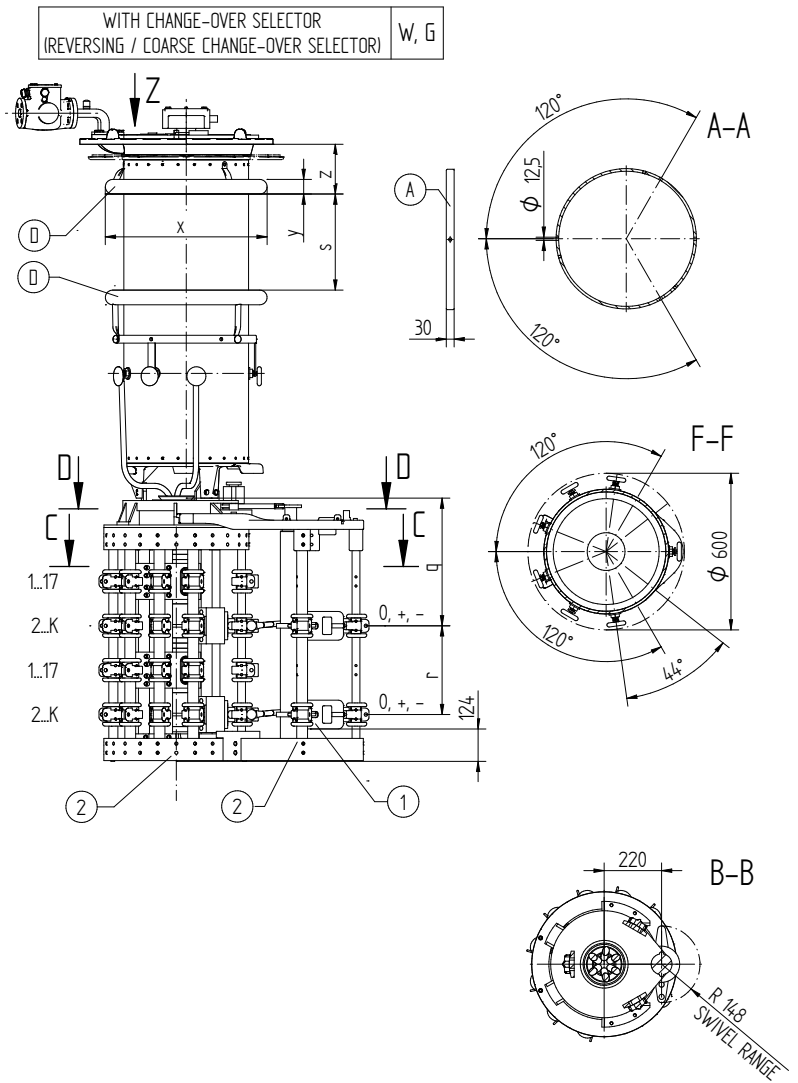
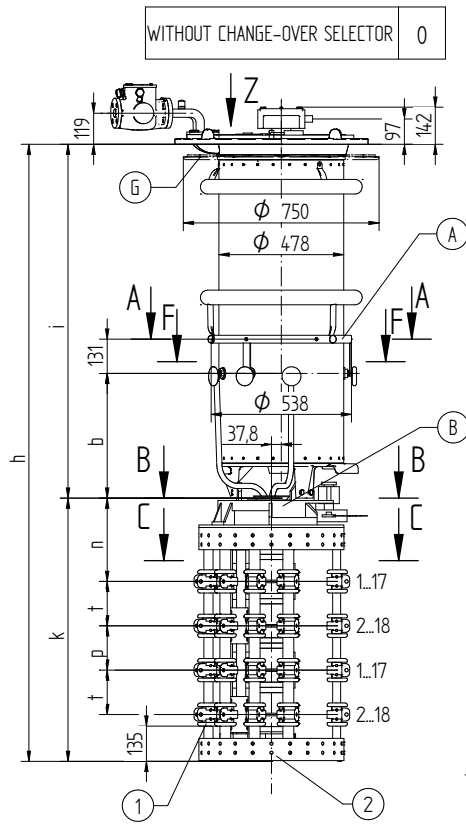
ON-LOAD TAP-CHANGER OILTAP® M, VACUTAP® VM
MIII600Y, VMIII650Y-72,5...245-RC/RD/RDE
DIMENSION DRAWING

SERIAL NUMBER

| | |
|-----------------|-------|
| MATERIAL NUMBER | SHEET |
| 100097912E | 2/2 |

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| | | |
|------------|--------------|--------------------|
| DATE | NAME | DOCUMENT NO. |
| 09.01.2018 | RAEDLINGER | SED 4313440 001 05 |
| 23.01.2018 | MENZELS | SCALE |
| 23.01.2018 | PRODASTSCHUK | 1:10 |
| | | CHANGE NO. |
| | | 1085481 |



FOR THE TYPE OF OLTC-HEAD REFER TO ORDER-SPECIFIC DRAWING OF THE OLTC-HEAD AND DRIVE SHAFTS

- (M) - DRIVE SIDE OF SELECTOR
- (A) - ON-LOAD TAP-CHANGER CURRENT TAKE-OFF TERMINAL
- (B) - IS CONNECTED TO POTENTIAL OF (A)
- (D) - SHIELDING RINGS FOR UM OF 170 kV OR GREATER
- (G) - SUPPORTING FLANGE FOR BELL-TYPE TANK INSTALLATION IS OPTIONAL
- (1) - BOTTOM-MOST LIVE PARTS; THESE ARE CONNECTED TO THE POTENTIAL OF THE ASSOCIATED AND/OR WIRED CONNECTION CONTACT
- (2) - SELECTOR BASE IS MADE OF INSULATING MATERIAL

- THE DETAILED CONNECTION DIAGRAM IS BINDING FOR THE DESIGNATION OF THE CONNECTION CONTACTS AND PHASES
- C-C REFER TO 10009030
- D-D - TYPE WITH CONNECTING LEAD 3W/3G REFER TO 10010019
- FOR INHERENT DRAWINGS REFER TO 10009819

DIMENSION
IN mm
EXCEPT AS
NOTED



ON-LOAD TAP-CHANGER OILTAP® M, VACUTAP® VM
M11602, VM11652-72,5...300-RC/RD/RDE
DIMENSION DRAWING

SERIAL NUMBER

MATERIAL NUMBER
100097922E

SHEET
1/2

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OILTAP® M / VACUTAP® VM

| SELECTOR SIZE | | RC | | | | | RD / RDE | | | | | |
|--------------------|-----|------|------|-------|-------|-------|----------|------|-------|-------|-------|-----|
| Um [kV] | | 72,5 | 123 | 170 | 245 | 300 | 72,5 | 123 | 170 | 245 | 300 | |
| DIMENSIONS [mm] | h | 2005 | 2135 | 2265 | 2365 | 2517 | 2165 | 2295 | 2425 | 2525 | 2677 | |
| | b | 478 | 478 | 478 | 478 | 478 | 478 | 478 | 478 | 478 | 478 | |
| | i | 996 | 1126 | 1256 | 1356 | 1508 | 996 | 1126 | 1256 | 1356 | 1508 | |
| | s | M | - | - | 309 | 409 | 520 | - | - | 309 | 409 | 520 |
| | | VM | - | - | 268 | 368 | 520 | - | - | 268 | 368 | 520 |
| | z | - | - | 191 | 191 | 191 | - | - | 191 | 191 | 191 | |
| | x | - | - | Ø 620 | Ø 620 | Ø 620 | - | - | Ø 620 | Ø 620 | Ø 620 | |
| | y | - | - | Ø 56 | Ø 56 | Ø 56 | - | - | Ø 56 | Ø 56 | Ø 56 | |
| | k | 1009 | | | | | 1169 | | | | | |
| | n | 319 | | | | | 359 | | | | | |
| | t | 170 | | | | | 210 | | | | | |
| | p | 170 | | | | | 210 | | | | | |
| | r | 340 | | | | | 420 | | | | | |
| q | 489 | | | | | 569 | | | | | | |
| OIL VOLUME [dm³] | | 130 | 150 | 170 | 190 | 210 | 130 | 150 | 170 | 190 | 210 | |
| DISPLACEMENT [dm³] | | 203 | 226 | 259 | 277 | 304 | 207 | 230 | 263 | 281 | 308 | |
| MAX. WEIGHT [kg] | M | 340 | 345 | 350 | 355 | 360 | 347 | 352 | 357 | 362 | 367 | |
| | VM | 370 | 375 | 380 | 385 | 390 | 377 | 382 | 387 | 392 | 397 | |

| | | |
|------------|--------------|--------------------|
| DATE | NAME | DOCUMENT NO. |
| 09.01.2018 | RAEDLINGER | SED 4313440 001 05 |
| 23.01.2018 | MENZELS | CHANGE NO. |
| 23.01.2018 | PRODASTSCHUK | 1085481 |
| DFTR. | SCALE | 1:10 |
| CHKD. | | |
| STAND | | |

DIMENSION
IN mm
EXCEPT AS
NOTED



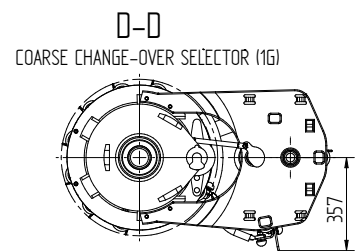
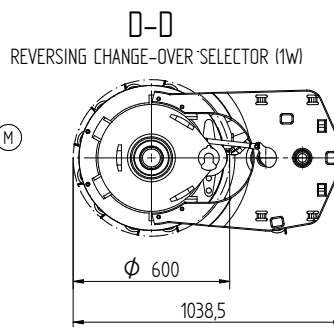
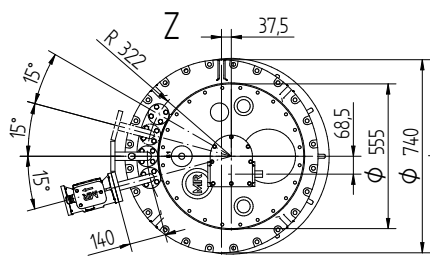
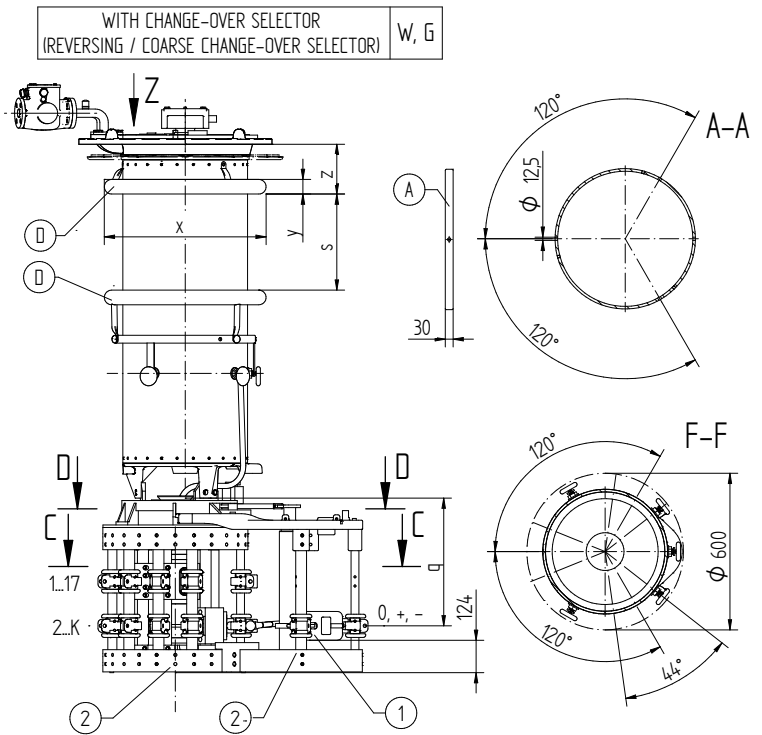
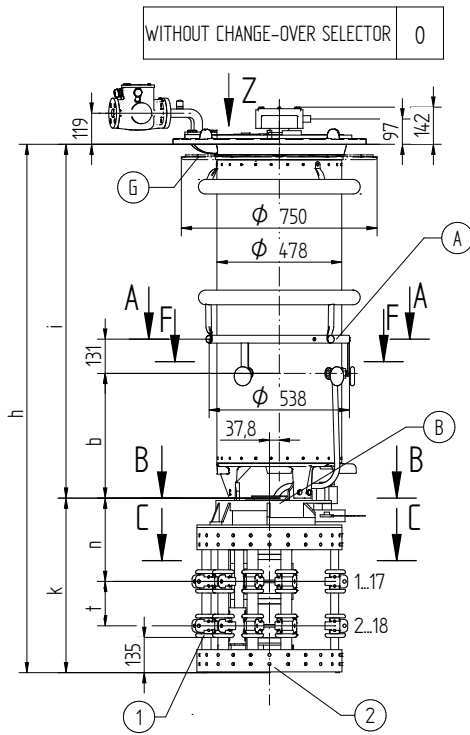
ON-LOAD TAP-CHANGER OILTAP® M, VACUTAP® VM
 M11602, VM11652-72,5...300-RC/RD/RDE
 DIMENSION DRAWING

SERIAL NUMBER

| | |
|-----------------|-------|
| MATERIAL NUMBER | SHEET |
| 100097922E | 2/2 |

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| DATE | NAME | DOCUMENT NO. |
| 09.01.2018 | RAEDLINGER | SED 4313317 001 05 |
| 23.01.2018 | MENZELS | SCALE |
| 23.01.2018 | PRODASTSCHUK | 1:10 |
| | | CHANGE NO. |
| | | 1085481 |



FOR THE TYPE OF OLTC-HEAD REFER TO ORDER-SPECIFIC DRAWING OF THE OLTC-HEAD AND DRIVE SHAFTS

- (M) - DRIVE SIDE OF SELECTOR
- (A) - ON-LOAD TAP-CHANGER CURRENT TAKE-OFF TERMINAL
- (B) - IS CONNECTED TO POTENTIAL OF (A)
- (D) - SHIELDING RINGS FOR UM OF 170 kV OR GREATER
- (G) - SUPPORTING FLANGE FOR BELL-TYPE TANK INSTALLATION IS OPTIONAL
- (1) - BOTTOM-MOST LIVE PARTS; THESE ARE CONNECTED TO THE POTENTIAL OF THE ASSOCIATED AND/OR WIRED CONNECTION CONTACT
- (2) - SELECTOR BASE IS MADE OF INSULATING MATERIAL

- THE DETAILED CONNECTION DIAGRAM IS BINDING FOR THE DESIGNATION OF THE CONNECTION CONTACTS AND PHASES
- C-C REFER TO 10009030
- D-D - TYPE WITH CONNECTING LEAD 3W/3G REFER TO 10010019
- FOR INHERENT DRAWINGS REFER TO 10009819

DIMENSION
IN mm
EXCEPT AS
NOTED



ON-LOAD TAP-CHANGER OILTAP® M, VACUTAP® VM
 MI601, VM1651-72.5...300-RC/RD/RDE
 DIMENSION DRAWING

SERIAL NUMBER

MATERIAL NUMBER SHEET
 100097932E 1/2

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OILTAP® M / VACUTAP® VM

| SELECTOR SIZE | | RC | | | | | RD / RDE | | | | | |
|--------------------|-----|------|------|-------|-------|-------|----------|------|-------|-------|-------|-----|
| Um [kV] | | 72,5 | 123 | 170 | 245 | 300 | 72,5 | 123 | 170 | 245 | 300 | |
| DIMENSIONS [mm] | h | 1665 | 1795 | 1925 | 2025 | 2177 | 1745 | 1875 | 2005 | 2105 | 2257 | |
| | b | 478 | 478 | 478 | 478 | 478 | 478 | 478 | 478 | 478 | 478 | |
| | i | 996 | 1126 | 1256 | 1356 | 1508 | 996 | 1126 | 1256 | 1356 | 1508 | |
| | s | M | - | - | 309 | 409 | 520 | - | - | 309 | 409 | 520 |
| | | VM | - | - | 268 | 368 | 520 | - | - | 268 | 368 | 520 |
| | z | - | - | 191 | 191 | 191 | - | - | 191 | 191 | 191 | |
| | x | - | - | ∅ 620 | ∅ 620 | ∅ 620 | - | - | ∅ 620 | ∅ 620 | ∅ 620 | |
| | y | - | - | ∅ 56 | ∅ 56 | ∅ 56 | - | - | ∅ 56 | ∅ 56 | ∅ 56 | |
| | k | 669 | | | | | 749 | | | | | |
| | n | 319 | | | | | 359 | | | | | |
| | f | 170 | | | | | 210 | | | | | |
| q | 489 | | | | | 569 | | | | | | |
| OIL VOLUME [dm³] | | 130 | 150 | 170 | 190 | 210 | 130 | 150 | 170 | 190 | 210 | |
| DISPLACEMENT [dm³] | | 190 | 213 | 246 | 264 | 291 | 192 | 215 | 248 | 266 | 293 | |
| MAX. WEIGHT [kg] | M | 296 | 301 | 306 | 311 | 316 | 300 | 305 | 310 | 315 | 320 | |
| | VM | 326 | 331 | 336 | 341 | 346 | 330 | 335 | 340 | 345 | 350 | |

| | | | |
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| DFTR. | 09.01.2018 | NAME | DOCUMENT NO. |
| CHKD. | 23.01.2018 | RAEDLINGER | SED 4313317 001 05 |
| STAND | 23.01.2018 | MENZELS | CHANGE NO. |
| | | PRODASTSCHUK | 1085481 |
| | | | SCALE |
| | | | 1:10 |

DIMENSION
IN mm
EXCEPT AS
NOTED

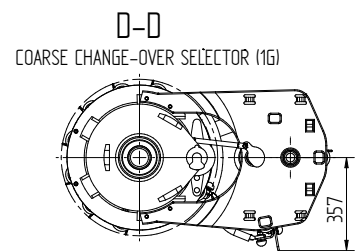
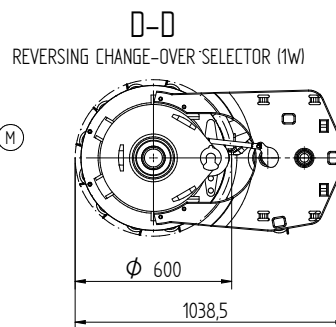
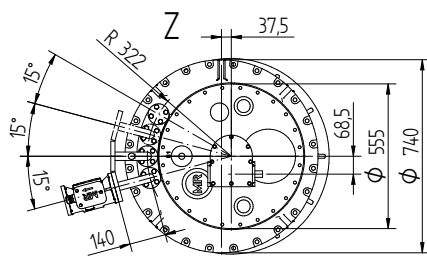
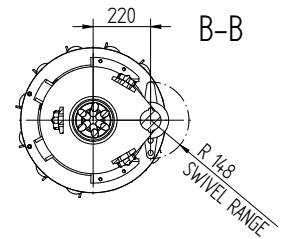
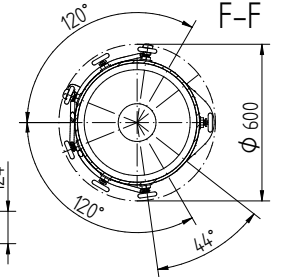
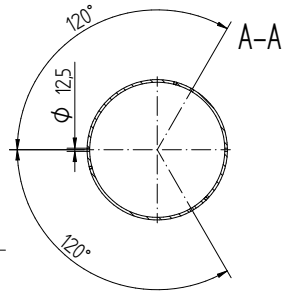
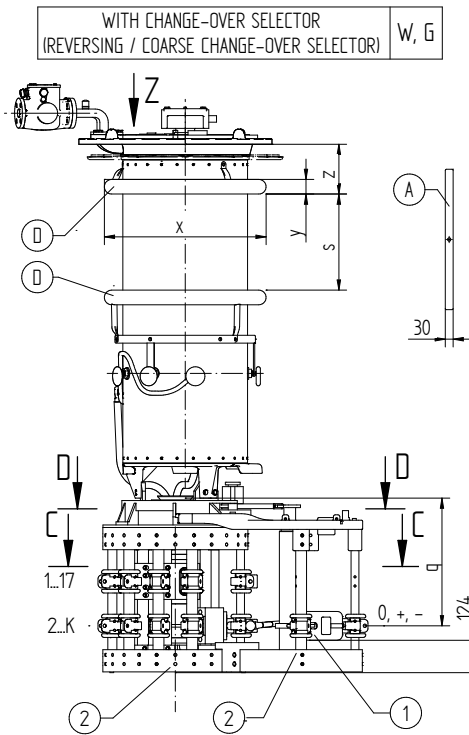
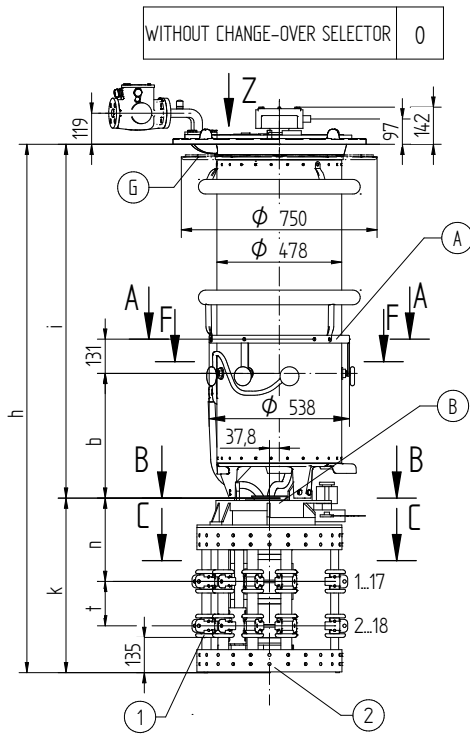


ON-LOAD TAP-CHANGER OILTAP® M, VACUTAP® VM
 MI601, VMI651-72,5...300-RC/RD/RDE
 DIMENSION DRAWING

SERIAL NUMBER

| | |
|-----------------|-------|
| MATERIAL NUMBER | SHEET |
| 100097932E | 2/2 |

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FOR THE TYPE OF OLTC-HEAD REFER TO ORDER-SPECIFIC DRAWING OF THE OLTC-HEAD AND DRIVE SHAFTS

- (M) - DRIVE SIDE OF SELECTOR
- (A) - ON-LOAD TAP-CHANGER CURRENT TAKE-OFF TERMINAL
- (B) - IS CONNECTED TO POTENTIAL OF (A)
- (D) - SHIELDING RINGS FOR UM OF 170 KV OR GREATER
- (G) - SUPPORTING FLANGE FOR BELL-TYPE TANK INSTALLATION IS OPTIONAL
- (1) - BOTTOM-MOST LIVE PARTS; THESE ARE CONNECTED TO THE POTENTIAL OF THE ASSOCIATED AND/OR WIRED CONNECTION CONTACT
- (2) - SELECTOR BASE IS MADE OF INSULATING MATERIAL

- THE DETAILED CONNECTION DIAGRAM IS BINDING FOR THE DESIGNATION OF THE CONNECTION CONTACTS AND PHASES
- C-C REFER TO 10009030
- D-D - TYPE WITH CONNECTING LEAD 3W/3G REFER TO 10010019
- FOR INHERENT DRAWINGS REFER TO 10009819

| | | |
|------------|--------------|--------------------|
| DATE | NAME | DOCUMENT NO. |
| 09.01.2018 | RAEDLINGER | SED 4313499 001 05 |
| 23.01.2018 | MENZELS | CHANGE NO. |
| 23.01.2018 | PRODASTSCHUK | 1085481 |
| DFTR. | SCALE | 1:10 |
| CHKD. | | |
| STANDJ | | |

DIMENSION IN mm EXCEPT AS NOTED



ON-LOAD TAP-CHANGER OILTAP® M, VACUTAP® VM
 M1802, VM1802/1002-72,5...300-RC/RD/RDE
 DIMENSION DRAWING

SERIAL NUMBER

MATERIAL NUMBER 100097942E SHEET 1/2

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OILTAP® M / VACUTAP® VM

| SELECTOR SIZE | | RC | | | | | RD / RDE | | | | | |
|---------------------------------|-----|------|------|-------|-------|-------|----------|------|-------|-------|-------|-----|
| Um [kV] | | 72,5 | 123 | 170 | 245 | 300 | 72,5 | 123 | 170 | 245 | 300 | |
| DIMENSIONS [mm] | h | 1665 | 1795 | 1925 | 2025 | 2177 | 1745 | 1875 | 2005 | 2105 | 2257 | |
| | b | 478 | 478 | 478 | 478 | 478 | 478 | 478 | 478 | 478 | 478 | |
| | i | 996 | 1126 | 1256 | 1356 | 1508 | 996 | 1126 | 1256 | 1356 | 1508 | |
| | s | M | - | - | 309 | 409 | 520 | - | - | 309 | 409 | 520 |
| | | VM | - | - | 268 | 368 | 520 | - | - | 268 | 368 | 520 |
| | z | - | - | 191 | 191 | 191 | - | - | 191 | 191 | 191 | |
| | x | - | - | ∅ 620 | ∅ 620 | ∅ 620 | - | - | ∅ 620 | ∅ 620 | ∅ 620 | |
| | y | - | - | ∅ 56 | ∅ 56 | ∅ 56 | - | - | ∅ 56 | ∅ 56 | ∅ 56 | |
| | k | 669 | | | | | 749 | | | | | |
| | n | 319 | | | | | 359 | | | | | |
| | t | 170 | | | | | 210 | | | | | |
| q | 489 | | | | | 569 | | | | | | |
| OIL VOLUME [dm ³] | | 130 | 150 | 170 | 190 | 210 | 130 | 150 | 170 | 190 | 210 | |
| DISPLACEMENT [dm ³] | | 190 | 213 | 246 | 264 | 291 | 192 | 215 | 248 | 266 | 293 | |
| MAX. WEIGHT [kg] | M | 296 | 301 | 306 | 311 | 316 | 300 | 305 | 310 | 315 | 320 | |
| | VM | 326 | 331 | 336 | 341 | 346 | 330 | 335 | 340 | 345 | 350 | |

| | | | |
|-------|------------|--------------|--------------------|
| DFTR. | 09.01.2018 | NAME | DOCUMENT NO. |
| CHKD. | 23.01.2018 | RAEDLINGER | SED 4313499 001 05 |
| STAND | 23.01.2018 | MENZELS | CHANGE NO. |
| | | PRODASTSCHUK | 1085481 |
| | | | SCALE |
| | | | 1:10 |

DIMENSION
IN mm
EXCEPT AS
NOTED



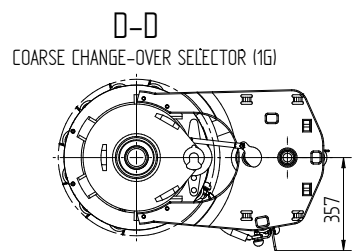
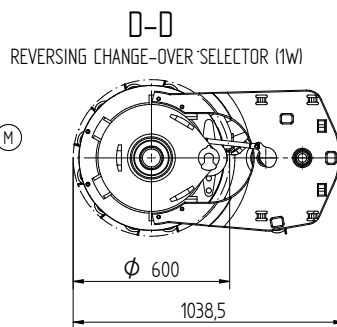
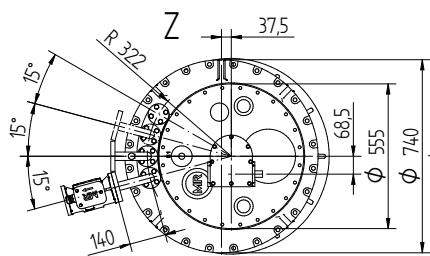
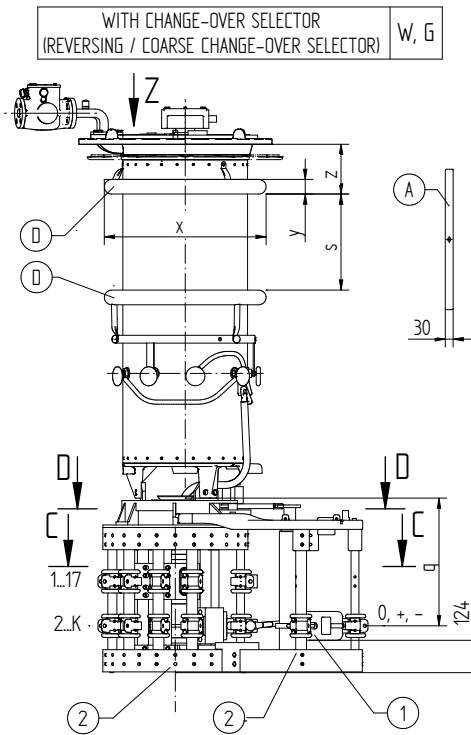
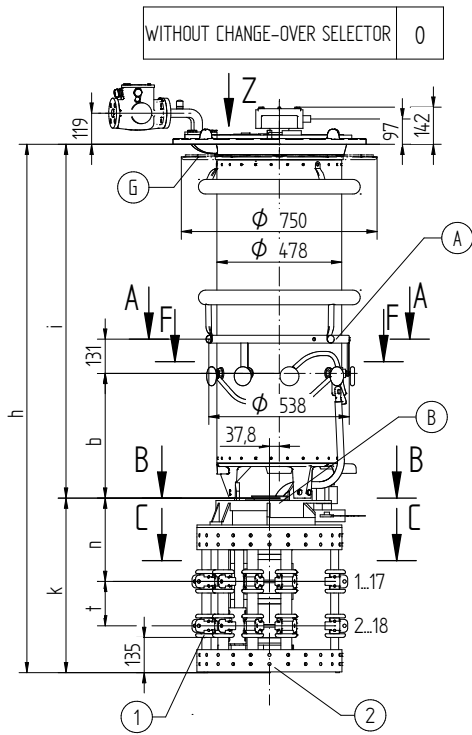
ON-LOAD TAP-CHANGER OILTAP® M, VACUTAP® VM
M1802, VM1802/1002-72,5...300-RC/RD/RDE
DIMENSION DRAWING

SERIAL NUMBER

| | |
|-----------------|-------|
| MATERIAL NUMBER | SHEET |
| 100097942E | 2/2 |

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| | | |
|------------|--------------|--------------------|
| DATE | NAME | DOCUMENT NO. |
| 09.01.2018 | RAEDLINGER | SED 4313554-001 05 |
| 23.01.2018 | MENZELS | SCALE |
| 23.01.2018 | PRODASTSCHUK | 1:10 |
| | | CHANGE NO. |
| | | 1085481 |



FOR THE TYPE OF OLTC-HEAD REFER TO ORDER-SPECIFIC DRAWING OF THE OLTC-HEAD AND DRIVE SHAFTS

- (M) - DRIVE SIDE OF SELECTOR
- (A) - ON-LOAD TAP-CHANGER CURRENT TAKE-OFF TERMINAL
- (B) - IS CONNECTED TO POTENTIAL OF (A)
- (D) - SHIELDING RINGS FOR UM OF 170 kV OR GREATER
- (G) - SUPPORTING FLANGE FOR BELL-TYPE TANK INSTALLATION IS OPTIONAL
- (1) - BOTTOM-MOST LIVE PARTS; THESE ARE CONNECTED TO THE POTENTIAL OF THE ASSOCIATED AND/OR WIRED CONNECTION CONTACT
- (2) - SELECTOR BASE IS MADE OF INSULATING MATERIAL

- THE DETAILED CONNECTION DIAGRAM IS BINDING FOR THE DESIGNATION OF THE CONNECTION CONTACTS AND PHASES
- C-C REFER TO 10009030
- D-D - TYPE WITH CONNECTING LEAD 3W/3G REFER TO 10010019
- FOR INHERENT DRAWINGS REFER TO 10009819

DIMENSION IN mm EXCEPT AS NOTED



ON-LOAD TAP-CHANGER OILTAP® M, VACUTAP® VM
 M11203, VM11203-72.5...300-RC/RD/RDE
 DIMENSION DRAWING

SERIAL NUMBER

MATERIAL NUMBER 100097952E SHEET 1/2

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OILTAP® M / VACUTAP® VM

| SELECTOR SIZE | | RC | | | | | RD / RDE | | | | | |
|--------------------|-----|------|------|-------|-------|-------|----------|------|-------|-------|-------|-----|
| Um [kV] | | 72,5 | 123 | 170 | 245 | 300 | 72,5 | 123 | 170 | 245 | 300 | |
| DIMENSIONS [mm] | h | 1665 | 1795 | 1925 | 2025 | 2177 | 1745 | 1875 | 2005 | 2105 | 2257 | |
| | b | 478 | 478 | 478 | 478 | 478 | 478 | 478 | 478 | 478 | 478 | |
| | i | 996 | 1126 | 1256 | 1356 | 1508 | 996 | 1126 | 1256 | 1356 | 1508 | |
| | s | M | - | - | 309 | 409 | 520 | - | - | 309 | 409 | 520 |
| | | VM | - | - | 268 | 368 | 520 | - | - | 268 | 368 | 520 |
| | z | - | - | 191 | 191 | 191 | - | - | 191 | 191 | 191 | |
| | x | - | - | ∅ 620 | ∅ 620 | ∅ 620 | - | - | ∅ 620 | ∅ 620 | ∅ 620 | |
| | y | - | - | ∅ 56 | ∅ 56 | ∅ 56 | - | - | ∅ 56 | ∅ 56 | ∅ 56 | |
| | k | 669 | | | | | 749 | | | | | |
| | n | 319 | | | | | 359 | | | | | |
| | t | 170 | | | | | 210 | | | | | |
| q | 489 | | | | | 569 | | | | | | |
| OIL VOLUME [dm³] | | 130 | 150 | 170 | 190 | 210 | 130 | 150 | 170 | 190 | 210 | |
| DISPLACEMENT [dm³] | | 190 | 213 | 246 | 264 | 291 | 192 | 215 | 248 | 266 | 293 | |
| MAX. WEIGHT [kg] | M | 296 | 301 | 306 | 311 | 316 | 300 | 305 | 310 | 315 | 320 | |
| | VM | 326 | 331 | 336 | 341 | 346 | 330 | 335 | 340 | 345 | 350 | |

| | | |
|------------|--------------|--------------------|
| DATE | NAME | DOCUMENT NO. |
| 09.01.2018 | RAEDLINGER | SED 4313554-001 05 |
| 23.01.2018 | MENZELS | CHANGE NO. |
| 23.01.2018 | PRODASTSCHUK | 1085481 |
| DFTR. | SCALE | 1:10 |
| CHKD. | | |
| STAND | | |

DIMENSION
IN mm
EXCEPT AS
NOTED

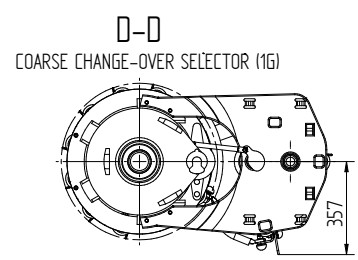
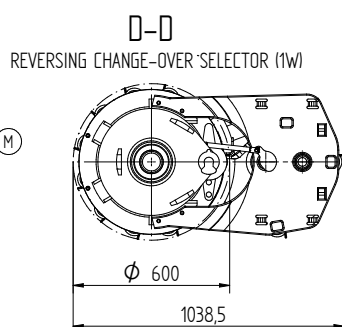
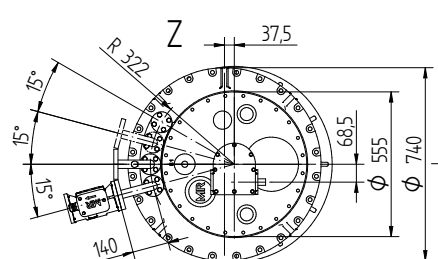
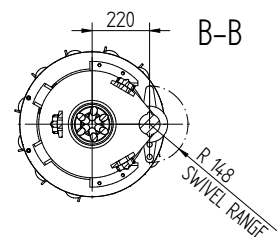
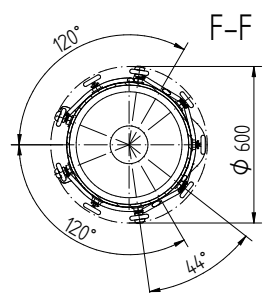
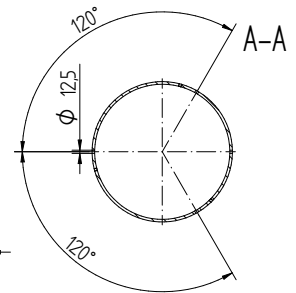
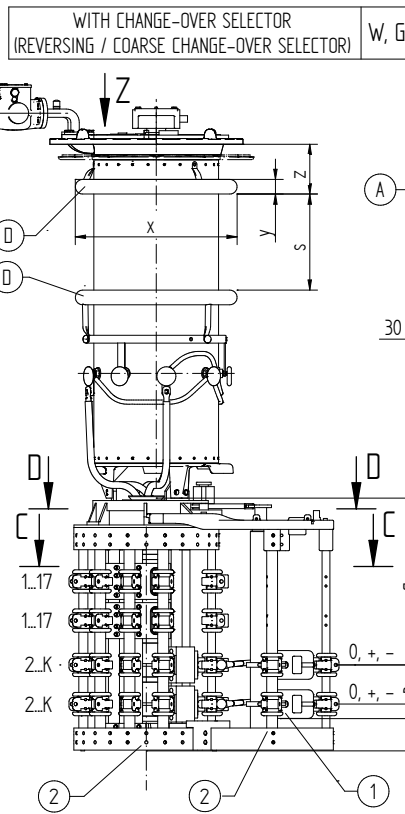
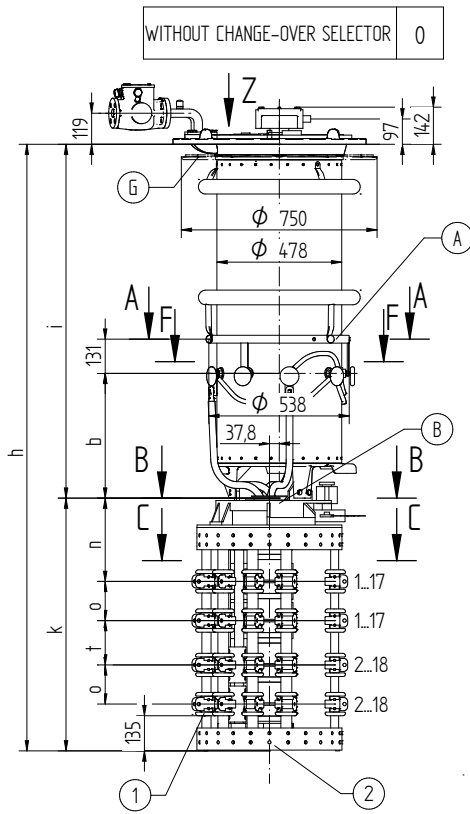


ON-LOAD TAP-CHANGER OILTAP® M, VACUTAP® VM
M11203, VMI1203-72,5...300-RC/RD/RDE
DIMENSION DRAWING

SERIAL NUMBER

| | |
|-----------------|-------|
| MATERIAL NUMBER | SHEET |
| 100097952E | 2/2 |

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FOR THE TYPE OF OLTC-HEAD REFER TO ORDER-SPECIFIC DRAWING OF THE OLTC-HEAD AND DRIVE SHAFTS

- (M) - DRIVE SIDE OF SELECTOR
- (A) - ON-LOAD TAP-CHANGER CURRENT TAKE-OFF TERMINAL
- (B) - IS CONNECTED TO POTENTIAL OF (A)
- (D) - SHIELDING RINGS FOR UM OF 170 KV OR GREATER
- (G) - SUPPORTING FLANGE FOR BELL-TYPE TANK INSTALLATION IS OPTIONAL
- (1) - BOTTOM-MOST LIVE PARTS; THESE ARE CONNECTED TO THE POTENTIAL OF THE ASSOCIATED AND/OR WIRED CONNECTION CONTACT
- (2) - SELECTOR BASE IS MADE OF INSULATING MATERIAL

- THE DETAILED CONNECTION DIAGRAM IS BINDING FOR THE DESIGNATION OF THE CONNECTION CONTACTS AND PHASES
- C-C REFER TO 10009030
- D-D - TYPE WITH CONNECTING LEAD 3W/3G REFER TO 10010019
- FOR INHERENT DRAWINGS REFER TO 10009819
- CONNECTING OF PARALLEL SELECTOR PLANES REFER TO 10009916

| | | |
|-------------------|--------------|--------------------|
| DATE | NAME | DOCUMENT NO. |
| DFTR. 12.01.2018 | RAEDLINGER | SED 4313912 001 05 |
| CHKD. 23.01.2018 | MENZELS | SCALE 1:10 |
| STANDJ 23.01.2018 | PRODASTSCHUK | CHANGE NO. 1085481 |

DIMENSION IN mm EXCEPT AS NOTED



ON-LOAD TAP-CHANGER OILTAP® M, VACUTAP® VM
 M11503, VM11503-72,5...300-RC/RD/RDE
 DIMENSION DRAWING

| | |
|-----------------|-------|
| SERIAL NUMBER | |
| MATERIAL NUMBER | SHEET |
| 100097962E | 1/2 |

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OILTAP® M / VACUTAP® VM

| SELECTOR SIZE | | RC | | | | | RD / RDE | | | | | |
|--------------------|----|------|------|-------|-------|-------|----------|------|-------|-------|-------|-----|
| Um [kV] | | 72,5 | 123 | 170 | 245 | 300 | 72,5 | 123 | 170 | 245 | 300 | |
| DIMENSIONS [mm] | h | 1965 | 2095 | 2225 | 2325 | 2477 | 2045 | 2175 | 2305 | 2405 | 2557 | |
| | b | 478 | 478 | 478 | 478 | 478 | 478 | 478 | 478 | 478 | 478 | |
| | i | 996 | 1126 | 1256 | 1356 | 1508 | 996 | 1126 | 1256 | 1356 | 1508 | |
| | s | M | - | - | 309 | 409 | 520 | - | - | 309 | 409 | 520 |
| | | VM | - | - | 268 | 368 | 520 | - | - | 268 | 368 | 520 |
| | z | - | - | 191 | 191 | 191 | - | - | 191 | 191 | 191 | |
| | x | - | - | ∅ 620 | ∅ 620 | ∅ 620 | - | - | ∅ 620 | ∅ 620 | ∅ 620 | |
| | y | - | - | ∅ 56 | ∅ 56 | ∅ 56 | - | - | ∅ 56 | ∅ 56 | ∅ 56 | |
| | k | 969 | | | | | 1049 | | | | | |
| | n | 319 | | | | | 359 | | | | | |
| | t | 170 | | | | | 210 | | | | | |
| | o | 150 | | | | | 150 | | | | | |
| | r | 150 | | | | | 150 | | | | | |
| | q | 639 | | | | | 719 | | | | | |
| OIL VOLUME [dm³] | | 130 | 150 | 170 | 190 | 210 | 130 | 150 | 170 | 190 | 210 | |
| DISPLACEMENT [dm³] | | 220 | 243 | 276 | 294 | 321 | 222 | 245 | 278 | 296 | 323 | |
| MAX. WEIGHT [kg] | M | 356 | 361 | 366 | 371 | 376 | 360 | 365 | 370 | 375 | 380 | |
| | VM | 386 | 391 | 396 | 401 | 406 | 390 | 395 | 400 | 405 | 410 | |

| | | |
|-------------------|--------------|--------------------|
| DATE | NAME | DOCUMENT NO. |
| DFTR. 12.01.2018 | RAEDLINGER | SED 4313912 001 05 |
| CHKD. 23.01.2018 | MENZELS | CHANGE NO. |
| STANDJ 23.01.2018 | PRODASTSCHUK | 1085481 |
| | | SCALE |
| | | 1:10 |

DIMENSION
IN mm
EXCEPT AS
NOTED



ON-LOAD TAP-CHANGER OILTAP® M, VACUTAP® VM
 M11503, VM11503-72,5...300-RC/RD/RDE
 DIMENSION DRAWING

SERIAL NUMBER

| | |
|-----------------|-------|
| MATERIAL NUMBER | SHEET |
| 100097962E | 2/2 |

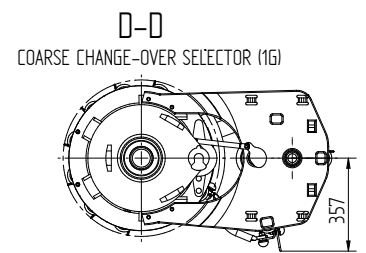
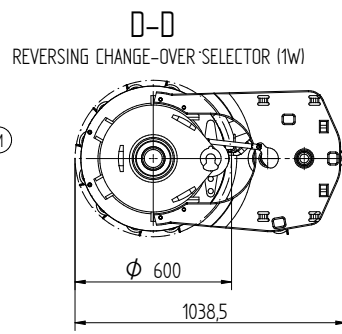
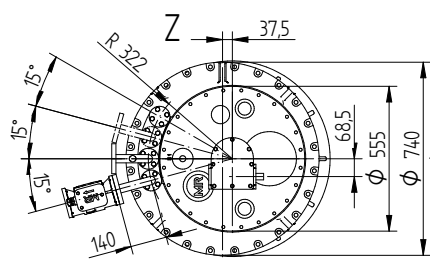
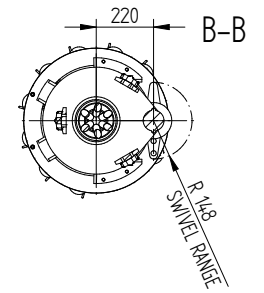
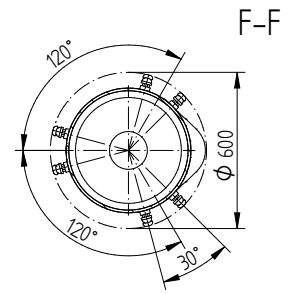
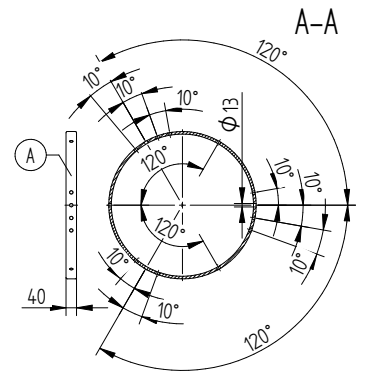
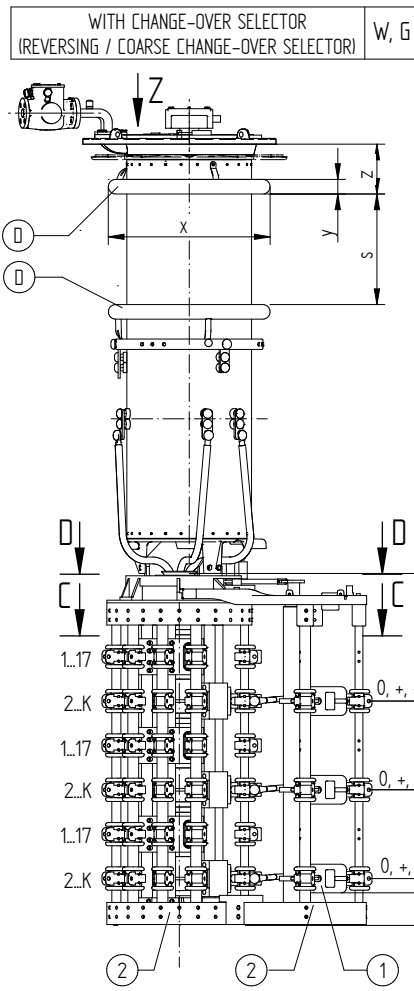
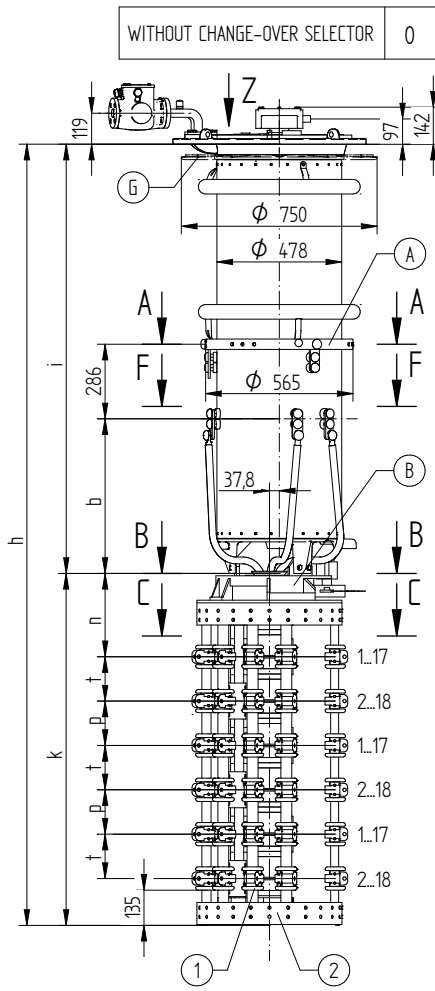


5.4 OILTAP® R 的安装外形尺寸图

5.4 OILTAP® R 的安装外形尺寸图



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FOR THE TYPE OF OLTC-HEAD REFER TO THE ORDER-SPECIFIC DRAWING OF THE OLTC-HEAD AND DRIVE SHAFTS

| | | |
|-------------------|--------------|--------------------|
| DATE | NAME | DOCUMENT NO. |
| DFTR. 15.01.2018 | RAEDLINGER | SED 4245972 001 05 |
| CHKD. 23.01.2018 | MENZELS | CHANGE NO. |
| STANDJ 23.01.2018 | PRODASTSCHUK | 1085481 |
| | | SCALE 1:10 |

- (M) - DRIVE SIDE OF SELECTOR
- (A) - ON-LOAD TAP-CHANGER CURRENT TAKE-OFF TERMINAL
- (B) - IS CONNECTED TO POTENTIAL OF (A)
- (D) - SHIELDING RINGS FOR UM OF 170 kV OR GREATER
- (G) - SUPPORTING FLANGE FOR THE BELL-TYPE TANK INSTALLATION:
WITH 72,5kV-300kV AVAILABLE
WITH 362kV OBLIGATORY
- (1) - BOTTOM-MOST LIVE PARTS, THESE ARE CONNECTED TO THE POTENTIAL OF THE ASSOCIATED AND/OR WIRED CONNECTION CONTACT
- (2) - SELECTOR BASE IS MADE OF INSULATING MATERIAL

- THE DETAILED CONNECTION DIAGRAM IS BINDING FOR THE DESIGNATION OF THE CONNECTION CONTACTS AND PHASES
- C-C REFER TO 10009030
- FOR INHERENT DRAWINGS REFER TO 10009731
- D-D - TYPE WITH CONNECTING LEAD 3W/3G REFER TO 10010019

DIMENSION IN mm EXCEPT AS NOTED



ON-LOAD TAP-CHANGER OILTAP® R
 RIII1200Y-72,5...362-RC/RD/RDE
 DIMENSION DRAWING

| | |
|-----------------|-------|
| SERIAL NUMBER | |
| MATERIAL NUMBER | SHEET |
| 100089882E | 1/2 |

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OILTAP® R

| SELECTOR SIZE | | RC | | | | | |
|--------------------|-----|------|------|-------|-------|-------|-------|
| Um [kV] | | 72,5 | 123 | 170 | 245 | 300 | 362 |
| DIMENSIONS [mm] | h | 2664 | 2794 | 2894 | 2994 | 3140 | 3270 |
| | b | 592 | 592 | 592 | 592 | 592 | 592 |
| | i | 1315 | 1445 | 1545 | 1645 | 1791 | 1921 |
| | s | - | - | 324 | 424 | 529 | 562 |
| | z | - | - | 191 | 191 | 191 | 228 |
| | x | - | - | ∅ 620 | ∅ 620 | ∅ 620 | ∅ 695 |
| | y | - | - | ∅ 56 | ∅ 56 | ∅ 56 | ∅ 100 |
| | k | 1349 | | | | | |
| | n | 319 | | | | | |
| | t | 170 | | | | | |
| | p | 170 | | | | | |
| | r | 340 | | | | | |
| q | 489 | | | | | | |
| OIL VOLUME [dm³] | | 168 | 188 | 203 | 218 | 240 | 255 |
| DISPLACEMENT [dm³] | | 275 | 298 | 326 | 344 | 370 | 414 |
| MAX. WEIGHT [KG] | | 495 | 500 | 505 | 510 | 515 | 520 |

OILTAP® R

| SELECTOR SIZE | | RD / RDE | | | | | |
|--------------------|-----|----------|------|-------|-------|-------|-------|
| Um [kV] | | 72,5 | 123 | 170 | 245 | 300 | 362 |
| DIMENSIONS [mm] | h | 2904 | 3034 | 3134 | 3234 | 3380 | 3510 |
| | b | 592 | 592 | 592 | 592 | 592 | 592 |
| | i | 1315 | 1445 | 1545 | 1645 | 1791 | 1921 |
| | s | - | - | 324 | 424 | 529 | 562 |
| | z | - | - | 191 | 191 | 191 | 228 |
| | x | - | - | ∅ 620 | ∅ 620 | ∅ 620 | ∅ 695 |
| | y | - | - | ∅ 56 | ∅ 56 | ∅ 56 | ∅ 100 |
| | k | 1589 | | | | | |
| | n | 359 | | | | | |
| | t | 210 | | | | | |
| | p | 210 | | | | | |
| | r | 420 | | | | | |
| q | 569 | | | | | | |
| OIL VOLUME [dm³] | | 168 | 188 | 203 | 218 | 240 | 255 |
| DISPLACEMENT [dm³] | | 280 | 303 | 331 | 349 | 375 | 419 |
| MAX. WEIGHT [KG] | | 508 | 513 | 518 | 523 | 528 | 533 |

| | | |
|------------|--------------|--------------------|
| DATE | NAME | DOCUMENT NO. |
| 15.01.2018 | RAEDLINGER | SED 4245972_001 05 |
| 23.01.2018 | MENZELS | CHANGE NO. |
| 23.01.2018 | PRODASTSCHUK | 1085481 |
| DFTR. | SCALE | 1:10 |
| CHKD. | | |
| STAND. | | |

DIMENSION
IN mm
EXCEPT AS
NOTED

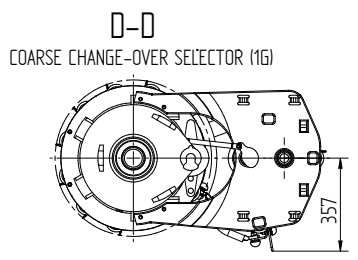
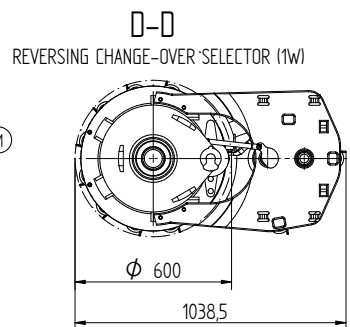
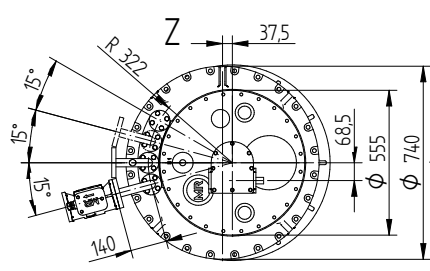
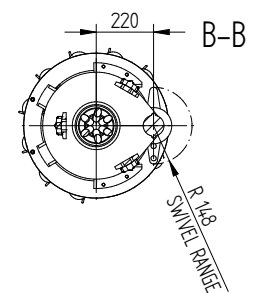
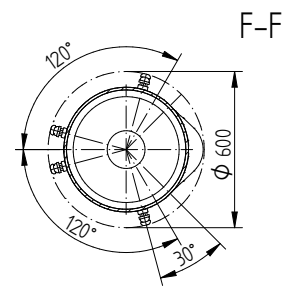
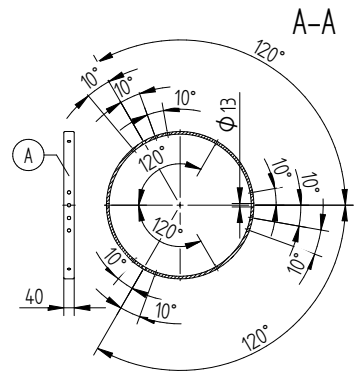
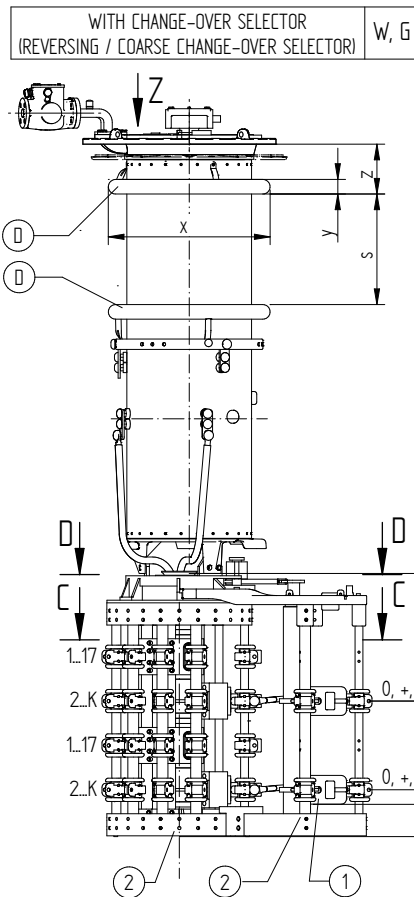
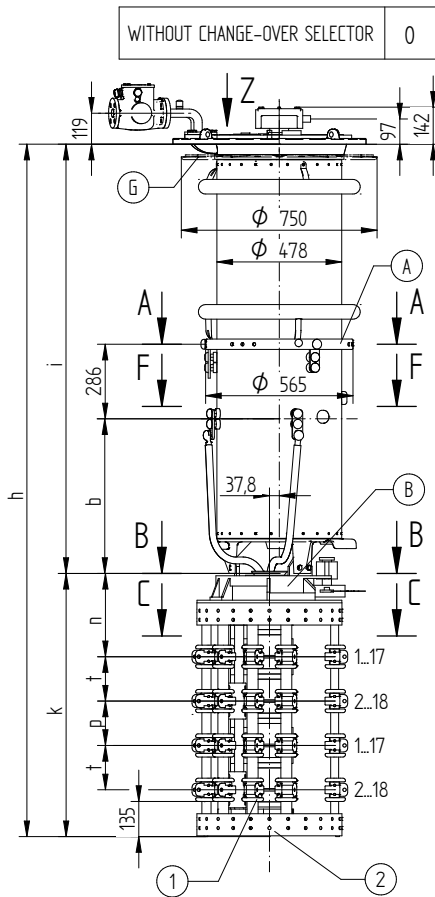


ON-LOAD TAP-CHANGER OILTAP® R
R111200Y-72,5...362-RC/RD/RDE
DIMENSION DRAWING

SERIAL NUMBER

| | |
|-----------------|-------|
| MATERIAL NUMBER | SHEET |
| 100089882E | 2/2 |

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FOR THE TYPE OF OLTC-HEAD REFER TO THE ORDER-SPECIFIC DRAWING OF THE OLTC-HEAD AND DRIVE SHAFTS

| | | |
|-------------------|--------------|---------------------|
| DATE | NAME | DOCUMENT NO. |
| DFTR. 15.01.2018 | RAEDLINGER | SED 43037/15 001 05 |
| CHKD. 23.01.2018 | MENZELS | CHANGE NO. |
| STANDJ 23.01.2018 | PRODASTSCHUK | 1085481 |
| | | SCALE 1:10 |

- (M) - DRIVE SIDE OF SELECTOR
- (A) - ON-LOAD TAP-CHANGER CURRENT TAKE-OFF TERMINAL
- (B) - IS CONNECTED TO POTENTIAL OF (A)
- (D) - SHIELDING RINGS FOR UM OF 170 kV OR GREATER
- (G) - SUPPORTING FLANGE FOR THE BELL-TYPE TANK INSTALLATION:
WITH 72,5kV-300kV AVAILABLE
WITH 362kV OBLIGATORY
- (1) - BOTTOM-MOST LIVE PARTS, THESE ARE CONNECTED TO THE POTENTIAL OF THE ASSOCIATED AND/OR WIRED CONNECTION CONTACT
- (2) - SELECTOR BASE IS MADE OF INSULATING MATERIAL

- THE DETAILED CONNECTION DIAGRAM IS BINDING FOR THE DESIGNATION OF THE CONNECTION CONTACTS AND PHASES
- C-C REFER TO 10009030
- FOR INHERENT DRAWINGS REFER TO 10009731
- D-D - TYPE WITH CONNECTING LEAD 3W/3G REFER TO 10010019

DIMENSION IN mm EXCEPT AS NOTED



ON-LOAD TAP-CHANGER OILTAP® R
 RII1202-72.5...362-RC/RD/RDE
 DIMENSION DRAWING

| | |
|-----------------|-------|
| SERIAL NUMBER | |
| MATERIAL NUMBER | SHEET |
| 100096742E | 1/2 |

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OILTAP® R

| SELECTOR SIZE | | RC | | | | | |
|--------------------|-----|------|------|-------|-------|-------|-------|
| Um [kV] | | 72,5 | 123 | 170 | 245 | 300 | 362 |
| DIMENSIONS [mm] | h | 2324 | 2454 | 2554 | 2654 | 2800 | 2930 |
| | b | 592 | 592 | 592 | 592 | 592 | 592 |
| | i | 1315 | 1445 | 1545 | 1645 | 1791 | 1921 |
| | s | - | - | 324 | 424 | 529 | 562 |
| | z | - | - | 191 | 191 | 191 | 228 |
| | x | - | - | ∅ 620 | ∅ 620 | ∅ 620 | ∅ 695 |
| | y | - | - | ∅ 56 | ∅ 56 | ∅ 56 | ∅ 100 |
| | k | 1009 | | | | | |
| | n | 319 | | | | | |
| | t | 170 | | | | | |
| | p | 170 | | | | | |
| r | 340 | | | | | | |
| q | 489 | | | | | | |
| OIL VOLUME [dm³] | | 168 | 188 | 203 | 218 | 240 | 255 |
| DISPLACEMENT [dm³] | | 261 | 284 | 312 | 330 | 356 | 400 |
| MAX. WEIGHT [KG] | | 446 | 451 | 456 | 461 | 466 | 471 |

OILTAP® R

| SELECTOR SIZE | | RD / RDE | | | | | |
|--------------------|-----|----------|------|-------|-------|-------|-------|
| Um [kV] | | 72,5 | 123 | 170 | 245 | 300 | 362 |
| DIMENSIONS [mm] | h | 2484 | 2614 | 2714 | 2814 | 2960 | 3090 |
| | b | 592 | 592 | 592 | 592 | 592 | 592 |
| | i | 1315 | 1445 | 1545 | 1645 | 1791 | 1921 |
| | s | - | - | 324 | 424 | 529 | 562 |
| | z | - | - | 191 | 191 | 191 | 228 |
| | x | - | - | ∅ 620 | ∅ 620 | ∅ 620 | ∅ 695 |
| | y | - | - | ∅ 56 | ∅ 56 | ∅ 56 | ∅ 100 |
| | k | 1169 | | | | | |
| | n | 359 | | | | | |
| | t | 210 | | | | | |
| | p | 210 | | | | | |
| r | 420 | | | | | | |
| q | 569 | | | | | | |
| OIL VOLUME [dm³] | | 168 | 188 | 203 | 218 | 240 | 255 |
| DISPLACEMENT [dm³] | | 265 | 288 | 316 | 334 | 360 | 404 |
| MAX. WEIGHT [KG] | | 454 | 459 | 464 | 469 | 474 | 479 |

| DATE | NAME | DOCUMENT NO. |
|------------------|--------------|---------------------|
| DFTR. 15.01.2018 | RAEDLINGER | SED 43037/15 001 05 |
| CHKD. 23.01.2018 | MENZELS | CHANGE NO. |
| STAND 23.01.2018 | PRODASTSCHUK | 1085481 |
| | | SCALE 1:10 |

DIMENSION
IN mm
EXCEPT AS
NOTED

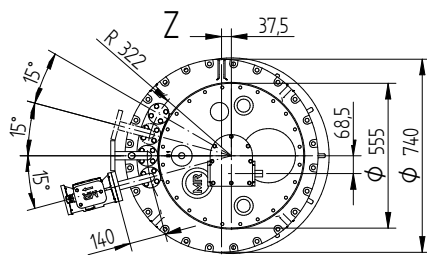
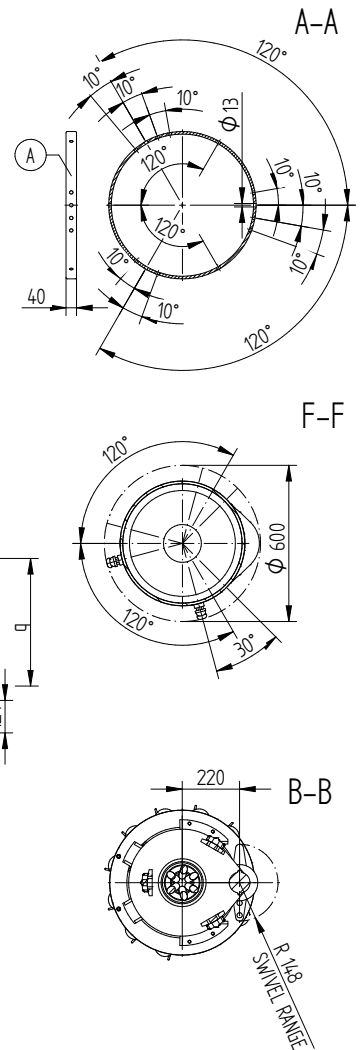
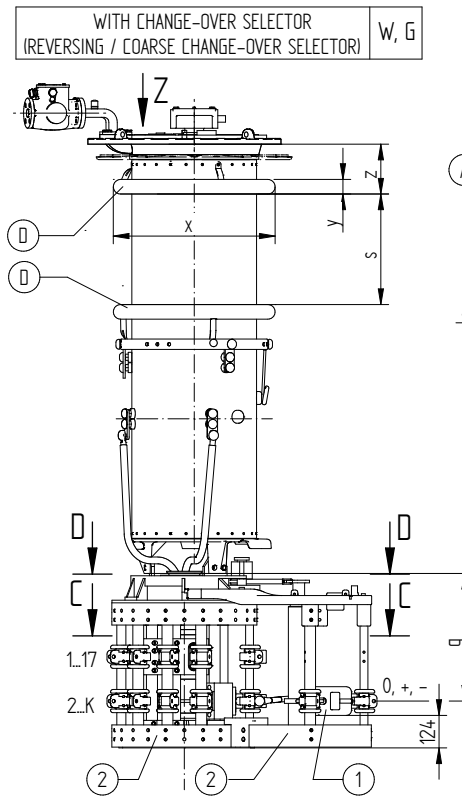
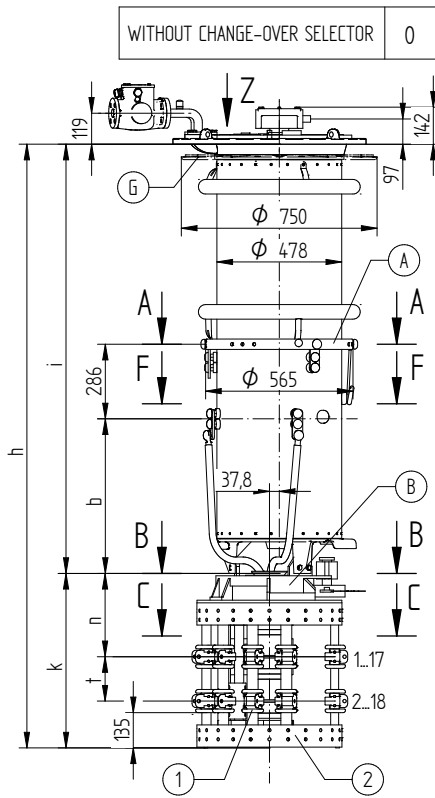


ON-LOAD TAP-CHANGER OILTAP® R
R11202-72,5...362-RC/RD/RDE
DIMENSION DRAWING

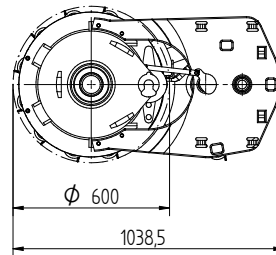
SERIAL NUMBER

| | |
|-----------------|-------|
| MATERIAL NUMBER | SHEET |
| 100096742E | 2/2 |

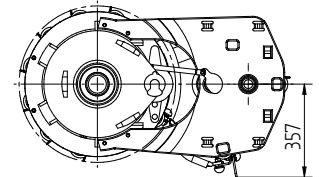
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D-D REVERSING CHANGE-OVER SELECTOR (1W)



D-D COARSE CHANGE-OVER SELECTOR (1G)



FOR THE TYPE OF OLTC-HEAD REFER TO THE ORDER-SPECIFIC DRAWING OF THE OLTC-HEAD AND DRIVE SHAFTS

- (M) - DRIVE SIDE OF SELECTOR
- (A) - ON-LOAD TAP-CHANGER CURRENT TAKE-OFF TERMINAL
- (B) - IS CONNECTED TO POTENTIAL OF (A)
- (D) - SHIELDING RINGS FOR UM OF 170 kV OR GREATER
- (G) - SUPPORTING FLANGE FOR THE BELL-TYPE TANK INSTALLATION:
WITH 72,5kV-300kV AVAILABLE
WITH 362kV OBLIGATORY
- (1) - BOTTOM-MOST LIVE PARTS, THESE ARE CONNECTED TO THE POTENTIAL OF THE ASSOCIATED AND/OR WIRED CONNECTION CONTACT
- (2) - SELECTOR BASE IS MADE OF INSULATING MATERIAL

- THE DETAILED CONNECTION DIAGRAM IS BINDING FOR THE DESIGNATION OF THE CONNECTION CONTACTS AND PHASES
- C-C REFER TO 10009030
- FOR INHERENT DRAWINGS REFER TO 10009731
- D-D - TYPE WITH CONNECTING LEAD 3W/3G REFER TO 10010019

| | | |
|-------------------|--------------|--------------------|
| DATE | NAME | DOCUMENT NO. |
| DFTR. 15.01.2018 | RAEDLINGER | SED 4302994_001 05 |
| CHKD. 23.01.2018 | MENZELS | CHANGE NO. |
| STANDJ 23.01.2018 | PRODASTSCHUK | 1085481 |
| | | SCALE 1:10 |

DIMENSION IN mm EXCEPT AS NOTED



ON-LOAD TAP-CHANGER OILTAP® R
 R11201-72,5...362-RC/RD/RDE
 DIMENSION DRAWING

SERIAL NUMBER

| | |
|-----------------|-------|
| MATERIAL NUMBER | SHEET |
| 100096782E | 1/2 |

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OILTAP® R

| SELECTOR SIZE | | RC | | | | | |
|--------------------|-----|------|------|-------|-------|-------|-------|
| Um [kV] | | 72,5 | 123 | 170 | 245 | 300 | 362 |
| DIMENSIONS [mm] | h | 1984 | 2114 | 2214 | 2314 | 2460 | 2590 |
| | b | 592 | 592 | 592 | 592 | 592 | 592 |
| | i | 1315 | 1445 | 1545 | 1645 | 1791 | 1921 |
| | s | - | - | 324 | 424 | 529 | 562 |
| | z | - | - | 191 | 191 | 191 | 228 |
| | x | - | - | ∅ 620 | ∅ 620 | ∅ 620 | ∅ 695 |
| | y | - | - | ∅ 56 | ∅ 56 | ∅ 56 | ∅ 100 |
| | k | 669 | | | | | |
| | n | 319 | | | | | |
| | t | 170 | | | | | |
| q | 489 | | | | | | |
| OIL VOLUME [dm³] | | 168 | 188 | 203 | 218 | 240 | 255 |
| DISPLACEMENT [dm³] | | 248 | 271 | 299 | 317 | 343 | 387 |
| MAX. WEIGHT [KG] | | 399 | 404 | 409 | 414 | 419 | 424 |

OILTAP® R

| SELECTOR SIZE | | RD / RDE | | | | | |
|--------------------|-----|----------|------|-------|-------|-------|-------|
| Um [kV] | | 72,5 | 123 | 170 | 245 | 300 | 362 |
| DIMENSIONS [mm] | h | 2064 | 2194 | 2294 | 2394 | 2540 | 2670 |
| | b | 592 | 592 | 592 | 592 | 592 | 592 |
| | i | 1315 | 1445 | 1545 | 1645 | 1791 | 1921 |
| | s | - | - | 324 | 424 | 529 | 562 |
| | z | - | - | 191 | 191 | 191 | 228 |
| | x | - | - | ∅ 620 | ∅ 620 | ∅ 620 | ∅ 695 |
| | y | - | - | ∅ 56 | ∅ 56 | ∅ 56 | ∅ 100 |
| | k | 749 | | | | | |
| | n | 359 | | | | | |
| | t | 210 | | | | | |
| q | 569 | | | | | | |
| OIL VOLUME [dm³] | | 168 | 188 | 203 | 218 | 240 | 255 |
| DISPLACEMENT [dm³] | | 249 | 272 | 300 | 318 | 344 | 388 |
| MAX. WEIGHT [KG] | | 403 | 408 | 413 | 418 | 423 | 428 |

| | | |
|------------------|--------------|--------------------|
| DATE | NAME | DOCUMENT NO. |
| DFTR. 15.01.2018 | RAEDLINGER | SED 4302994_001 05 |
| CHKD. 23.01.2018 | MENZELS | CHANGE NO. |
| STAND 23.01.2018 | PRODASTSCHUK | 1085481 |
| | | SCALE 1:10 |

DIMENSION
IN mm
EXCEPT AS
NOTED

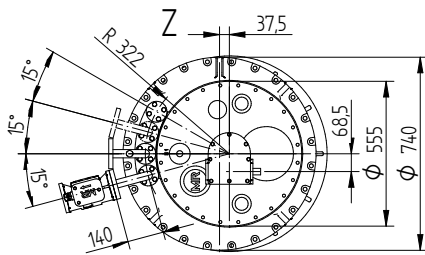
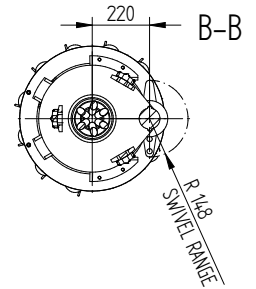
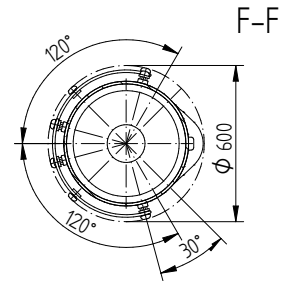
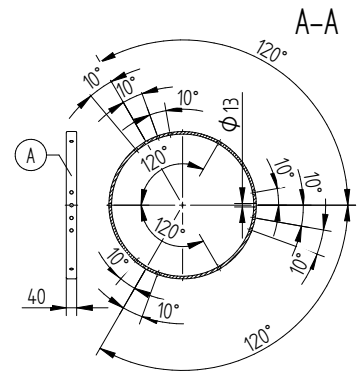
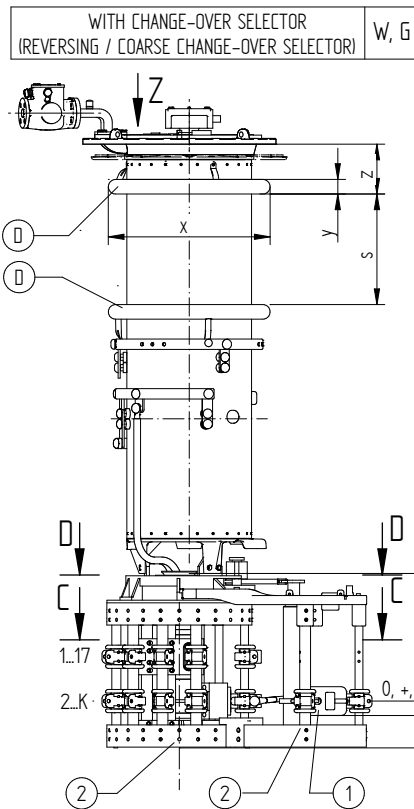
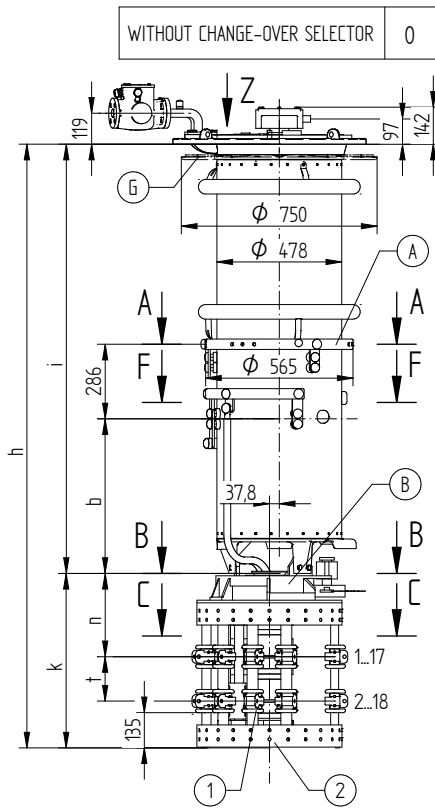


ON-LOAD TAP-CHANGER OILTAP® R
R11201-72,5...362-RC/RD/RDE
DIMENSION DRAWING

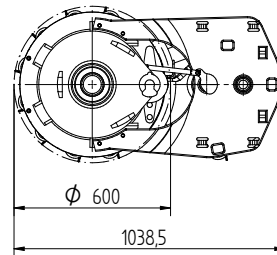
SERIAL NUMBER

| | |
|-----------------|-------|
| MATERIAL NUMBER | SHEET |
| 100096782E | 2/2 |

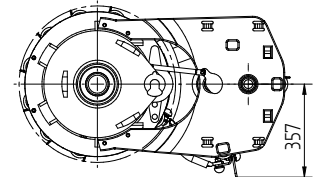
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D-D REVERSING CHANGE-OVER SELECTOR (1W)



D-D COARSE CHANGE-OVER SELECTOR (1G)



FOR THE TYPE OF OLTC-HEAD REFER TO THE ORDER-SPECIFIC DRAWING OF THE OLTC-HEAD AND DRIVE SHAFTS

- (M) - DRIVE SIDE OF SELECTOR
- (A) - ON-LOAD TAP-CHANGER CURRENT TAKE-OFF TERMINAL
- (B) - IS CONNECTED TO POTENTIAL OF (A)
- (D) - SHIELDING RINGS FOR UM OF 170 kV OR GREATER
- (G) - SUPPORTING FLANGE FOR THE BELL-TYPE TANK INSTALLATION:
WITH 72,5kV-300kV AVAILABLE
WITH 362kV OBLIGATORY
- (1) - BOTTOM-MOST LIVE PARTS, THESE ARE CONNECTED TO THE POTENTIAL OF THE ASSOCIATED AND/OR WIRED CONNECTION CONTACT
- (2) - SELECTOR BASE IS MADE OF INSULATING MATERIAL

- THE DETAILED CONNECTION DIAGRAM IS BINDING FOR THE DESIGNATION OF THE CONNECTION CONTACTS AND PHASES
- C-C REFER TO 10009030
- FOR INHERENT DRAWINGS REFER TO 10009731
- D-D - TYPE WITH CONNECTING LEAD 3W/3G REFER TO 10010019

| | | |
|-------------------|--------------|--------------------|
| DATE | NAME | DOCUMENT NO. |
| DFTR. 15.01.2018 | RAEDLINGER | SED 4305239 001 05 |
| CHKD. 23.01.2018 | MENZELS | CHANGE NO. |
| STANDJ 23.01.2018 | PRODASTSCHUK | 1085481 |
| | | SCALE 1:10 |

DIMENSION IN mm EXCEPT AS NOTED



ON-LOAD TAP-CHANGER OILTAP® R
 R11202-72,5...362-RC/RD/RDE
 DIMENSION DRAWING

SERIAL NUMBER

MATERIAL NUMBER 100096822E SHEET 1/2

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OILTAP® R

| SELECTOR SIZE | | RC | | | | | |
|--------------------|-----|------|------|-------|-------|-------|-------|
| Um [kV] | | 72,5 | 123 | 170 | 245 | 300 | 362 |
| DIMENSIONS [mm] | h | 1984 | 2114 | 2214 | 2314 | 2460 | 2590 |
| | b | 592 | 592 | 592 | 592 | 592 | 592 |
| | i | 1315 | 1445 | 1545 | 1645 | 1791 | 1921 |
| | s | - | - | 324 | 424 | 529 | 562 |
| | z | - | - | 191 | 191 | 191 | 228 |
| | x | - | - | ∅ 620 | ∅ 620 | ∅ 620 | ∅ 695 |
| | y | - | - | ∅ 56 | ∅ 56 | ∅ 56 | ∅ 100 |
| | k | 669 | | | | | |
| | n | 319 | | | | | |
| | t | 170 | | | | | |
| q | 489 | | | | | | |
| OIL VOLUME [dm³] | | 168 | 188 | 203 | 218 | 240 | 255 |
| DISPLACEMENT [dm³] | | 248 | 271 | 299 | 317 | 343 | 387 |
| MAX. WEIGHT [KG] | | 399 | 404 | 409 | 414 | 419 | 424 |

OILTAP® R

| SELECTOR SIZE | | RD / RDE | | | | | |
|--------------------|-----|----------|------|-------|-------|-------|-------|
| Um [kV] | | 72,5 | 123 | 170 | 245 | 300 | 362 |
| DIMENSIONS [mm] | h | 2064 | 2194 | 2294 | 2394 | 2540 | 2670 |
| | b | 592 | 592 | 592 | 592 | 592 | 592 |
| | i | 1315 | 1445 | 1545 | 1645 | 1791 | 1921 |
| | s | - | - | 324 | 424 | 529 | 562 |
| | z | - | - | 191 | 191 | 191 | 228 |
| | x | - | - | ∅ 620 | ∅ 620 | ∅ 620 | ∅ 695 |
| | y | - | - | ∅ 56 | ∅ 56 | ∅ 56 | ∅ 100 |
| | k | 749 | | | | | |
| | n | 359 | | | | | |
| | t | 210 | | | | | |
| q | 569 | | | | | | |
| OIL VOLUME [dm³] | | 168 | 188 | 203 | 218 | 240 | 255 |
| DISPLACEMENT [dm³] | | 249 | 272 | 300 | 318 | 344 | 388 |
| MAX. WEIGHT [KG] | | 403 | 408 | 413 | 418 | 423 | 428 |

| DATE | NAME | DOCUMENT NO. |
|-------------------|--------------|--------------------|
| DFTR. 15.01.2018 | RAEDLINGER | SED 4305239 001 05 |
| CHKD. 23.01.2018 | MENZELS | CHANGE NO. |
| STANDJ 23.01.2018 | PRODASTSCHUK | 1085481 |
| | | SCALE 1:10 |

DIMENSION
IN mm
EXCEPT AS
NOTED

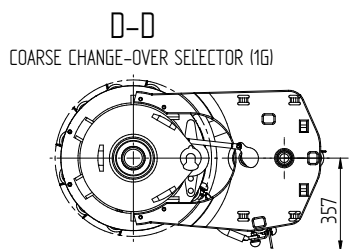
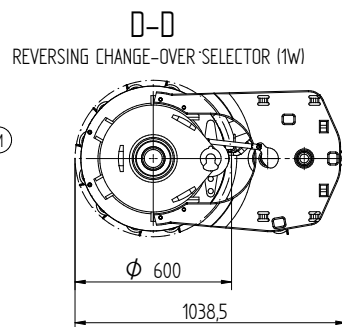
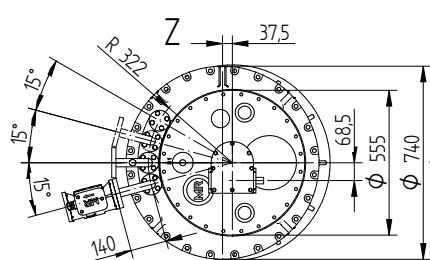
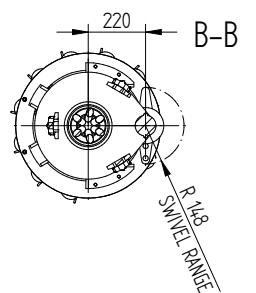
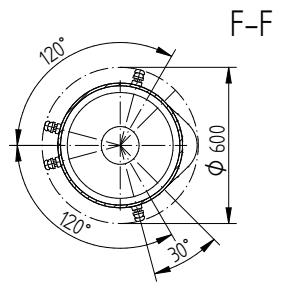
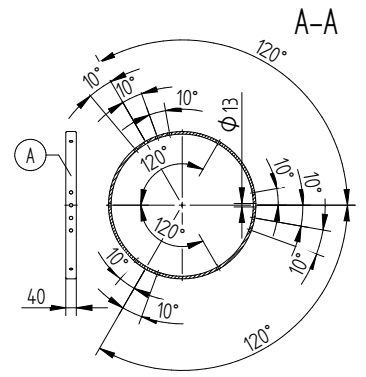
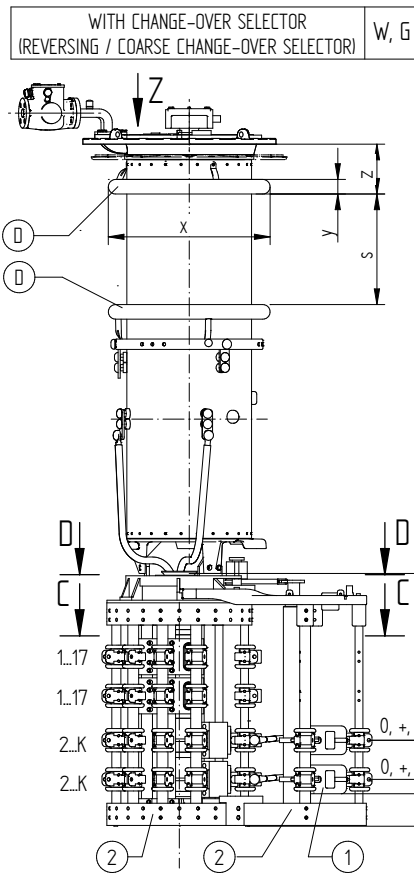
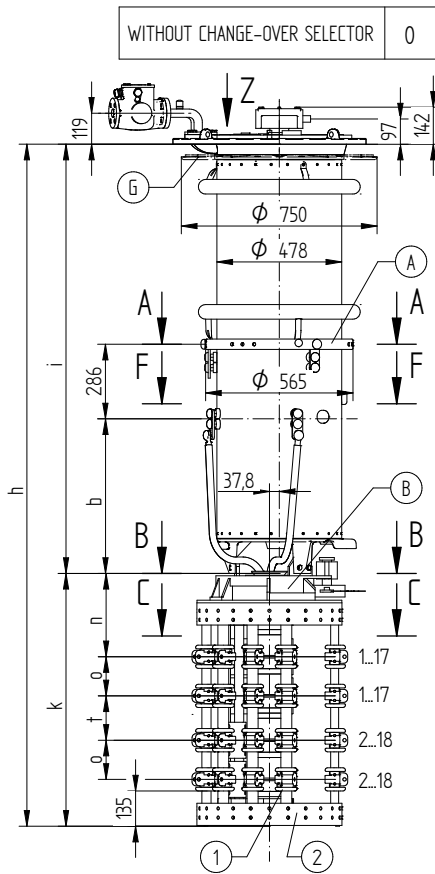


ON-LOAD TAP-CHANGER OILTAP® R
R11202-72,5...362-RC/RD/RDE
DIMENSION DRAWING

SERIAL NUMBER

| | |
|-----------------|-------|
| MATERIAL NUMBER | SHEET |
| 100096822E | 2/2 |

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FOR THE TYPE OF OLTC-HEAD REFER TO THE ORDER-SPECIFIC DRAWING OF THE OLTC-HEAD AND DRIVE SHAFTS

| | | |
|-------------------|--------------|--------------------|
| DATE | NAME | DOCUMENT NO. |
| DFTR. 15.01.2018 | RAEDLINGER | SED 4302874-001 05 |
| CHKD. 23.01.2018 | MENZELS | CHANGE NO. |
| STANDJ 23.01.2018 | PRODASTSCHUK | 1085481 |
| | | SCALE 1:10 |

- (M) - DRIVE SIDE OF SELECTOR
- (A) - ON-LOAD TAP-CHANGER CURRENT TAKE-OFF TERMINAL
- (B) - IS CONNECTED TO POTENTIAL OF (A)
- (D) - SHIELDING RINGS FOR UM OF 170 kV OR GREATER
- (G) - SUPPORTING FLANGE FOR THE BELL-TYPE TANK INSTALLATION:
WITH 72,5kV-300kV AVAILABLE
WITH 362kV OBLIGATORY
- (1) - BOTTOM-MOST LIVE PARTS, THESE ARE CONNECTED TO THE POTENTIAL OF THE ASSOCIATED AND/OR WIRED CONNECTION CONTACT
- (2) - SELECTOR BASE IS MADE OF INSULATING MATERIAL

- THE DETAILED CONNECTION DIAGRAM IS BINDING FOR THE DESIGNATION OF THE CONNECTION CONTACTS AND PHASES
- C-C REFER TO 10009030
- FOR INHERENT DRAWINGS REFER TO 10009731
- D-D - TYPE WITH CONNECTING LEAD 3W/3G REFER TO 10010019
- CONNECTING OF PARALLEL SELECTOR PLANES REFER TO 10009916

DIMENSION IN mm EXCEPT AS NOTED



ON-LOAD TAP-CHANGER OILTAP® R
 RI2002-72,5...362-RC/RD/RDE
 DIMENSION DRAWING

| | |
|-----------------|-------|
| SERIAL NUMBER | |
| MATERIAL NUMBER | SHEET |
| 100096722E | 1/2 |

OILTAP® R

| SELECTOR SIZE | | RC | | | | | |
|--------------------|-----|------|------|-------|-------|-------|-------|
| Um [kV] | | 72,5 | 123 | 170 | 245 | 300 | 362 |
| DIMENSIONS [mm] | h | 2284 | 2414 | 2514 | 2614 | 2760 | 2890 |
| | b | 592 | 592 | 592 | 592 | 592 | 592 |
| | i | 1315 | 1445 | 1545 | 1645 | 1791 | 1921 |
| | s | - | - | 324 | 424 | 529 | 562 |
| | z | - | - | 191 | 191 | 191 | 228 |
| | x | - | - | ∅ 620 | ∅ 620 | ∅ 620 | ∅ 695 |
| | y | - | - | ∅ 56 | ∅ 56 | ∅ 56 | ∅ 100 |
| | k | 969 | | | | | |
| | n | 319 | | | | | |
| | o | 150 | | | | | |
| | t | 170 | | | | | |
| | r | 150 | | | | | |
| q | 639 | | | | | | |
| OIL VOLUME [dm³] | | 168 | 188 | 203 | 218 | 240 | 255 |
| DISPLACEMENT [dm³] | | 278 | 301 | 329 | 347 | 373 | 417 |
| MAX. WEIGHT [KG] | | 462 | 467 | 472 | 477 | 482 | 487 |

OILTAP® R

| SELECTOR SIZE | | RD / RDE | | | | | |
|--------------------|-----|----------|------|-------|-------|-------|-------|
| Um [kV] | | 72,5 | 123 | 170 | 245 | 300 | 362 |
| DIMENSIONS [mm] | h | 2364 | 2494 | 2594 | 2694 | 2840 | 2970 |
| | b | 592 | 592 | 592 | 592 | 592 | 592 |
| | i | 1315 | 1445 | 1545 | 1645 | 1791 | 1921 |
| | s | - | - | 324 | 424 | 529 | 562 |
| | z | - | - | 191 | 191 | 191 | 228 |
| | x | - | - | ∅ 620 | ∅ 620 | ∅ 620 | ∅ 695 |
| | y | - | - | ∅ 56 | ∅ 56 | ∅ 56 | ∅ 100 |
| | k | 1049 | | | | | |
| | n | 359 | | | | | |
| | o | 150 | | | | | |
| | t | 210 | | | | | |
| | r | 150 | | | | | |
| q | 719 | | | | | | |
| OIL VOLUME [dm³] | | 168 | 188 | 203 | 218 | 240 | 255 |
| DISPLACEMENT [dm³] | | 280 | 303 | 331 | 349 | 375 | 419 |
| MAX. WEIGHT [KG] | | 467 | 472 | 477 | 482 | 487 | 492 |

| | | |
|------------|--------------|--------------------|
| DATE | NAME | DOCUMENT NO. |
| 15.01.2018 | RAEDLINGER | SED 4302874.001.05 |
| 23.01.2018 | MENZELS | CHANGE NO. |
| 23.01.2018 | PRODASTSCHUK | 1085481 |
| DFTR. | SCALE | 1:10 |
| CHKD. | | |
| STAND. | | |

DIMENSION
IN mm
EXCEPT AS
NOTED

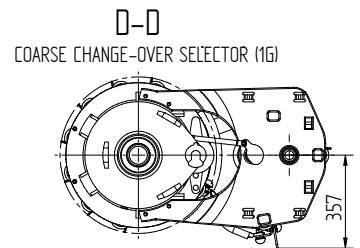
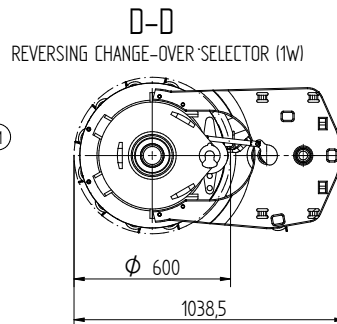
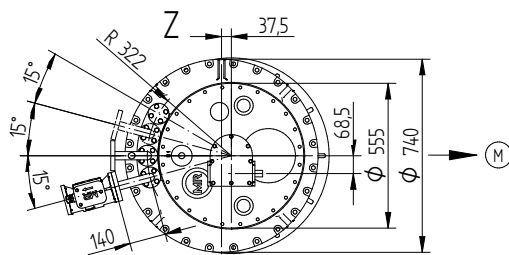
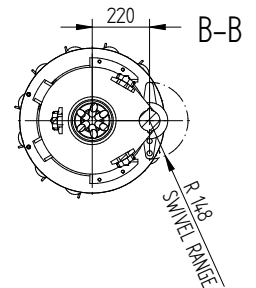
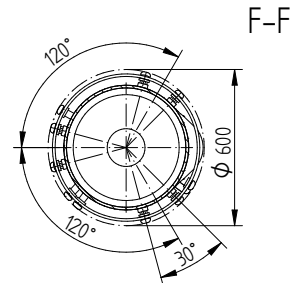
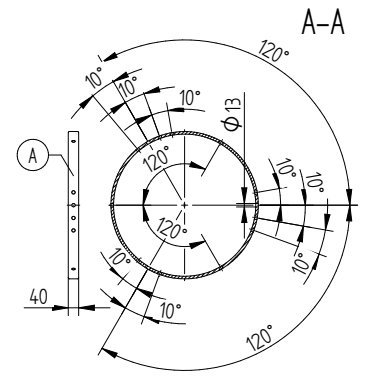
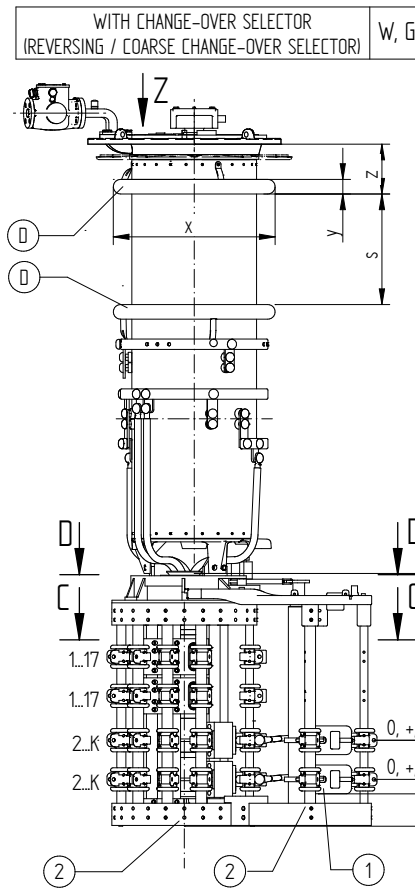
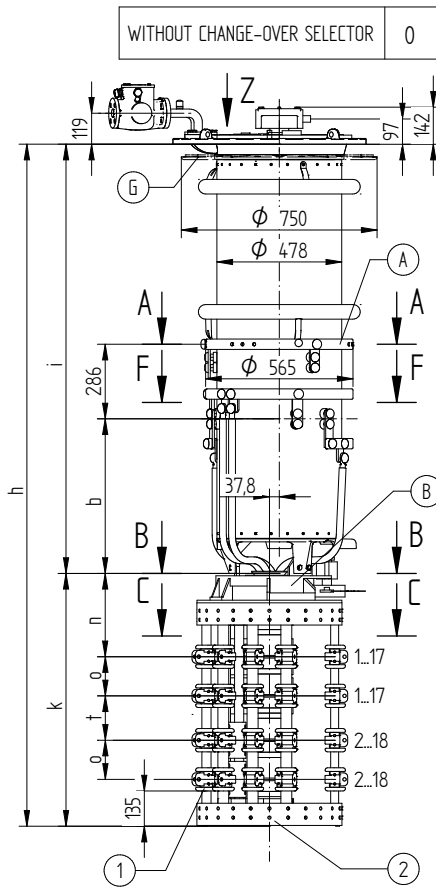


ON-LOAD TAP-CHANGER OILTAP® R
R12002-72,5...362-RC/RD/RDE
DIMENSION DRAWING

SERIAL NUMBER

| | |
|-----------------|-------|
| MATERIAL NUMBER | SHEET |
| 100096722E | 2/2 |

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FOR THE TYPE OF OLTC-HEAD REFER TO THE ORDER-SPECIFIC DRAWING OF THE OLTC-HEAD AND DRIVE SHAFTS

- (M) - DRIVE SIDE OF SELECTOR
- (A) - ON-LOAD TAP-CHANGER CURRENT TAKE-OFF TERMINAL
- (B) - IS CONNECTED TO POTENTIAL OF (A)
- (D) - SHIELDING RINGS FOR UM OF 170 kV OR GREATER
- (G) - SUPPORTING FLANGE FOR THE BELL-TYPE TANK INSTALLATION: WITH 72,5kV-300kV AVAILABLE WITH 362kV OBLIGATORY
- (1) - BOTTOM-MOST LIVE PARTS, THESE ARE CONNECTED TO THE POTENTIAL OF THE ASSOCIATED AND/OR WIRED CONNECTION CONTACT
- (2) - SELECTOR BASE IS MADE OF INSULATING MATERIAL

- THE DETAILED CONNECTION DIAGRAM IS BINDING FOR THE DESIGNATION OF THE CONNECTION CONTACTS AND PHASES
- C-C REFER TO 10009030
- FOR INHERENT DRAWINGS REFER TO 10009731
- D-D - TYPE WITH CONNECTING LEAD 3W/3G REFER TO 10010019
- CONNECTING OF PARALLEL SELECTOR PLANES REFER TO 10009916

| | | | | |
|--------------|--------------------|------------|--------------|---------|
| DOCUMENT NO. | SED 4305326 001 05 | | SCALE | 1:10 |
| NAME | RAEDLINGER | MENZELS | CHANGE NO. | 1085481 |
| DATE | 15.01.2018 | 23.01.2018 | PRODASTSCHUK | |
| DFTR. | | | | |
| CHKD. | | | | |
| STANDJ | | | | |

DIMENSION IN mm EXCEPT AS NOTED



ON-LOAD TAP-CHANGER OILTAP® R
 RI2003-72,5...362-RC/RD/RDE
 DIMENSION DRAWING

SERIAL NUMBER

MATERIAL NUMBER 100097062E SHEET 1/2

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OILTAP® R

| SELECTOR SIZE | | RC | | | | | |
|--------------------|-----|------|------|-------|-------|-------|-------|
| Um [kV] | | 72,5 | 123 | 170 | 245 | 300 | 362 |
| DIMENSIONS [mm] | h | 2284 | 2414 | 2514 | 2614 | 2760 | 2890 |
| | b | 592 | 592 | 592 | 592 | 592 | 592 |
| | i | 1315 | 1445 | 1545 | 1645 | 1791 | 1921 |
| | s | - | - | 324 | 424 | 529 | 562 |
| | z | - | - | 191 | 191 | 191 | 228 |
| | x | - | - | ∅ 620 | ∅ 620 | ∅ 620 | ∅ 695 |
| | y | - | - | ∅ 56 | ∅ 56 | ∅ 56 | ∅ 100 |
| | k | 969 | | | | | |
| | n | 319 | | | | | |
| | o | 150 | | | | | |
| | f | 170 | | | | | |
| | r | 150 | | | | | |
| q | 639 | | | | | | |
| OIL VOLUME [dm³] | | 168 | 188 | 203 | 218 | 240 | 255 |
| DISPLACEMENT [dm³] | | 278 | 301 | 329 | 347 | 373 | 417 |
| MAX. WEIGHT [KG] | | 462 | 467 | 472 | 477 | 482 | 487 |

OILTAP® R

| SELECTOR SIZE | | RD / RDE | | | | | |
|--------------------|-----|----------|------|-------|-------|-------|-------|
| Um [kV] | | 72,5 | 123 | 170 | 245 | 300 | 362 |
| DIMENSIONS [mm] | h | 2364 | 2494 | 2594 | 2694 | 2840 | 2970 |
| | b | 592 | 592 | 592 | 592 | 592 | 592 |
| | i | 1315 | 1445 | 1545 | 1645 | 1791 | 1921 |
| | s | - | - | 324 | 424 | 529 | 562 |
| | z | - | - | 191 | 191 | 191 | 228 |
| | x | - | - | ∅ 620 | ∅ 620 | ∅ 620 | ∅ 695 |
| | y | - | - | ∅ 56 | ∅ 56 | ∅ 56 | ∅ 100 |
| | k | 1049 | | | | | |
| | n | 359 | | | | | |
| | o | 150 | | | | | |
| | f | 210 | | | | | |
| | p | - | | | | | |
| r | 150 | | | | | | |
| q | 719 | | | | | | |
| OIL VOLUME [dm³] | | 168 | 188 | 203 | 218 | 240 | 255 |
| DISPLACEMENT [dm³] | | 280 | 303 | 331 | 349 | 375 | 419 |
| MAX. WEIGHT [KG] | | 467 | 472 | 477 | 482 | 487 | 492 |

| | | |
|------------|--------------|--------------------|
| DATE | NAME | DOCUMENT NO. |
| 15.01.2018 | RAEDLINGER | SED 4305326 001 05 |
| 23.01.2018 | MENZELS | CHANGE NO. |
| 23.01.2018 | PRODASTSCHUK | 1085481 |
| DFTR. | SCALE | 1:10 |
| CHKD. | | |
| STAND | | |

DIMENSION
IN mm
EXCEPT AS
NOTED

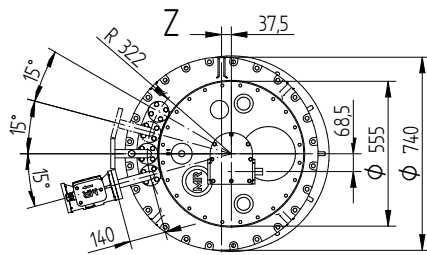
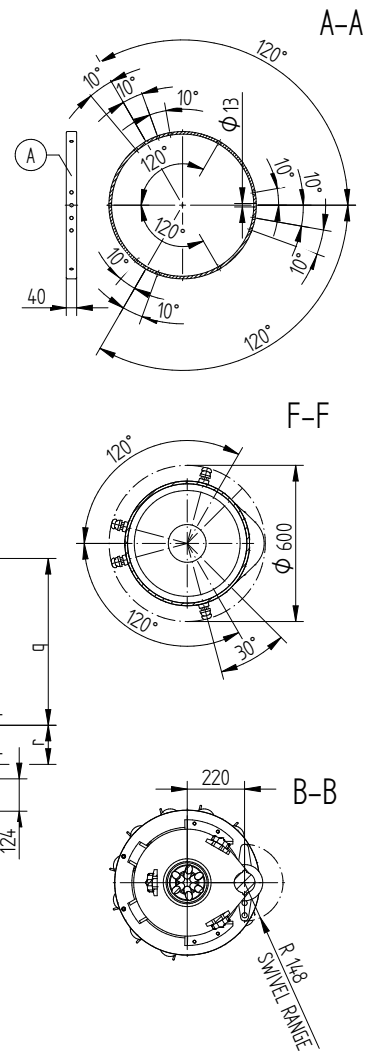
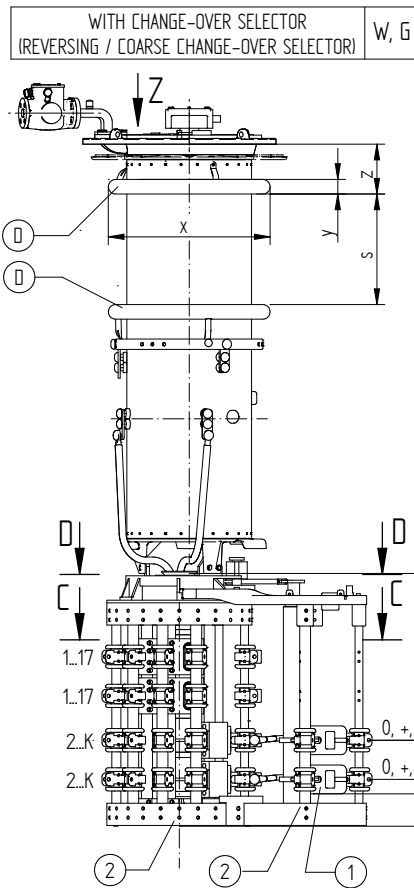
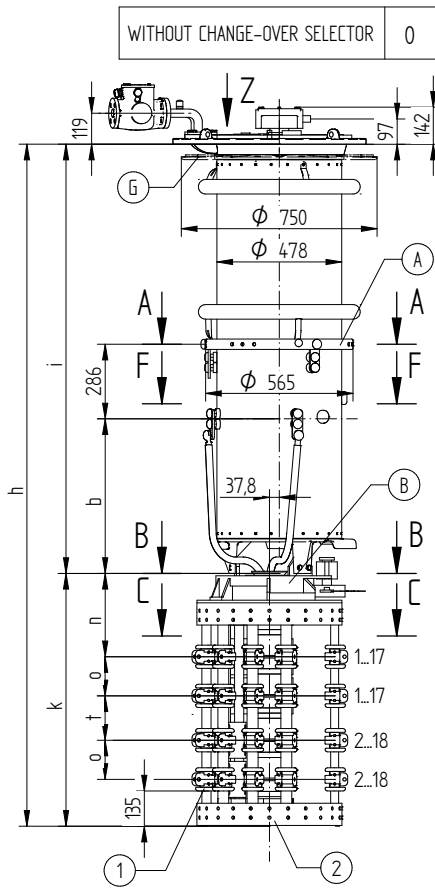


ON-LOAD TAP-CHANGER OILTAP® R
 RI2003-72,5...362-RC/RD/RDE
 DIMENSION DRAWING

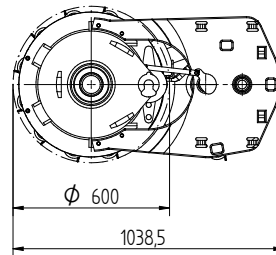
SERIAL NUMBER

| | |
|-----------------|-------|
| MATERIAL NUMBER | SHEET |
| 100097062E | 2/2 |

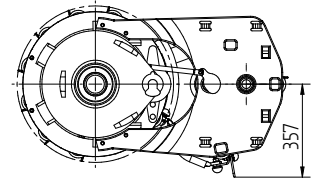
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D-D REVERSING CHANGE-OVER SELECTOR (1W)



D-D COARSE CHANGE-OVER SELECTOR (1G)



FOR THE TYPE OF OLTC-HEAD REFER TO THE ORDER-SPECIFIC DRAWING OF THE OLTC-HEAD AND DRIVE SHAFTS

- (M) - DRIVE SIDE OF SELECTOR
- (A) - ON-LOAD TAP-CHANGER CURRENT TAKE-OFF TERMINAL
- (B) - IS CONNECTED TO POTENTIAL OF (A)
- (D) - SHIELDING RINGS FOR UM OF 170 kV OR GREATER
- (G) - SUPPORTING FLANGE FOR THE BELL-TYPE TANK INSTALLATION:
WITH 72,5kV-300kV AVAILABLE
WITH 362kV OBLIGATORY
- (1) - BOTTOM-MOST LIVE PARTS, THESE ARE CONNECTED TO THE POTENTIAL OF THE ASSOCIATED AND/OR WIRED CONNECTION CONTACT
- (2) - SELECTOR BASE IS MADE OF INSULATING MATERIAL

- THE DETAILED CONNECTION DIAGRAM IS BINDING FOR THE DESIGNATION OF THE CONNECTION CONTACTS AND PHASES
- C-C REFER TO 10009030
- FOR INHERENT DRAWINGS REFER TO 10009731
- D-D - TYPE WITH CONNECTING LEAD 3W/3G REFER TO 10010019

| | | |
|-------------------|--------------|--------------------|
| DATE | NAME | DOCUMENT NO. |
| DFT. 15.01.2018 | RAEDLINGER | SED 4307672 001 05 |
| CHKD. 23.01.2018 | MENZELS | CHANGE NO. |
| STANDJ 23.01.2018 | PRODASTSCHUK | 1085481 |
| | | SCALE 1:10 |

DIMENSION IN mm EXCEPT AS NOTED



ON-LOAD TAP-CHANGER OILTAP® R
 RI2402-72,5...362-RC/RD/RDE - WITH FORCED CURRENT SPLITTING
 DIMENSION DRAWING

SERIAL NUMBER

MATERIAL NUMBER 100097972E SHEET 1/2

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OILTAP® R

| SELECTOR SIZE | | RC | | | | | |
|--------------------|-----|------|------|-------|-------|-------|-------|
| Um [kV] | | 72,5 | 123 | 170 | 245 | 300 | 362 |
| DIMENSIONS [mm] | h | 2284 | 2414 | 2514 | 2614 | 2760 | 2890 |
| | b | 592 | 592 | 592 | 592 | 592 | 592 |
| | i | 1315 | 1445 | 1545 | 1645 | 1791 | 1921 |
| | s | - | - | 324 | 424 | 529 | 562 |
| | z | - | - | 191 | 191 | 191 | 228 |
| | x | - | - | ∅ 620 | ∅ 620 | ∅ 620 | ∅ 695 |
| | y | - | - | ∅ 56 | ∅ 56 | ∅ 56 | ∅ 100 |
| | k | 969 | | | | | |
| | n | 319 | | | | | |
| | o | 150 | | | | | |
| | t | 170 | | | | | |
| | r | 150 | | | | | |
| q | 639 | | | | | | |
| OIL VOLUME [dm³] | | 168 | 188 | 203 | 218 | 240 | 255 |
| DISPLACEMENT [dm³] | | 278 | 301 | 329 | 347 | 373 | 417 |
| MAX. WEIGHT [KG] | | 462 | 467 | 472 | 477 | 482 | 487 |

OILTAP® R

| SELECTOR SIZE | | RD / RDE | | | | | |
|--------------------|-----|----------|------|-------|-------|-------|-------|
| Um [kV] | | 72,5 | 123 | 170 | 245 | 300 | 362 |
| DIMENSIONS [mm] | h | 2364 | 2494 | 2594 | 2694 | 2840 | 2970 |
| | b | 592 | 592 | 592 | 592 | 592 | 592 |
| | i | 1315 | 1445 | 1545 | 1645 | 1791 | 1921 |
| | s | - | - | 324 | 424 | 529 | 562 |
| | z | - | - | 191 | 191 | 191 | 228 |
| | x | - | - | ∅ 620 | ∅ 620 | ∅ 620 | ∅ 695 |
| | y | - | - | ∅ 56 | ∅ 56 | ∅ 56 | ∅ 100 |
| | k | 1049 | | | | | |
| | n | 359 | | | | | |
| | o | 150 | | | | | |
| | t | 210 | | | | | |
| | r | 150 | | | | | |
| q | 719 | | | | | | |
| OIL VOLUME [dm³] | | 168 | 188 | 203 | 218 | 240 | 255 |
| DISPLACEMENT [dm³] | | 280 | 303 | 331 | 349 | 375 | 419 |
| MAX. WEIGHT [KG] | | 467 | 472 | 477 | 482 | 487 | 492 |

| DATE | NAME | DOCUMENT NO. |
|-------------------|--------------|--------------------|
| DFTR. 15.01.2018 | RAEDLINGER | SED 4307672_001 05 |
| CHKD. 23.01.2018 | MENZELS | CHANGE NO. |
| STAND. 23.01.2018 | PRODASTSCHUK | 1085481 |
| | | SCALE 1:10 |

DIMENSION IN mm EXCEPT AS NOTED

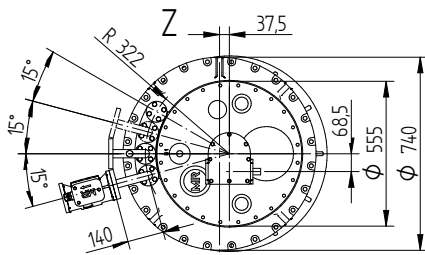
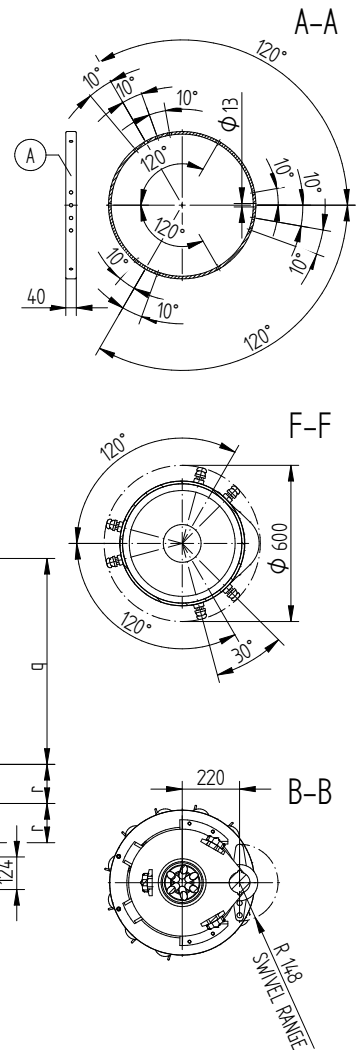
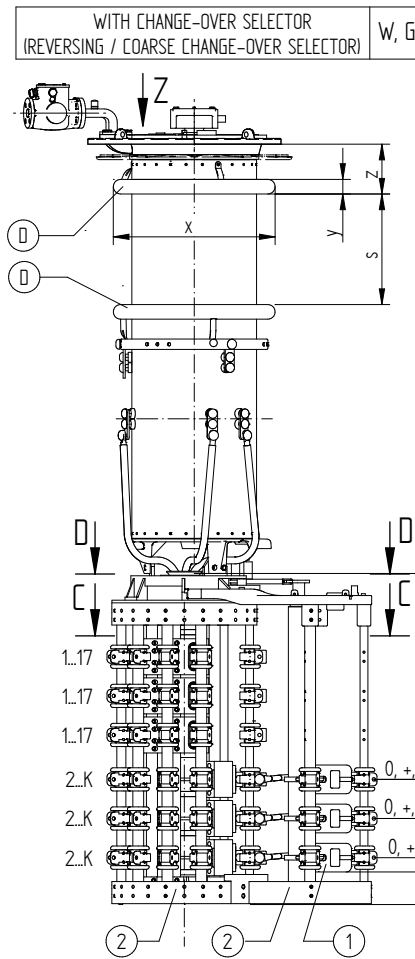
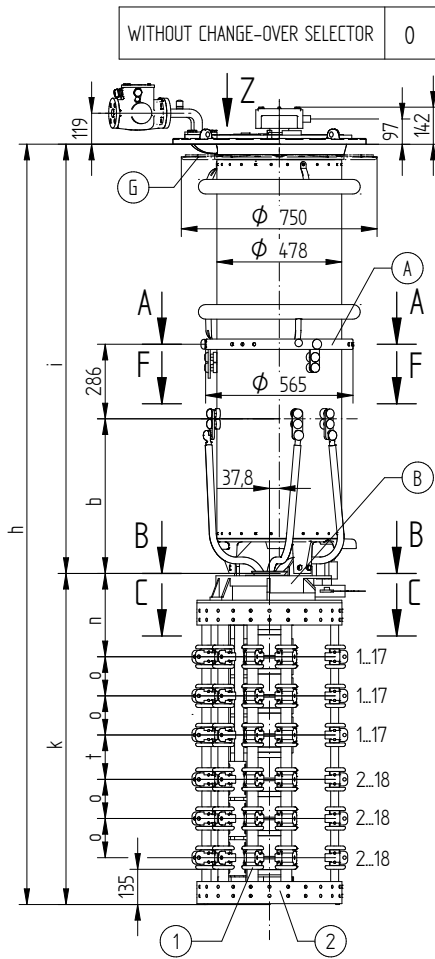


ON-LOAD TAP-CHANGER OILTAP® R
 RI2402-72,5...362-RC/RD/RDE - WITH FORCED CURRENT SPLITTING
 DIMENSION DRAWING

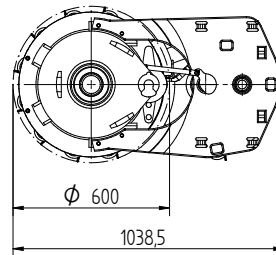
SERIAL NUMBER

| | |
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| MATERIAL NUMBER | SHEET |
| 100097972E | 2/2 |

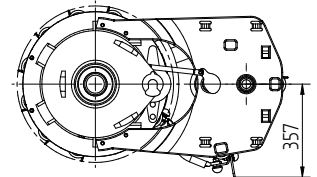
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D-D REVERSING CHANGE-OVER SELECTOR (1W)



D-D COARSE CHANGE-OVER SELECTOR (1G)



FOR THE TYPE OF OLTC-HEAD REFER TO THE ORDER-SPECIFIC DRAWING OF THE OLTC-HEAD AND DRIVE SHAFTS

| | | |
|-------------------|--------------|--------------------|
| DATE | NAME | DOCUMENT NO. |
| DFTR. 15.01.2018 | RAEDLINGER | SED 4299267 001 05 |
| CHKD. 23.01.2018 | MENZELS | CHANGE NO. |
| STANDJ 23.01.2018 | PRODASTSCHUK | 1085481 |
| | | SCALE 1:10 |

- (M) - DRIVE SIDE OF SELECTOR
- (A) - ON-LOAD TAP-CHANGER CURRENT TAKE-OFF TERMINAL
- (B) - IS CONNECTED TO POTENTIAL OF (A)
- (D) - SHIELDING RINGS FOR UM OF 170 kV OR GREATER
- (G) - SUPPORTING FLANGE FOR THE BELL-TYPE TANK INSTALLATION:
WITH 72,5kV-300kV AVAILABLE
WITH 362kV OBLIGATORY
- (1) - BOTTOM-MOST LIVE PARTS, THESE ARE CONNECTED TO THE POTENTIAL OF THE ASSOCIATED AND/OR WIRED CONNECTION CONTACT
- (2) - SELECTOR BASE IS MADE OF INSULATING MATERIAL

- THE DETAILED CONNECTION DIAGRAM IS BINDING FOR THE DESIGNATION OF THE CONNECTION CONTACTS AND PHASES
- C-C REFER TO 10009030
- FOR INHERENT DRAWINGS REFER TO 10009731
- D-D - TYPE WITH CONNECTING LEAD 3W/3G REFER TO 10010019
- CONNECTING OF PARALLEL SELECTOR PLANES REFER TO 10009916

DIMENSION IN mm EXCEPT AS NOTED



ON-LOAD TAP-CHANGER OILTAP® R
 R13003-72,5...362-RC/RD/RDE
 DIMENSION DRAWING

SERIAL NUMBER

MATERIAL NUMBER 100090342E SHEET 1/2

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OILTAP® R

| SELCATOR SIZE | | RC | | | | | |
|--------------------|---|------|------|-------|-------|-------|-------|
| Um [kV] | | 72,5 | 123 | 170 | 245 | 300 | 362 |
| DIMENSIONS [mm] | h | 2584 | 2714 | 2814 | 2914 | 3060 | 3190 |
| | b | 592 | 592 | 592 | 592 | 592 | 592 |
| | i | 1315 | 1445 | 1545 | 1645 | 1791 | 1921 |
| | s | - | - | 324 | 424 | 529 | 562 |
| | Z | - | - | 191 | 191 | 191 | 228 |
| | x | - | - | ∅ 620 | ∅ 620 | ∅ 620 | ∅ 695 |
| | y | - | - | ∅ 56 | ∅ 56 | ∅ 56 | ∅ 100 |
| | k | 1269 | | | | | |
| | n | 319 | | | | | |
| | o | 150 | | | | | |
| | t | 170 | | | | | |
| | r | 150 | | | | | |
| | q | 789 | | | | | |
| OIL VOLUME [dm³] | | 168 | 188 | 203 | 218 | 240 | 255 |
| DISPLACEMENT [dm³] | | 309 | 332 | 360 | 378 | 404 | 448 |
| MAX. WEIGHT [KG] | | 528 | 533 | 538 | 543 | 548 | 553 |

OILTAP® R

| SELCATOR SIZE | | RD / RDE | | | | | |
|--------------------|---|----------|------|-------|-------|-------|-------|
| Um [kV] | | 72,5 | 123 | 170 | 245 | 300 | 362 |
| DIMENSIONS [mm] | h | 2664 | 2794 | 2894 | 2994 | 3140 | 3270 |
| | b | 592 | 592 | 592 | 592 | 592 | 592 |
| | i | 1315 | 1445 | 1545 | 1645 | 1791 | 1921 |
| | s | - | - | 324 | 424 | 529 | 562 |
| | Z | - | - | 191 | 191 | 191 | 228 |
| | x | - | - | ∅ 620 | ∅ 620 | ∅ 620 | ∅ 695 |
| | y | - | - | ∅ 56 | ∅ 56 | ∅ 56 | ∅ 100 |
| | k | 1349 | | | | | |
| | n | 359 | | | | | |
| | o | 150 | | | | | |
| | t | 210 | | | | | |
| | r | 150 | | | | | |
| | q | 869 | | | | | |
| OIL VOLUME [dm³] | | 168 | 188 | 203 | 218 | 240 | 255 |
| DISPLACEMENT [dm³] | | 311 | 334 | 362 | 380 | 406 | 450 |
| MAX. WEIGHT [KG] | | 534 | 539 | 544 | 549 | 554 | 559 |

| DATE | NAME | DOCUMENT NO. |
|-------------------|--------------|--------------------|
| DFTR. 15.01.2018 | RAEDLINGER | SED 4299267 001 05 |
| CHKD. 23.01.2018 | MENZELS | CHANGE NO. |
| STAND. 23.01.2018 | PRODASTSCHUK | 1085481 |
| | | SCALE 1:10 |

DIMENSION
IN mm
EXCEPT AS
NOTED

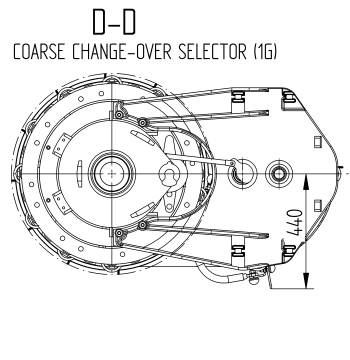
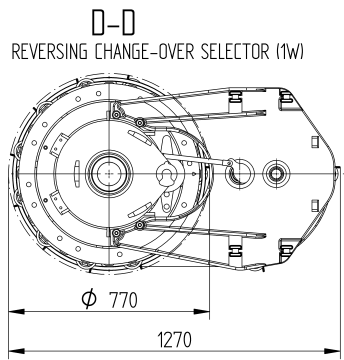
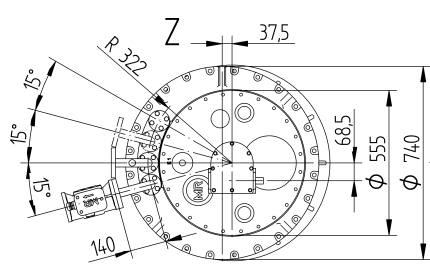
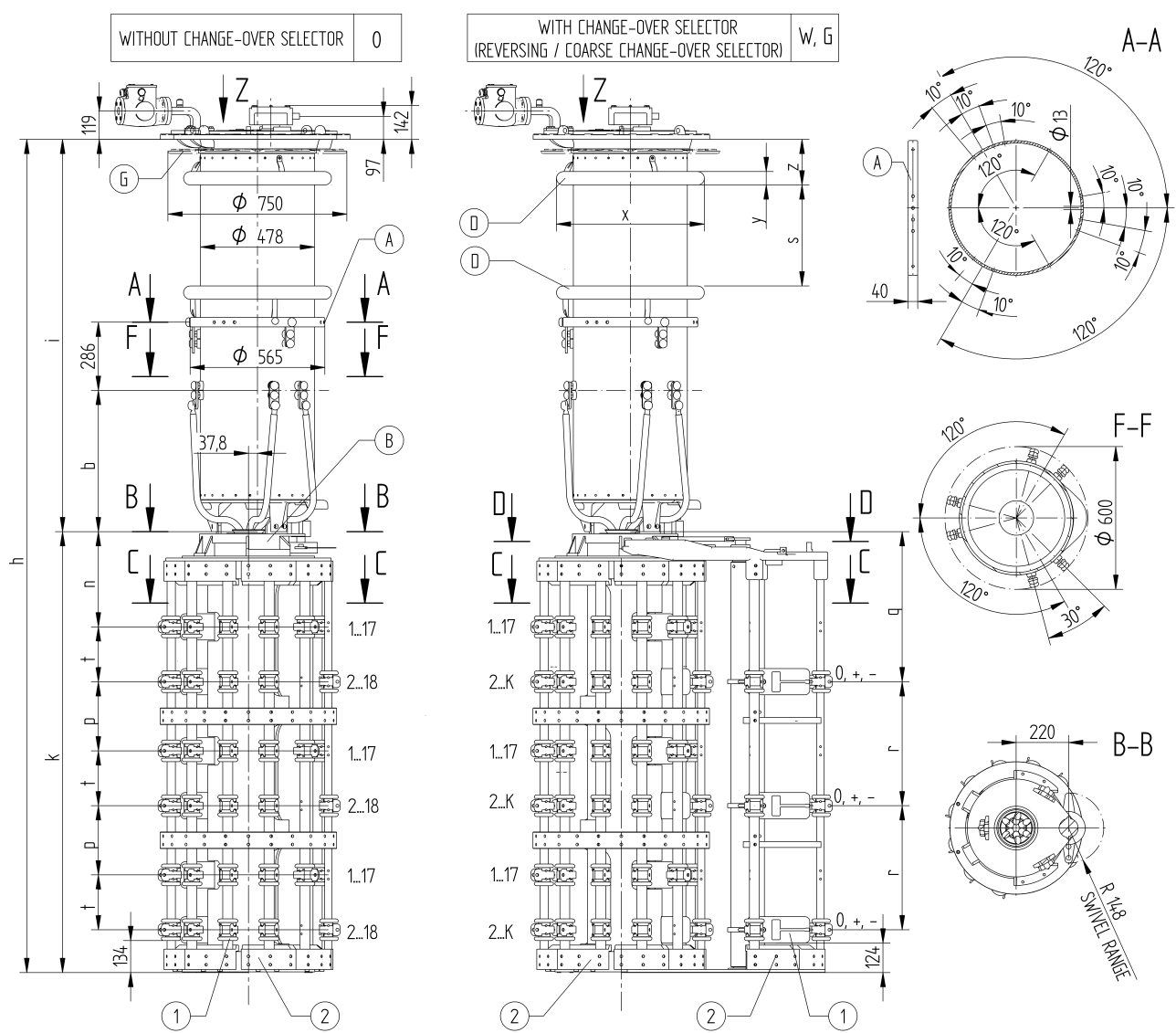


ON-LOAD TAP-CHANGER OILTAP® R
R13003-72,5...362-RC/RD/RDE
DIMENSION DRAWING

SERIAL NUMBER

| | |
|-----------------|-------|
| MATERIAL NUMBER | SHEET |
| 100090342E | 2/2 |

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FOR THE TYPE OF OLTC-HEAD REFER TO THE ORDER-SPECIFIC DRAWING OF THE OLTC-HEAD AND DRIVE SHAFTS

- (M) - DRIVE SIDE OF SELECTOR
 - (A) - ON-LOAD TAP-CHANGER CURRENT TAKE-OFF TERMINAL
 - (B) - IS CONNECTED TO POTENTIAL OF (A)
 - (D) - SHIELDING RINGS FOR UM OF 170 kV OR GREATER
 - (G) - SUPPORTING FLANGE FOR BELL-TYPE TANK INSTALLATION WITH 72,5kV-300kV AVAILABLE WITH 362kV OBLIGATORY
 - (1) - BOTTOM-MOST LIVE PARTS, THESE ARE CONNECTED TO THE POTENTIAL OF THE ASSOCIATED AND/OR WIRED CONNECTION CONTACT
 - (2) - SELECTOR BASE IS MADE OF INSULATING MATERIAL
- THE DETAILED CONNECTION DIAGRAM IS BINDING FOR THE DESIGNATION OF THE CONNECTION CONTACTS AND PHASES
 - C-C REFER TO 10016570
 - FOR INHERENT DRAWINGS REFER TO 10009731
 - D-D - TYPE WITH CONNECTING LEAD 3W/3G REFER TO 10017264

| | | | |
|--------|------------|--------------|--------------------|
| DATE | 19.10.2016 | DOCUMENT NO. | SED 5103387 001 02 |
| DFTR. | 20.10.2016 | NAME | CTETPRAKTIK2 |
| CHKD. | 20.10.2016 | HILFNER | 1077337 |
| STAND. | 20.10.2016 | PRODASTSCHUK | 1:10 |

DIMENSION IN mm EXCEPT AS NOTED



ON-LOAD TAP-CHANGER OILTAP® R
 RIII1200Y-72,5...362-RE/RF
 DIMENSION DRAWING

| | |
|-----------------|-------|
| SERIAL NUMBER | |
| MATERIAL NUMBER | SHEET |
| 100174770E | 1/2 |

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OILTAP® R

| SELECTOR SIZE | | RE | | | | | |
|--------------------|---|------|------|-------|-------|-------|-------|
| Um [kV] | | 72,5 | 123 | 170 | 245 | 300 | 362 |
| DIMENSIONS [mm] | h | 3165 | 3295 | 3395 | 3495 | 3641 | 3771 |
| | b | 592 | 592 | 592 | 592 | 592 | 592 |
| | i | 1315 | 1445 | 1545 | 1645 | 1791 | 1921 |
| | s | - | - | 324 | 424 | 529 | 600 |
| | z | - | - | 191 | 191 | 191 | 228 |
| | x | - | - | Ø 620 | Ø 620 | Ø 620 | Ø 695 |
| | y | - | - | Ø 56 | Ø 56 | Ø 56 | Ø 100 |
| | k | 1850 | | | | | |
| | n | 400 | | | | | |
| | o | - | | | | | |
| | t | 230 | | | | | |
| | p | 290 | | | | | |
| | r | 520 | | | | | |
| | q | 630 | | | | | |
| OIL VOLUME [dm³] | | 168 | 188 | 203 | 218 | 240 | 255 |
| DISPLACEMENT [dm³] | | 331 | 354 | 382 | 400 | 426 | 470 |
| MAX. WEIGHT [kg] | | 624 | 629 | 634 | 639 | 644 | 644 |

OILTAP® R

| SELECTOR SIZE | | RF | | | | | |
|--------------------|---|------|------|-------|-------|-------|-------|
| Um [kV] | | 72,5 | 123 | 170 | 245 | 300 | 362 |
| DIMENSIONS [mm] | h | 3325 | 3455 | 3555 | 3655 | 3801 | 3931 |
| | b | 592 | 592 | 592 | 592 | 592 | 592 |
| | i | 1315 | 1445 | 1545 | 1645 | 1791 | 1921 |
| | s | - | - | 324 | 424 | 529 | 600 |
| | z | - | - | 191 | 191 | 191 | 228 |
| | x | - | - | Ø 620 | Ø 620 | Ø 620 | Ø 695 |
| | y | - | - | Ø 56 | Ø 56 | Ø 56 | Ø 100 |
| | k | 2010 | | | | | |
| | n | 400 | | | | | |
| | o | - | | | | | |
| | t | 230 | | | | | |
| | p | 370 | | | | | |
| | r | 600 | | | | | |
| | q | 630 | | | | | |
| OIL VOLUME [dm³] | | 168 | 188 | 203 | 218 | 240 | 255 |
| DISPLACEMENT [dm³] | | 336 | 359 | 387 | 405 | 431 | 475 |
| MAX. WEIGHT [kg] | | 638 | 643 | 648 | 653 | 658 | 658 |

| DATE | NAME | DOCUMENT NO. |
|-------------------|--------------|--------------------|
| DFTR. 19.10.2016 | CTETPRAKTIK2 | SED 5103387 001 02 |
| CHKD. 20.10.2016 | HILTNER | CHANGE NO. |
| STAND. 20.10.2016 | PRODASTSCHUK | 1077337 |
| | | SCALE 1:10 |

DIMENSION
IN mm
EXCEPT AS
NOTED



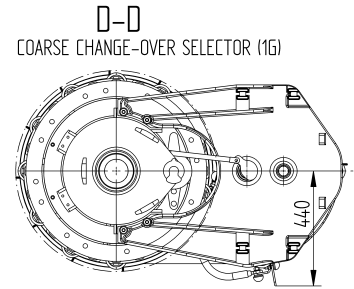
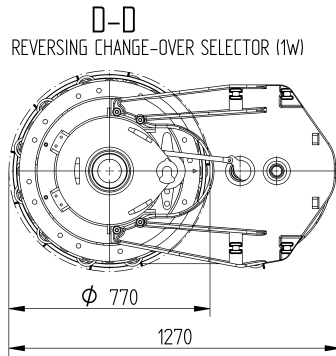
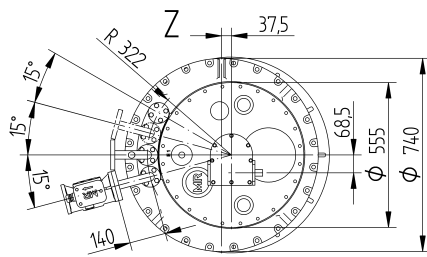
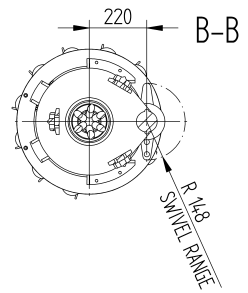
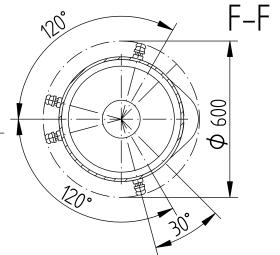
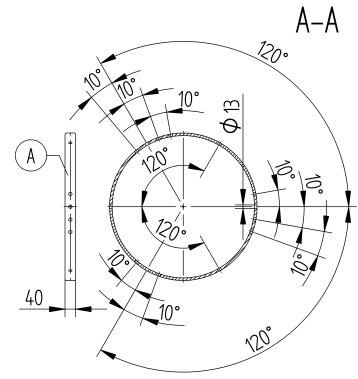
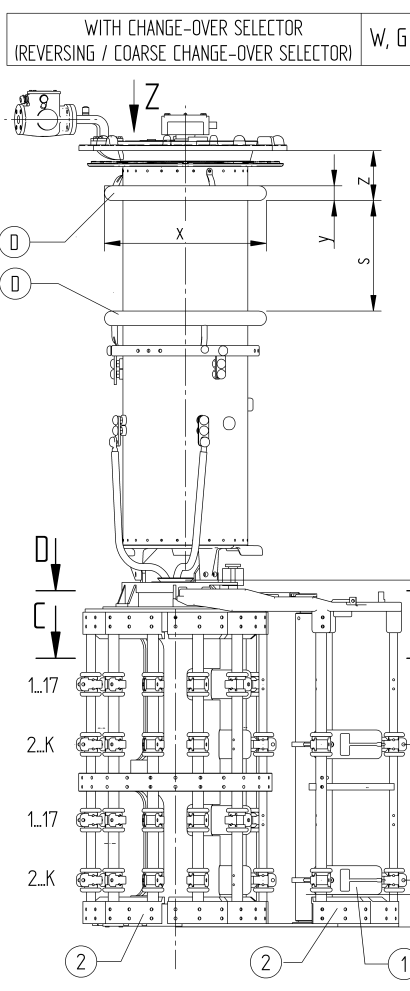
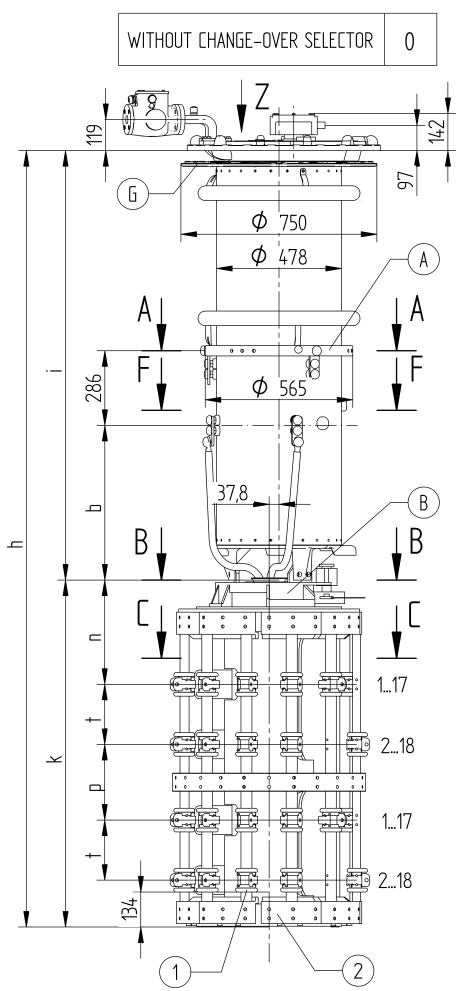
ON-LOAD TAP-CHANGER OILTAP® R
R111200Y-72,5...362-RE/RF
DIMENSION DRAWING

SERIAL NUMBER

MATERIAL NUMBER
100174770E

SHEET
2/2

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FOR THE TYPE OF OLTC-HEAD REFER TO THE ORDER-SPECIFIC DRAWING OF THE OLTC-HEAD AND DRIVE SHAFTS

- (M) - DRIVE SIDE OF SELECTOR
- (A) - ON-LOAD TAP-CHANGER CURRENT TAKE-OFF TERMINAL
- (B) - IS CONNECTED TO POTENTIAL OF (A)
- (D) - SHIELDING RINGS FOR UM OF 170 kV OR GREATER
- (G) - SUPPORTING FLANGE FOR BELL-TYPE TANK INSTALLATION
 WITH 72.5kV-300kV AVAILABLE
 WITH 362kV OBLIGATORY
- (1) - BOTTOM-MOST LIVE PARTS, THESE ARE CONNECTED TO THE POTENTIAL OF THE ASSOCIATED AND/OR WIRED CONNECTION CONTACT
- (2) - SELECTOR BASE IS MADE OF INSULATING MATERIAL

- THE DETAILED CONNECTION DIAGRAM IS BINDING FOR THE DESIGNATION OF THE CONNECTION CONTACTS AND PHASES
- C-C REFER TO 10016570
- FOR INHERENT DRAWINGS REFER TO 10009731
- D-D - TYPE WITH CONNECTING LEAD 3W/3G REFER TO 10017264

| | | | | | |
|--------|------------|--------------|--------------|--------------|--------------------|
| DATE | 19.10.2016 | NAME | CTETPRAKTIK2 | DOCUMENT NO. | SED 5101385 001 02 |
| DFTR. | 20.10.2016 | CHKD. | HILTNER | CHANGE NO. | 1077337 |
| STAND. | 20.10.2016 | PRODASTSCHUK | | SCALE | 1:10 |

DIMENSION IN mm EXCEPT AS NOTED



ON-LOAD TAP-CHANGER OILTAP® R
 RII1202-72,5...362-RE/RF
 DIMENSION DRAWING

SERIAL NUMBER

MATERIAL NUMBER 100174480E SHEET 1/2

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OILTAP® R

| SELECTOR SIZE | | RE | | | | | |
|--------------------|-----|------|------|-------|-------|-------|-------|
| Um [kV] | | 72,5 | 123 | 170 | 245 | 300 | 362 |
| DIMENSIONS [mm] | h | 2645 | 2775 | 2875 | 2975 | 3121 | 3251 |
| | b | 592 | 592 | 592 | 592 | 592 | 592 |
| | i | 1315 | 1445 | 1545 | 1645 | 1791 | 1921 |
| | s | - | - | 324 | 424 | 529 | 600 |
| | z | - | - | 191 | 191 | 191 | 228 |
| | x | - | - | ∅ 620 | ∅ 620 | ∅ 620 | ∅ 695 |
| | y | - | - | ∅ 56 | ∅ 56 | ∅ 56 | ∅ 100 |
| | k | 1330 | | | | | |
| | n | 400 | | | | | |
| | o | - | | | | | |
| | t | 230 | | | | | |
| | p | 290 | | | | | |
| | r | 520 | | | | | |
| q | 630 | | | | | | |
| OIL VOLUME [dm³] | | 168 | 188 | 203 | 218 | 240 | 255 |
| DISPLACEMENT [dm³] | | 301 | 324 | 352 | 370 | 396 | 440 |
| MAX. WEIGHT [kg] | | 537 | 542 | 547 | 552 | 557 | 562 |

OILTAP® R

| SELECTOR SIZE | | RF | | | | | |
|--------------------|-----|------|------|-------|-------|-------|-------|
| Um [kV] | | 72,5 | 123 | 170 | 245 | 300 | 362 |
| DIMENSIONS [mm] | h | 2725 | 2855 | 2955 | 3055 | 3201 | 3331 |
| | b | 592 | 592 | 592 | 592 | 592 | 592 |
| | i | 1315 | 1445 | 1545 | 1645 | 1791 | 1921 |
| | s | - | - | 324 | 424 | 529 | 600 |
| | z | - | - | 191 | 191 | 191 | 228 |
| | x | - | - | ∅ 620 | ∅ 620 | ∅ 620 | ∅ 695 |
| | y | - | - | ∅ 56 | ∅ 56 | ∅ 56 | ∅ 100 |
| | k | 1410 | | | | | |
| | n | 400 | | | | | |
| | o | - | | | | | |
| | t | 230 | | | | | |
| | p | 370 | | | | | |
| | r | 600 | | | | | |
| q | 630 | | | | | | |
| OIL VOLUME [dm³] | | 168 | 188 | 203 | 218 | 240 | 255 |
| DISPLACEMENT [dm³] | | 304 | 327 | 355 | 373 | 399 | 443 |
| MAX. WEIGHT [kg] | | 544 | 549 | 554 | 559 | 564 | 569 |

| | | |
|------------|--------------|--------------------|
| DATE | NAME | DOCUMENT NO. |
| 19.10.2016 | CTETPRAKTIK2 | SED 5101385 001 02 |
| 20.10.2016 | HILTNER | CHANGE NO. |
| 20.10.2016 | PRODASTSCHUK | 1077337 |
| DFTR. | SCALE | 1:10 |

DIMENSION
IN mm
EXCEPT AS
NOTED



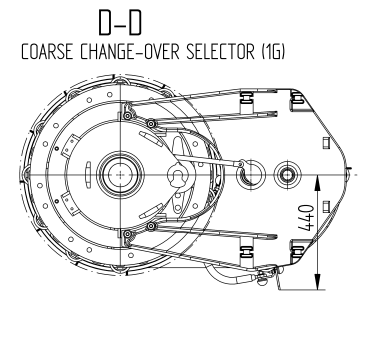
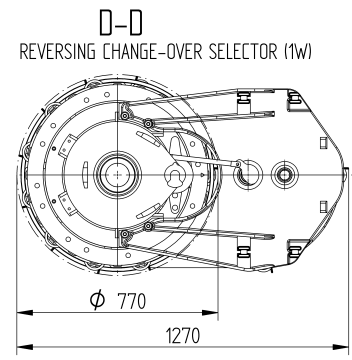
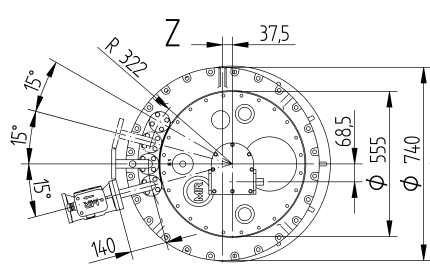
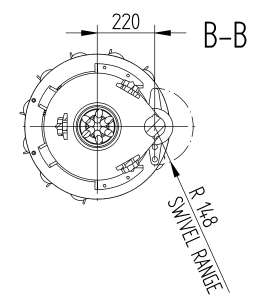
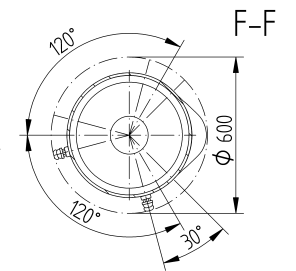
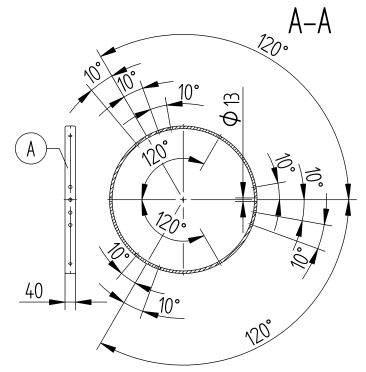
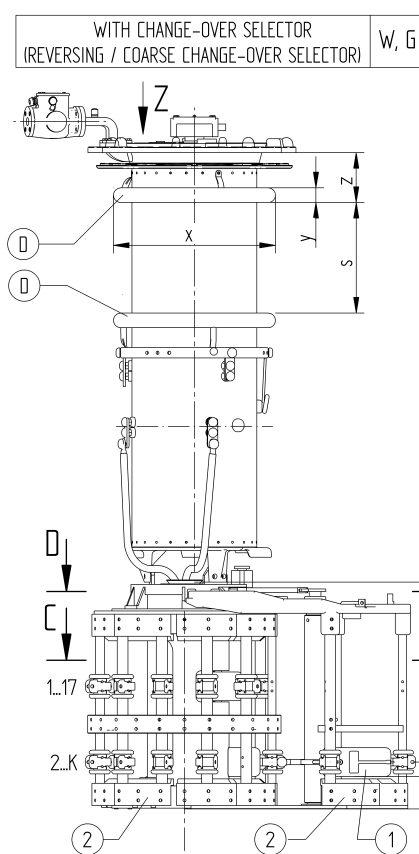
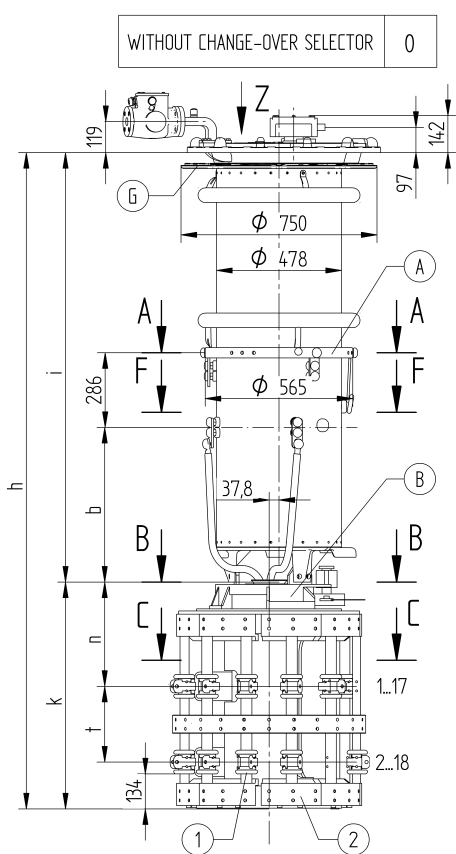
ON-LOAD TAP-CHANGER OILTAP® R
 RII1202-72,5...362-RE/RF
 DIMENSION DRAWING

SERIAL NUMBER

MATERIAL NUMBER
100174480E

SHEET
2/2

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FOR THE TYPE OF OLTC-HEAD REFER TO THE ORDER-SPECIFIC DRAWING OF THE OLTC-HEAD AND DRIVE SHAFTS

- (M) - DRIVE SIDE OF SELECTOR
- (A) - ON-LOAD TAP-CHANGER CURRENT TAKE-OFF TERMINAL
- (B) - IS CONNECTED TO POTENTIAL OF (A)
- (D) - SHIELDING RINGS FOR UM OF 170 kV OR GREATER
- (G) - SUPPORTING FLANGE FOR BELL-TYPE TANK INSTALLATION
 WITH 72.5kV-300kV AVAILABLE
 WITH 362kV OBLIGATORY
- (1) - BOTTOM-MOST LIVE PARTS, THESE ARE CONNECTED TO THE POTENTIAL OF THE ASSOCIATED AND/OR WIRED CONNECTION CONTACT
- (2) - SELECTOR BASE IS MADE OF INSULATING MATERIAL

- THE DETAILED CONNECTION DIAGRAM IS BINDING FOR THE DESIGNATION OF THE CONNECTION CONTACTS AND PHASES
- C-C REFER TO 10016570
- FOR INHERENT DRAWINGS REFER TO 10009731
- D-D - TYPE WITH CONNECTING LEAD 3W/3G REFER TO 10017264

| | | | | | |
|--------|------------|--------------|--------------|--------------|--------------------|
| DATE | 19.10.2016 | NAME | CTETPRAKTIK2 | DOCUMENT NO. | SED 5095203 001 02 |
| DFTR. | 20.10.2016 | CHKD. | HILTNER | CHANGE NO. | 1077337 |
| STAND. | 20.10.2016 | PRODASTSCHUK | | SCALE | 1:10 |

DIMENSION IN mm EXCEPT AS NOTED



ON-LOAD TAP-CHANGER OILTAP® R
 R1201-72,5...362-RE
 DIMENSION DRAWING

| | |
|-----------------|-------|
| SERIAL NUMBER | |
| MATERIAL NUMBER | SHEET |
| 100173930E | 1/2 |

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OILTAP® R

| SELECTOR SIZE | | RE | | | | | |
|--------------------|---|------|------|-------|-------|-------|-------|
| Um [kV] | | 72,5 | 123 | 170 | 245 | 300 | 362 |
| DIMENSIONS [mm] | h | 2185 | 2315 | 2415 | 2515 | 2661 | 2791 |
| | b | 592 | 592 | 592 | 592 | 592 | 592 |
| | i | 1315 | 1445 | 1545 | 1645 | 1791 | 1921 |
| | s | - | - | 324 | 424 | 529 | 600 |
| | z | - | - | 191 | 191 | 191 | 228 |
| | x | - | - | ∅ 620 | ∅ 620 | ∅ 620 | ∅ 695 |
| | y | - | - | ∅ 56 | ∅ 56 | ∅ 56 | ∅ 100 |
| | k | 870 | | | | | |
| | n | 400 | | | | | |
| | o | - | | | | | |
| | t | 290 | | | | | |
| | p | - | | | | | |
| | r | - | | | | | |
| | q | 690 | | | | | |
| OIL VOLUME [dm³] | | 168 | 188 | 203 | 218 | 240 | 255 |
| DISPLACEMENT [dm³] | | 278 | 301 | 329 | 347 | 373 | 417 |
| MAX. WEIGHT [kg] | | 465 | 470 | 475 | 480 | 485 | 490 |

| | | |
|-------------------|--------------|--------------------|
| DATE | NAME | DOCUMENT NO. |
| 19.10.2016 | CTETPRAKTIK2 | SED 5095203 001 02 |
| CHKD. 20.10.2016 | HILTNER | CHANGE NO. |
| STAND. 20.10.2016 | PRODASTSCHUK | 1077337 |
| | | SCALE |
| | | 1:10 |

DIMENSION
IN mm
EXCEPT AS
NOTED



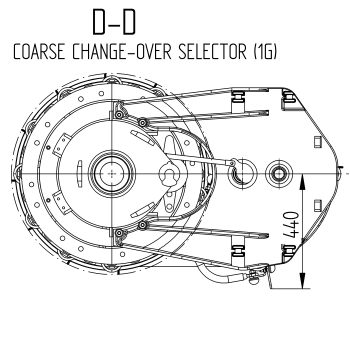
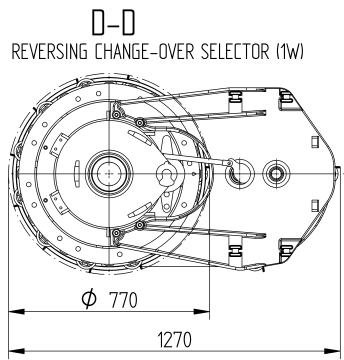
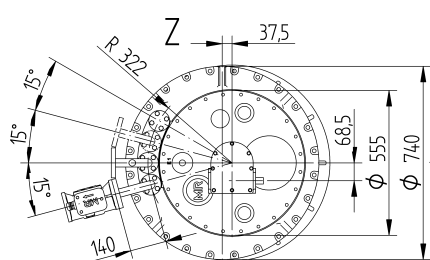
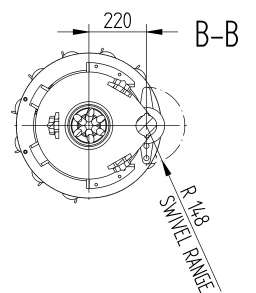
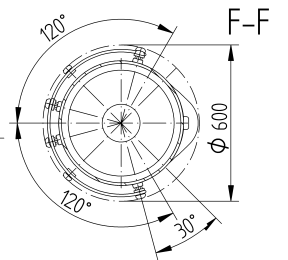
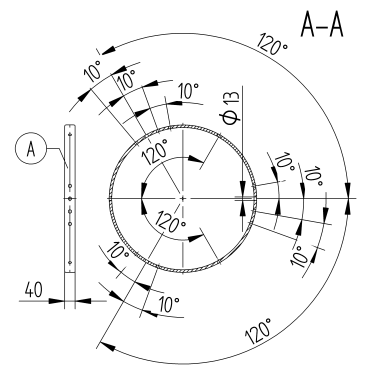
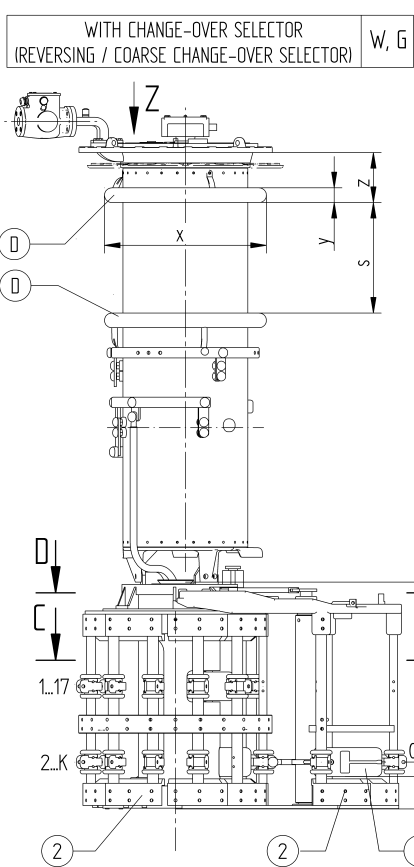
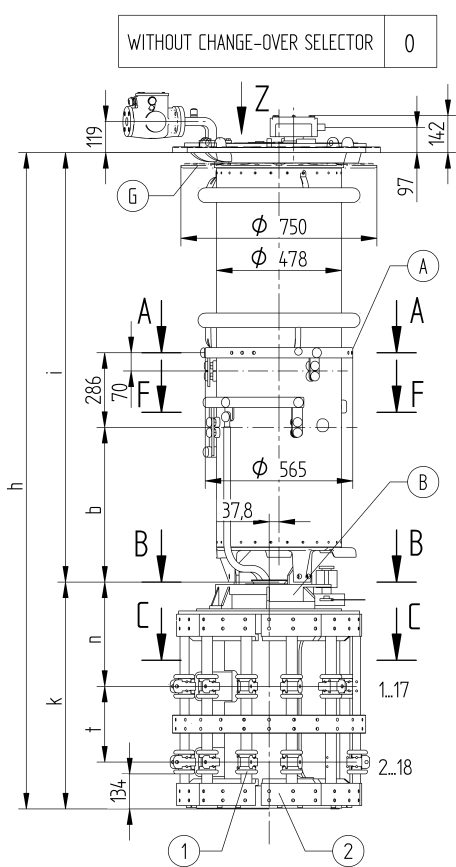
ON-LOAD TAP-CHANGER OILTAP® R
R11201-72,5...362-RE
DIMENSION DRAWING

SERIAL NUMBER

MATERIAL NUMBER
100173930E

SHEET
2/2

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FOR THE TYPE OF OLTC-HEAD REFER TO THE ORDER-SPECIFIC DRAWING OF THE OLTC-HEAD AND DRIVE SHAFTS

- (M) - DRIVE SIDE OF SELECTOR
- (A) - ON-LOAD TAP-CHANGER CURRENT TAKE-OFF TERMINAL
- (B) - IS CONNECTED TO POTENTIAL OF (A)
- (D) - SHIELDING RINGS FOR UM OF 170 kV OR GREATER
- (G) - SUPPORTING FLANGE FOR BELL-TYPE TANK INSTALLATION
 WITH 72.5kV-300kV AVAILABLE
 WITH 362kV OBLIGATORY
- (1) - BOTTOM-MOST LIVE PARTS, THESE ARE CONNECTED TO THE POTENTIAL OF THE ASSOCIATED AND/OR WIRED CONNECTION CONTACT
- (2) - SELECTOR BASE IS MADE OF INSULATING MATERIAL

- THE DETAILED CONNECTION DIAGRAM IS BINDING FOR THE DESIGNATION OF THE CONNECTION CONTACTS AND PHASES
- C-C REFER TO 10016570
- FOR INHERENT DRAWINGS REFER TO 10009731
- D-D - TYPE WITH CONNECTING LEAD 3W/3G REFER TO 10017264

| | |
|--------------|--------------------|
| DOCUMENT NO. | SED 5103577 001 02 |
| NAME | CTETPRAKTIK2 |
| DATE | 19.10.2016 |
| CHKD. | 20.10.2016 |
| SCALE | 1:10 |
| CHANG. NO. | 1077337 |
| STAND. | 20.10.2016 |
| | PRODASTSCHUK |

DIMENSION IN mm EXCEPT AS NOTED



ON-LOAD TAP-CHANGER OILTAP® R
 R11202-72.5...362-RE
 DIMENSION DRAWING

| | |
|-----------------|-------|
| SERIAL NUMBER | |
| MATERIAL NUMBER | SHEET |
| 100175100E | 1/2 |

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OILTAP® R

| SELECTOR SIZE | | RE | | | | | |
|--------------------|---|------|------|-------|-------|-------|-------|
| Um [kV] | | 72,5 | 123 | 170 | 245 | 300 | 362 |
| DIMENSIONS [mm] | h | 2185 | 2315 | 2415 | 2515 | 2661 | 2791 |
| | b | 592 | 592 | 592 | 592 | 592 | 592 |
| | i | 1315 | 1445 | 1545 | 1645 | 1791 | 1921 |
| | s | - | - | 324 | 424 | 529 | 600 |
| | z | - | - | 191 | 191 | 191 | 228 |
| | x | - | - | ∅ 620 | ∅ 620 | ∅ 620 | ∅ 695 |
| | y | - | - | ∅ 56 | ∅ 56 | ∅ 56 | ∅ 100 |
| | k | 870 | | | | | |
| | n | 400 | | | | | |
| | o | - | | | | | |
| | t | 290 | | | | | |
| | p | - | | | | | |
| | r | - | | | | | |
| | q | 690 | | | | | |
| OIL VOLUME [dm³] | | 168 | 188 | 203 | 218 | 240 | 255 |
| DISPLACEMENT [dm³] | | 278 | 301 | 329 | 347 | 373 | 417 |
| MAX. WEIGHT [kg] | | 465 | 470 | 475 | 480 | 485 | 490 |

| DATE | NAME | DOCUMENT NO. |
|-------------------|--------------|--------------------|
| DFTR. 19.10.2016 | CTETPRAKTIK2 | SED 5103577 001 02 |
| CHKD. 20.10.2016 | HILTNER | CHANGE NO. |
| STAND. 20.10.2016 | PRODASTSCHUK | 1077337 |
| | | SCALE |
| | | 1:10 |

DIMENSION
IN mm
EXCEPT AS
NOTED



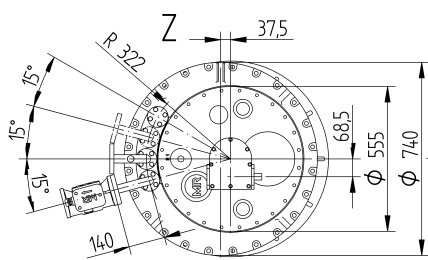
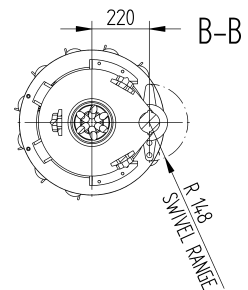
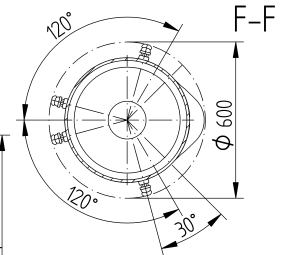
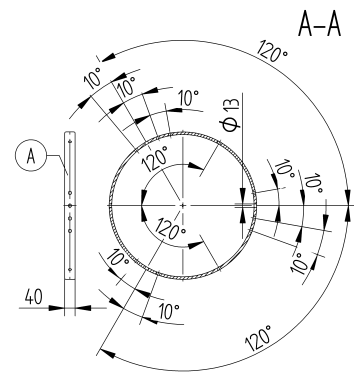
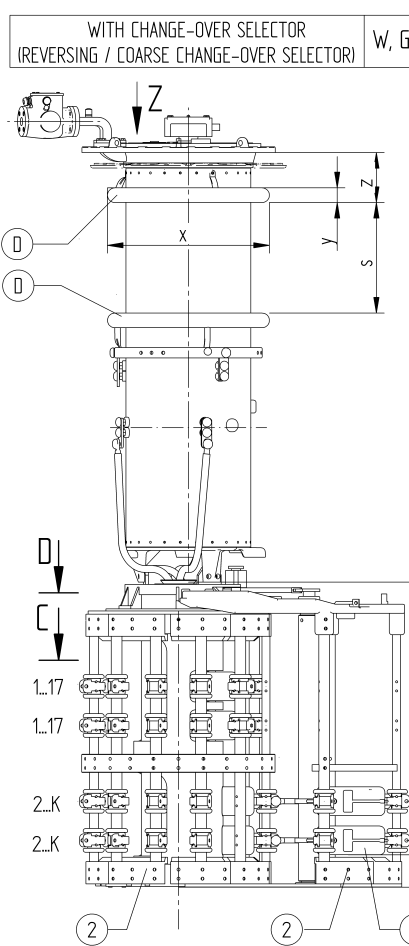
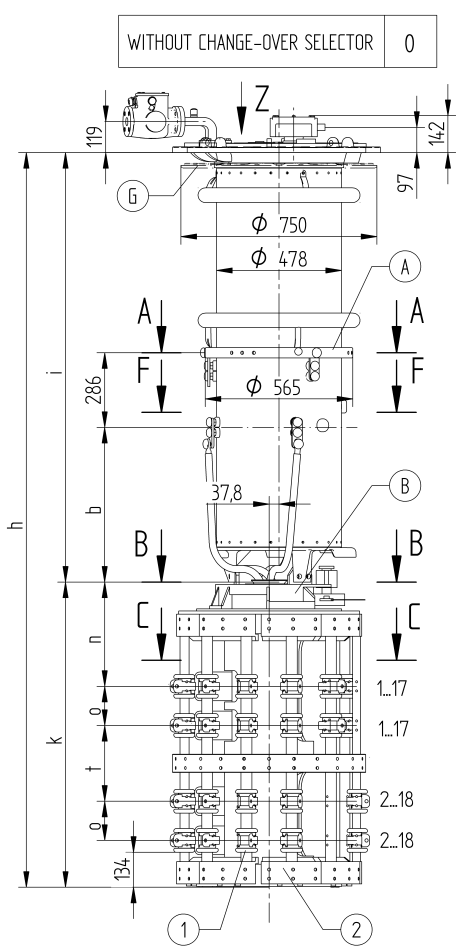
ON-LOAD TAP-CHANGER OILTAP® R
R11202-72,5...362-RE
DIMENSION DRAWING

SERIAL NUMBER

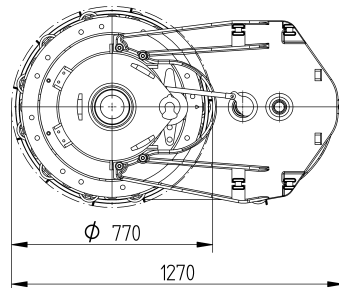
MATERIAL NUMBER
100175100E

SHEET
2/2

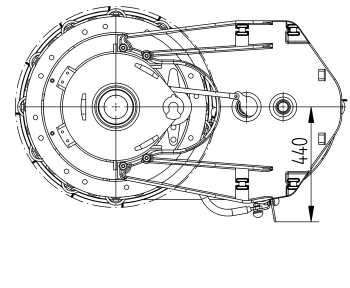
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D-D REVERSING CHANGE-OVER SELECTOR (1W)



D-D COARSE CHANGE-OVER SELECTOR (1G)



FOR THE TYPE OF OLTC-HEAD REFER TO THE ORDER-SPECIFIC DRAWING OF THE OLTC-HEAD AND DRIVE SHAFTS

- (M) - DRIVE SIDE OF SELECTOR
- (A) - ON-LOAD TAP-CHANGER CURRENT TAKE-OFF TERMINAL
- (B) - IS CONNECTED TO POTENTIAL OF (A)
- (D) - SHIELDING RINGS FOR UM OF 170 kV OR GREATER
- (G) - SUPPORTING FLANGE FOR BELL-TYPE TANK INSTALLATION
WITH 72.5kV-300kV AVAILABLE
WITH 362kV OBLIGATORY
- (1) - BOTTOM-MOST LIVE PARTS, THESE ARE CONNECTED TO THE POTENTIAL OF THE ASSOCIATED AND/OR WIRED CONNECTION CONTACT
- (2) - SELECTOR BASE IS MADE OF INSULATING MATERIAL

- THE DETAILED CONNECTION DIAGRAM IS BINDING FOR THE DESIGNATION OF THE CONNECTION CONTACTS AND PHASES
- C-C REFER TO 10016570
- FOR INHERENT DRAWINGS REFER TO 10009731
- D-D - TYPE WITH CONNECTING LEAD 3W/3G REFER TO 10017264

| | | | |
|--------|------------|--------------|--------------------|
| DATE | 19.10.2016 | DOCUMENT NO. | SED 5103934-001 02 |
| DFTR. | 20.10.2016 | NAME | CTETPRAKTIK2 |
| CHKD. | 20.10.2016 | HILFNER | 1077337 |
| STAND. | 20.10.2016 | PRODASTSCHUK | SCALE 1:10 |

DIMENSION IN mm EXCEPT AS NOTED



ON-LOAD TAP-CHANGER OILTAP® R
 RI2402-72,5...362-RE - WITH FORCED CURRENT SPLITTING
 DIMENSION DRAWING

SERIAL NUMBER

MATERIAL NUMBER 100175080E SHEET 1/2

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OILTAP® R

| SELECTOR SIZE | | RE | | | | | |
|--------------------|---|------|------|-------|-------|-------|-------|
| Um [kV] | | 72,5 | 123 | 170 | 245 | 300 | 362 |
| DIMENSIONS [mm] | h | 2485 | 2615 | 2715 | 2815 | 2961 | 3091 |
| | b | 592 | 592 | 592 | 592 | 592 | 592 |
| | i | 1315 | 1445 | 1545 | 1645 | 1791 | 1921 |
| | s | - | - | 324 | 424 | 529 | 600 |
| | z | - | - | 191 | 191 | 191 | 228 |
| | x | - | - | ∅ 620 | ∅ 620 | ∅ 620 | ∅ 695 |
| | y | - | - | ∅ 56 | ∅ 56 | ∅ 56 | ∅ 100 |
| | k | 1170 | | | | | |
| | n | 400 | | | | | |
| | o | 150 | | | | | |
| | t | 290 | | | | | |
| | p | - | | | | | |
| | r | 150 | | | | | |
| | q | 840 | | | | | |
| OIL VOLUME [dm³] | | 168 | 188 | 203 | 218 | 240 | 255 |
| DISPLACEMENT [dm³] | | 297 | 320 | 348 | 366 | 392 | 436 |
| MAX. WEIGHT [kg] | | 536 | 541 | 546 | 551 | 556 | 561 |

| | | | |
|--------|------------|--------------|--------------------|
| DFTR. | DATE | NAME | DOCUMENT NO. |
| CHKD. | 19.10.2016 | CTETPRAKTIK2 | SED 5103934-001 02 |
| STAND. | 20.10.2016 | HILTNER | CHANGE NO. |
| | 20.10.2016 | PRODASTSCHUK | 1077337 |
| | | | SCALE |
| | | | 1:10 |

DIMENSION
 IN mm
 EXCEPT AS
 NOTED



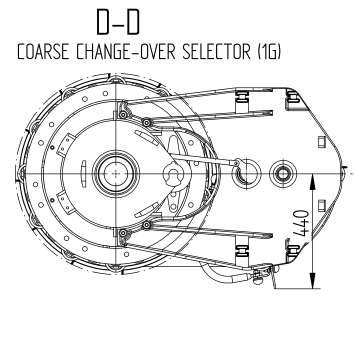
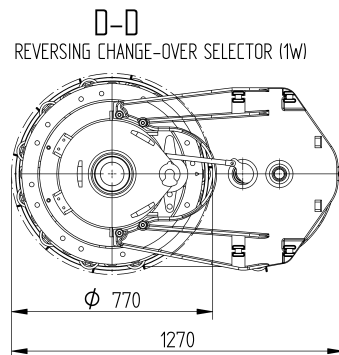
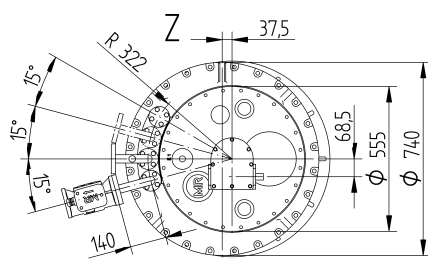
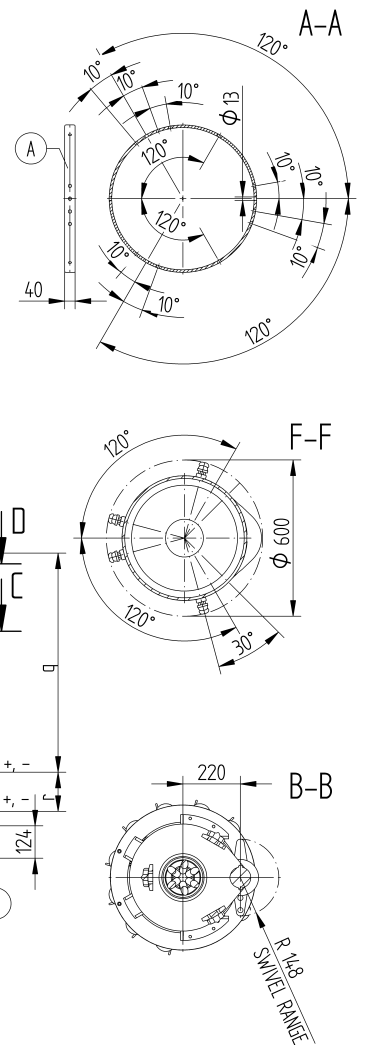
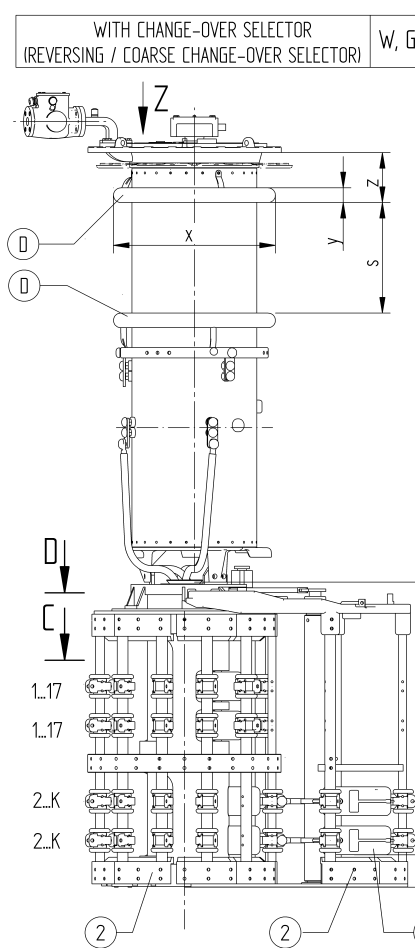
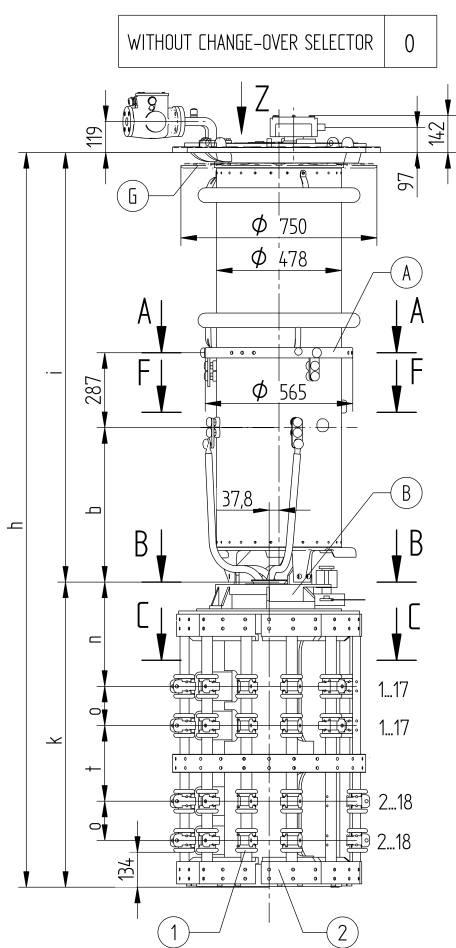
ON-LOAD TAP-CHANGER OILTAP® R
 RI2402-72,5...362-RE - WITH FORCED CURRENT SPLITTING
 DIMENSION DRAWING

SERIAL NUMBER

MATERIAL NUMBER
 100175080E

SHEET
 2/2

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FOR THE TYPE OF OLTC-HEAD REFER TO THE ORDER-SPECIFIC DRAWING OF THE OLTC-HEAD AND DRIVE SHAFTS

- (M) - DRIVE SIDE OF SELECTOR
- (A) - ON-LOAD TAP-CHANGER CURRENT TAKE-OFF TERMINAL
- (B) - IS CONNECTED TO POTENTIAL OF (A)
- (D) - SHIELDING RINGS FOR UM OF 170 kV OR GREATER
- (G) - SUPPORTING FLANGE FOR BELL-TYPE TANK INSTALLATION
 WITH 72.5kV-300kV AVAILABLE
 WITH 362kV OBLIGATORY
- (1) - BOTTOM-MOST LIVE PARTS, THESE ARE CONNECTED TO THE POTENTIAL OF THE ASSOCIATED AND/OR WIRED CONNECTION CONTACT
- (2) - SELECTOR BASE IS MADE OF INSULATING MATERIAL

- THE DETAILED CONNECTION DIAGRAM IS BINDING FOR THE DESIGNATION OF THE CONNECTION CONTACTS AND PHASES
- C-C REFER TO 10016570
- FOR INHERENT DRAWINGS REFER TO 10009731
- D-D - TYPE WITH CONNECTING LEAD 3W/3G REFER TO 10017264

| | | | | | |
|--------|------------|--------------|--------------|--------------|--------------------|
| DATE | 19.10.2016 | NAME | CTETPRAKTIK2 | DOCUMENT NO. | SED 5101823 001 02 |
| DFTR. | 20.10.2016 | CHKD. | HILTNER | CHANGE NO. | 1077337 |
| STAND. | 20.10.2016 | PRODASTSCHUK | | SCALE | 1:10 |

DIMENSION IN mm EXCEPT AS NOTED



ON-LOAD TAP-CHANGER OILTAP® R
 R12002-72.5...362-RE
 DIMENSION DRAWING

SERIAL NUMBER

| | |
|-----------------|-------|
| MATERIAL NUMBER | SHEET |
| 100174780E | 1/2 |

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OILTAP® R

| SELECTOR SIZE | | RE | | | | | |
|--------------------|---|------|------|-------|-------|-------|-------|
| Um [kV] | | 72,5 | 123 | 170 | 245 | 300 | 362 |
| DIMENSIONS [mm] | h | 2485 | 2615 | 2715 | 2815 | 2961 | 3091 |
| | b | 592 | 592 | 592 | 592 | 592 | 592 |
| | i | 1315 | 1445 | 1545 | 1645 | 1791 | 1921 |
| | s | - | - | 324 | 424 | 529 | 600 |
| | z | - | - | 191 | 191 | 191 | 228 |
| | x | - | - | ∅ 620 | ∅ 620 | ∅ 620 | ∅ 695 |
| | y | - | - | ∅ 56 | ∅ 56 | ∅ 56 | ∅ 100 |
| | k | 1170 | | | | | |
| | n | 400 | | | | | |
| | o | 150 | | | | | |
| | t | 290 | | | | | |
| | p | - | | | | | |
| | r | 150 | | | | | |
| | q | 840 | | | | | |
| OIL VOLUME [dm³] | | 168 | 188 | 203 | 218 | 240 | 255 |
| DISPLACEMENT [dm³] | | 297 | 320 | 348 | 366 | 392 | 436 |
| MAX. WEIGHT [kg] | | 536 | 541 | 546 | 551 | 556 | 561 |

| | | | |
|--------|------------|--------------|--------------------|
| DFTR. | DATE | NAME | DOCUMENT NO. |
| CHKD. | 19.10.2016 | CTETPRAKTIK2 | SED 5101823 001 02 |
| STAND. | 20.10.2016 | HILTNER | CHANGE NO. |
| | 20.10.2016 | PRODASTSCHUK | 1077337 |
| | | | SCALE |
| | | | 1:10 |

DIMENSION
IN mm
EXCEPT AS
NOTED



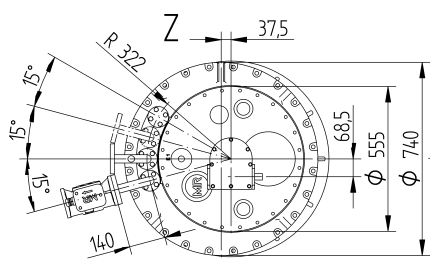
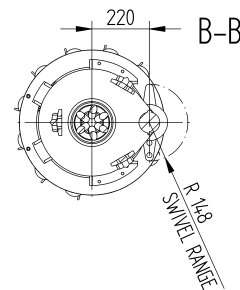
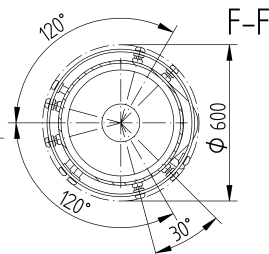
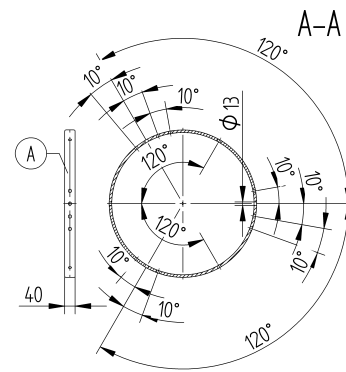
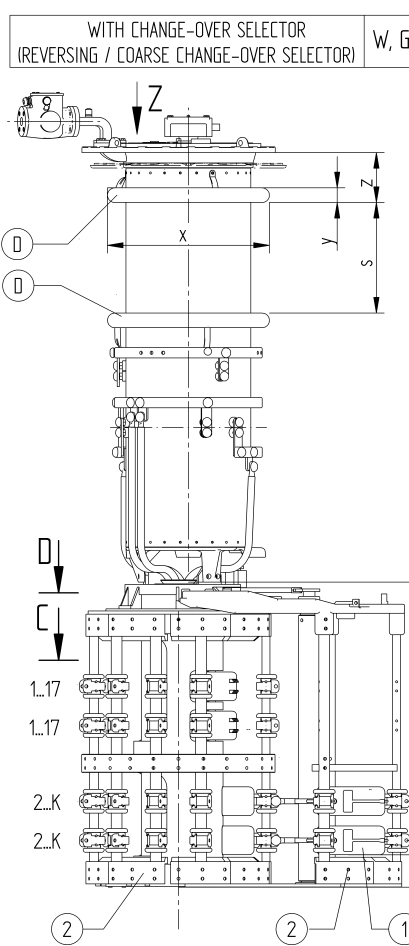
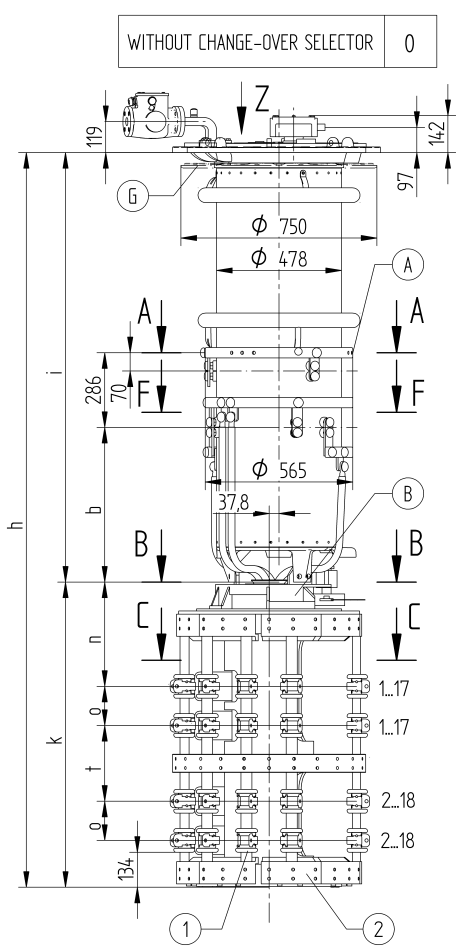
ON-LOAD TAP-CHANGER OILTAP® R
R12002-72,5...362-RE
DIMENSION DRAWING

SERIAL NUMBER

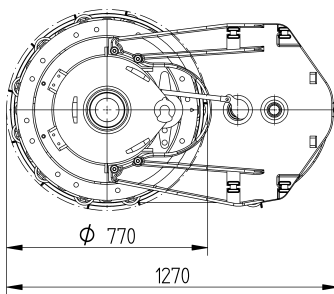
MATERIAL NUMBER
100174780E

SHEET
2/2

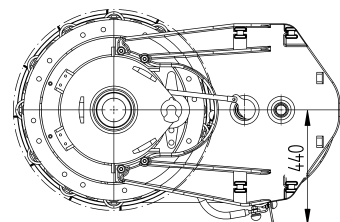
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D-D REVERSING CHANGE-OVER SELECTOR (1W)



D-D COARSE CHANGE-OVER SELECTOR (1G)



FOR THE TYPE OF OLTC-HEAD REFER TO THE ORDER-SPECIFIC DRAWING OF THE OLTC-HEAD AND DRIVE SHAFTS

- (M) - DRIVE SIDE OF SELECTOR
- (A) - ON-LOAD TAP-CHANGER CURRENT TAKE-OFF TERMINAL
- (B) - IS CONNECTED TO POTENTIAL OF (A)
- (D) - SHIELDING RINGS FOR UM OF 170 kV OR GREATER
- (G) - SUPPORTING FLANGE FOR BELL-TYPE TANK INSTALLATION WITH 72.5kV-300kV AVAILABLE WITH 362kV OBLIGATORY
- (1) - BOTTOM-MOST LIVE PARTS, THESE ARE CONNECTED TO THE POTENTIAL OF THE ASSOCIATED AND/OR WIRED CONNECTION CONTACT
- (2) - SELECTOR BASE IS MADE OF INSULATING MATERIAL

- THE DETAILED CONNECTION DIAGRAM IS BINDING FOR THE DESIGNATION OF THE CONNECTION CONTACTS AND PHASES
- C-C REFER TO 10016570
- FOR INHERENT DRAWINGS REFER TO 10009731
- D-D - TYPE WITH CONNECTING LEAD 3W/3G REFER TO 10017264

| | | | |
|--------|------------|--------------|--------------------|
| DATE | 19.10.2016 | DOCUMENT NO. | SED 5103845 001 02 |
| DFTR. | 19.10.2016 | NAME | CTETPRAKTIK2 |
| CHKD. | 20.10.2016 | CHANGE NO. | HILTNER |
| STAND. | 20.10.2016 | SCALE | 1:10 |
| | | PRODASTSCHUK | 1077337 |

DIMENSION IN mm EXCEPT AS NOTED



ON-LOAD TAP-CHANGER OILTAP® R
 RI2003-72.5...362-RE
 DIMENSION DRAWING

SERIAL NUMBER

MATERIAL NUMBER 100175090E SHEET 1/2

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OILTAP® R

| SELECTOR SIZE | | RE | | | | | |
|--------------------|---|------|------|-------|-------|-------|-------|
| Um [kV] | | 72,5 | 123 | 170 | 245 | 300 | 362 |
| DIMENSIONS [mm] | h | 2485 | 2615 | 2715 | 2815 | 2961 | 3091 |
| | b | 592 | 592 | 592 | 592 | 592 | 592 |
| | i | 1315 | 1445 | 1545 | 1645 | 1791 | 1921 |
| | s | - | - | 324 | 424 | 529 | 600 |
| | z | - | - | 191 | 191 | 191 | 228 |
| | x | - | - | ∅ 620 | ∅ 620 | ∅ 620 | ∅ 695 |
| | y | - | - | ∅ 56 | ∅ 56 | ∅ 56 | ∅ 100 |
| | k | 1170 | | | | | |
| | n | 400 | | | | | |
| | o | 150 | | | | | |
| | t | 290 | | | | | |
| | p | - | | | | | |
| | r | 150 | | | | | |
| | q | 840 | | | | | |
| OIL VOLUME [dm³] | | 168 | 188 | 203 | 218 | 240 | 255 |
| DISPLACEMENT [dm³] | | 297 | 320 | 348 | 366 | 392 | 436 |
| MAX. WEIGHT [kg] | | 536 | 541 | 546 | 551 | 556 | 561 |

| | | | |
|--------|------------|--------------|--------------------|
| DFTR. | DATE | NAME | DOCUMENT NO. |
| CHKD. | 19.10.2016 | CTETPRAKTIK2 | SED 5103845 001 02 |
| STAND. | 20.10.2016 | HILTNER | CHANGE NO. |
| | 20.10.2016 | PRODASTSCHUK | 1077337 |
| | | | SCALE |
| | | | 1:10 |

DIMENSION
 IN mm
 EXCEPT AS
 NOTED



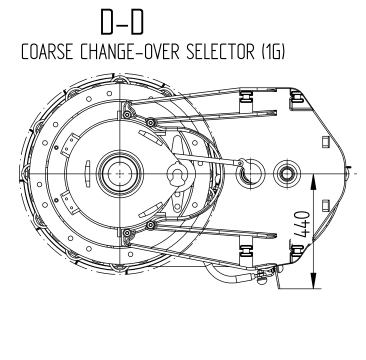
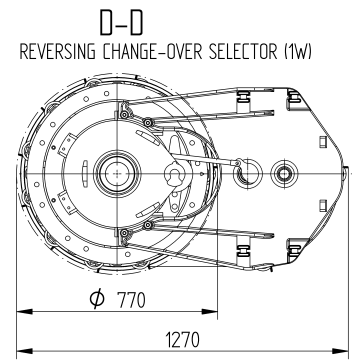
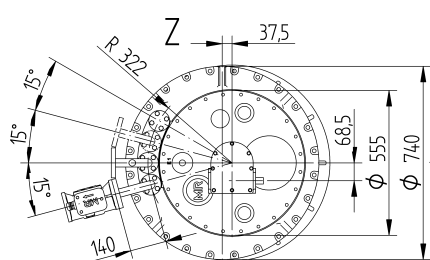
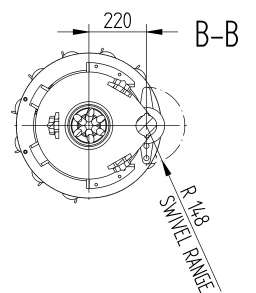
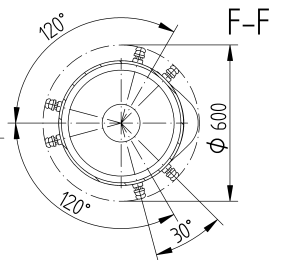
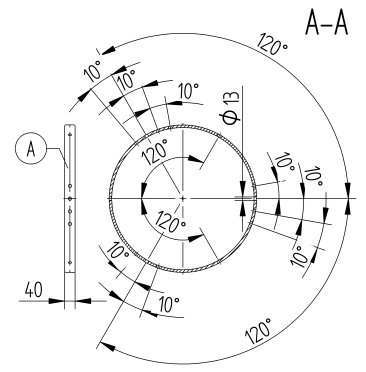
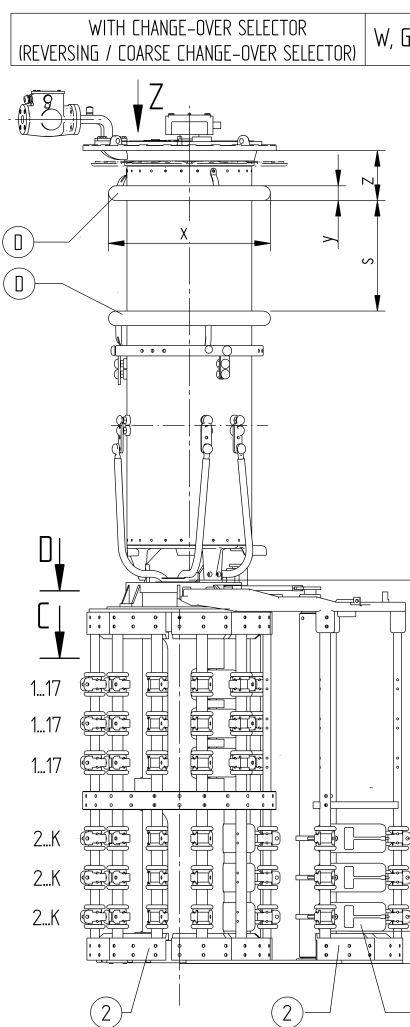
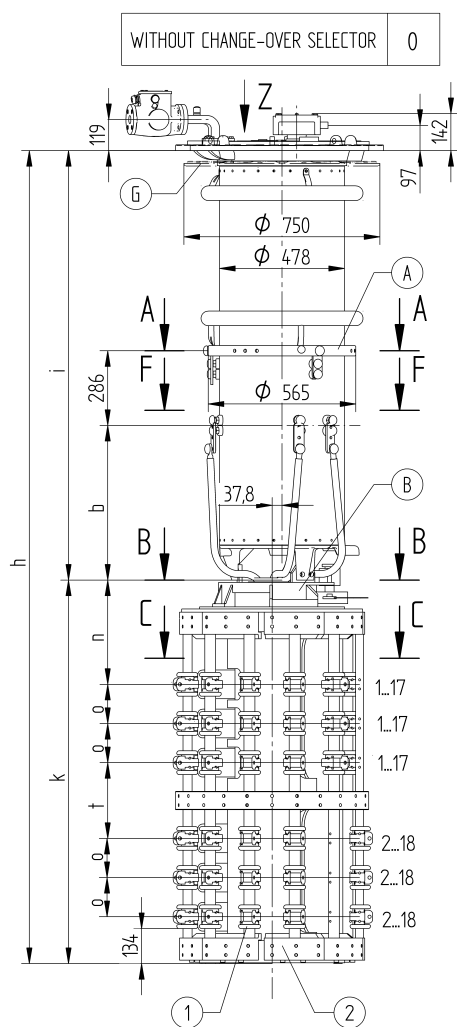
ON-LOAD TAP-CHANGER OILTAP® R
 RI2003-72,5...362-RE
 DIMENSION DRAWING

SERIAL NUMBER

MATERIAL NUMBER
 100175090E

SHEET
 2/2

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FOR THE TYPE OF OLTC-HEAD REFER TO THE ORDER-SPECIFIC DRAWING OF THE OLTC-HEAD AND DRIVE SHAFTS

- (M) - DRIVE SIDE OF SELECTOR
- (A) - ON-LOAD TAP-CHANGER CURRENT TAKE-OFF TERMINAL
- (B) - IS CONNECTED TO POTENTIAL OF (A)
- (D) - SHIELDING RINGS FOR UM OF 170 kV OR GREATER
- (G) - SUPPORTING FLANGE FOR BELL-TYPE TANK INSTALLATION
 WITH 72.5kV-300kV AVAILABLE
 WITH 362kV OBLIGATORY
- (1) - BOTTOM-MOST LIVE PARTS, THESE ARE CONNECTED TO THE POTENTIAL OF THE ASSOCIATED AND/OR WIRED CONNECTION CONTACT
- (2) - SELECTOR BASE IS MADE OF INSULATING MATERIAL

- THE DETAILED CONNECTION DIAGRAM IS BINDING FOR THE DESIGNATION OF THE CONNECTION CONTACTS AND PHASES
- C-C REFER TO 10016570
- FOR INHERENT DRAWINGS REFER TO 10009731
- D-D - TYPE WITH CONNECTING LEAD 3W/3G REFER TO 10017264

| | | | | | |
|--------|------------|--------------|--------------|--------------|--------------------|
| DATE | 19.10.2016 | NAME | CTETPRAKTIK2 | DOCUMENT NO. | SED 5103305 001 02 |
| DFTR. | 20.10.2016 | CHKD. | HILTNER | CHANGE NO. | 1077337 |
| STAND. | 20.10.2016 | PRODASTSCHUK | | SCALE | 1:10 |

DIMENSION IN mm EXCEPT AS NOTED



ON-LOAD TAP-CHANGER OILTAP® R
 R13003-72.5...362-RE
 DIMENSION DRAWING

| | |
|-----------------|-------|
| SERIAL NUMBER | |
| - | |
| MATERIAL NUMBER | SHEET |
| 100174790E | 1/2 |

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OILTAP® R

| SELECTOR SIZE | | RE | | | | | |
|--------------------|---|------|------|-------|-------|-------|-------|
| Um [kV] | | 72,5 | 123 | 170 | 245 | 300 | 362 |
| DIMENSIONS [mm] | h | 2785 | 2915 | 3015 | 3115 | 3261 | 3391 |
| | b | 592 | 592 | 592 | 592 | 592 | 592 |
| | i | 1315 | 1445 | 1545 | 1645 | 1791 | 1921 |
| | s | - | - | 324 | 424 | 529 | 600 |
| | z | - | - | 191 | 191 | 191 | 228 |
| | x | - | - | ∅ 620 | ∅ 620 | ∅ 620 | ∅ 695 |
| | y | - | - | ∅ 56 | ∅ 56 | ∅ 56 | ∅ 100 |
| | k | 1470 | | | | | |
| | n | 400 | | | | | |
| | o | 150 | | | | | |
| | t | 290 | | | | | |
| | p | - | | | | | |
| | r | 150 | | | | | |
| | q | 990 | | | | | |
| OIL VOLUME [dm³] | | 168 | 188 | 203 | 218 | 240 | 255 |
| DISPLACEMENT [dm³] | | 314 | 337 | 355 | 383 | 409 | 453 |
| MAX. WEIGHT [kg] | | 606 | 611 | 616 | 621 | 626 | 631 |

| | | |
|-------------------|--------------|--------------------|
| DATE | NAME | DOCUMENT NO. |
| 19.10.2016 | CTETPRAKTIK2 | SED 5103305 001 02 |
| CHKD. 20.10.2016 | HILTNER | CHANGE NO. |
| STAND. 20.10.2016 | PRODASTSCHUK | 1077337 |
| | | SCALE |
| | | 1:10 |

DIMENSION
 IN mm
 EXCEPT AS
 NOTED



ON-LOAD TAP-CHANGER OILTAP® R
 R13003-72,5...362-RE
 DIMENSION DRAWING

SERIAL NUMBER

MATERIAL NUMBER
 100174790E

SHEET
 2/2



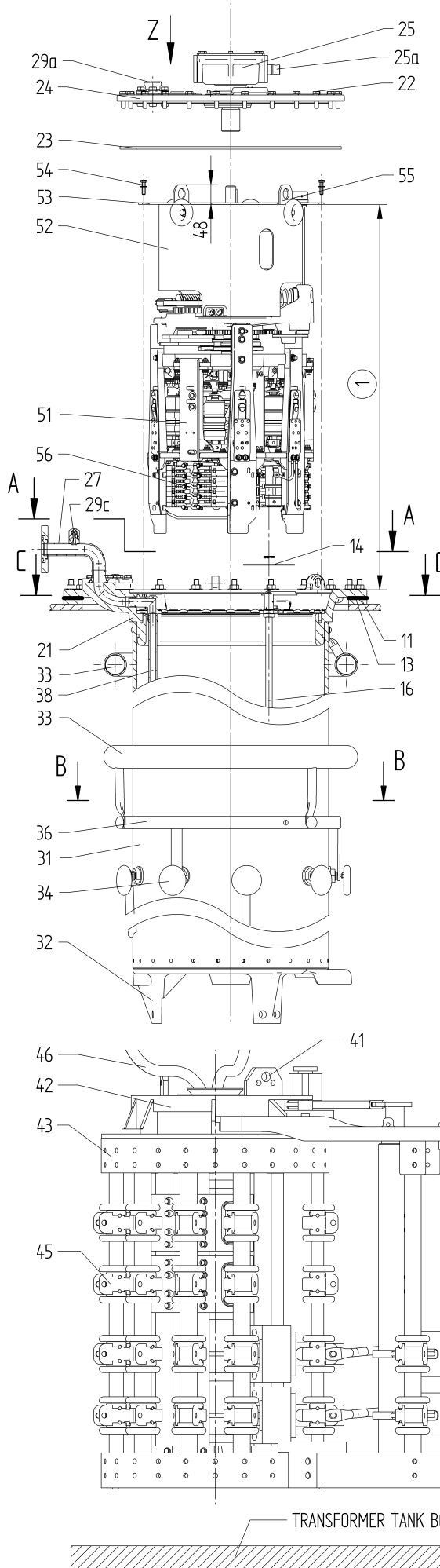
5.5 VACUTAP® VM®、OILTAP® M 和 OILTAP® R 的安装图

5.5 VACUTAP® VM®、OILTAP® M 和 OILTAP® R 的安装图

5.5 VACUTAP® VM®、OILTAP® M 和 OILTAP® R 的安装图



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- 11 MOUNTING FLANGE ON TRANSFORMER COVER
- 12 FIXING SCREW M12
- 13 ON-LOAD TAP-CHANGER HEAD GASKET
- 14 TAP POSITION INDICATOR
- 15 INSPECTION WINDOW
- 16 DRIVE SHAFT FOR TAP POSITION INDICATOR
- 17 THROUGH-HOLES $\phi 15$ MM

- 21 ON-LOAD TAP-CHANGER HEAD
- 22 SCREW FOR ON-LOAD TAP-CHANGER HEAD COVER
- 23 GASKET FOR ON-LOAD TAP-CHANGER HEAD COVER
- 24 ON-LOAD TAP-CHANGER HEAD COVER
- 25 CENTRIC GEAR UNIT WITH DRIVE SHAFT 25a
- 26a PIPE CONNECTION R FOR PROTECTIVE RELAY
- 26b PIPE CONNECTION S FOR SUCTION PIPE
- 26c PIPE CONNECTION Q FOR OIL RETURN (WITH OIL FILTER ONLY)
- 27a AIR-VENT VALVE OF ON-LOAD TAP-CHANGER HEAD COVER
- 27b BLEEDING FACILITY FOR TRANSFORMER OIL COMPARTMENT
- 27c VENT SCREW FOR SUCTION PIPE

- 31 OIL COMPARTMENT
- 32 OIL COMPARTMENT BASE
- 33 SCREENING RING (WITH $U_m = 170kV$ TO $300kV$ ONLY)
- 34 OIL COMPARTMENT CONTACT
- 36 ON-LOAD TAP-CHANGER CURRENT TAKE-OFF TERMINAL
- 37 CONNECTION LEAD
- 38 SUCTION PIPE

- 41 SELECTOR SUSPENSION
- 42 SELECTOR GEAR
- 43 TAP SELECTOR
- 44 CHANGE-OVER SELECTOR
- 45 SELECTOR CONNECTION CONTACTS (REFER TO 10009917)
- 46 SELECTOR TAKE-OFF LEAD

- 51 DIVERTER SWITCH INSERT
- 52 SUPPORTING CYLINDER
- 53 BASE PLATE
- 54 FIXING SCREW
- 55 EYEBOLT THROUGH-HOLES $\phi 25$
- 56 TRANSITION RESISTORS

| | |
|--------------------|----------------------------|
| ① | MAXIMUM WITHDRAWAL HEIGHT: |
| | 72,5 kV --- 863 MM |
| | 123 kV --- 993 MM |
| | 170 kV --- 1123 MM |
| | 245 kV --- 1223 MM |
| 300 kV --- 1375 MM | |

Ⓜ DRIVE SIDE OF SELECTOR

| | | |
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| DATE | NAME | DOCUMENT NO. |
| 18.10.2016 | CTETPRAKTIK2 | SED 4320533 001 01 |
| CHKD. 19.10.2016 | HILTNER | CHANGE NO. |
| 20.10.2016 | PRODASTSCHUK | 1077666 |
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 IN mm
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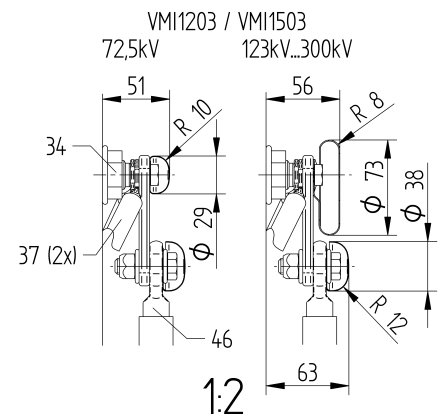
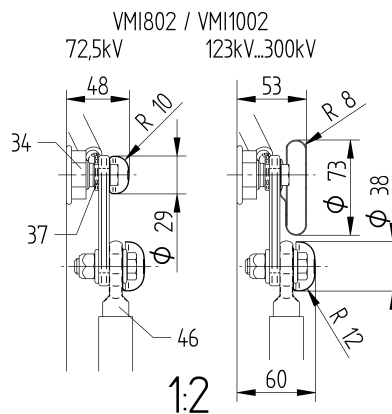
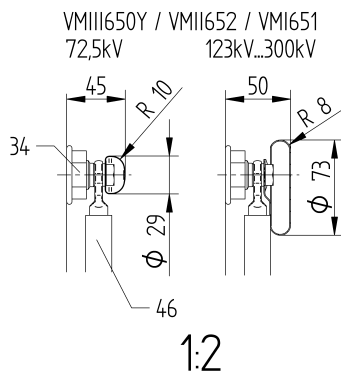
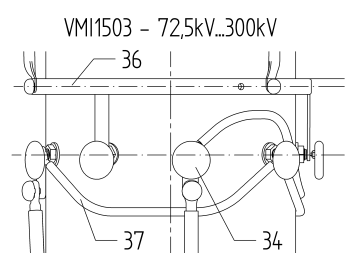
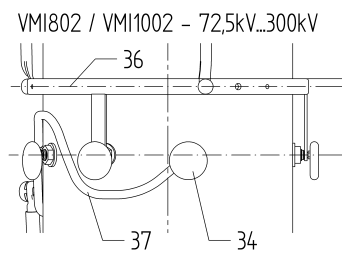
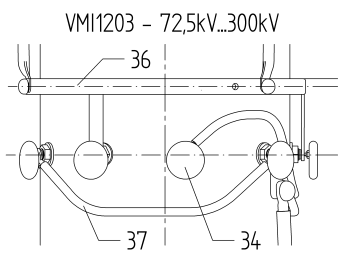
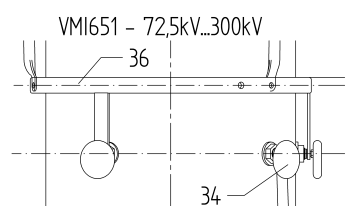
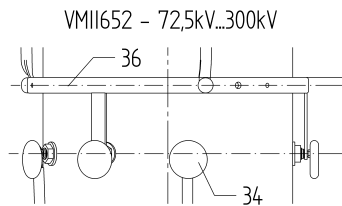
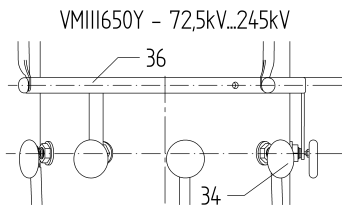
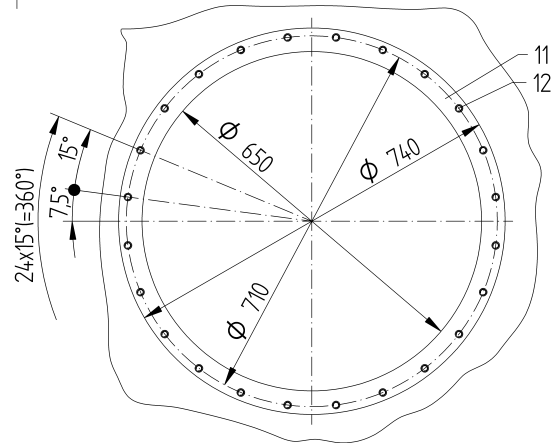
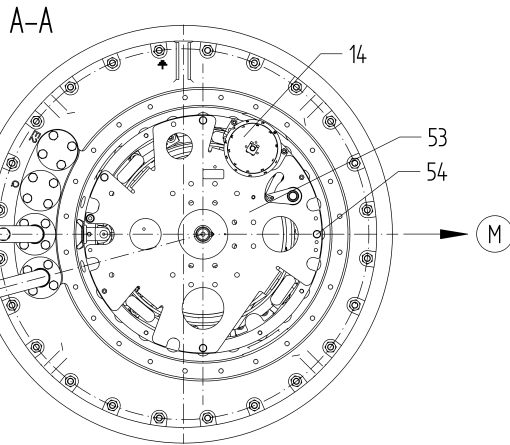
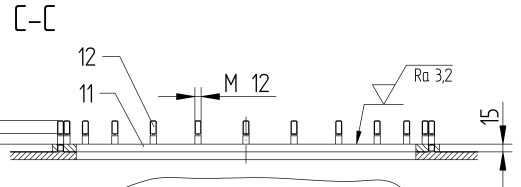
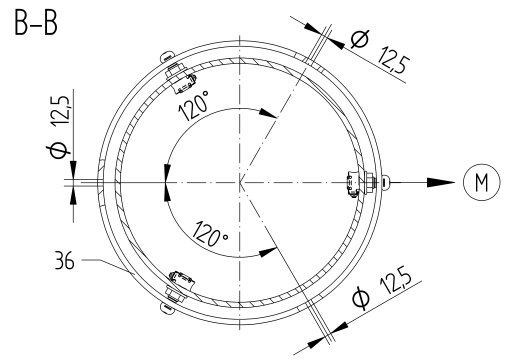
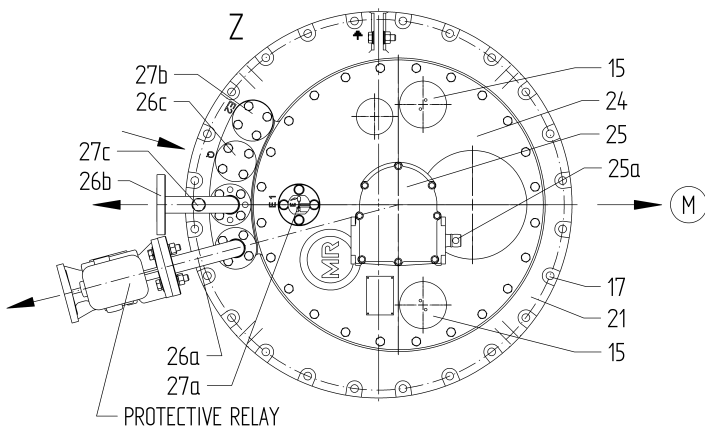


SELECTOR SIZE VACUTAP® VM
 SELECTOR SIZE RC/RD/RDE
 INSTALLATION DRAWING

SERIAL NUMBER

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| MATERIAL NUMBER | SHEET |
| 100099500E | 1/2 |

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| 18.10.2016 | CTETPRAKTIK2 | SED 4320533 001 01 |
| CHKD. | HILTNER | CHANGE NO. |
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| 20.10.2016 | | 1:5 |

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 IN mm
 EXCEPT AS
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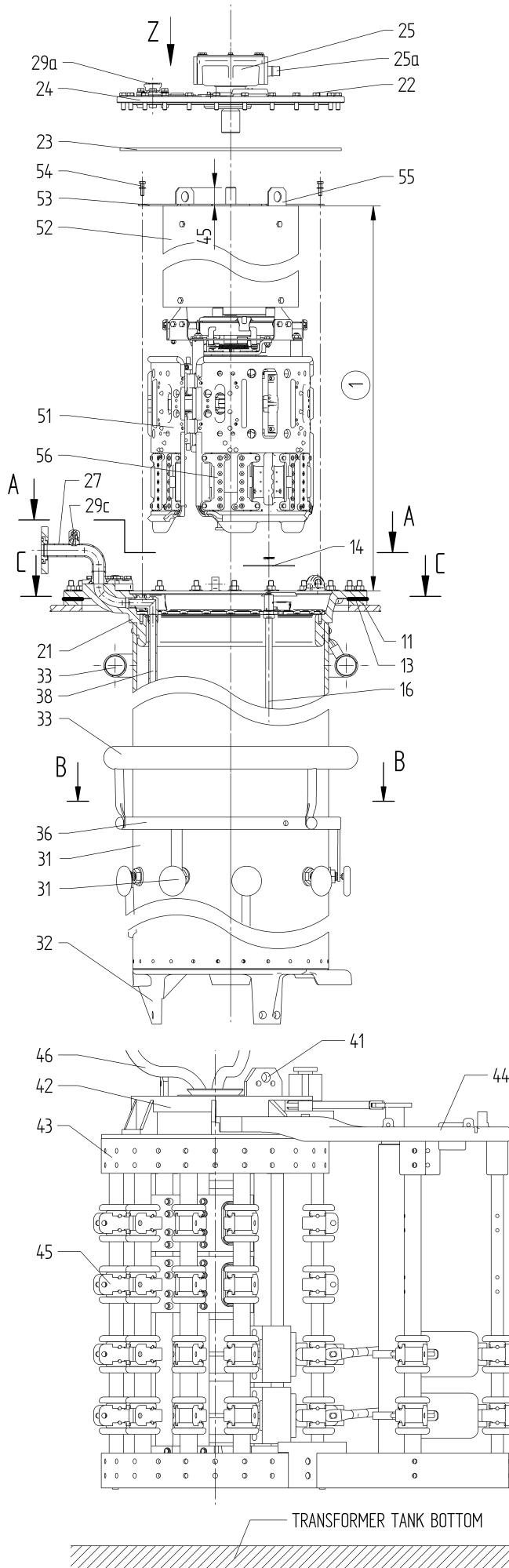
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 INSTALLATION DRAWING

SERIAL NUMBER

MATERIAL NUMBER
 100099500E

SHEET
 2/2

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| | 170 kV ---- 1123 MM |
| | 245 kV ---- 1223 MM |
| 300 kV ---- 1375 MM | |

Ⓜ DRIVE SIDE OF SELECTOR

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| DATE | NAME | DOCUMENT NO. |
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| 17.03.2015 | SCHUSTERT | SCALE |
| 18.03.2015 | KLEYN | 15 |
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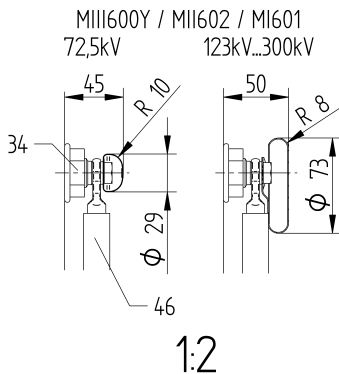
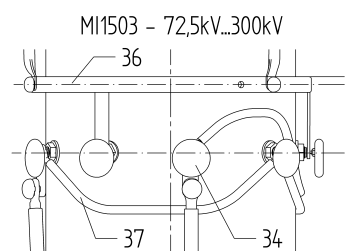
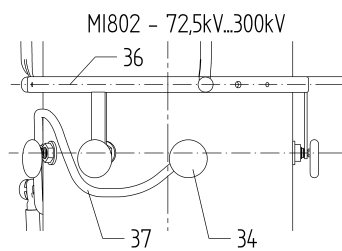
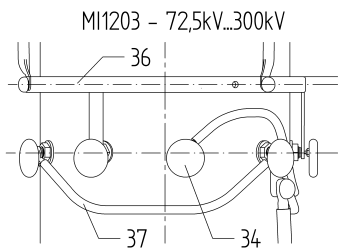
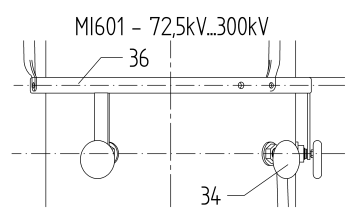
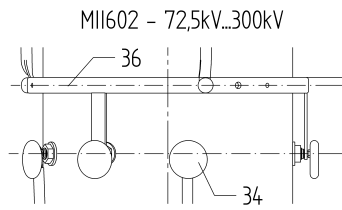
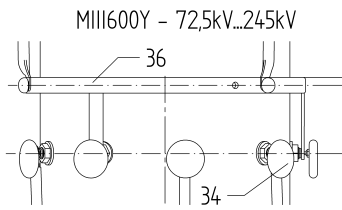
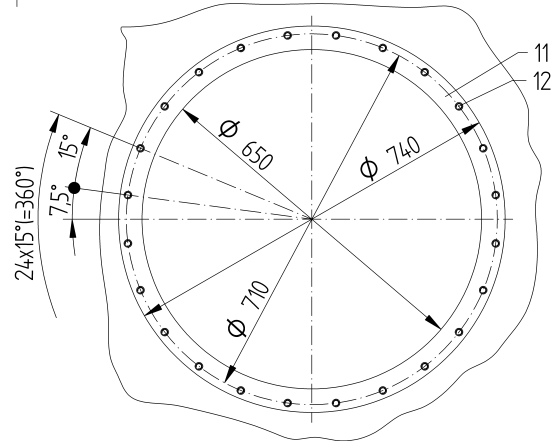
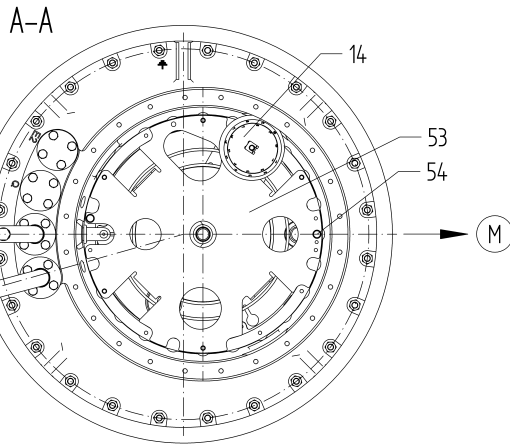
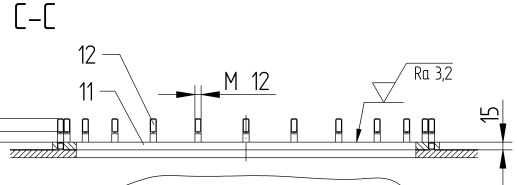
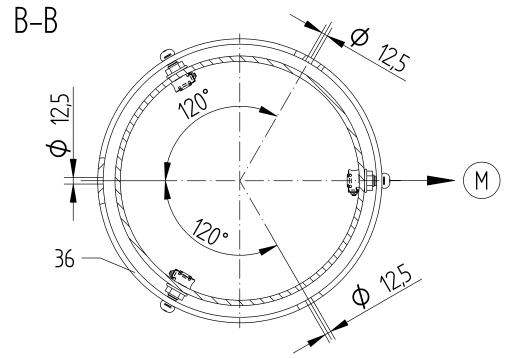
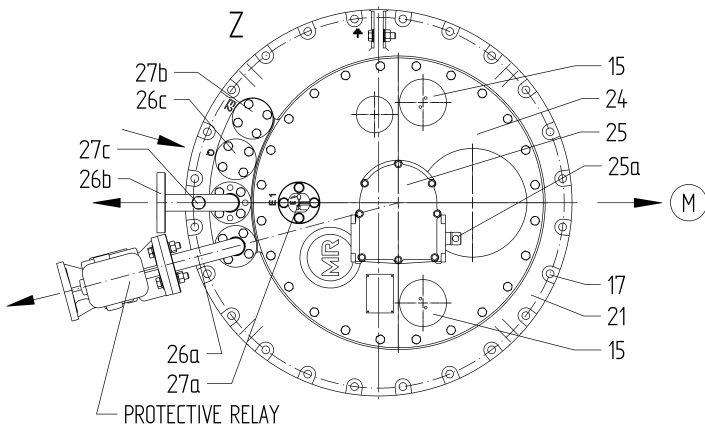


ON-LOAD TAP-CHANGER OILTAP® M
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 INSTALLATION DRAWING

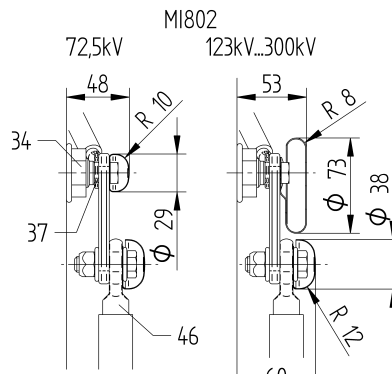
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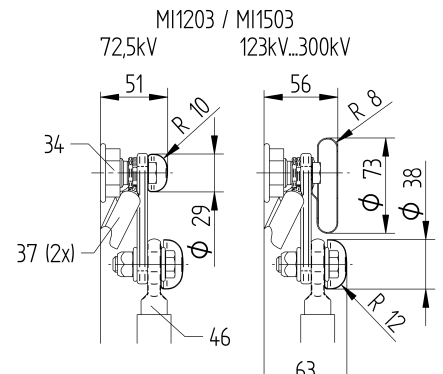
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| DATE | NAME | DOCUMENT NO. |
| 17.03.2015 | DOBLER | SED 4323140 001 00 |
| 17.03.2015 | SCHUSTERT | CHANGE NO. |
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| STAND. | | |

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 IN mm
 EXCEPT AS
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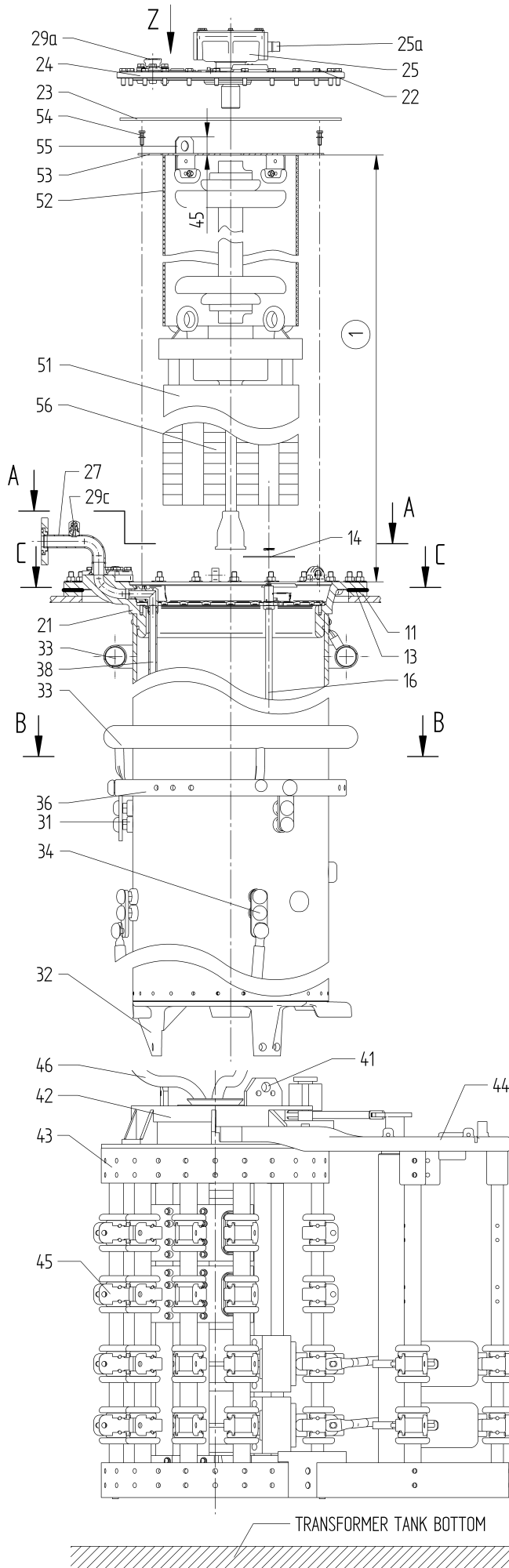
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SERIAL NUMBER

MATERIAL NUMBER
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- 12 FIXING SCREW M12
- 13 ON-LOAD TAP-CHANGER HEAD GASKET
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- 16 DRIVE SHAFT FOR TAP POSITION INDICATOR
- 17 THROUGH-HOLES $\phi 15$ MM

- 21 ON-LOAD TAP-CHANGER HEAD
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- 31 OIL COMPARTMENT
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- 34 OIL COMPARTMENT CONTACT
- 36 ON-LOAD TAP-CHANGER CURRENT TAKE-OFF TERMINAL
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- 56 TRANSITION RESISTORS

| | |
|---------------------|----------------------------|
| ① | MAXIMUM WITHDRAWAL HEIGHT: |
| | 72,5 kV ---- 1350 MM |
| | 123 kV ---- 1480 MM |
| | 170 kV ---- 1580 MM |
| | 245 kV ---- 1680 MM |
| | 300 kV ---- 1826 MM |
| 362 kV ---- 1956 MM | |

② DRIVE SIDE OF SELECTOR

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| DATE | NAME | DOCUMENT NO. |
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| 17.03.2015 | SCHUSTERT | SCALE |
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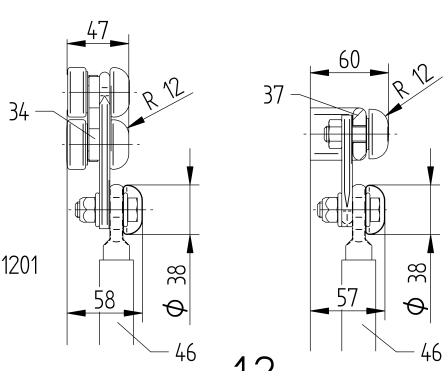
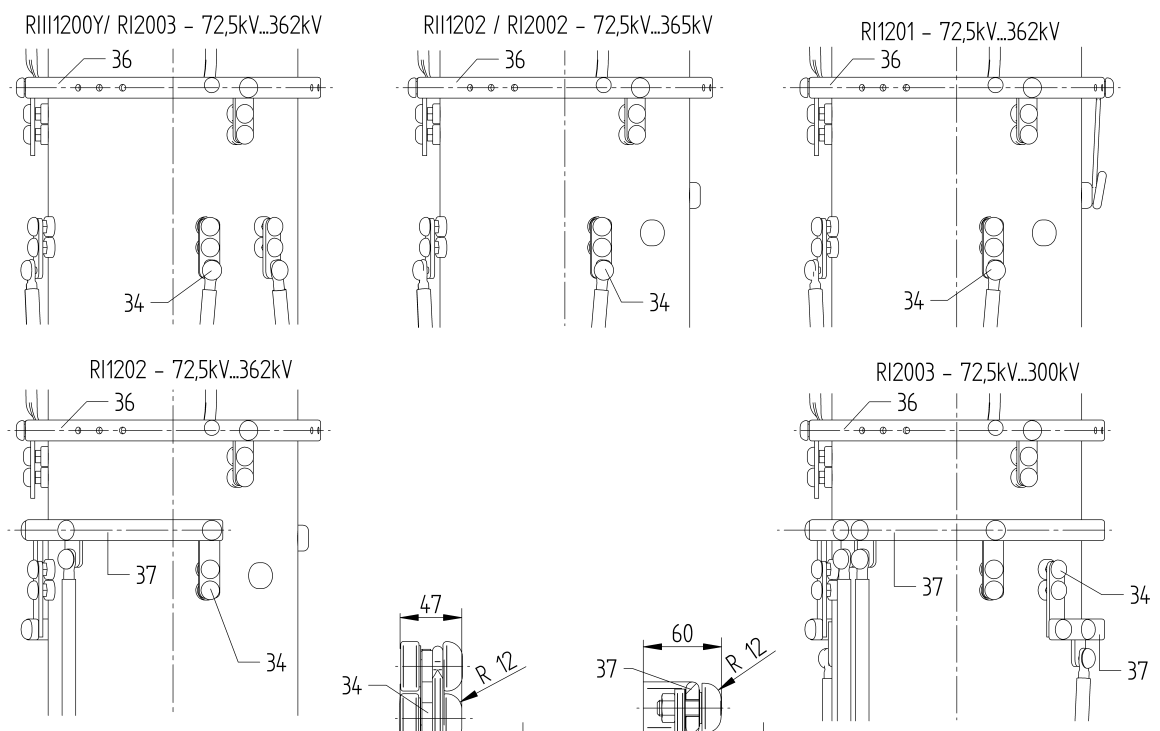
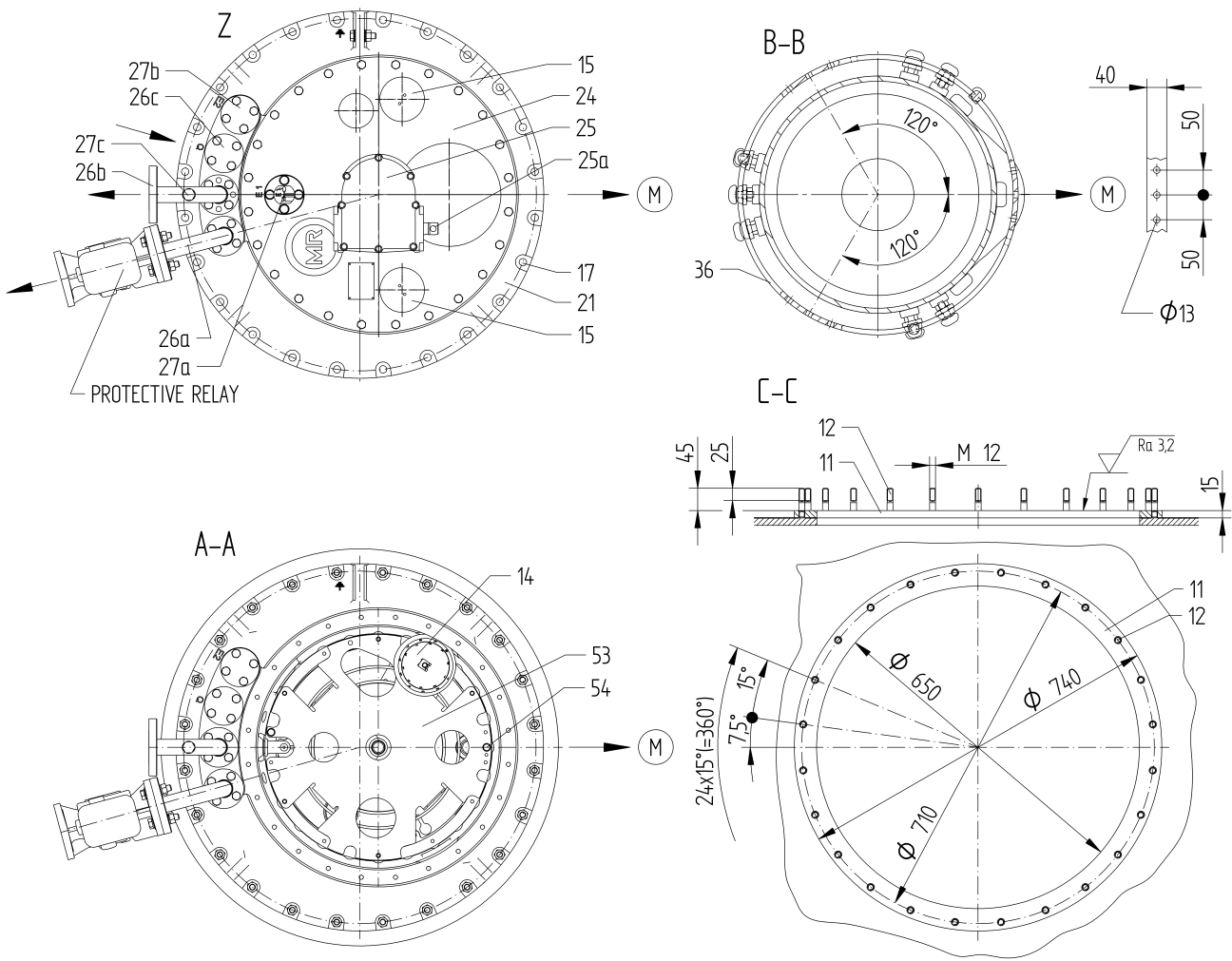


ON-LOAD TAP-CHANGER OILTAP® R
 SELECTOR SIZE RC/RD/RDE
 INSTALLATION DRAWING

SERIAL NUMBER

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ON-LOAD TAP-CHANGER OILTAP® R
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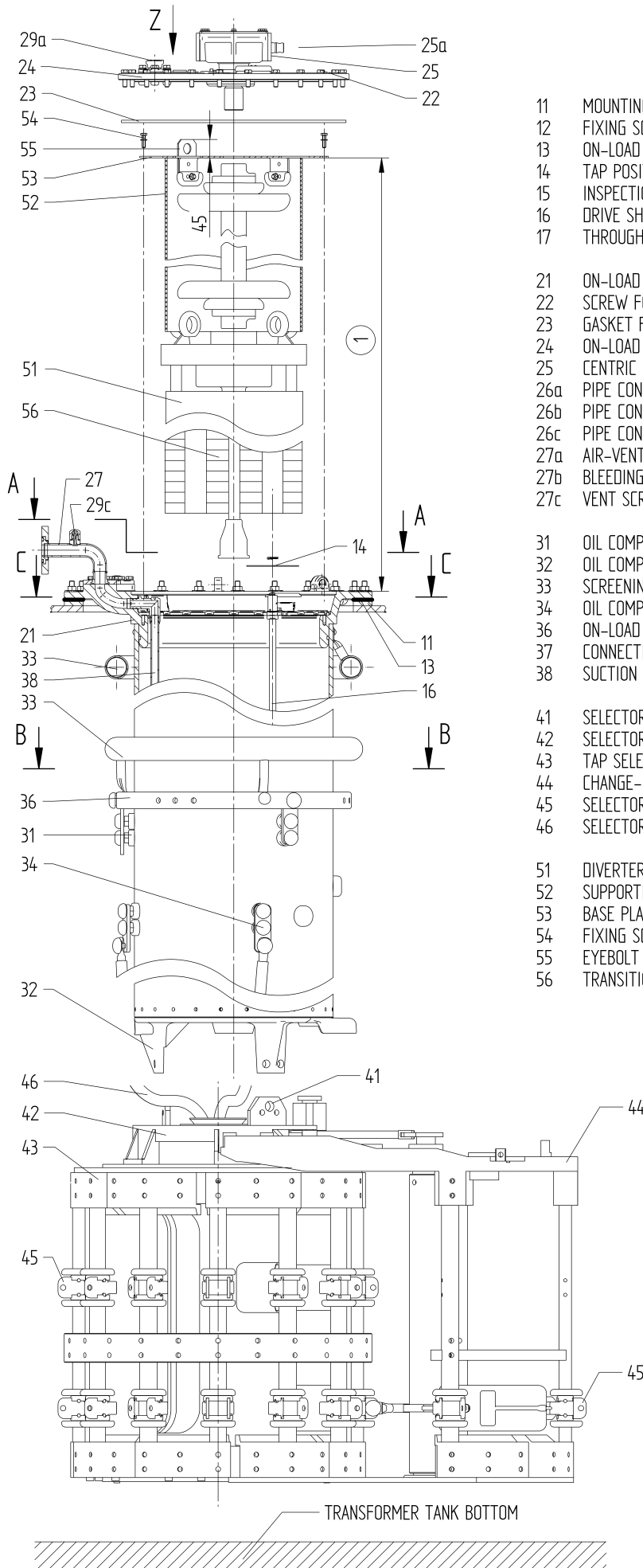
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| 18.03.2015 | KLEYN | 1063412 |
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| 362 kV --- 1956 MM | |

① M DRIVE SIDE OF SELECTOR

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| 27.07.2016 | PRODASTSCHUK | 1075795 |
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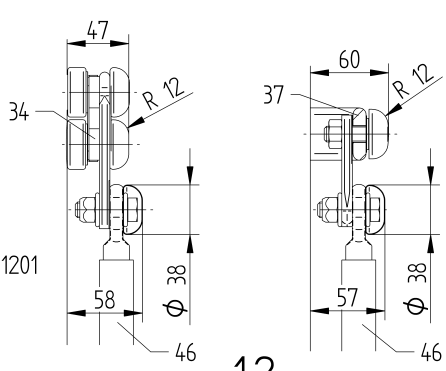
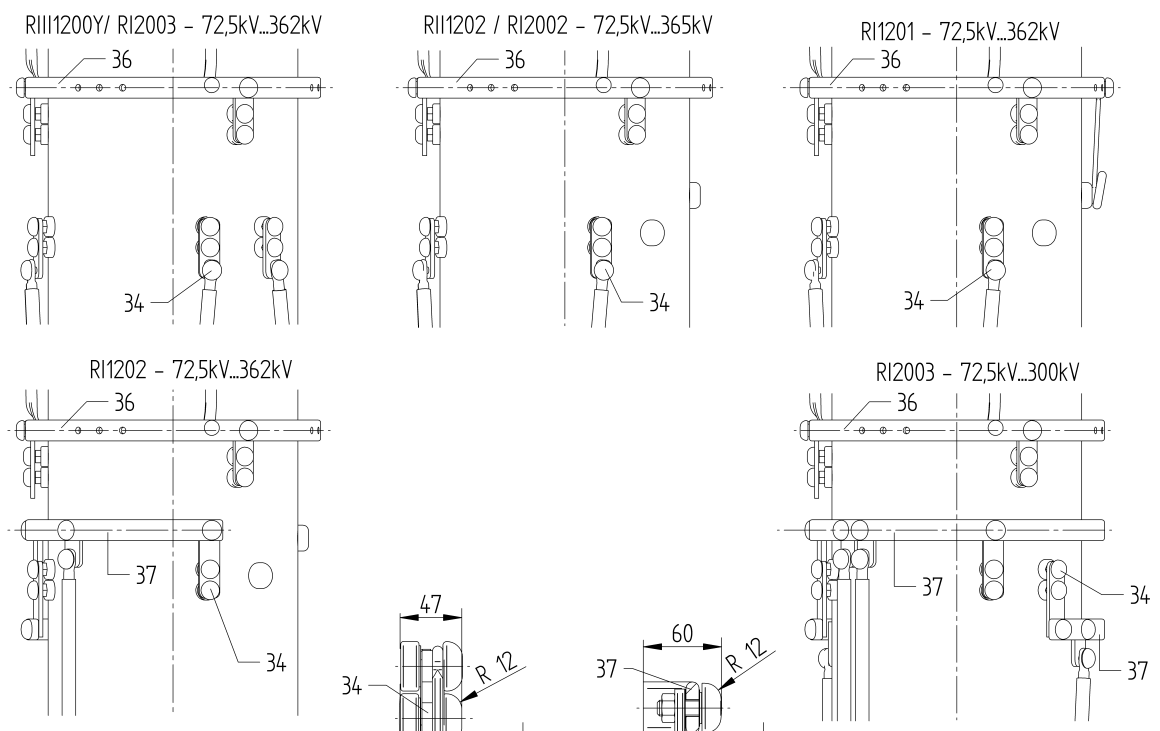
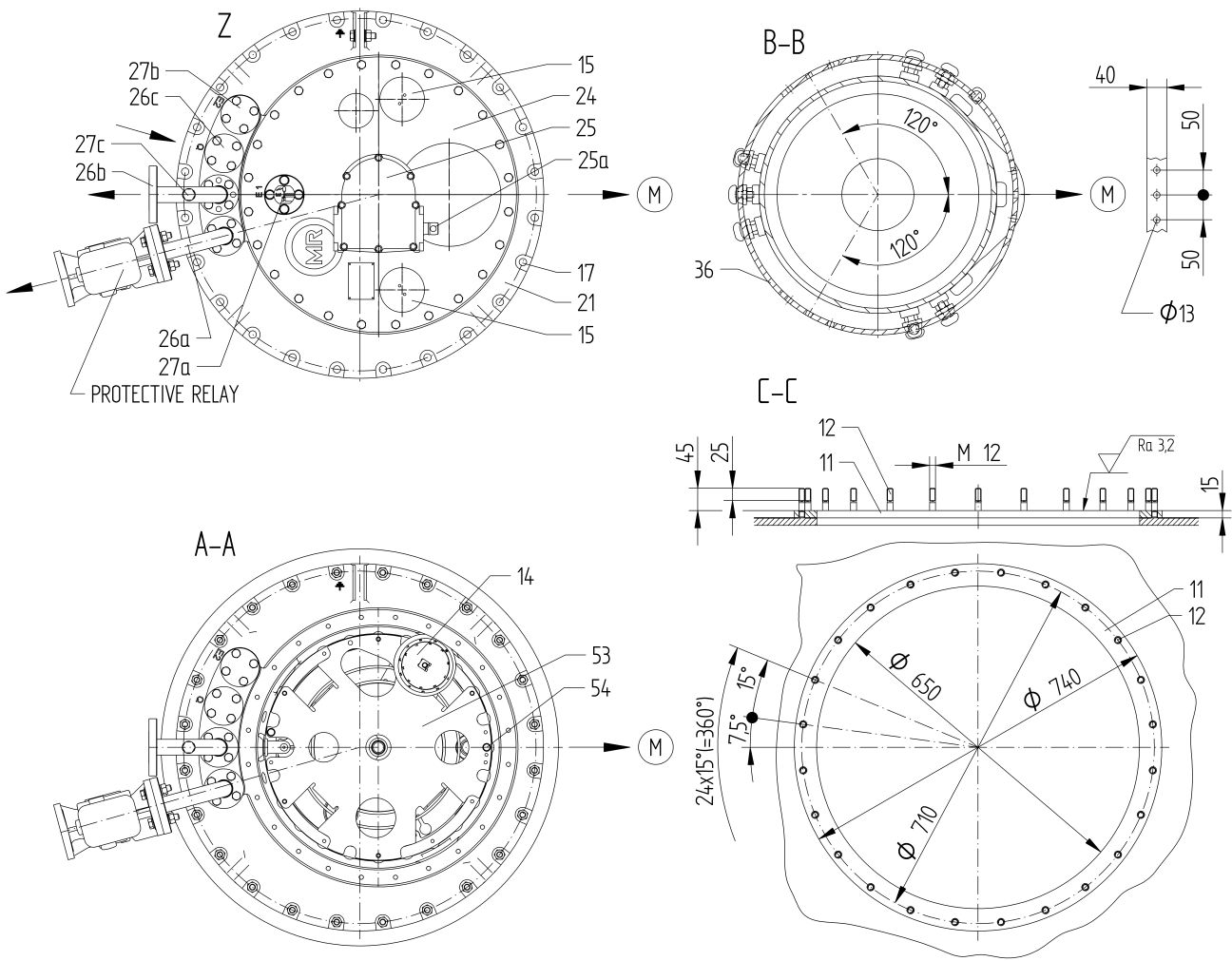


ON-LOAD TAP-CHANGER OILTAP® R
 SELECTOR SIZE RE/RF
 INSTALLATION DRAWING

SERIAL NUMBER

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ON-LOAD TAP-CHANGER OILTAP® R
 SELECTOR SIZE RE/RF
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| DATE | NAME | DOCUMENT NO. |
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DIMENSION
 IN mm
 EXCEPT AS
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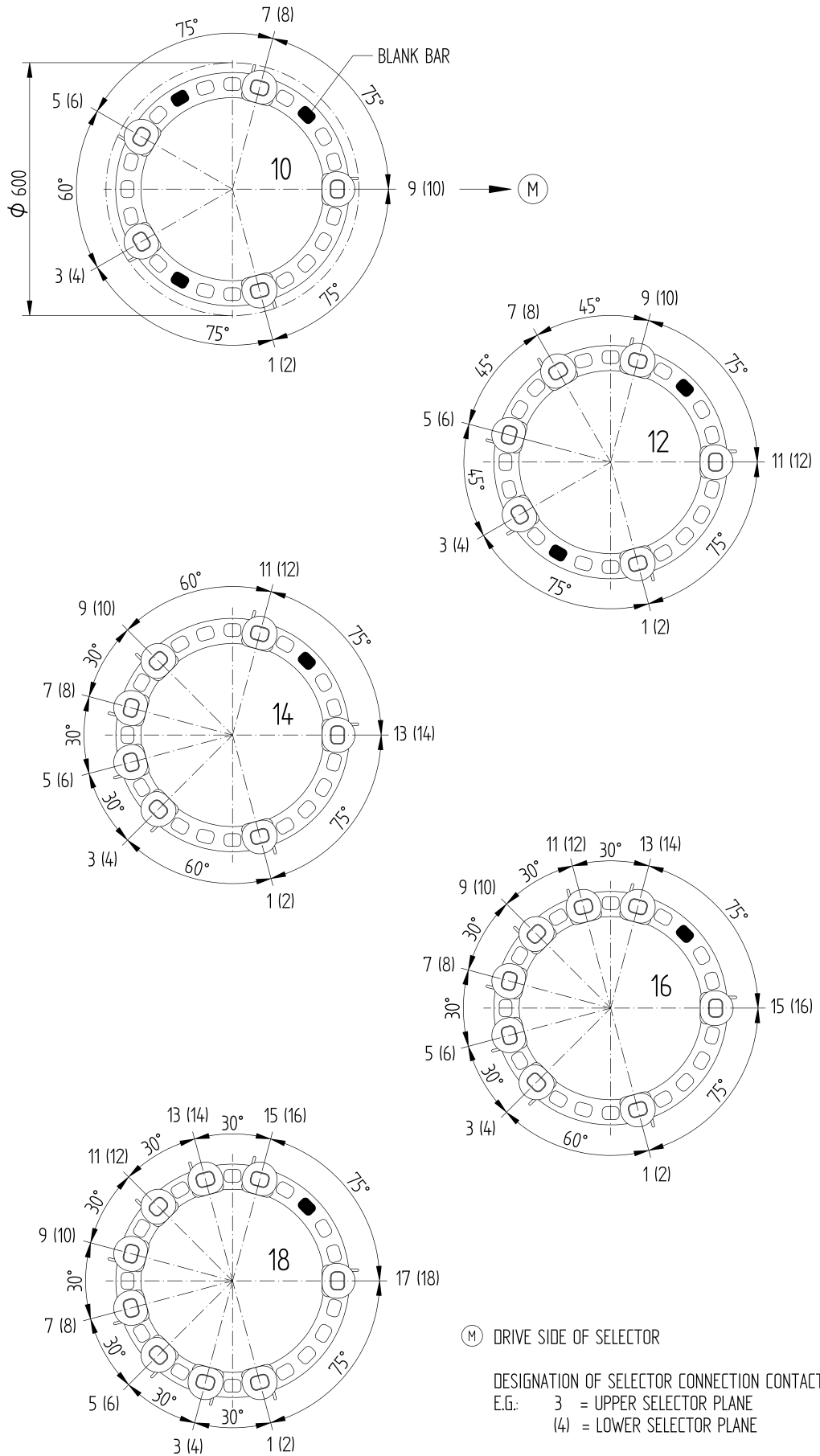
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| SERIAL NUMBER | |
| MATERIAL NUMBER | SHEET |
| 100165550E | 2/2 |



5.6 分接选择器等级 RC、RD、RDE、RE 和 RF

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CONTACT ARRANGEMENT - WITHOUT CHANGE-OVER SELECTOR



| | | |
|------------------|--------------|--------------------|
| DATE | NAME | DOCUMENT NO. |
| 18.10.2016 | CTETPRAKTIK2 | SED 4245760 001 01 |
| CHKD. 19.10.2016 | HILTNER | CHANGE NO. |
| 20.10.2016 | PRODASTSCHUK | 1077666 |
| DFTR. | SCALE | 15 |

DIMENSION
 IN mm
 EXCEPT AS
 NOTED

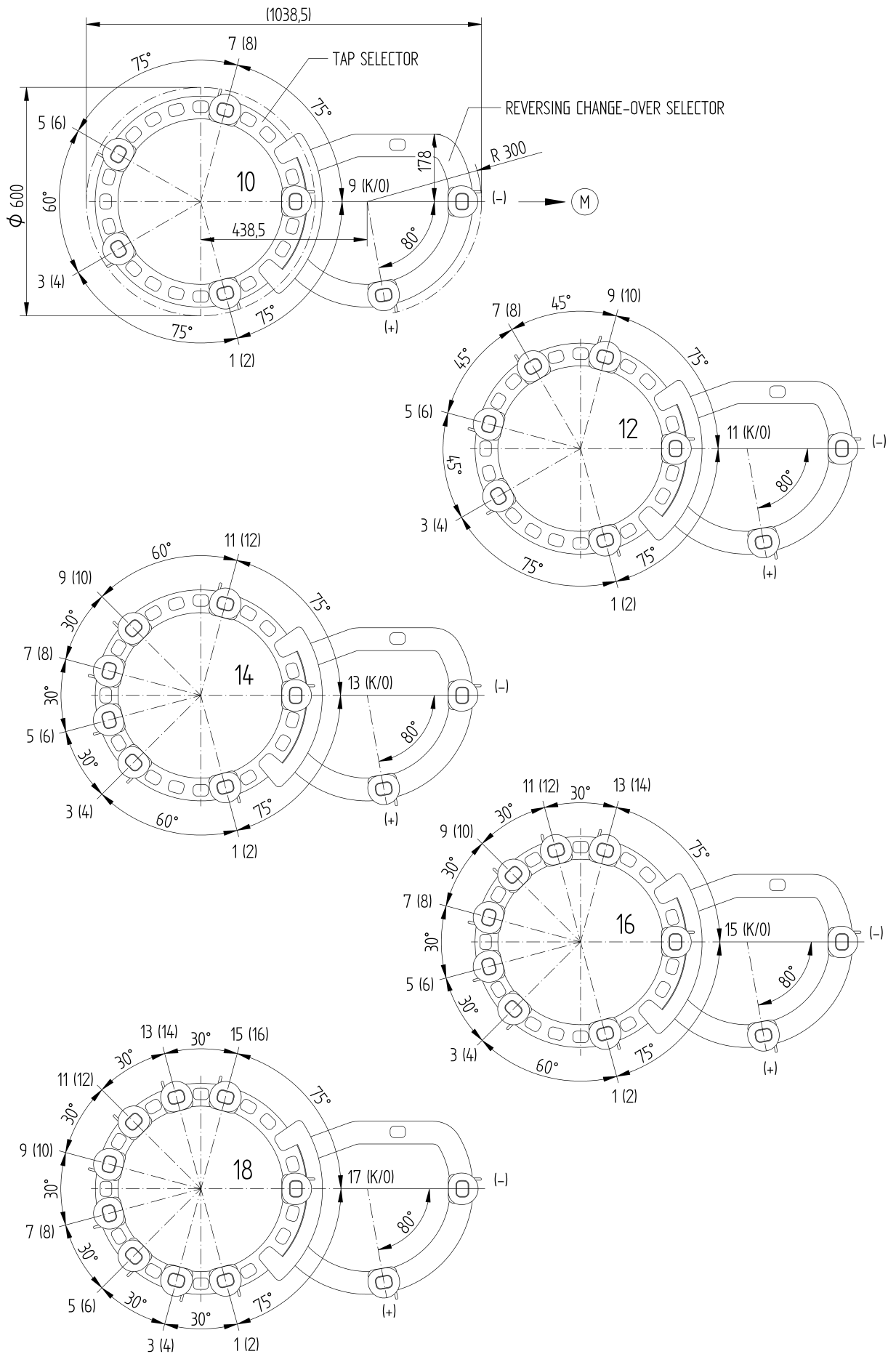


SELECTOR SIZE RC/RD/RDE
 CONTACT ARRANGEMENT
 DIMENSION DRAWING

SERIAL NUMBER

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| MATERIAL NUMBER 100090300E | SHEET 1/3 |
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CONTACT ARRANGEMENT - REVERSING CHANGE-OVER SELECTOR



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| 18.10.2016 | CTETPRAKTIK2 | SED 4245760 001 01 |
| 19.10.2016 | HILTNER | CHANGE NO. |
| 20.10.2016 | PRODASTSCHUK | 1077666 |
| DFTR. | SCALE | 15 |
| CHKD. | | |
| STAND. | | |

DIMENSION
IN mm
EXCEPT AS
NOTED



SELECTOR SIZE RC/RD/RDE
 CONTACT ARRANGEMENT
 DIMENSION DRAWING

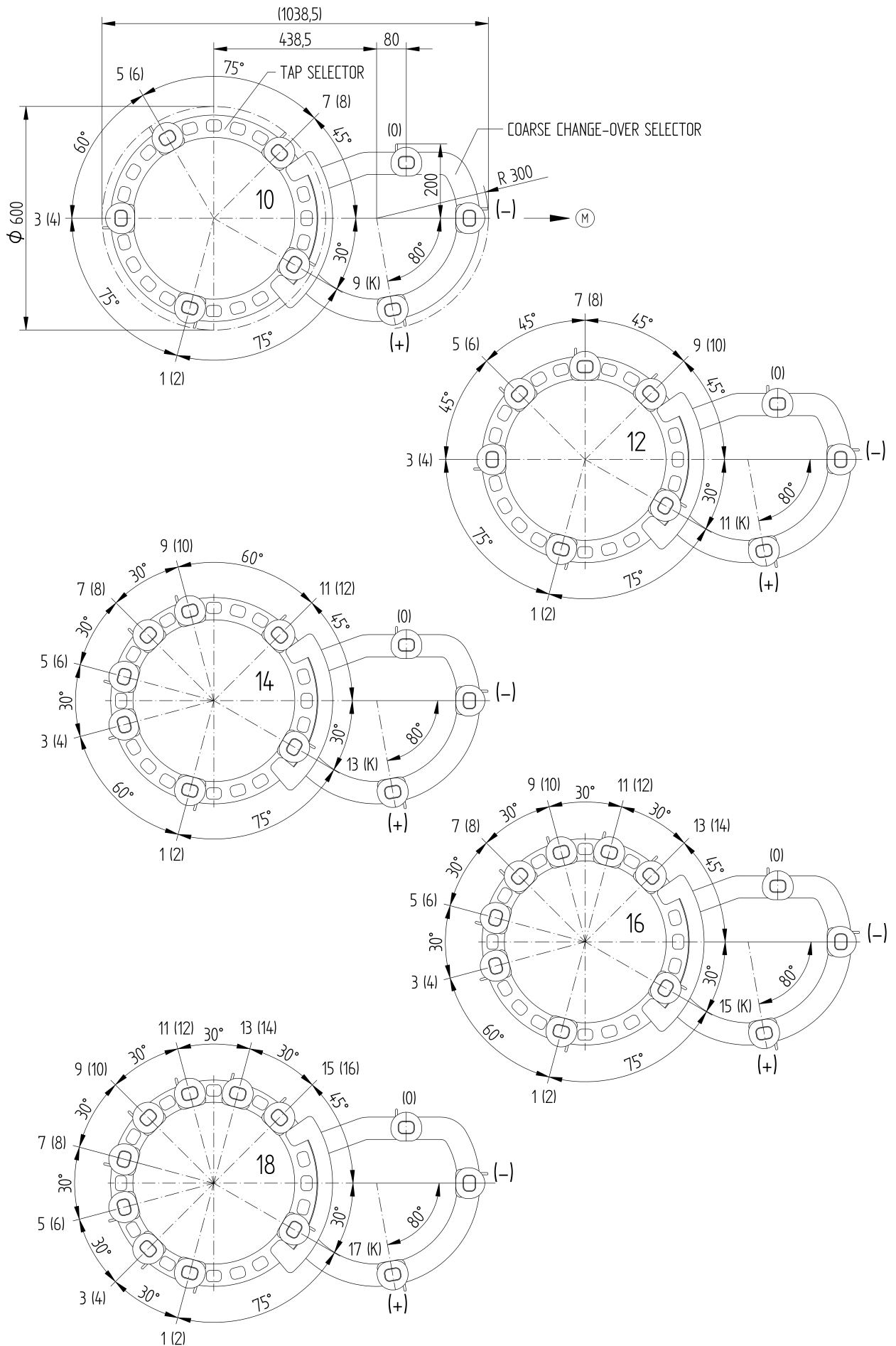
SERIAL NUMBER

MATERIAL NUMBER
100090300E

SHEET
2/3

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CONTACT ARRANGEMENT - COARSE CHANGE-OVER SELECTOR



| | | |
|------------|--------------|--------------------|
| DATE | NAME | DOCUMENT NO. |
| 18.10.2016 | CTETPRAKTIK2 | SED 4245760 001 01 |
| 19.10.2016 | HILTNER | SCALE |
| 20.10.2016 | PRODASTSCHUK | CHANGE NO. 1077666 |
| STAND. | | 15 |

DIMENSION
 IN mm
 EXCEPT AS
 NOTED



SELECTOR SIZE RC/RD/RDE
 CONTACT ARRANGEMENT
 DIMENSION DRAWING

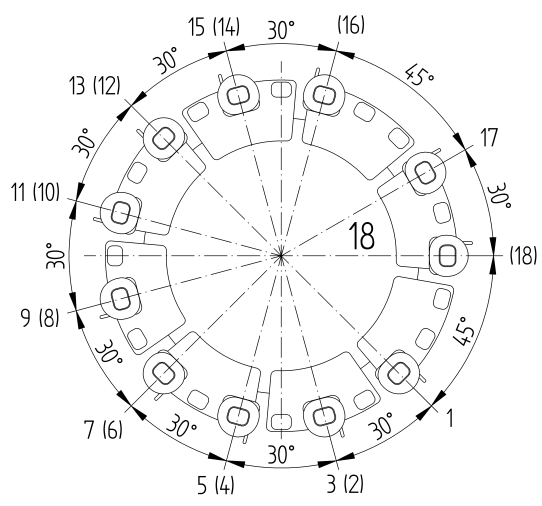
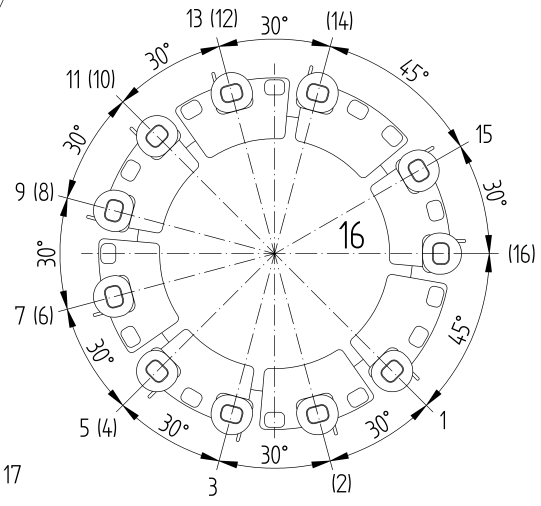
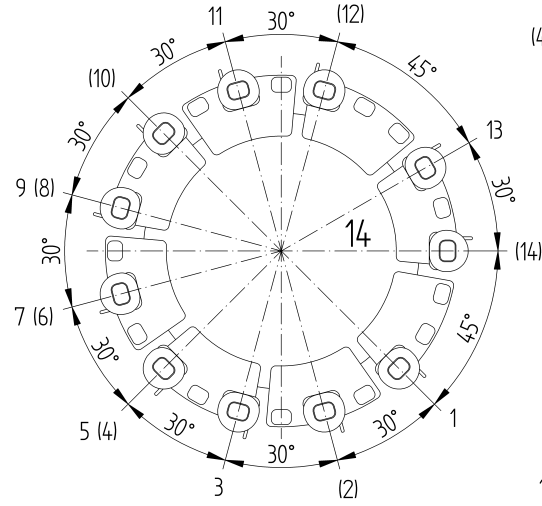
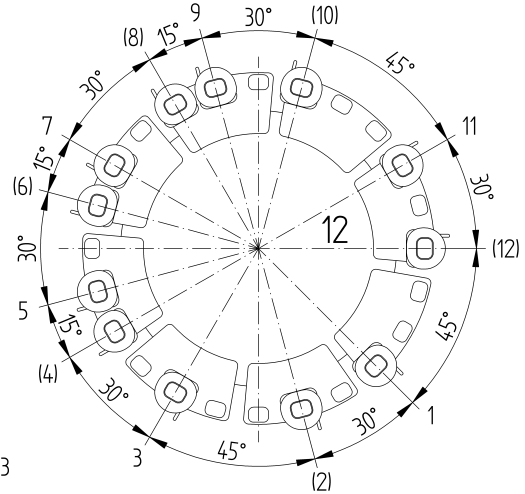
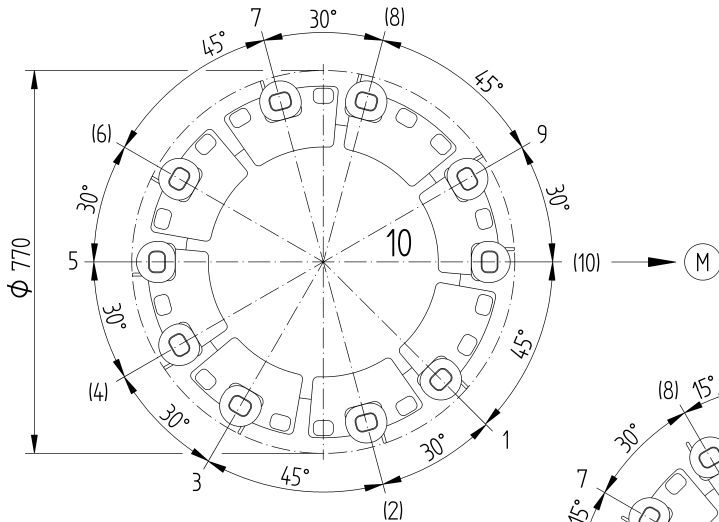
SERIAL NUMBER

MATERIAL NUMBER
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CONTACT ARRANGEMENT - WITHOUT CHANGE-OVER SELECTOR



(M) DRIVE SIDE OF SELECTOR

DESIGNATION OF SELECTOR CONNECTION CONTACT
 E.G.: 3 = UPPER SELECTOR PLANE
 (4) = LOWER SELECTOR PLANE

THE DETAILED CONNECTION DIAGRAM IS BINDING FOR THE DESIGNATION OF THE CONNECTION CONTACTS AND PHASES

| | | |
|------------|--------------|--------------------|
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| 18.10.2016 | CTETPRAKTIK2 | SED 5026318 001 01 |
| 19.10.2016 | HILTNER | CHANGE NO. |
| 20.10.2016 | PRODASTSCHUK | 1077666 |
| SCALE | | 15 |

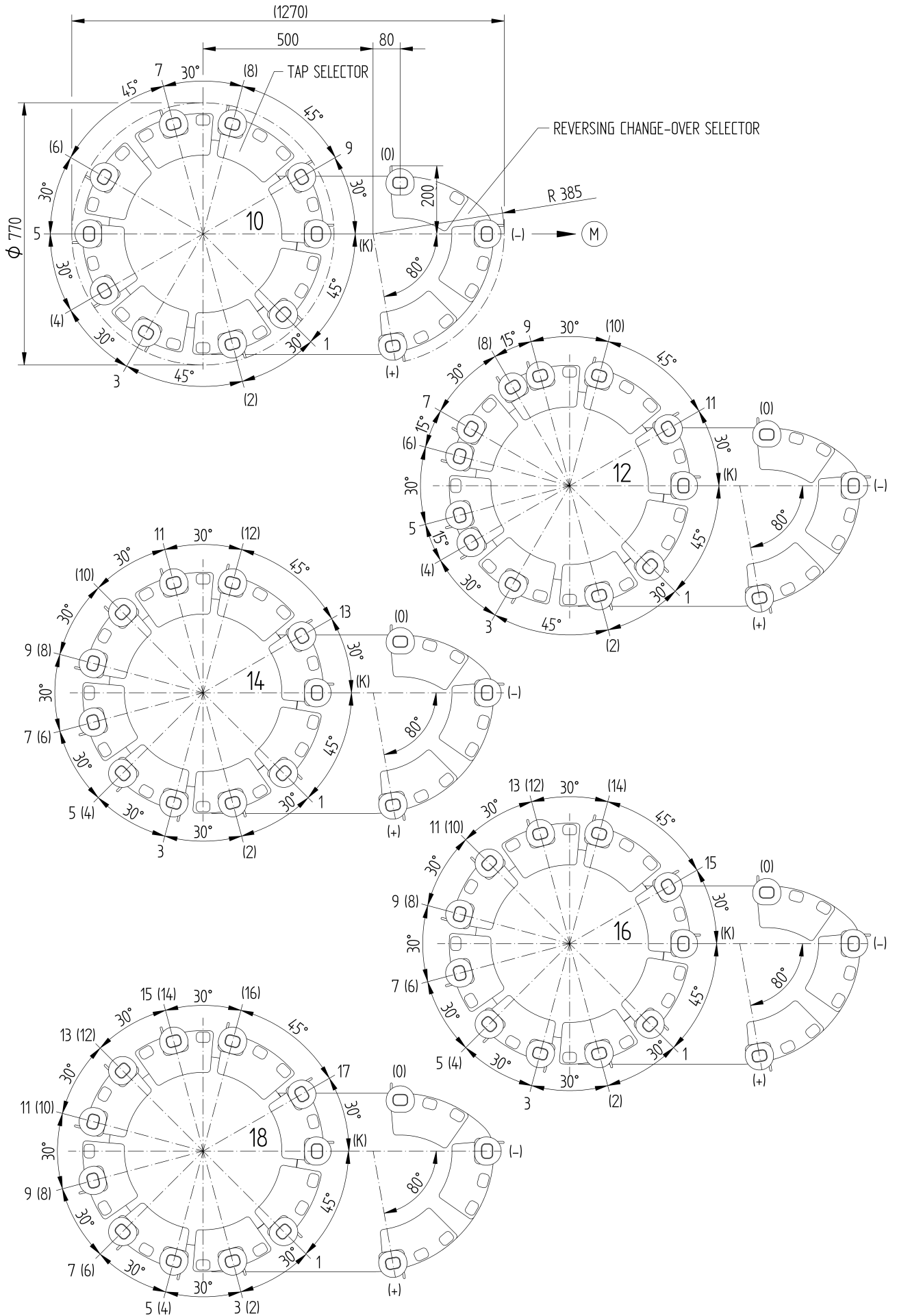
DIMENSION
 IN mm
 EXCEPT AS
 NOTED



SELECTOR SIZE RE/RF
 CONTACT ARRANGEMENT
 DIMENSION DRAWING

| | |
|-----------------|-------|
| SERIAL NUMBER | |
| MATERIAL NUMBER | SHEET |
| 100165700E | 1/3 |

CONTACT ARRANGEMENT - REVERSING CHANGE-OVER SELECTOR



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| 20.10.2016 | PRODASTSCHUK | 1077666 |
| DFTR. | SCALE | 15 |
| CHKD. | | |
| STAND. | | |

DIMENSION
IN mm
EXCEPT AS
NOTED



SELECTOR SIZE RE/RF
CONTACT ARRANGEMENT
DIMENSION DRAWING

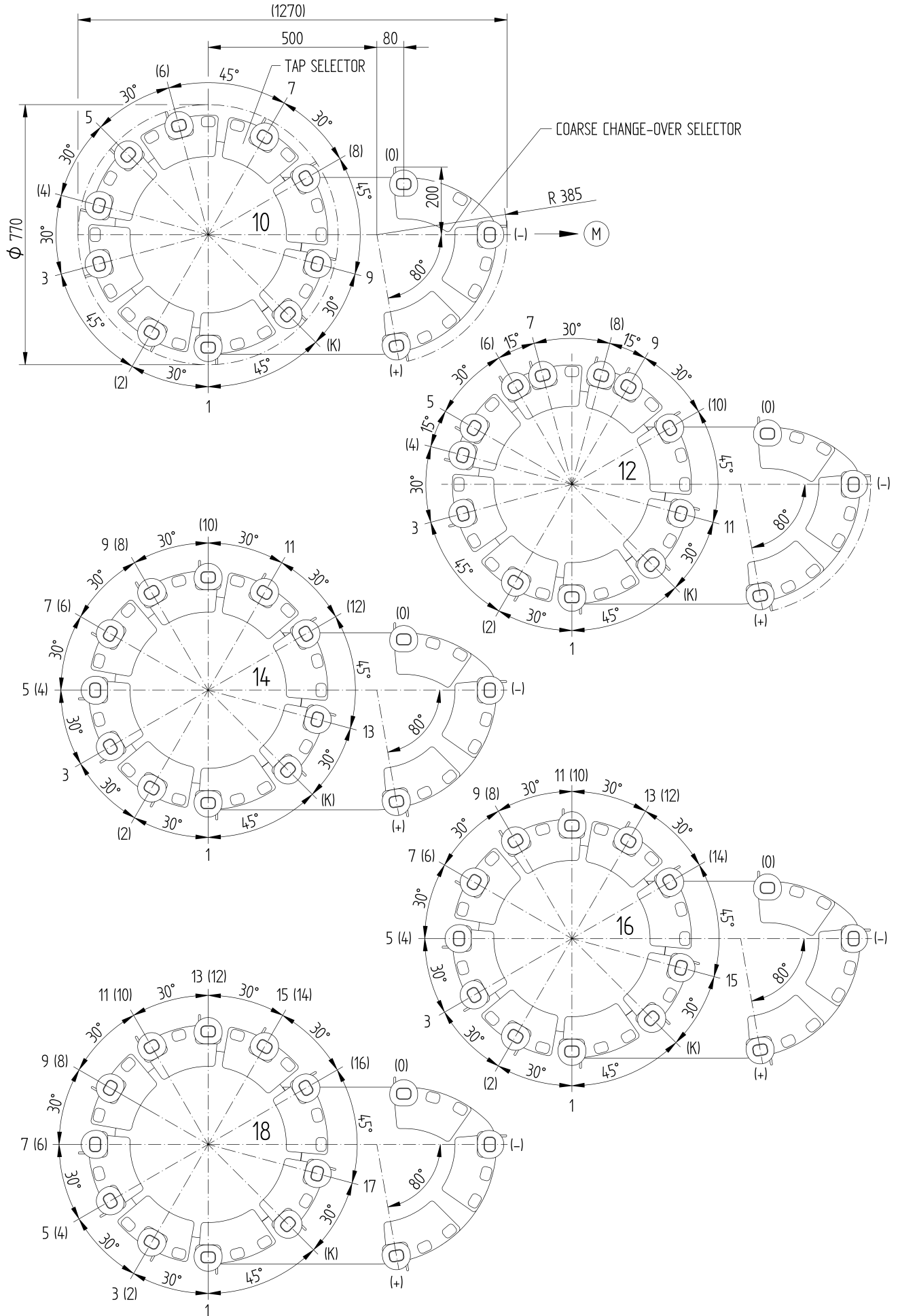
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MATERIAL NUMBER
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2/3

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CONTACT ARRANGEMENT - COARSE CHANGE-OVER SELECTOR



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|------------|--------------|--------------------|
| DATE | NAME | DOCUMENT NO. |
| 18.10.2016 | CTETPRAKTIK2 | SED 5026318 001 01 |
| 19.10.2016 | HILTNER | CHANGE NO. |
| 20.10.2016 | PRODASTSCHUK | 1077666 |
| SCALE | | 15 |

DIMENSION
 IN mm
 EXCEPT AS
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SELECTOR SIZE RE/RF
 CONTACT ARRANGEMENT
 DIMENSION DRAWING

SERIAL NUMBER

MATERIAL NUMBER
 100165700E

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| DFTR. 06.10.2016 | LIPINSKI | SED 4322131 001 01 |
| CHKD. 19.10.2016 | HILTNER | CHANGE NO. |
| STAND. 20.10.2016 | PRODASTSCHUK | 1077666 |
| | | SCALE 1:2 |

DIMENSION
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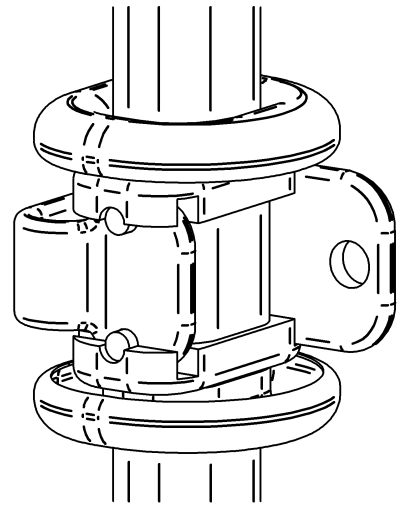
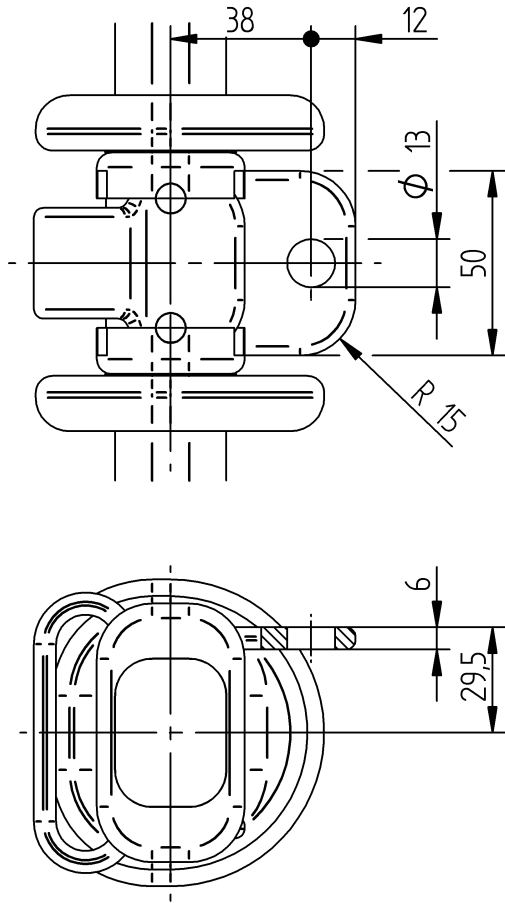


SELECTOR SIZE RC/RD/RDE/RE/RF
 SELECTOR CONNECTION CONTACT
 DIMENSION DRAWING

SERIAL NUMBER

MATERIAL NUMBER
 100099170E

SHEET
 1/1



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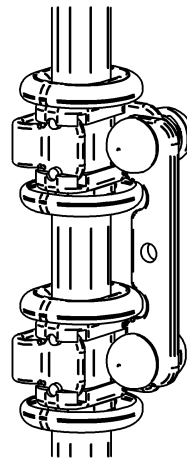
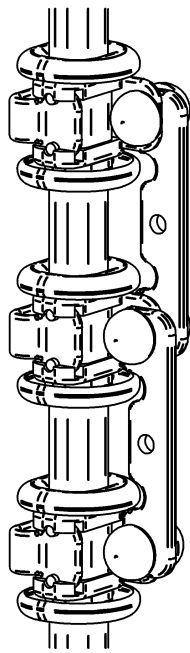
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| 07.10.2016 | CTETPRAKTIK2 | SED 4322177 001 01 |
| 19.10.2016 | HILTNER | CHANGE NO. |
| 20.10.2016 | PRODASTSCHUK | 1077262 |
| | | SCALE |
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DIMENSION
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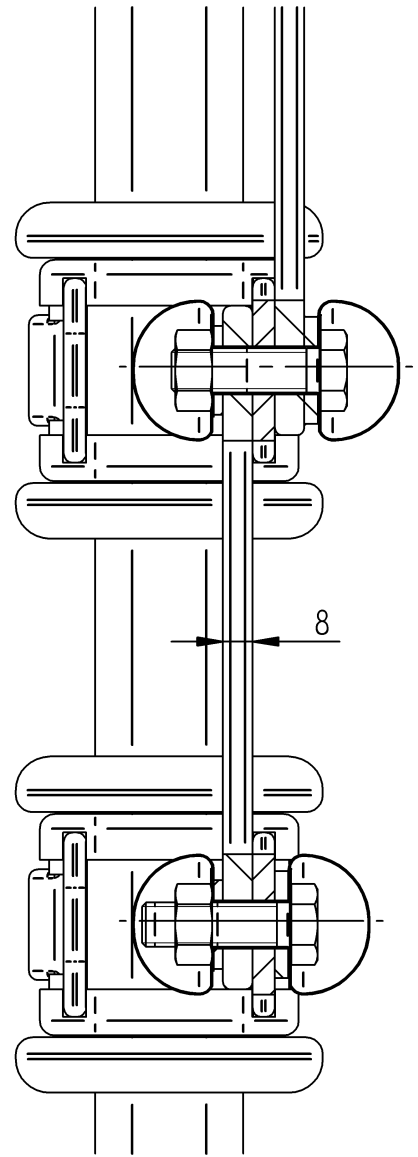
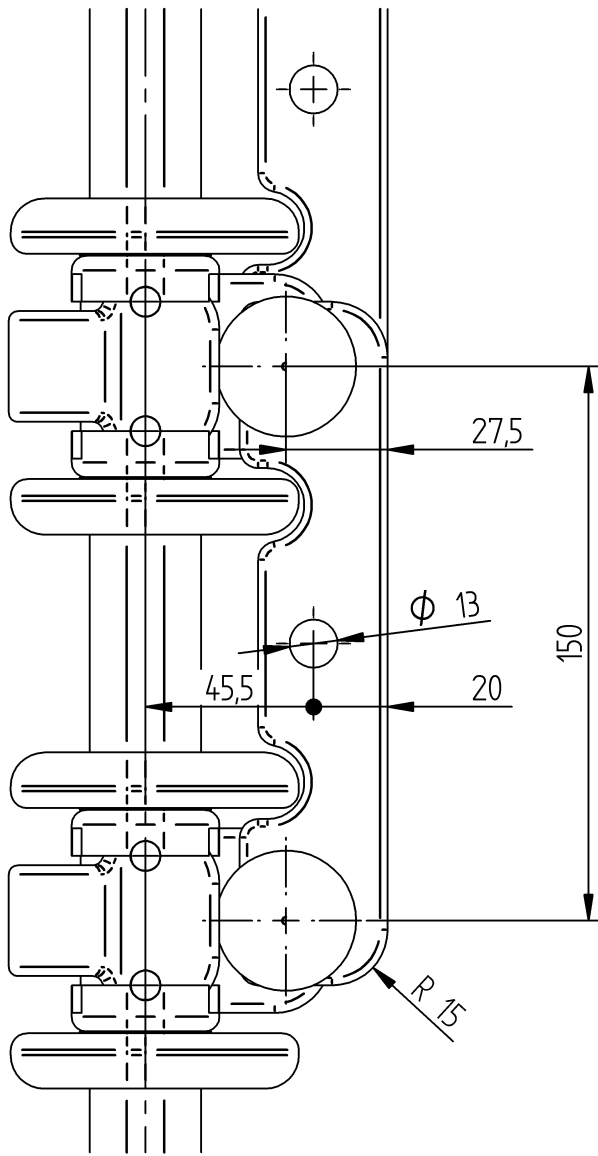


SELECTOR SIZE RC/RD/RDE/RE/RF
 BRIDGES FOR PARALLEL CONNECTION OF SELECTOR CONNECTION CONTACT
 DIMENSION DRAWING

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| SERIAL NUMBER | |
| - | |
| MATERIAL NUMBER | SHEET |
| 100099160E | 1/1 |

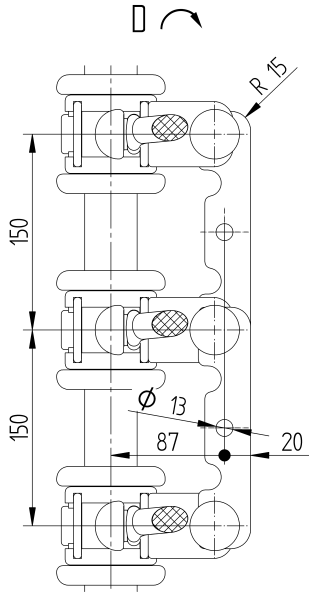
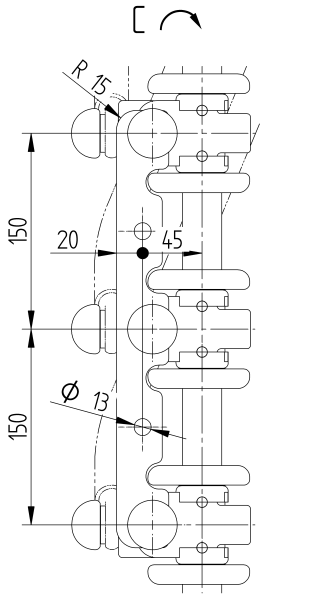
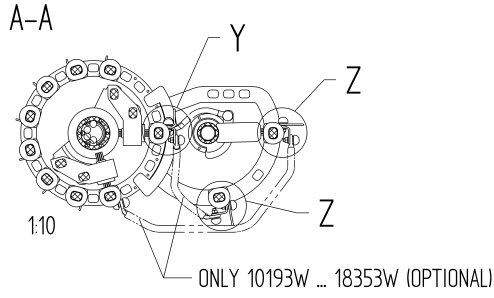
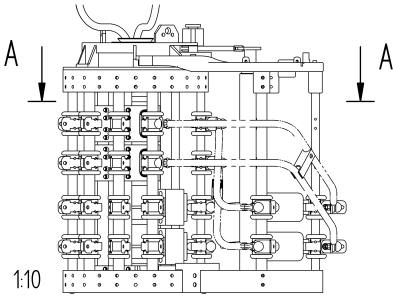


1:5

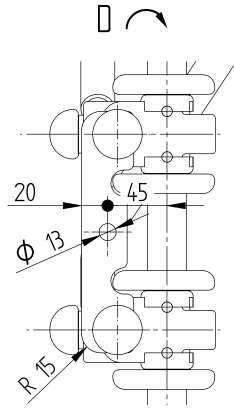
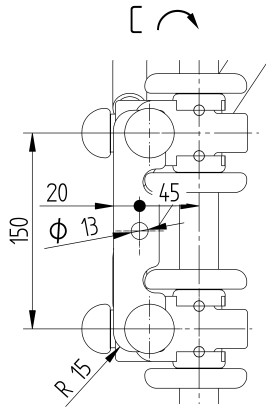


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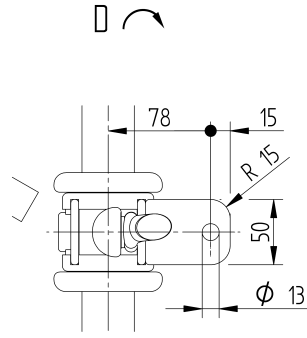
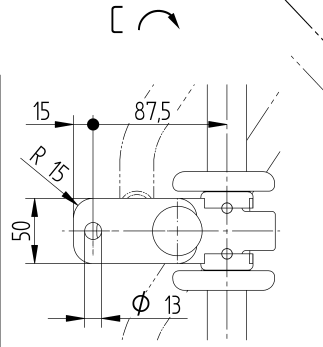
REVERSING CHANGE-OVER SELECTOR



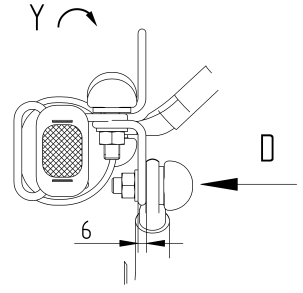
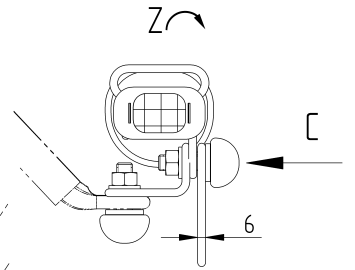
3 SELECTOR PLANES WITH PARALLEL BRIDGE



2 SELECTOR PLANES WITH PARALLEL BRIDGE



WITHOUT PARALLEL BRIDGE



| | | |
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| DATE | NAME | DOCUMENT NO. |
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| CHKD. | HILTNER | CHANGE NO. |
| 19.10.2016 | | 1077262 |
| SCALE | PRODASTSCHUK | 1:2 |
| 20.10.2016 | | |

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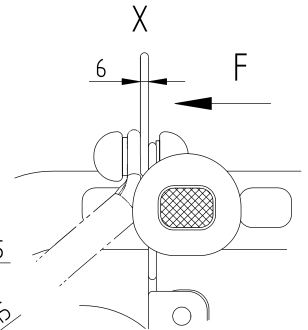
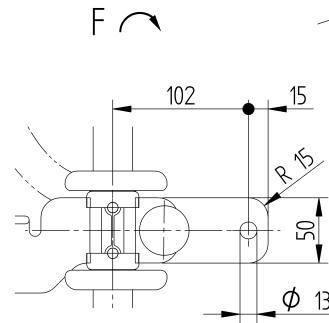
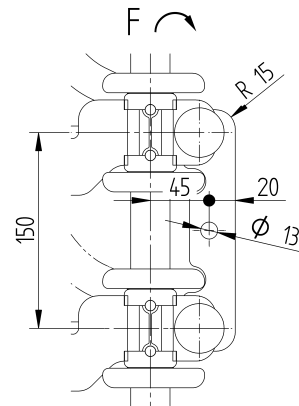
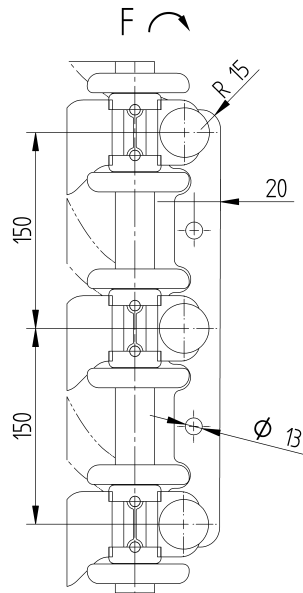
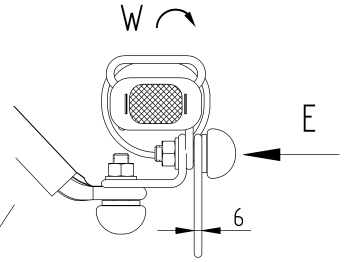
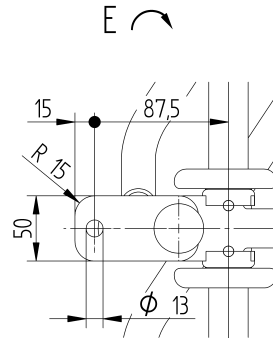
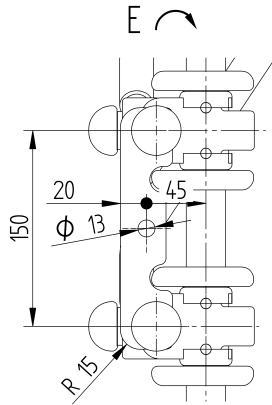
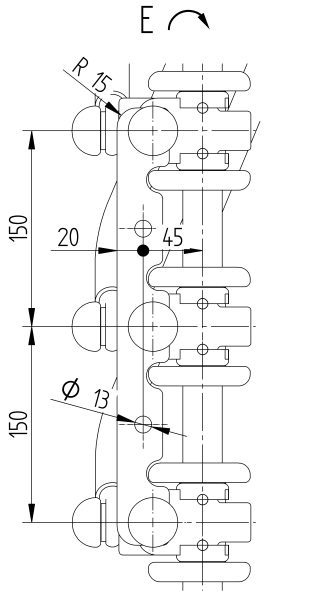
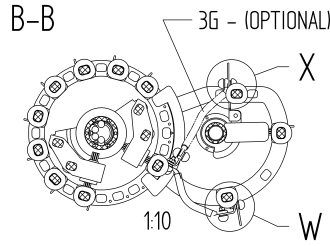
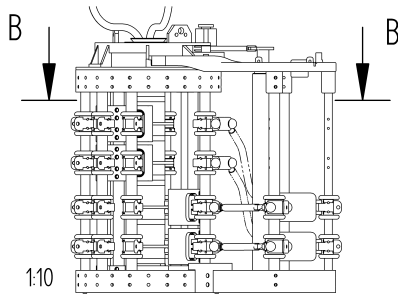


SELECTOR SIZE RC/RD/RDE
 PARALLEL BRIDGE/CONNECTING LUG
 DIMENSION DRAWING

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|-----------------|------------|
| SERIAL NUMBER | - |
| MATERIAL NUMBER | 100100870E |
| SHEET | 1/2 |

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COARSE CHANGE-OVER SELECTOR



3 SELECTOR PLANES WITH PARALLEL BRIDGE

2 SELECTOR PLANES WITH PARALLEL BRIDGE

WITHOUT PARALLEL BRIDGE

| | | |
|-------------------|--------------|--------------------|
| DATE | NAME | DOCUMENT NO. |
| 07.10.2016 | CTETPRAKTIK2 | SED 4334433 001 01 |
| CHKD. 19.10.2016 | HILTNER | SCALE |
| STAND. 20.10.2016 | PRODASTSCHUK | 1077262 1:2 |

DIMENSION
IN mm
EXCEPT AS
NOTED



SELECTOR SIZE RC/RD/RDE
PARALLEL BRIDGE/CONNECTING LUG
DIMENSION DRAWING

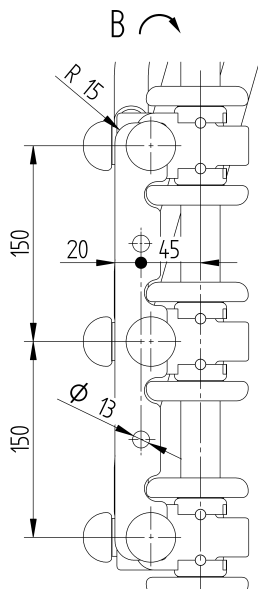
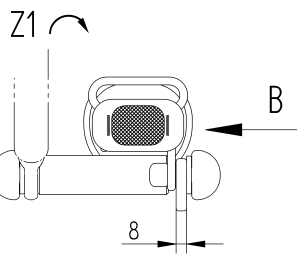
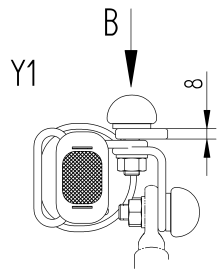
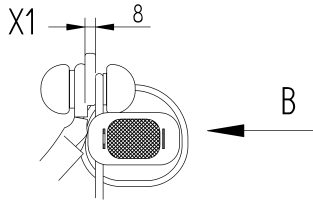
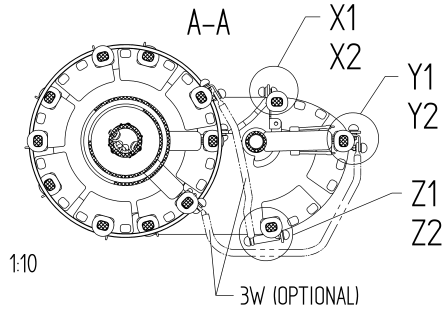
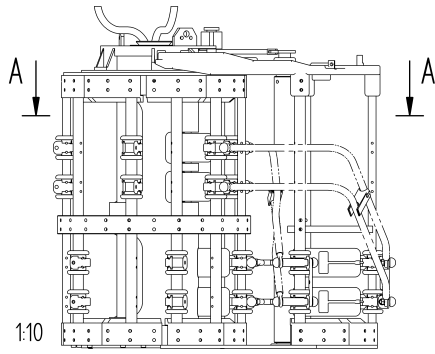
SERIAL NUMBER

MATERIAL NUMBER
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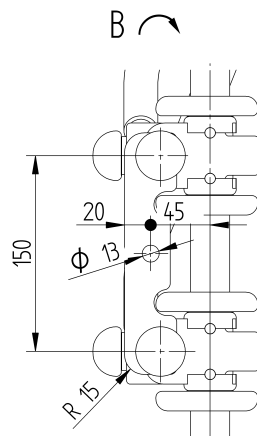
SHEET
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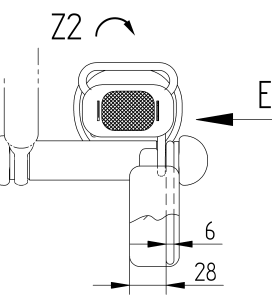
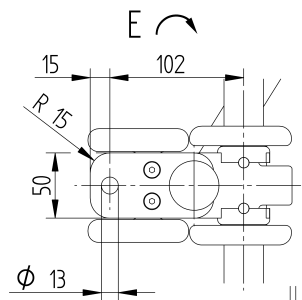
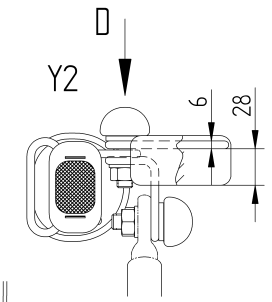
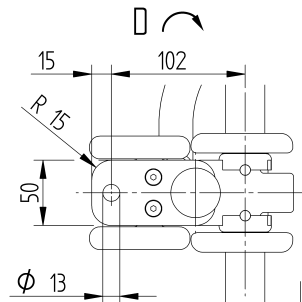
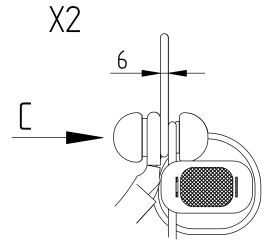
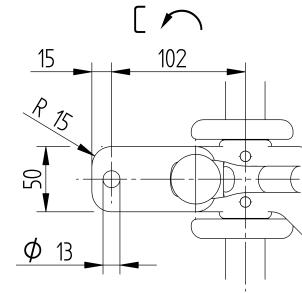
REVERSING CHANGE-OVER SELECTOR



3 SELECTOR PLANES WITH PARALLEL BRIDGE



2 SELECTOR PLANES WITH PARALLEL BRIDGE



WITHOUT PARALLEL BRIDGE

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| STAND. | | |
| 27.10.2016 | | |

DIMENSION IN mm EXCEPT AS NOTED



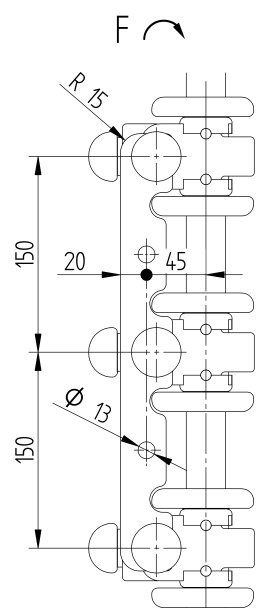
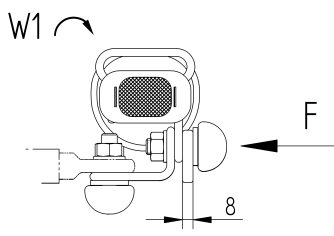
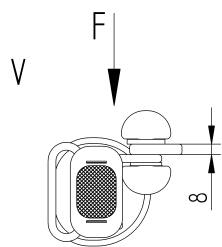
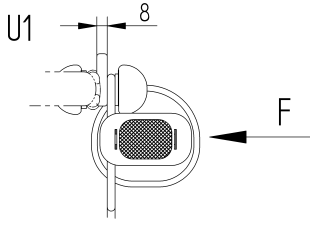
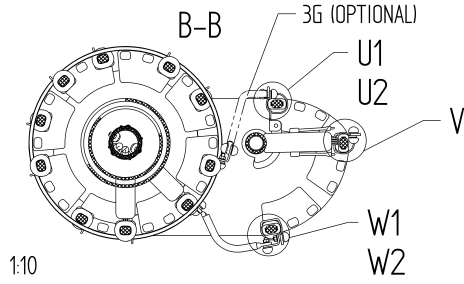
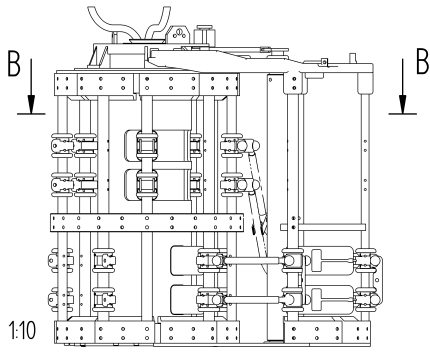
SELECTOR SIZE RE/RF
 PARALLEL BRIDGE/CONNECTING LUG-
 DIMENSION DRAWING

SERIAL NUMBER

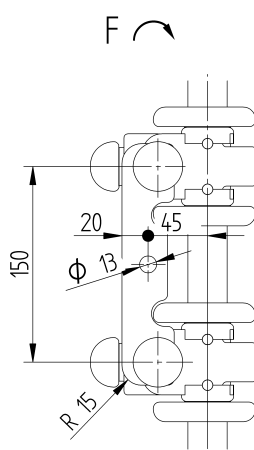
| | |
|-----------------|-------|
| MATERIAL NUMBER | SHEET |
| 100169210E | 1/2 |

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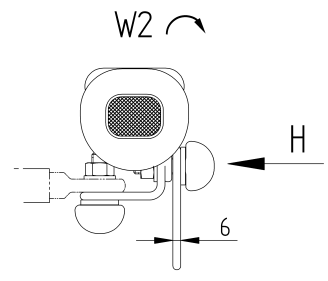
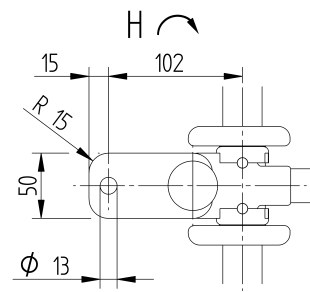
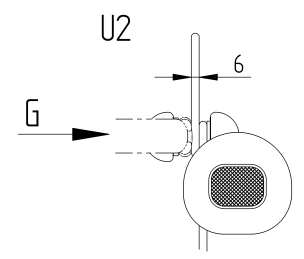
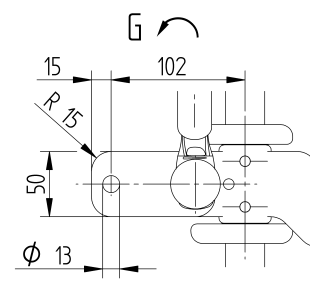
COARSE CHANGE-OVER SELECTOR



3 SELECTOR PLANES WITH PARALLEL BRIDGE



2 SELECTOR PLANES WITH PARALLEL BRIDGE



WITHOUT PARALLEL BRIDGE

| | | |
|------------|--------------|--------------------|
| DATE | NAME | DOCUMENT NO. |
| 07.10.2016 | CTETPRAKTIK2 | SED 5032528 001 01 |
| CHKD. | HILTNER | CHANGE NO. |
| 19.10.2016 | | 1077262 |
| SCALE | GRIMM | 1:2 |
| STAND. | | |
| 27.10.2016 | | |

DIMENSION IN mm EXCEPT AS NOTED

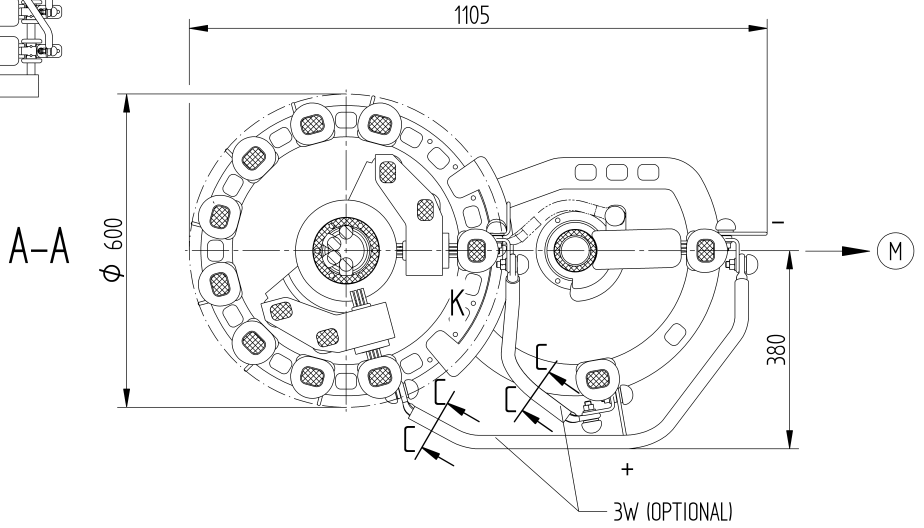
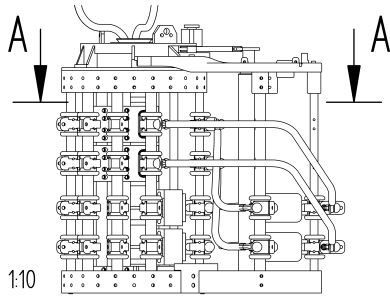


SELECTOR SIZE RE/RF PARALLEL BRIDGE/CONNECTING LUG- DIMENSION DRAWING

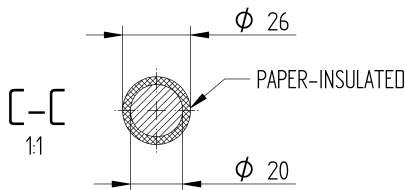
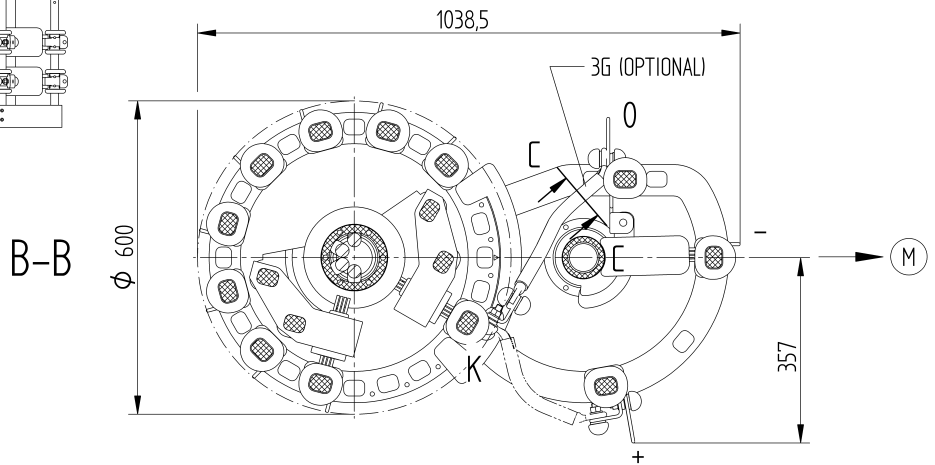
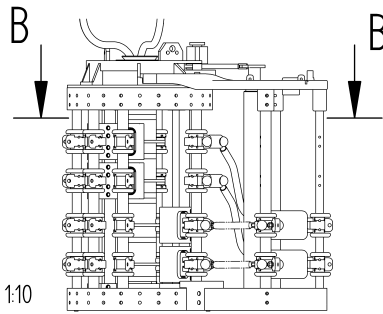
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|-----------------|-------|
| SERIAL NUMBER | |
| MATERIAL NUMBER | SHEET |
| 100169210E | 2/2 |

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REVERSING CHANGE-OVER SELECTOR



COARSE CHANGE-OVER SELECTOR



(M) DRIVE SIDE OF SELECTOR

THE DETAILED CONNECTION DIAGRAM IS BINDING FOR THE DESIGNATION OF THE CONNECTION CONTACTS AND PHASES

| | | |
|-------------------|--------------|--------------------|
| DATE | NAME | DOCUMENT NO. |
| DFTR. 18.10.2016 | CTETPRAKTIK2 | SED 4335433 001 02 |
| CHKD. 19.10.2016 | HILTNER | CHANGE NO. |
| STAND. 20.10.2016 | PRODASTSCHUK | 1077666 |
| | | SCALE |
| | | 1:5 |

DIMENSION
 IN mm
 EXCEPT AS
 NOTED



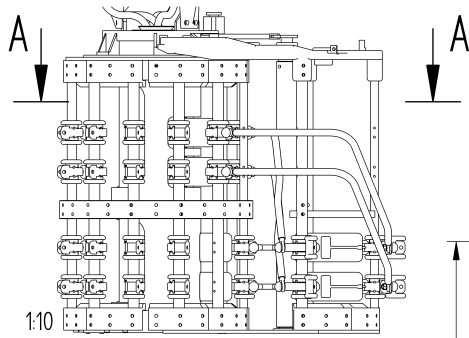
SELECTOR SIZE RC/RD/RDE
 CONNECTING LEAD 3W/3G
 DIMENSION DRAWING

SERIAL NUMBER

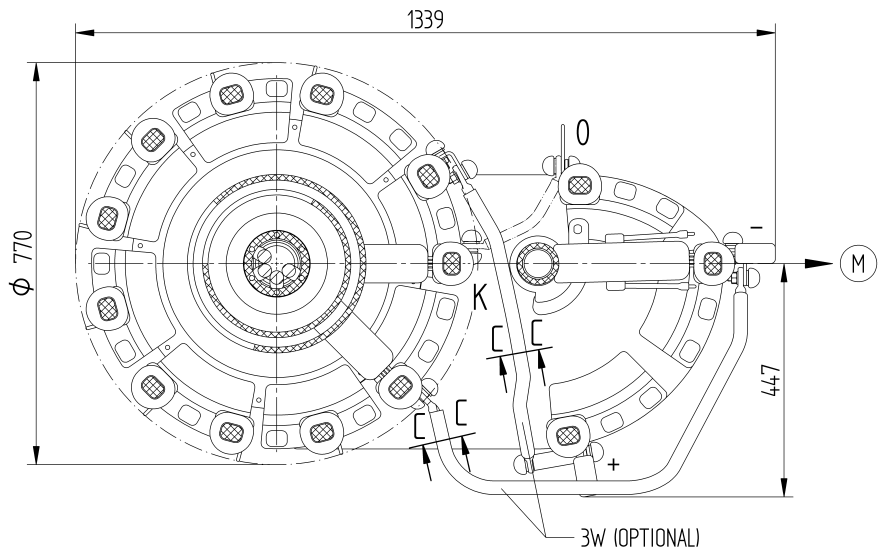
MATERIAL NUMBER SHEET
 100100190E 1/1

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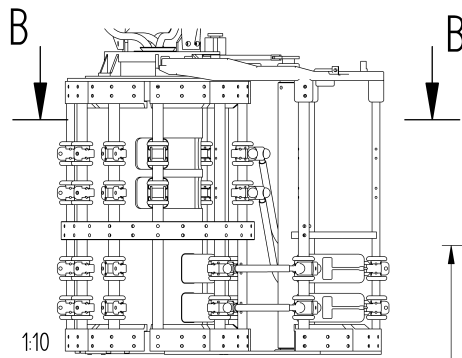
REVERSING CHANGE-OVER SELECTOR



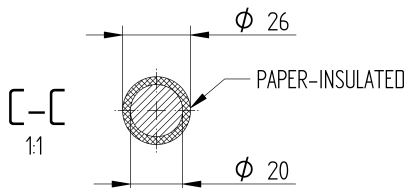
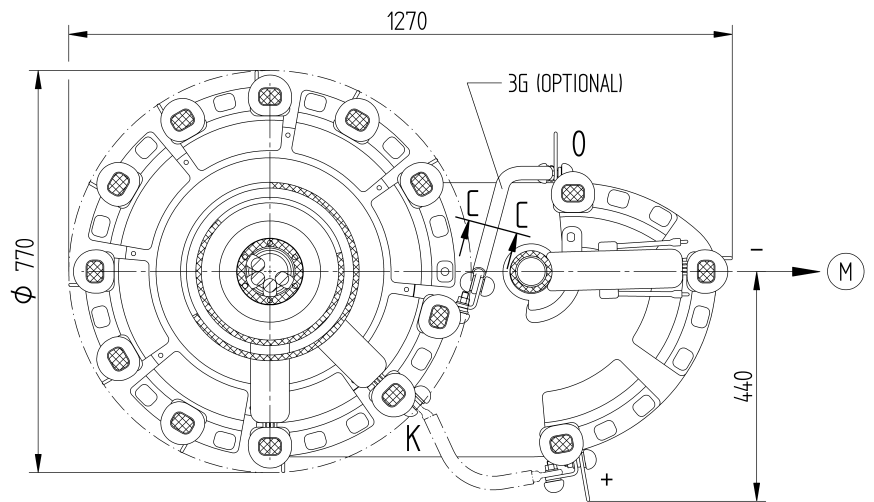
A-A



COARSE CHANGE-OVER SELECTOR



B-B



(M) DRIVE SIDE OF SELECTOR

THE DETAILED CONNECTION DIAGRAM IS BINDING FOR THE DESIGNATION OF THE CONNECTION CONTACTS AND PHASES

| | |
|--------------|--------------------|
| DATE | DOCUMENT NO. |
| 19.10.2016 | SED 5089626 001 02 |
| 20.10.2016 | CHANGE NO. |
| 20.10.2016 | 1077337 |
| DFTR. | NAME |
| CTETPRAKTIK2 | HILTI |
| CHKD. | SCALE |
| 20.10.2016 | 1:5 |
| STAND. | PRODASTSCHUK |

DIMENSION
IN mm
EXCEPT AS
NOTED



SELECTOR SIZE RE/RF
CONNECTING LEAD 3W/3G
DIMENSION DRAWING

SERIAL NUMBER

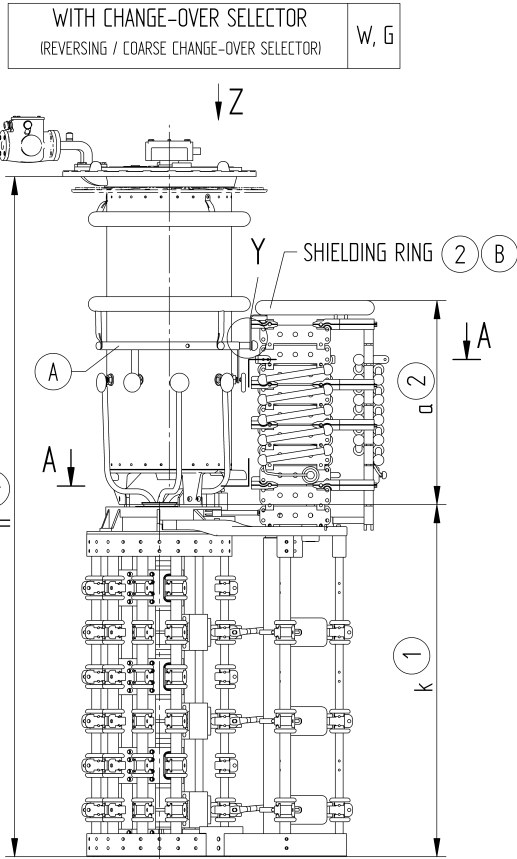
MATERIAL NUMBER
100172640E

SHEET
1/1

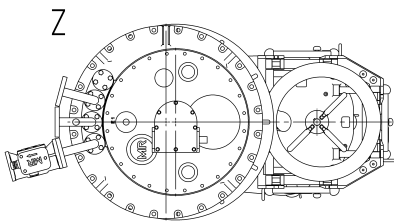


5.7 VACUTAP® VM® 和 OILTAP® M 的电位连接

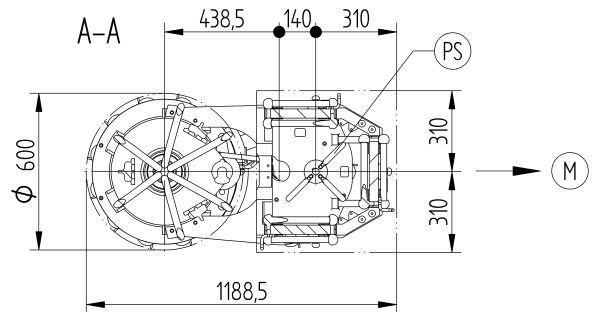
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VMIII650Y VARIANT DISPLAYED



| PRODUKT RANGE POTENTIAL CONNECTION UNIT WITH TIE-IN SWITCH WP/GP | | | | | |
|------------------------------------------------------------------|---------------|-------------------|--------------|------------------------------------------|-----------------------|
| ON-LOAD TAP-CHANGER | NUMBER PHASES | CIRCUIT RESISTORS | Um [kV] | POTENTIAL NUMBER OF RESISTORS PER PHASES | MAX DIMENSIONS a [mm] |
| OILTAP® M | I | SERIES | 72,5 ... 300 | 3 ... 22 | 590 |
| | | PARALLEL | 72,5 ... 245 | 2x3 ... 2x11 | 782 |
| | | | 300 | 2x3 ... 2x14 | 782 |
| | II | 3-FOLD PARALLEL | 72,5 ... 245 | 3x3 ... 3x8 | 590 |
| | | | 300 | 3x3 ... 3x10 | 782 |
| | | SERIES | 72,5 ... 245 | 3 ... 10 | 590 |
| VACUTAP® VM | I | PARALLEL | 72,5 ... 245 | 3 ... 12 | 782 |
| | | | 300 | 2x3 ... 2x4 | 590 |
| | | SERIES | 72,5 ... 245 | 2x3 ... 2x5 | 782 |
| | II | PARALLEL | 72,5 ... 245 | 3 ... 8 | 590 |
| | | | 300 | 2x3 | |
| | | SERIES | 72,5 ... 300 | 3 ... 22 | |
| VACUTAP® VM | I | PARALLEL | 72,5 ... 123 | 2x3 ... 2x11 | 782 |
| | | | 170 ... 300 | 2x3 ... 2x14 | 590 |
| | | 3-FOLD PARALLEL | 72,5 ... 123 | 3x3 ... 3x8 | 782 |
| | II | PARALLEL | 72,5 ... 300 | 3x3 ... 3x10 | 782 |
| | | | 72,5 ... 123 | 3 ... 10 | 590 |
| | | SERIES | 170 ... 300 | 3 ... 12 | 782 |
| III | PARALLEL | 72,5 ... 123 | 2x3 ... 2x4 | 590 | |
| | | 170 ... 300 | 2x3 ... 2x5 | 782 | |
| | SERIES | 72,5 ... 123 | 3 ... 8 | 590 | |
| III | PARALLEL | 170 ... 245 | 3 ... 10 | 782 | |
| | | 72,5 ... 123 | 2x3 | 590 | |
| | SERIES | 170 ... 245 | 2x3 ... 2x4 | 782 | |

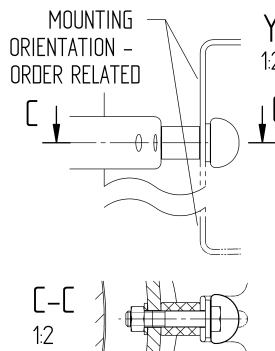
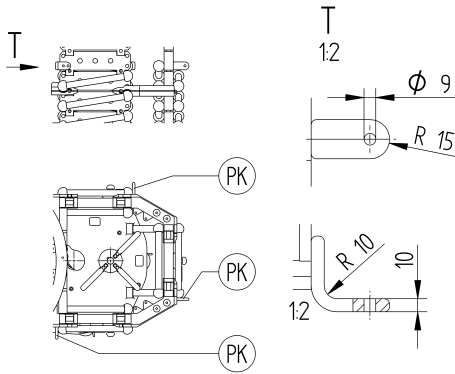


NUMBER AND POSITION OF CONNECTION CONTACT (2)

SCREW CONNECTION BETWEEN POTENTIAL CONNECTION UNIT AND TAKE-OFF RING (2)

THE SCREW CONNECTION (IF AVAILABLE) IS MADE BY THE TRANSFORMER MANUFACTURER.

- (M) - DRIVE SIDE OF SELECTOR
 - (A) - ON-LOAD TAP-CHANGER CURRENT TAKE-OFF TERMINAL
 - (B) - IS CONNECTED TO POTENTIAL OF (A)
 - (PK) - CONNECTION CONTACT
 - (PS) - TIE-IN SWITCH
 - (1) - REFER TO DIMENSION DRAWING
 - (2) - IS ORDER RELATED, REFER TO ORDER RELATED DIMENSION DRAWING
- THE DETAILED CONNECTION DIAGRAM IS BINDING FOR THE DESIGNATION OF THE CONNECTION CONTACTS AND PHASES



| DATE | NAME | DOCUMENT NO. |
|------------|--------------|--------------------|
| 19.10.2016 | CTETPRAKTIK2 | SED 5'55874-001 00 |
| 20.10.2016 | HILTNER | CHANGE NO. |
| 20.10.2016 | PRODASTSCHUK | 1077501 |
| DFTR. | SCALE | 1:1 |
| CHKD. | | |
| STAND. | | |

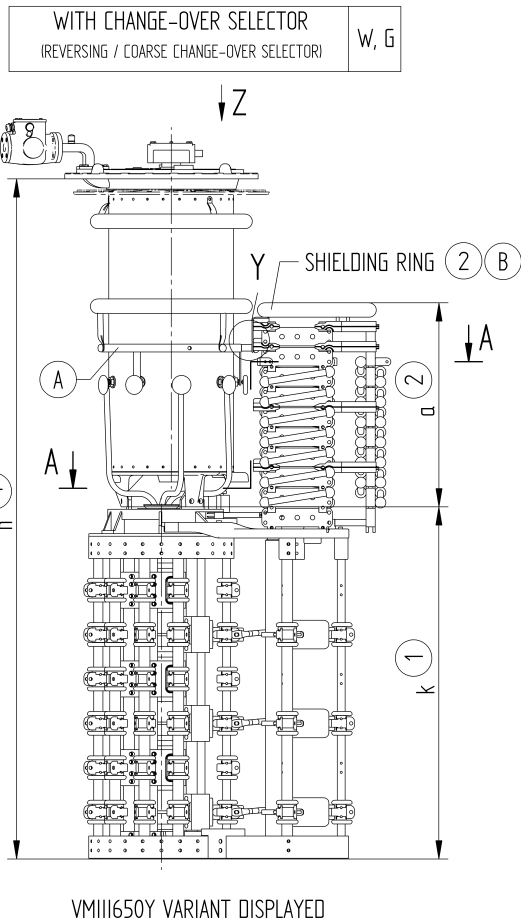
DIMENSION IN mm EXCEPT AS NOTED



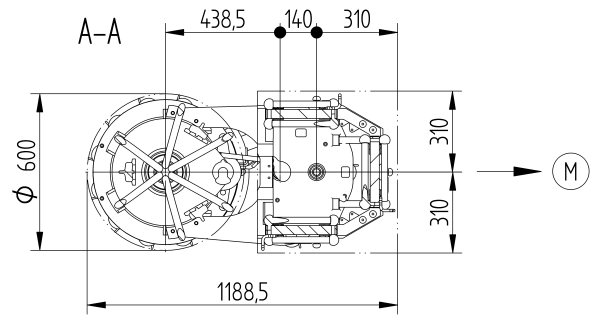
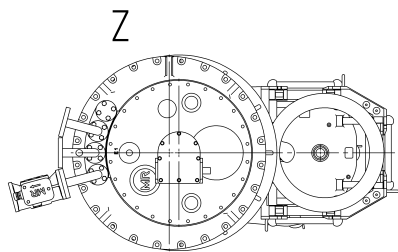
ON-LOAD TAP-CHANGER OILTAP® M, VACUTAP® VM
 POTENTIAL CONNECTION UNIT WP/GP-SELECTOR SIZE RC/RD/RDE
 DIMENSION DRAWING

| SERIAL NUMBER | |
|-----------------|-------|
| MATERIAL NUMBER | SHEET |
| 100179500E | 1/1 |

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| PRODUKT RANGE POTENTIAL CONNECTION UNIT WITHOUT TIE-IN SWITCH WR/GR | | | | | |
|---------------------------------------------------------------------|---------------|-------------------|--------------|------------------------------------------|-----------------------|
| ON-LOAD TAP-CHANGER | NUMBER PHASES | CIRCUIT RESISTORS | Um [kV] | POTENTIAL NUMBER OF RESISTORS PER PHASES | MAX DIMENSIONS a [mm] |
| OILTAP® M | I | SERIES | 72,5 ... 300 | 3 ... 22 | 496 |
| | | PARALLEL | 72,5 ... 245 | 2x3 ... 2x16 | 590 |
| | | | 300 | 2x3 ... 2x19 | 782 |
| | II | 3-FOLD PARALLEL | 72,5 ... 245 | 3x3 ... 3x12 | 590 |
| | | PARALLEL | 300 | 3x3 ... 3x14 | 782 |
| | | | SERIES | 72,5 ... 245 | 3 ... 14 |
| VACUTAP® VM | I | SERIES | 72,5 ... 300 | 3 ... 22 | 496 |
| | | PARALLEL | 72,5 ... 123 | 2x3 ... 2x16 | 590 |
| | | | 170 ... 300 | 2x3 ... 2x19 | 782 |
| | II | 3-FOLD PARALLEL | 72,5 ... 123 | 3x3 ... 3x12 | 590 |
| | | PARALLEL | 170 ... 300 | 3x3 ... 3x14 | 782 |
| | | | SERIES | 72,5 ... 123 | 3 ... 14 |
| III | I | SERIES | 72,5 ... 300 | 3 ... 22 | 496 |
| | | PARALLEL | 72,5 ... 123 | 2x3 ... 2x16 | 590 |
| | | | 170 ... 300 | 2x3 ... 2x19 | 782 |
| | II | 3-FOLD PARALLEL | 72,5 ... 123 | 3x3 ... 3x12 | 590 |
| | | PARALLEL | 170 ... 300 | 3x3 ... 3x14 | 782 |
| | | | SERIES | 72,5 ... 123 | 3 ... 14 |
| III | PARALLEL | 72,5 ... 123 | 2x3 ... 2x7 | 590 | |
| | | 170 ... 300 | 2x3 ... 2x8 | 782 | |
| | SERIES | 72,5 ... 123 | 3 ... 12 | 590 | |
| III | PARALLEL | 72,5 ... 123 | 2x3 ... 2x5 | 590 | |
| | | 170 ... 245 | 3 ... 14 | 782 | |
| | SERIES | 72,5 ... 123 | 2x3 ... 2x5 | 590 | |
| III | PARALLEL | 72,5 ... 123 | 2x3 ... 2x6 | 782 | |
| | | 170 ... 245 | 2x3 ... 2x6 | 782 | |

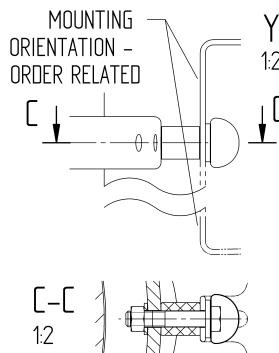
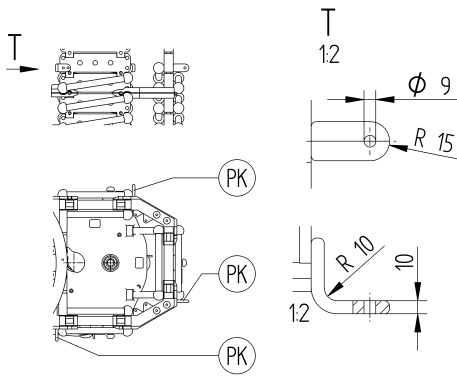


NUMBER AND POSITION OF CONNECTION CONTACT (2)

SCREW CONNECTION BETWEEN POTENTIAL CONNECTION UNIT AND TAKE-OFF RING (2)

THE SCREW CONNECTION (IF AVAILABLE) IS MADE BY THE TRANSFORMER MANUFACTURER.

- (M) - DRIVE SIDE OF SELECTOR
 - (A) - ON-LOAD TAP-CHANGER CURRENT TAKE-OFF TERMINAL
 - (B) - IS CONNECTED TO POTENTIAL OF (A)
 - (PK) - CONNECTION CONTACT
 - (1) - REFER TO DIMENSION DRAWING
 - (2) - IS ORDER RELATED, REFER TO ORDER RELATED DIMENSION DRAWING
- THE DETAILED CONNECTION DIAGRAM IS BINDING FOR THE DESIGNATION OF THE CONNECTION CONTACTS AND PHASES



| | | | |
|--------|------------|--------------|---------------------|
| DATE | 19.10.2016 | DOCUMENT NO. | SED 5'155760 001 00 |
| DFTR. | 20.10.2016 | NAME | CTETPRAKTIK2 |
| CHKD. | 20.10.2016 | HILFNER | HILTNER |
| STAND. | 20.10.2016 | PRODASTSCHUK | 1077501 |
| | | SCALE | 1:1 |

DIMENSION IN mm EXCEPT AS NOTED



ON-LOAD TAP-CHANGER OILTAP® M, VACUTAP® VM
POTENTIAL CONNECTION UNIT WR/GR-SELECTOR SIZE RC/RD/RDE
DIMENSION DRAWING

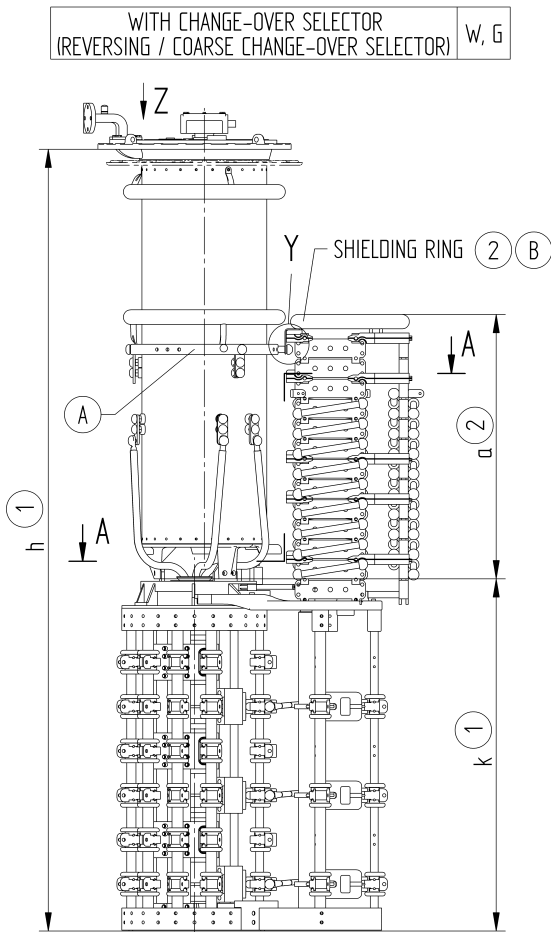
SERIAL NUMBER

MATERIAL NUMBER 100179520E SHEET 1/1

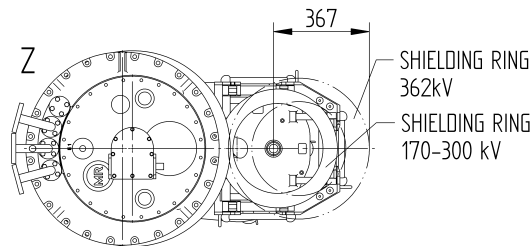


5.8 OILTAP® R 的电位连接

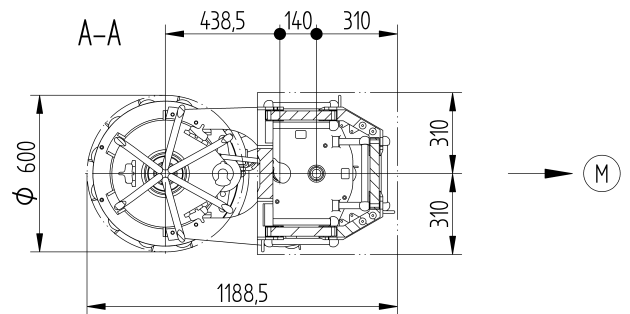
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RIII1200Y VARIANT DISPLAYED



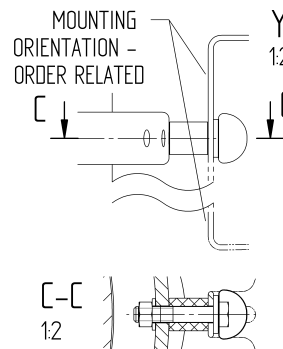
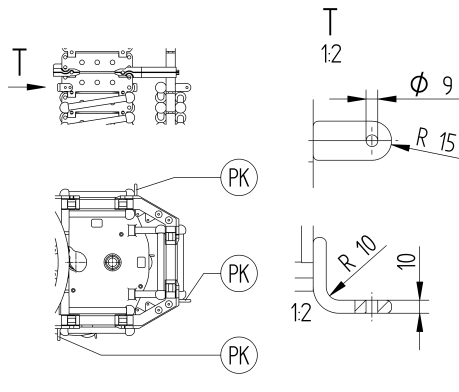
| PRODUCT RANGE POTENTIAL CONNECTION UNIT WITHOUT TIE-IN SWITCH WR/GR | | | | | |
|---------------------------------------------------------------------|---------------|-------------------|--------------|------------------------------------------|------------------------|
| ON-LOAD TAP-CHANGER OILTAP® | NUMBER PHASES | CIRCUIT RESISTORS | Um [kV] | POTENTIAL NUMBER OF RESISTORS PER PHASES | MAX. DIMENSIONS a [mm] |
| R | I | SERIES | 72,5 ... 362 | 3 ... 22 | 496 |
| | | PARALLEL | 72,5 ... 362 | 2x3 ... 2x22 | 894 |
| R (2001) | | 3-FOLD PARALLEL | 72,5 ... 123 | 3x3 ... 3x18 | 821 |
| | | | 170 ... 362 | 3x3 ... 3x20 | 1048 |
| R | II | SERIES | 72,5 ... 362 | 3 ... 22 | 1048 |
| | | PARALLEL | 72,5 ... 123 | 2x3 ... 2x11 | 821 |
| R (2001) | III | SERIES | 72,5 ... 123 | 3 ... 18 | 821 |
| | | | 170 ... 362 | 3 ... 20 | 1048 |
| | PARALLEL | 72,5 ... 123 | 2x3 ... 2x8 | 821 | |
| | | 170 ... 362 | 2x3 ... 2x9 | 1048 | |



NUMBER AND POSITION OF CONNECTION CONTACT (2)

SCREW CONNECTION BETWEEN POTENTIAL CONNECTION UNIT AND TAKE-OFF RING (2)

THE SCREW CONNECTION (IF AVAILABLE) IS MADE BY THE TRANSFORMER MANUFACTURER.



- (M) - DRIVE SIDE OF SELECTOR
 - (A) - ON-LOAD TAP-CHANGER CURRENT TAKE-OFF TERMINAL
 - (B) - IS CONNECTED TO POTENTIAL OF (A)
 - (PK) - CONNECTION CONTACT
 - (1) - REFER TO DIMENSION DRAWING
 - (2) - IS ORDER RELATED, REFER TO ORDER RELATED DIMENSION DRAWING
- THE DETAILED CONNECTION DIAGRAM IS BINDING FOR THE DESIGNATION OF THE CONNECTION CONTACTS AND PHASES

| | | | |
|--------|------------|--------------|--------------------|
| DATE | 19.10.2016 | DOCUMENT NO. | SED 5129f33 001 01 |
| DFTR. | 19.10.2016 | NAME | CTETPRAKTIK2 |
| CHKD. | 20.10.2016 | CHANGE NO. | HILTNER |
| STAND. | 20.10.2016 | SCALE | 1:10 |
| | | PRODASTSCHUK | 1077642 |

DIMENSION IN mm EXCEPT AS NOTED



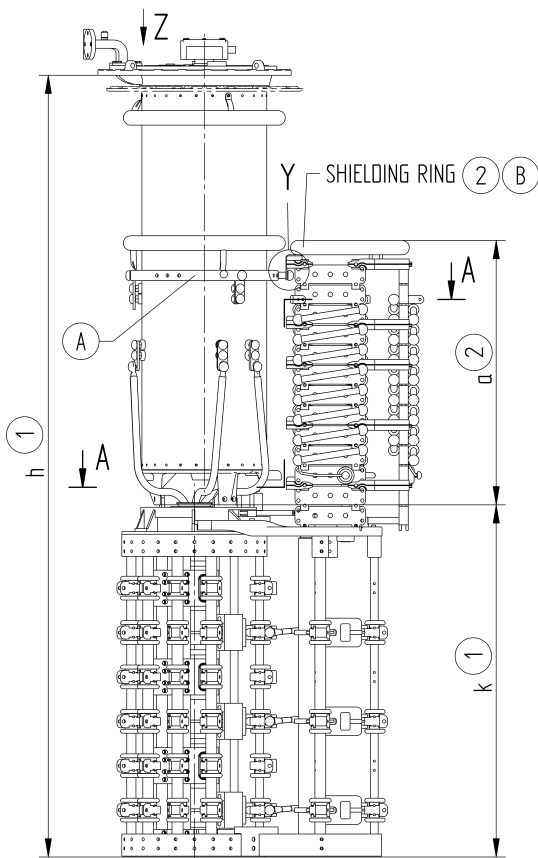
ON-LOAD TAP-CHANGER OILTAP® R
 POTENTIAL CONNECTION UNIT WR/GR-SELECTOR SIZE RC/RD/RDE
 DIMENSION DRAWING

SERIAL NUMBER

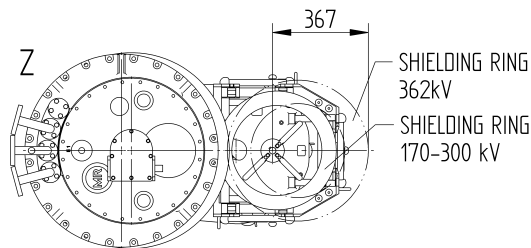
MATERIAL NUMBER 100177270E SHEET 1/1

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WITH CHANGE-OVER SELECTOR
 (REVERSING / COARSE CHANGE-OVER SELECTOR) W, G

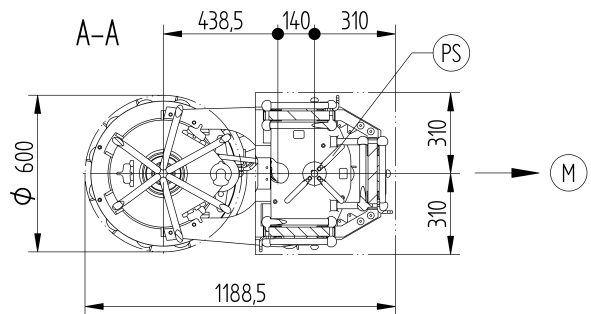


RIII1200Y VARIANT DISPLAYED

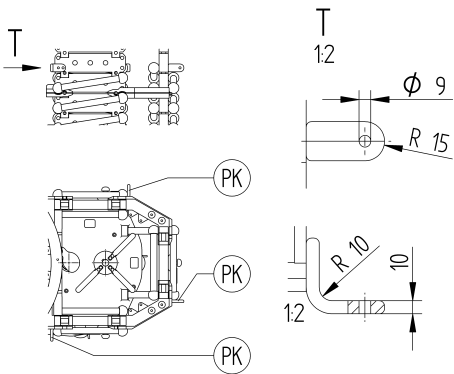


PRODUCT RANGE POTENTIAL CONNECTION UNIT WITH TIE-IN SWITCH WP/GP

| ON-LOAD TAP-CHANGER OILTAP® | NUMBER PHASES | CIRCUIT RESISTORS | Um [kV] | POTENTIAL NUMBER OF RESISTORS PER PHASES | MAX. DIMENSIONS a [mm] |
|-----------------------------|---------------|-----------------------------|-----------------------------|------------------------------------------|------------------------|
| R R (1201) | I | SERIES | 72,5 ... 362 | 3 ... 22 | 894 |
| | | | | 3 ... 18 | 496 |
| R R (1201) | I | PARALLEL | 72,5 ... 123 170 ... 362 | 2x3 ... 2x20 | 821 |
| | | | | 2x3 ... 2x22 | 1048 |
| | | | | 2x3 ... 2x8 | 496 |
| R R (1201) | I | 3-FOLD PARALLEL | 72,5 ... 123 170 ... 362 | 3x3 ... 3x14 | 821 |
| | | | | 3x3 ... 3x16 | 1048 |
| | | | | 3x3 ... 3x6 | 496 |
| R R (1201) | II | SERIES | 72,5 ... 123 170 ... 362 | 3 ... 18 | 821 |
| | | | | 3 ... 22 | 1048 |
| | II | PARALLEL | 72,5 ... 123 170 ... 362 | 2x3 ... 2x8 | 821 |
| | | | | 2x3 ... 2x10 | 1048 |
| | III | SERIES | 72,5 ... 123 170 ... 362 | 3 ... 14 | 821 |
| | | | | 3 ... 16 | 1048 |
| III | PARALLEL | 72,5 ... 123 170 ... 362 | 2x3 ... 2x6 | 821 | |
| | | | 2x3 ... 2x7 | 1048 | |

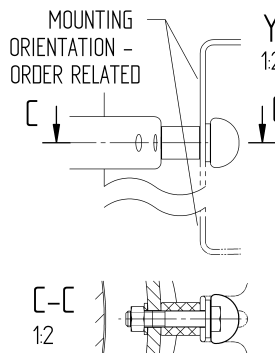


NUMBER AND POSITION OF CONNECTION CONTACT (2)



SCREW CONNECTION BETWEEN POTENTIAL CONNECTION UNIT AND TAKE-OFF RING (2)

THE SCREW CONNECTION (IF AVAILABLE) IS MADE BY THE TRANSFORMER MANUFACTURER.



- (M) - DRIVE SIDE OF SELECTOR
- (A) - ON-LOAD TAP-CHANGER CURRENT TAKE-OFF TERMINAL
- (B) - IS CONNECTED TO POTENTIAL OF (A)
- (PK) - CONNECTION CONTACT
- (PS) - TIE-IN SWITCH
- (1) - REFER TO DIMENSION DRAWING
- (2) - IS ORDER RELATED, REFER TO ORDER RELATED DIMENSION DRAWING
- THE DETAILED CONNECTION DIAGRAM IS BINDING FOR THE DESIGNATION OF THE CONNECTION CONTACTS AND PHASES

| | | | |
|--------|------------|--------------|--------------------|
| DATE | 19.10.2016 | DOCUMENT NO. | SED 5129227 001 01 |
| DFTR. | 19.10.2016 | NAME | CTETPRAKTIK2 |
| CHKD. | 20.10.2016 | CHANGE NO. | HILTNER |
| STAND. | 20.10.2016 | SCALE | 1:10 |
| | | PRODASTSCHUK | 1077642 |

DIMENSION IN mm EXCEPT AS NOTED



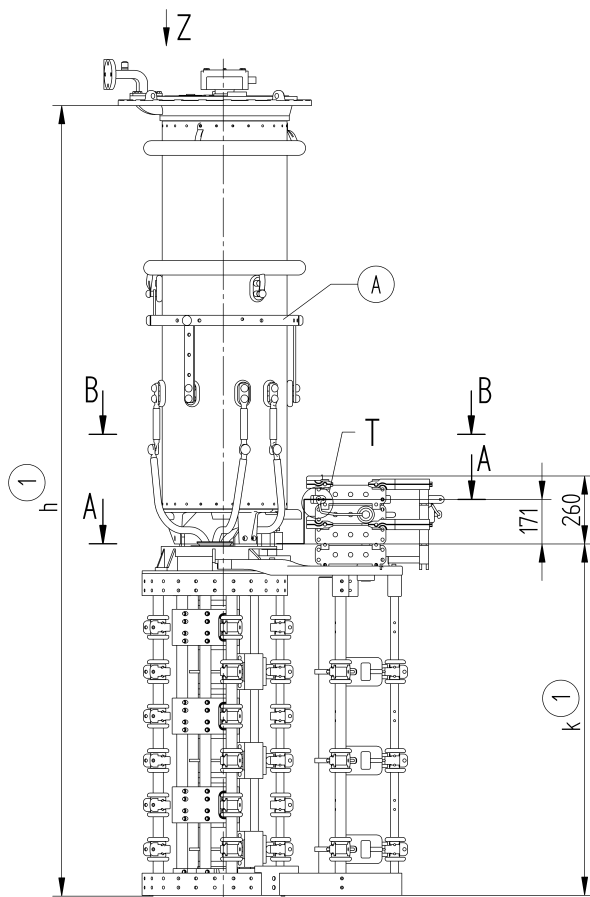
ON-LOAD TAP-CHANGER OILTAP® R
 POTENTIAL CONNECTION UNIT WP/GP-SELECTOR SIZE RC/RD/RDE
 DIMENSION DRAWING

SERIAL NUMBER

MATERIAL NUMBER 100177260E SHEET 1/1

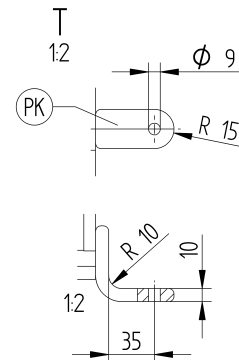
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WITH CHANGE-OVER SELECTOR
(REVERSING / COARSE CHANGE-OVER SELECTOR) W, G

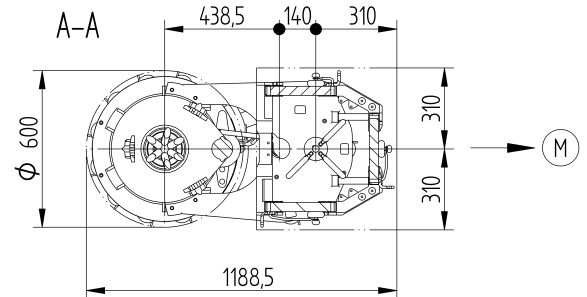
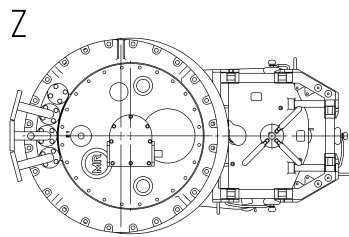


- (M) - DRIVE SIDE OF SELECTOR
 - (A) - ON-LOAD TAP-CHANGER CURRENT TAKE-OFF TERMINAL
 - (PK) - CONNECTION CONTACT
 - (PS) - TIE-IN SWITCH
 - (1) - REFER TO DIMENSION DRAWING
- THE DETAILED CONNECTION DIAGRAM IS BINDING FOR THE DESIGNATION OF THE CONNECTION CONTACTS AND PHASES

POSITION OF CONNECTION CONTACT - ORDER RELATED

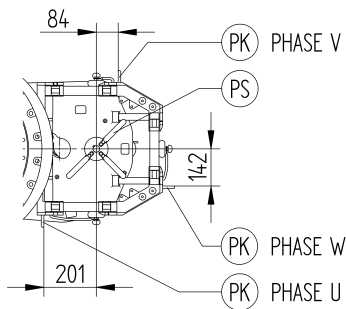


VRMIIV VARIANT DISPLAYED

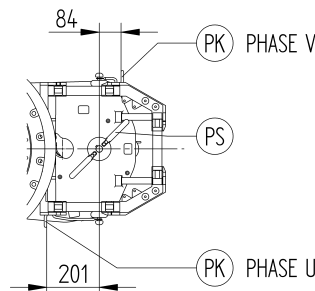


B-B

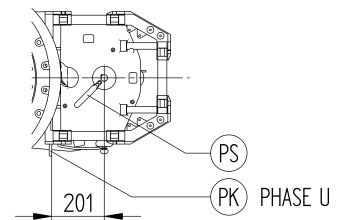
3-PHASE DESIGN



2-PHASE DESIGN



1-PHASE DESIGN



| | | | |
|--------|------------|--------------|--------------------|
| DATE | 18.10.2016 | DOCUMENT NO. | SED 5128451 001 01 |
| DFTR. | 19.10.2016 | NAME | CTETPRAKTIK2 |
| CHKD. | 20.10.2016 | HILFNER | HILTNER |
| STAND. | | PRODASTSCHUK | 1077548 |
| | | SCALE | 1:10 |

DIMENSION
IN mm
EXCEPT AS
NOTED



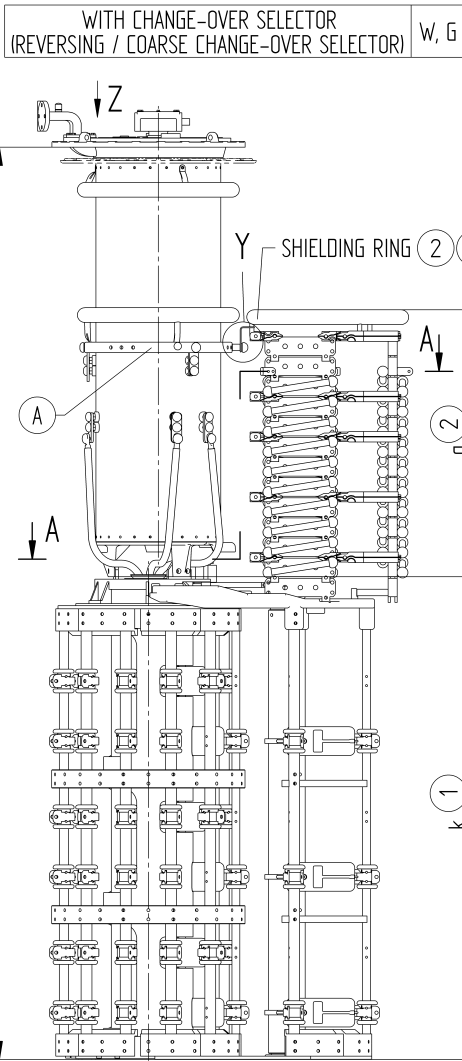
SELECTOR SIZE RC/RD/RDE
TIE-IN SWITCH WS/GS
DIMENSION DRAWING

SERIAL NUMBER

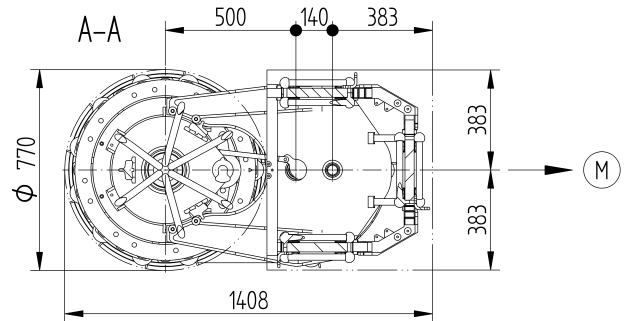
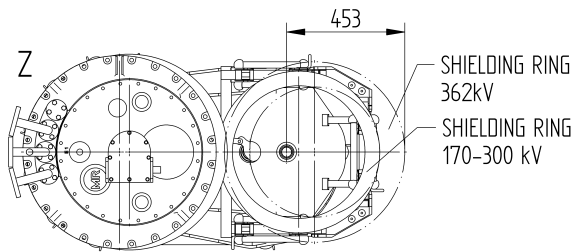
MATERIAL NUMBER
100177251E

SHEET
1/1

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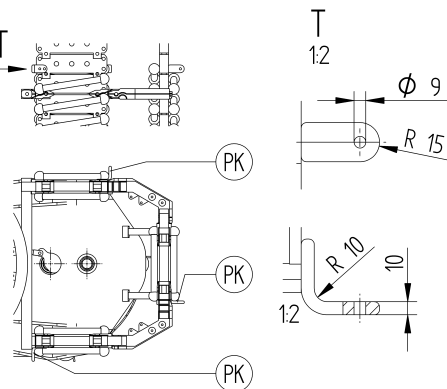


R111200Y VARIANT DISPLAYED



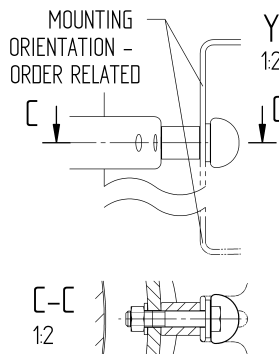
| ON-LOAD TAP-CHANGER OILTAP® | NUMBER PHASES | CIRCUIT RESISTORS | Um [kV] | POTENTIAL NUMBER OF RESISTORS PER PHASES | MAX. DIMENSIONS a [mm] | SEPARATE TRANSPORT POTENTIAL CONNECTION UNIT |
|-----------------------------|---------------|-------------------|--------------|------------------------------------------|------------------------|----------------------------------------------|
| R | I | SERIES | 72,5 ... 362 | 3 ... 22 | 496 | NO |
| R (1201) | | PARALLEL | 72,5 ... 362 | 2x3 ... 2x22 | 1063 | |
| | | | 72,5 ... 362 | 2x3 ... 2x12 | 496 | |
| R | | 3-FOLD PARALLEL | 72,5 ... 123 | 3x3 ... 3x18 | 821 | |
| R (1201) | 72,5 ... 362 | | 3x3 ... 3x20 | 1063 | | |
| R | II | SERIES | 72,5 ... 362 | 3 ... 22 | 1063 | |
| | | | 72,5 ... 123 | 2x3 ... 2x11 | 821 | |
| | | PARALLEL | 170 ... 362 | 2x3 ... 2x13 | 1063 | |
| | | | 72,5 ... 123 | 3 ... 10 | 496 | |
| | III | SERIES | 170 ... 362 | 11 ... 18 | 821 | YES |
| | | | 72,5 ... 123 | 3 ... 10 | 496 | NO |
| | | | 170 ... 362 | 11 ... 20 | 1063 | YES |
| | | | 72,5 ... 123 | 2x3 / 2x4 | 496 | NO |
| | | PARALLEL | 72,5 ... 123 | 2x5 ... 2x8 | 821 | YES |
| | | | 170 ... 362 | 2x3 / 2x4 | 496 | NO |
| | | | 170 ... 362 | 2x5 ... 2x9 | 1063 | YES |
| | | | 170 ... 362 | 2x5 ... 2x9 | 1063 | YES |

NUMBER AND POSITION OF CONNECTION CONTACT ②



SCREW CONNECTION BETWEEN POTENTIAL CONNECTION UNIT AND TAKE-OFF RING ②

THE SCREW CONNECTION (IF AVAILABLE) IS MADE BY THE TRANSFORMER MANUFACTURER.



- Ⓜ - DRIVE SIDE OF SELECTOR
- Ⓐ - ON-LOAD TAP-CHANGER CURRENT TAKE-OFF TERMINAL
- Ⓑ - IS CONNECTED TO POTENTIAL OF Ⓐ
- ⓅⓀ - CONNECTION CONTACT
- ① - REFER TO DIMENSION DRAWING
- ② - IS ORDER RELATED, REFER TO ORDER RELATED DIMENSION DRAWING
- THE DETAILED CONNECTION DIAGRAM IS BINDING FOR THE DESIGNATION OF THE CONNECTION CONTACTS AND PHASES

| | | | |
|--------|------------|--------------|--------------------|
| DATE | 19.10.2016 | DOCUMENT NO. | SED 5127293 001 01 |
| DFTR. | 20.10.2016 | NAME | CTETPRAKTIK2 |
| CHKD. | 20.10.2016 | CHANGE NO. | HILTNER |
| STAND. | 20.10.2016 | SCALE | 1:10 |
| | | PRODASTSCHUK | 1077642 |

DIMENSION IN mm EXCEPT AS NOTED

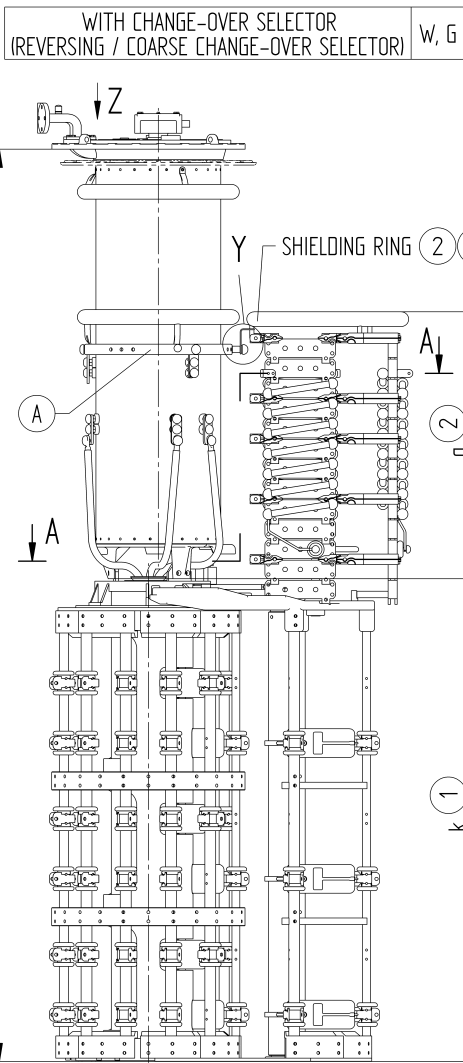


ON-LOAD TAP-CHANGER OILTAP® R
 POTENTIAL CONNECTION UNIT WR/GR - SELECTOR SIZE RE/RF
 DIMENSION DRAWING

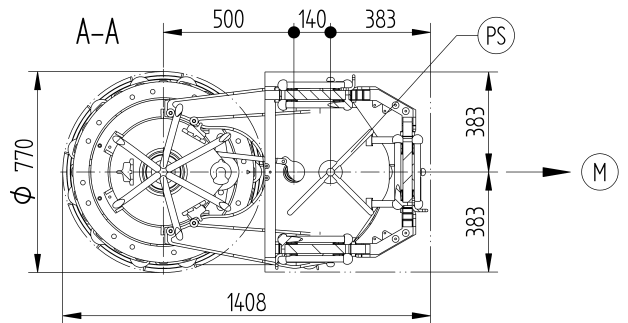
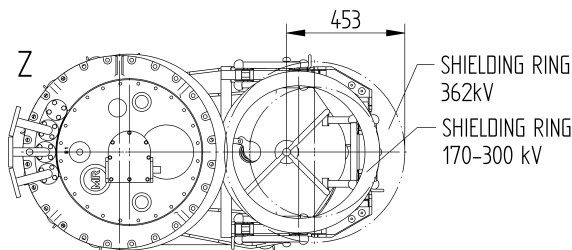
SERIAL NUMBER

MATERIAL NUMBER 100175360E SHEET 1/1

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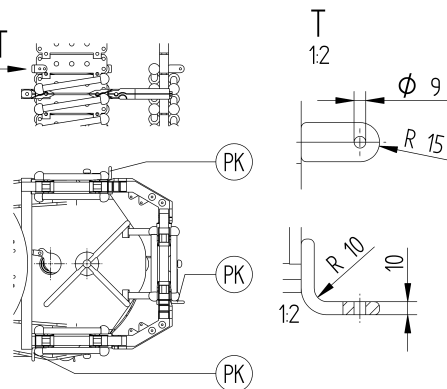


R111200Y VARIANT DISPLAYED



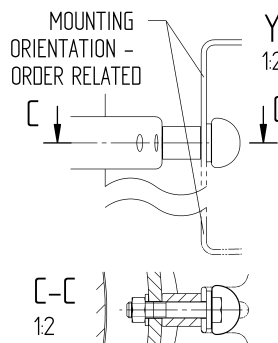
| PRODUCT RANGE POTENTIAL CONNECTION UNIT WITH TIE-IN SWITCH WP/GP | | | | | | | | |
|------------------------------------------------------------------|---------------|-------------------|--------------|------------------------------------------|------------------------|----------------------------------------------|------|-----|
| ON-LOAD TAP-CHANGER OILTAP® | NUMBER PHASES | CIRCUIT RESISTORS | Um [kV] | POTENTIAL NUMBER OF RESISTORS PER PHASES | MAX. DIMENSIONS a [mm] | SEPARATE TRANSPORT POTENTIAL CONNECTION UNIT | | |
| R | R (1201) | SERIES | 72,5 ... 362 | 3 ... 22 | 909 | NO | | |
| | | | | 3 ... 12 | 496 | | | |
| R | R (1201) | PARALLEL | 72,5 ... 123 | 2x3 ... 2x16 | 821 | | | |
| | | | | 170 ... 362 | 2x3 ... 2x20 | | 1063 | |
| | | | | 72,5 ... 362 | 2x3 / 2x4 | | 496 | |
| R | R (1201) | 3-FOLD PARALLEL | 72,5 ... 123 | 3x3 ... 3x12 | 821 | | | |
| | | | | 170 ... 362 | 3x3 ... 3x14 | | 1063 | |
| | | | | 72,5 ... 362 | 2x3 / 2x4 | | 496 | |
| R | R | SERIES | 72,5 ... 123 | 3 ... 16 | 821 | | YES | |
| | | | | 3 ... 18 | 1063 | | | |
| | | | | 3 ... 4 | 496 | | | |
| | | PARALLEL | | 170 ... 362 | 3 ... 4 | | | 496 |
| | | | | | 5 ... 14 | 1063 | | |
| | | | | | 5 ... 14 | 1063 | | |
| PARALLEL | R | PARALLEL | 72,5 ... 123 | 2x3 ... 2x5 | 821 | YES | | |
| | | | | 170 ... 362 | 2x3 ... 2x6 | | 1063 | |

NUMBER AND POSITION OF CONNECTION CONTACT (2)



SCREW CONNECTION BETWEEN POTENTIAL CONNECTION UNIT AND TAKE-OFF RING (2)

THE SCREW CONNECTION (IF AVAILABLE) IS MADE BY THE TRANSFORMER MANUFACTURER.



- (M) - DRIVE SIDE OF SELECTOR
- (A) - ON-LOAD TAP-CHANGER CURRENT TAKE-OFF TERMINAL
- (B) - IS CONNECTED TO POTENTIAL OF (A)
- (PK) - CONNECTION CONTACT
- (PS) - TIE-IN SWITCH
- (1) - REFER TO DIMENSION DRAWING
- (2) - IS ORDER RELATED, REFER TO ORDER RELATED DIMENSION DRAWING
- THE DETAILED CONNECTION DIAGRAM IS BINDING FOR THE DESIGNATION OF THE CONNECTION CONTACTS AND PHASES

| DATE | NAME | DOCUMENT NO. |
|------------|--------------|---------------------|
| 19.10.2016 | CTETPRAKTIK2 | SED 5114-220 001 01 |
| 20.10.2016 | HILTNER | CHANGE NO. |
| 20.10.2016 | PRODASTSCHUK | 1077642 |
| DFTR. | SCALE | 1:10 |
| CHKD. | | |
| STAND. | | |

DIMENSION IN mm EXCEPT AS NOTED



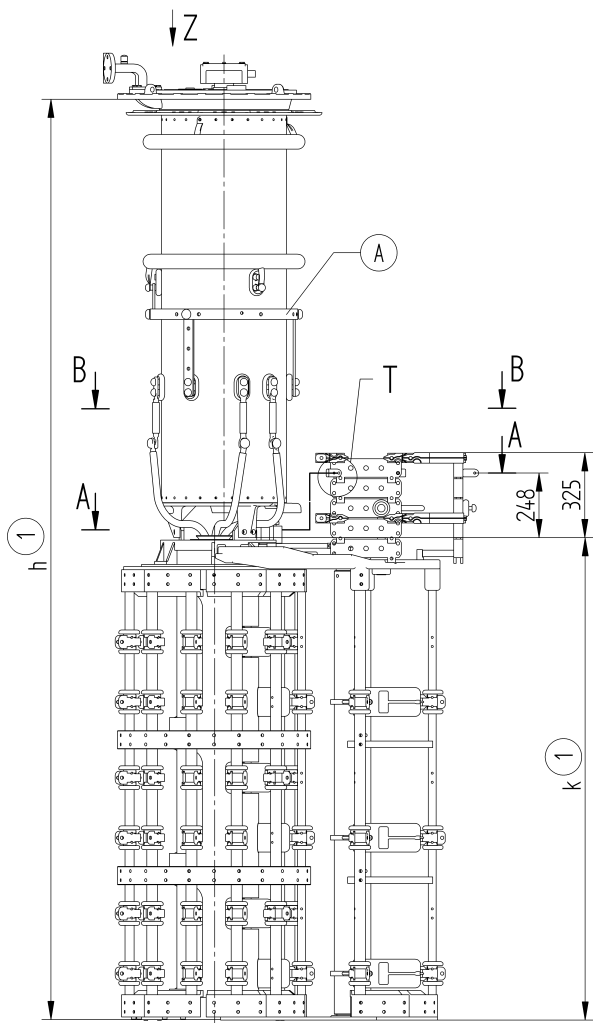
ON-LOAD TAP-CHANGER OILTAP® R
 POTENTIAL CONNECTION UNIT WP/GP - SELECTOR SIZE RE/RF
 DIMENSION DRAWING

SERIAL NUMBER

MATERIAL NUMBER 100175340E SHEET 1/1

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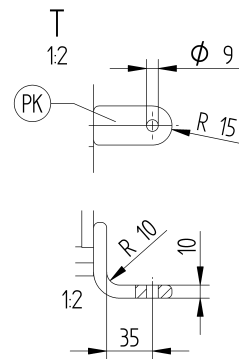
WITH CHANGE-OVER SELECTOR
 (REVERSING / COARSE CHANGE-OVER SELECTOR) W, G



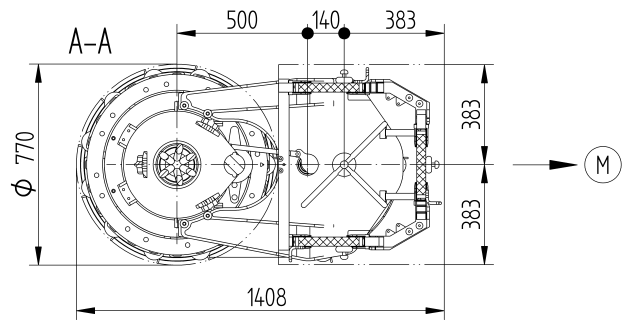
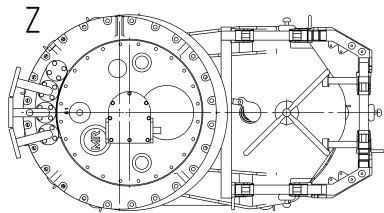
- (M) - DRIVE SIDE OF SELECTOR
- (A) - ON-LOAD TAP-CHANGER CURRENT TAKE-OFF TERMINAL
- (PK) - CONNECTION CONTACT
- (PS) - TIE-IN SWITCH
- (1) - REFER TO DIMENSION DRAWING

-THE DETAILED CONNECTION DIAGRAM IS BINDING FOR THE DESIGNATION OF THE CONNECTION CONTACTS AND PHASES

POSITION OF CONNECTION CONTACT - ORDER RELATED



VRMIIII VARIANT DISPLAYED

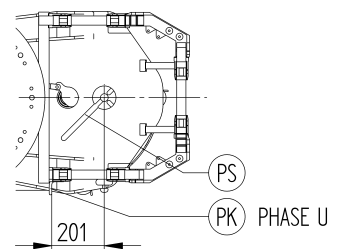
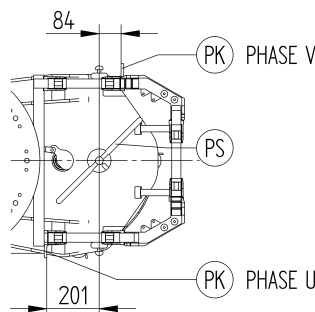
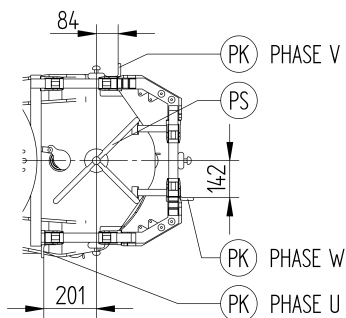


B-B

3-PHASE DESIGN

2-PHASE DESIGN

1-PHASE DESIGN



DIMENSION
 IN mm
 EXCEPT AS
 NOTED



SELECTOR SIZE RE/RF/RES
 TIE-IN SWITCH WS/GS
 DIMENSION DRAWING

SERIAL NUMBER

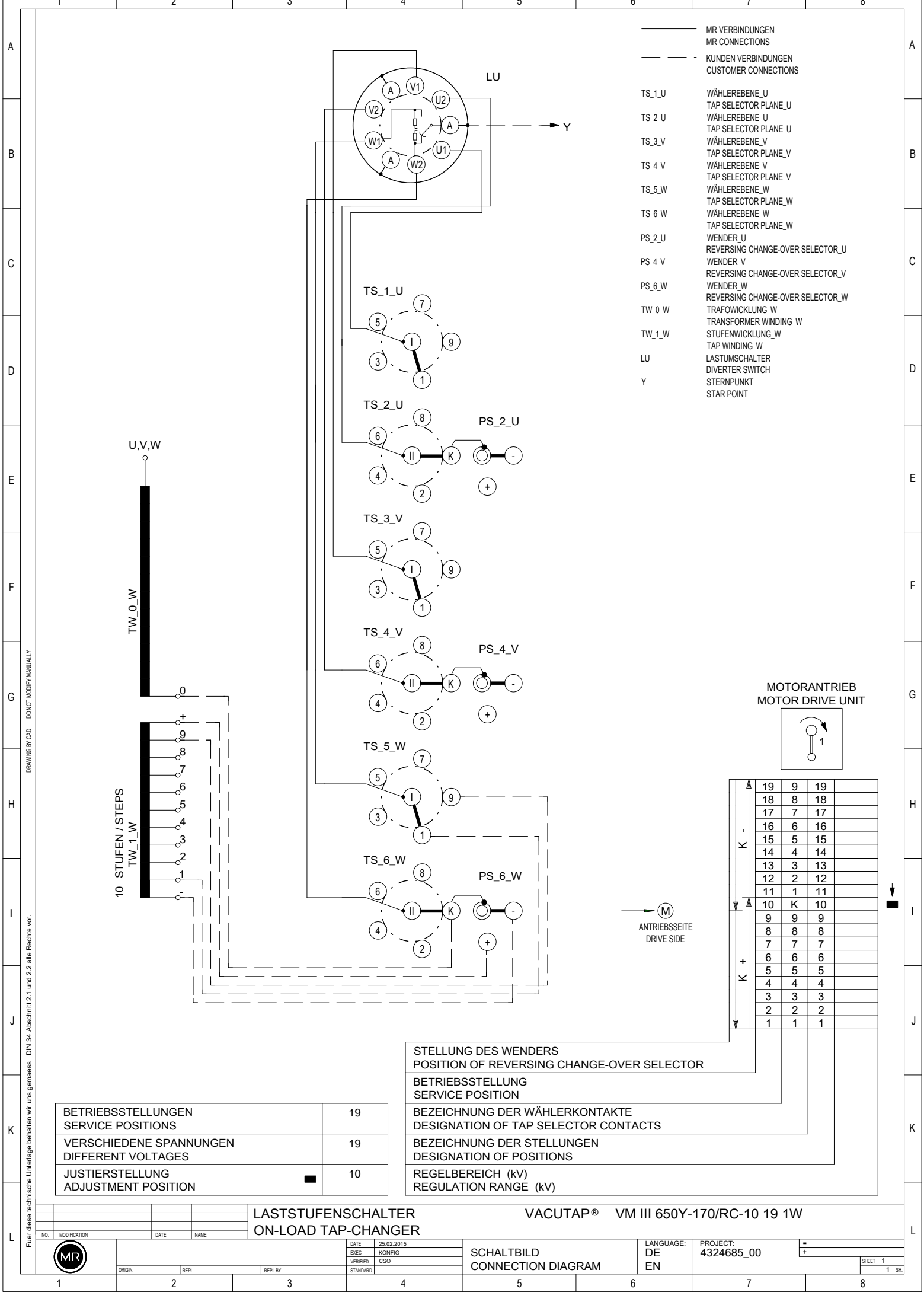
MATERIAL NUMBER
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SHEET
 1/1

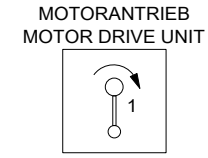
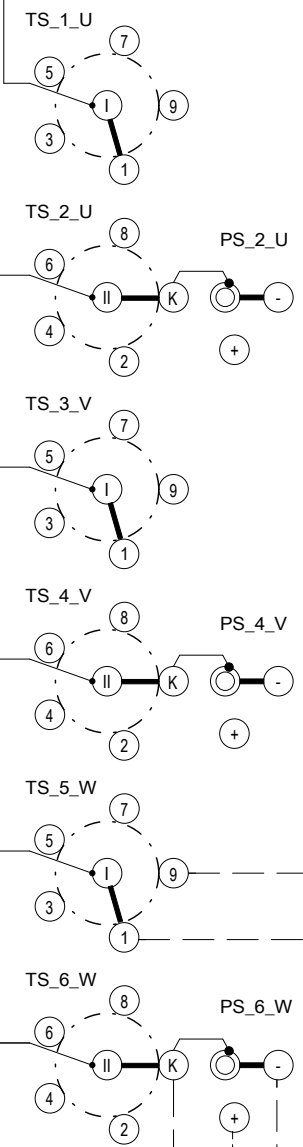
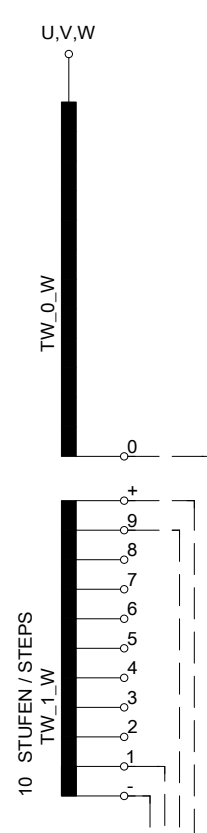
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| SED 5160555 001 00 | 18.10.2016 | CTETPRAKTIK2 | 1077548 | 1:10 |
| CHKD. | 19.10.2016 | HILTNER | | |
| STAND. | 20.10.2016 | PRODASTSCHUK | | |



5.9 VACUTAP® VM® 的接线图示例



- MR VERBINDUNGEN
MR CONNECTIONS
- - - KUNDEN VERBINDUNGEN
CUSTOMER CONNECTIONS
- TS_1_U WÄHLEREBENE_U
TAP SELECTOR PLANE_U
- TS_2_U WÄHLEREBENE_U
TAP SELECTOR PLANE_U
- TS_3_V WÄHLEREBENE_V
TAP SELECTOR PLANE_V
- TS_4_V WÄHLEREBENE_V
TAP SELECTOR PLANE_V
- TS_5_W WÄHLEREBENE_W
TAP SELECTOR PLANE_W
- TS_6_W WÄHLEREBENE_W
TAP SELECTOR PLANE_W
- PS_2_U WENDER_U
REVERSING CHANGE-OVER SELECTOR_U
- PS_4_V WENDER_V
REVERSING CHANGE-OVER SELECTOR_V
- PS_6_W WENDER_W
REVERSING CHANGE-OVER SELECTOR_W
- TW_0_W TRAFOWICKLUNG_W
TRANSFORMER WINDING_W
- TW_1_W STUFENWICKLUNG_W
TAP WINDING_W
- LU LASTUMSCHALTER
DIVERTER SWITCH
- Y STERNPUNKT
STAR POINT



→ (M)
ANTRIEBSSEITE
DRIVE SIDE

| | | | |
|----|---|----|--|
| 19 | 9 | 19 | |
| 18 | 8 | 18 | |
| 17 | 7 | 17 | |
| 16 | 6 | 16 | |
| 15 | 5 | 15 | |
| 14 | 4 | 14 | |
| 13 | 3 | 13 | |
| 12 | 2 | 12 | |
| 11 | 1 | 11 | |
| 10 | K | 10 | |
| 9 | 9 | 9 | |
| 8 | 8 | 8 | |
| 7 | 7 | 7 | |
| 6 | 6 | 6 | |
| 5 | 5 | 5 | |
| 4 | 4 | 4 | |
| 3 | 3 | 3 | |
| 2 | 2 | 2 | |
| 1 | 1 | 1 | |

| | |
|-----------------------------------------------|----|
| BETRIEBSSTELLUNGEN SERVICE POSITIONS | 19 |
| VERSCHIEDENE SPANNUNGEN DIFFERENT VOLTAGES | 19 |
| JUSTIERSTELLUNG ADJUSTMENT POSITION | 10 |

| | |
|------------------------------------------------------------------------|--|
| STELLUNG DES WENDERS POSITION OF REVERSING CHANGE-OVER SELECTOR | |
| BETRIEBSSTELLUNG SERVICE POSITION | |
| BEZEICHNUNG DER WÄHLERKONTAKTE DESIGNATION OF TAP SELECTOR CONTACTS | |
| BEZEICHNUNG DER STELLUNGEN DESIGNATION OF POSITIONS | |
| REGELBEREICH (kV) REGULATION RANGE (kV) | |

LASTSTUFENSCHALTER VACUTAP® VM III 650Y-170/RC-10 19 1W
ON-LOAD TAP-CHANGER

| | | | |
|-----|--------------|------|------|
| NO. | MODIFICATION | DATE | NAME |
| | | | |



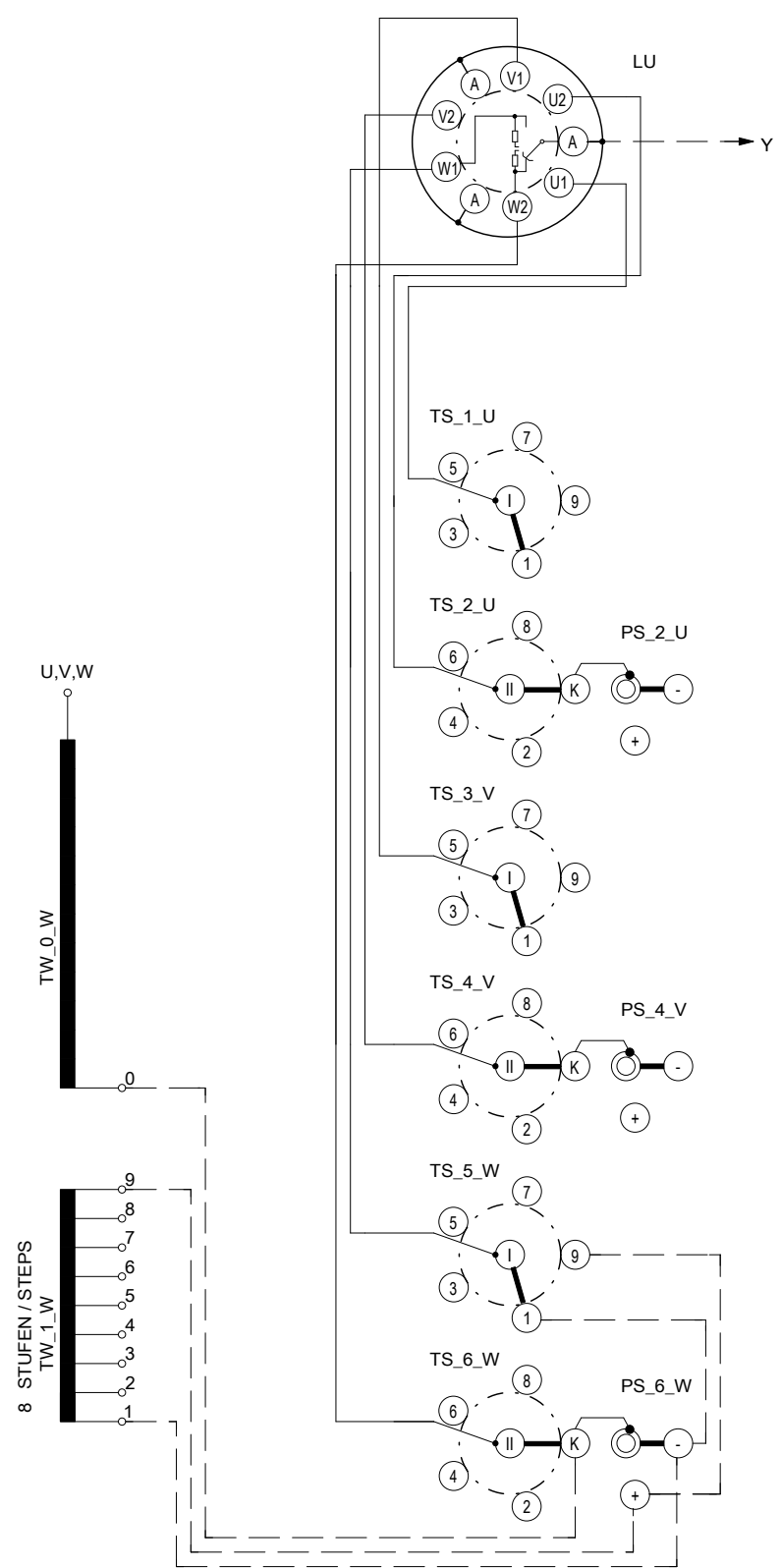
| | |
|----------|------------|
| DATE | 25.02.2015 |
| ERIC | KONFIG |
| VERIFIED | CSO |
| STANDARD | |

SCHALTBILD
CONNECTION DIAGRAM

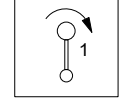
LANGUAGE:
DE
EN

PROJECT:
4324685_00

- MR VERBINDUNGEN
MR CONNECTIONS
- - - KUNDEN VERBINDUNGEN
CUSTOMER CONNECTIONS
- TS_1_U WÄHLEREBENE_U
TAP SELECTOR PLANE_U
- TS_2_U WÄHLEREBENE_U
TAP SELECTOR PLANE_U
- TS_3_V WÄHLEREBENE_V
TAP SELECTOR PLANE_V
- TS_4_V WÄHLEREBENE_V
TAP SELECTOR PLANE_V
- TS_5_W WÄHLEREBENE_W
TAP SELECTOR PLANE_W
- TS_6_W WÄHLEREBENE_W
TAP SELECTOR PLANE_W
- PS_2_U WENDER_U
REVERSING CHANGE-OVER SELECTOR_U
- PS_4_V WENDER_V
REVERSING CHANGE-OVER SELECTOR_V
- PS_6_W WENDER_W
REVERSING CHANGE-OVER SELECTOR_W
- TW_0_W TRAFOWICKLUNG_W
TRANSFORMER WINDING_W
- TW_1_W STUFENWICKLUNG_W
TAP WINDING_W
- LU LASTUMSCHALTER
DIVERTER SWITCH
- Y STERNPUNKT
STAR POINT



MOTORANTRIEB
MOTOR DRIVE UNIT



→ (M)
ANTRIEBSSEITE
DRIVE SIDE

| | | | |
|----|---|----|--|
| 19 | 9 | 17 | |
| 18 | 8 | 16 | |
| 17 | 7 | 15 | |
| 16 | 6 | 14 | |
| 15 | 5 | 13 | |
| 14 | 4 | 12 | |
| 13 | 3 | 11 | |
| 12 | 2 | 10 | |
| 11 | 1 | 9C | |
| 10 | K | 9B | |
| 9 | 9 | 9A | |
| 8 | 8 | 8 | |
| 7 | 7 | 7 | |
| 6 | 6 | 6 | |
| 5 | 5 | 5 | |
| 4 | 4 | 4 | |
| 3 | 3 | 3 | |
| 2 | 2 | 2 | |
| 1 | 1 | 1 | |

| | |
|-----------------------------------------------|----|
| BETRIEBSSTELLUNGEN SERVICE POSITIONS | 19 |
| VERSCHIEDENE SPANNUNGEN DIFFERENT VOLTAGES | 17 |
| JUSTIERSTELLUNG ADJUSTMENT POSITION | 9B |

| | |
|------------------------------------------------------------------------|----|
| STELLUNG DES WENDERS POSITION OF REVERSING CHANGE-OVER SELECTOR | 19 |
| BETRIEBSSTELLUNG SERVICE POSITION | 17 |
| BEZEICHNUNG DER WÄHLERKONTAKTE DESIGNATION OF TAP SELECTOR CONTACTS | 9B |
| BEZEICHNUNG DER STELLUNGEN DESIGNATION OF POSITIONS | 17 |
| REGELBEREICH (kV) REGULATION RANGE (kV) | 9B |

LASTSTUFENSCHALTER VACUTAP® VM III 650Y-170/RC-10 19 3W
ON-LOAD TAP-CHANGER

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| 01 | 8 Stufen, vers. Spg | 25.11.2015 | EFR |
| NO. | MODIFICATION | DATE | NAME |

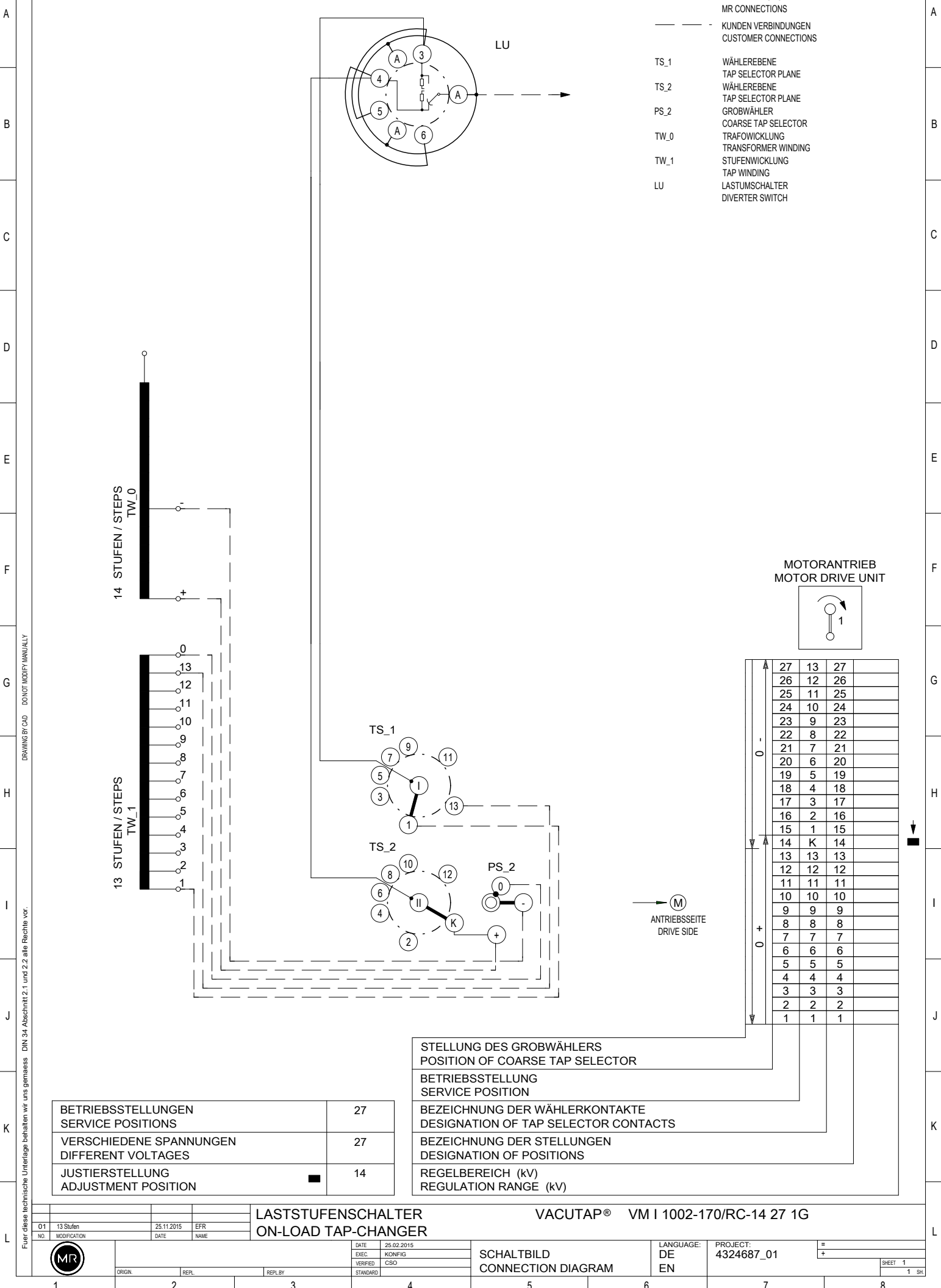


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| DATE | 25.02.2015 |
| ERIC | KONFIG |
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| STANDARD | |

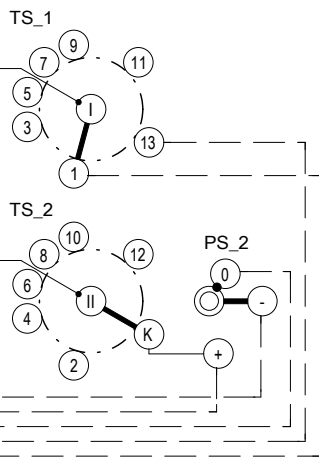
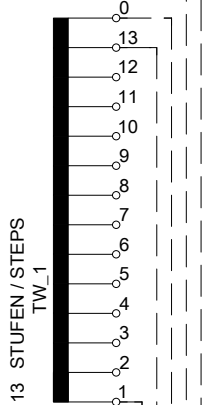
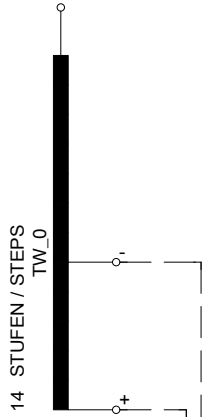
SCHALTBILD
CONNECTION DIAGRAM

| | |
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| LANGUAGE: | DE |
| EN | |
| PROJECT: | 4324686_01 |

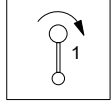
FÜR DIESE TECHNISCHE UNTERLAGE BEHALTEN WIR UNS GEMÄSS DIN 34 ABSCHNITT 2.1 UND 2.2 ALLE RECHTE VOR.
 DRAWING BY CAD DO NOT MODIFY MANUALLY



- MR VERBINDUNGEN
MR CONNECTIONS
- - - KUNDEN VERBINDUNGEN
CUSTOMER CONNECTIONS
- TS_1 WÄHLEREBENE
TAP SELECTOR PLANE
- TS_2 WÄHLEREBENE
TAP SELECTOR PLANE
- PS_2 GROBWÄHLER
COARSE TAP SELECTOR
- TW_0 TRAFOWICKLUNG
TRANSFORMER WINDING
- TW_1 STUFENWICKLUNG
TAP WINDING
- LU LASTUMSCHALTER
DIVERTER SWITCH



MOTORANTRIEB
MOTOR DRIVE UNIT



| | | | |
|----|----|----|--|
| 27 | 13 | 27 | |
| 26 | 12 | 26 | |
| 25 | 11 | 25 | |
| 24 | 10 | 24 | |
| 23 | 9 | 23 | |
| 22 | 8 | 22 | |
| 21 | 7 | 21 | |
| 20 | 6 | 20 | |
| 19 | 5 | 19 | |
| 18 | 4 | 18 | |
| 17 | 3 | 17 | |
| 16 | 2 | 16 | |
| 15 | 1 | 15 | |
| 14 | K | 14 | |
| 13 | 13 | 13 | |
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| 1 | 1 | 1 | |

→ (M)
ANTRIEBSSEITE
DRIVE SIDE

| |
|------------------------------------------------------------------------|
| STELLUNG DES GROBWÄHLERS POSITION OF COARSE TAP SELECTOR |
| BETRIEBSSTELLUNG SERVICE POSITION |
| BEZEICHNUNG DER WÄHLERKONTAKTE DESIGNATION OF TAP SELECTOR CONTACTS |
| BEZEICHNUNG DER STELLUNGEN DESIGNATION OF POSITIONS |
| REGELBEREICH (kV) REGULATION RANGE (kV) |

| | |
|-----------------------------------------------|----|
| BETRIEBSSTELLUNGEN SERVICE POSITIONS | 27 |
| VERSCHIEDENE SPANNUNGEN DIFFERENT VOLTAGES | 27 |
| JUSTIERSTELLUNG ADJUSTMENT POSITION | 14 |

LASTSTUFENSCHALTER VACUTAP® VM I 1002-170/RC-14 27 1G
ON-LOAD TAP-CHANGER

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| 01 | 13 Stufen | 25.11.2015 | EFR |
| NO. | MODIFICATION | DATE | NAME |

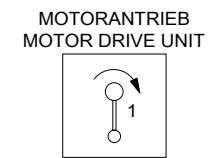
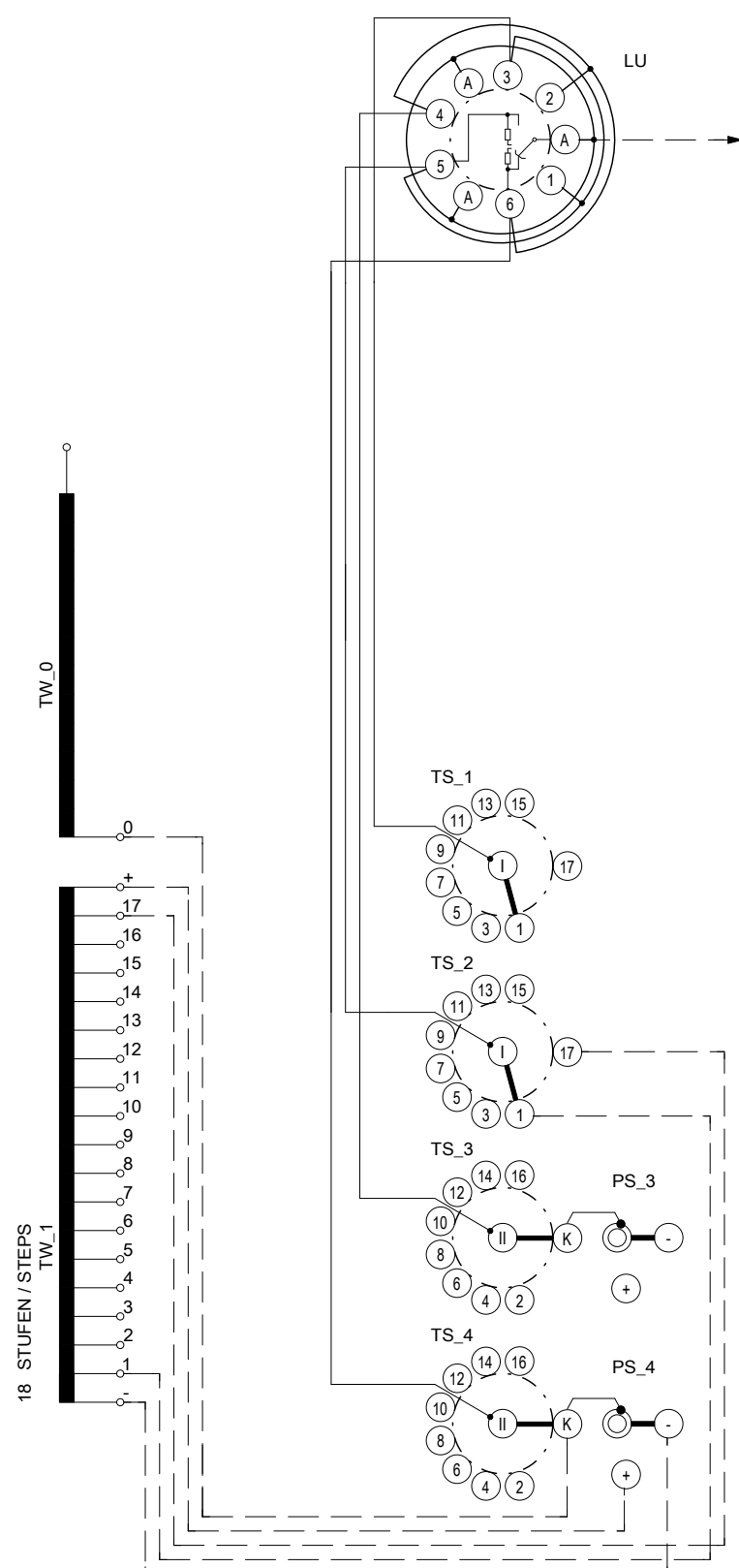
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| DATE | 25.02.2015 |
| ERIC | KONFIG |
| VERIFIED | CSO |
| STANDARD | |

SCHALTBILD
CONNECTION DIAGRAM

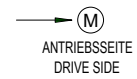
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| LANGUAGE: | DE |
| EN | |
| PROJECT: | 4324687_01 |

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- MR VERBINDUNGEN
MR CONNECTIONS
- - - KUNDEN VERBINDUNGEN
CUSTOMER CONNECTIONS
- TS_1 WÄHLEREBENE
TAP SELECTOR PLANE
- TS_2 WÄHLEREBENE
TAP SELECTOR PLANE
- TS_3 WÄHLEREBENE
TAP SELECTOR PLANE
- TS_4 WÄHLEREBENE
TAP SELECTOR PLANE
- PS_3 WENDER
REVERSING CHANGE-OVER SELECTOR
- PS_4 WENDER
REVERSING CHANGE-OVER SELECTOR
- TW_0 TRAFOWICKLUNG
TRANSFORMER WINDING
- TW_1 STUFENWICKLUNG
TAP WINDING
- LU LASTUMSCHALTER
DIVERTER SWITCH



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| 35 | 17 | 35 |
| 34 | 16 | 34 |
| 33 | 15 | 33 |
| 32 | 14 | 32 |
| 31 | 13 | 31 |
| 30 | 12 | 30 |
| 29 | 11 | 29 |
| 28 | 10 | 28 |
| 27 | 9 | 27 |
| 26 | 8 | 26 |
| 25 | 7 | 25 |
| 24 | 6 | 24 |
| 23 | 5 | 23 |
| 22 | 4 | 22 |
| 21 | 3 | 21 |
| 20 | 2 | 20 |
| 19 | 1 | 19 |
| 18 | K | 18 |
| 17 | 17 | 17 |
| 16 | 16 | 16 |
| 15 | 15 | 15 |
| 14 | 14 | 14 |
| 13 | 13 | 13 |
| 12 | 12 | 12 |
| 11 | 11 | 11 |
| 10 | 10 | 10 |
| 9 | 9 | 9 |
| 8 | 8 | 8 |
| 7 | 7 | 7 |
| 6 | 6 | 6 |
| 5 | 5 | 5 |
| 4 | 4 | 4 |
| 3 | 3 | 3 |
| 2 | 2 | 2 |
| 1 | 1 | 1 |



STELLUNG DES WENDERS
POSITION OF REVERSING CHANGE-OVER SELECTOR

BETRIEBSSTELLUNG
SERVICE POSITION

BEZEICHNUNG DER WÄHLERKONTAKTE
DESIGNATION OF TAP SELECTOR CONTACTS

BEZEICHNUNG DER STELLUNGEN
DESIGNATION OF POSITIONS

REGELBEREICH (kV)
REGULATION RANGE (kV)

| | |
|-----------------------------------------------|----|
| BETRIEBSSTELLUNGEN SERVICE POSITIONS | 35 |
| VERSCHIEDENE SPANNUNGEN DIFFERENT VOLTAGES | 35 |
| JUSTIERSTELLUNG ADJUSTMENT POSITION | 18 |

LASTSTUFENSCHALTER VACUTAP® VM I 1503-170/RC-18 35 1W
ON-LOAD TAP-CHANGER

| | | | |
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| NO. | MODIFICATION | DATE | NAME |
| | | | |

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| DATE | 25.02.2015 |
| ERIC | KONFIG |
| VERIFIED | CSO |
| STANDARD | |

SCHALTBILD
CONNECTION DIAGRAM

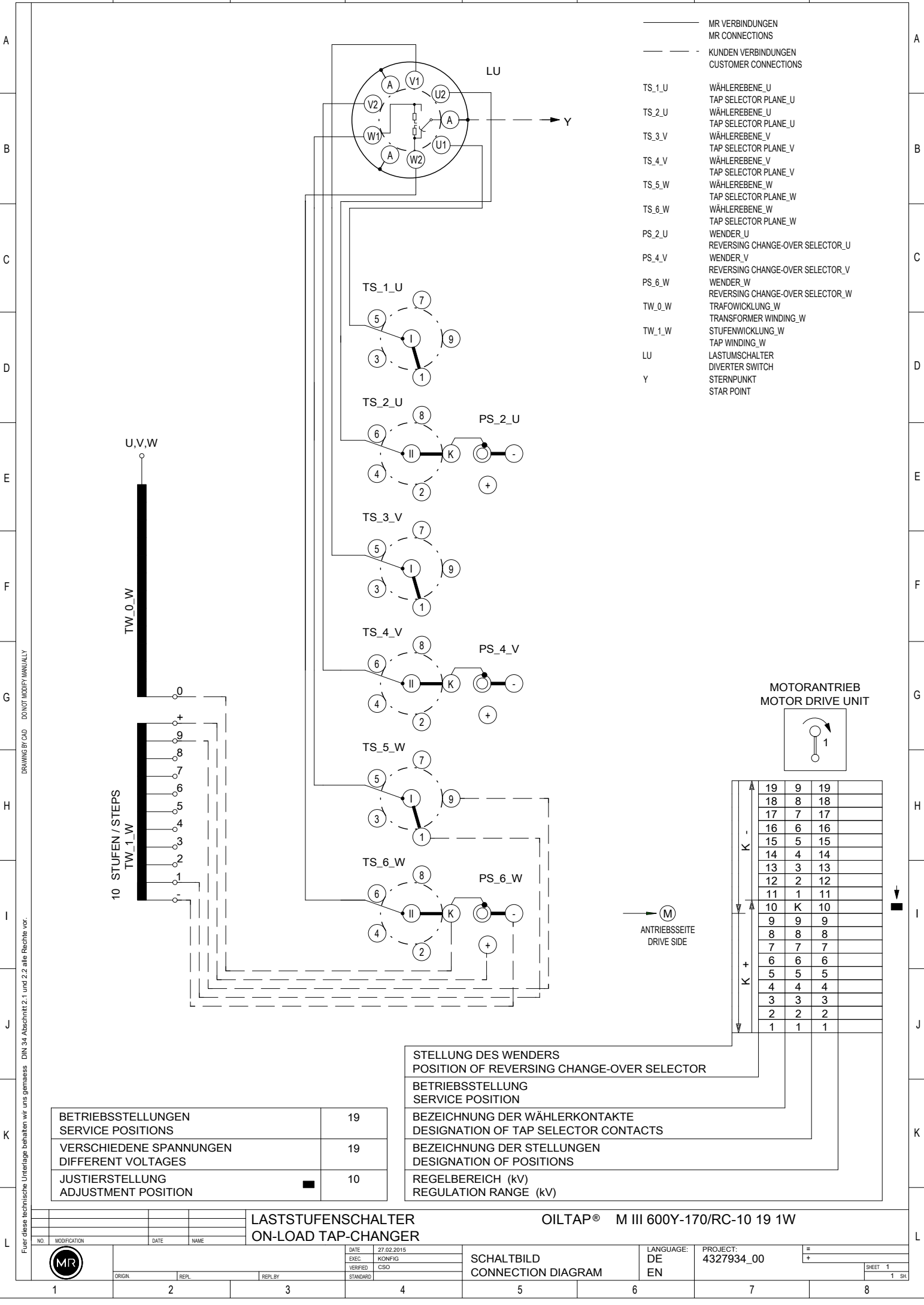
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| LANGUAGE: | DE |
| EN | |
| PROJECT: | 4324689_00 |

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| SHEET 1 | 1 SH |

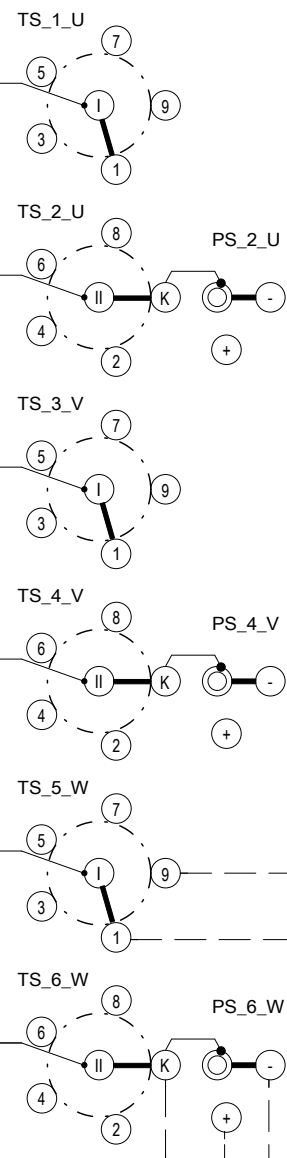
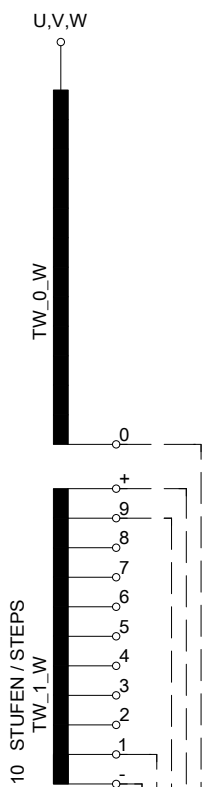
FÜR DIESE TECHNISCHE UNTERLAGE BEHALTEN WIR UNS GEMÄSS DIN 34 ABSCHNITT 2.1 UND 2.2 ALLE RECHTE VOR.
 DRAWING BY CAD DO NOT MODIFY MANUALLY



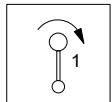
5.10 OILTAP® M 的接线图示例



- MR VERBINDUNGEN
MR CONNECTIONS
- - - KUNDEN VERBINDUNGEN
CUSTOMER CONNECTIONS
- TS_1_U WÄHLEREBENE_U
TAP SELECTOR PLANE_U
- TS_2_U WÄHLEREBENE_U
TAP SELECTOR PLANE_U
- TS_3_V WÄHLEREBENE_V
TAP SELECTOR PLANE_V
- TS_4_V WÄHLEREBENE_V
TAP SELECTOR PLANE_V
- TS_5_W WÄHLEREBENE_W
TAP SELECTOR PLANE_W
- TS_6_W WÄHLEREBENE_W
TAP SELECTOR PLANE_W
- PS_2_U WENDER_U
REVERSING CHANGE-OVER SELECTOR_U
- PS_4_V WENDER_V
REVERSING CHANGE-OVER SELECTOR_V
- PS_6_W WENDER_W
REVERSING CHANGE-OVER SELECTOR_W
- TW_0_W TRAFOWICKLUNG_W
TRANSFORMER WINDING_W
- TW_1_W STUFENWICKLUNG_W
TAP WINDING_W
- LU LASTUMSCHALTER
DIVERTER SWITCH
- Y STERNPUNKT
STAR POINT



MOTORANTRIEB
MOTOR DRIVE UNIT



| | | | |
|----|---|----|--|
| 19 | 9 | 19 | |
| 18 | 8 | 18 | |
| 17 | 7 | 17 | |
| 16 | 6 | 16 | |
| 15 | 5 | 15 | |
| 14 | 4 | 14 | |
| 13 | 3 | 13 | |
| 12 | 2 | 12 | |
| 11 | 1 | 11 | |
| 10 | K | 10 | |
| 9 | 9 | 9 | |
| 8 | 8 | 8 | |
| 7 | 7 | 7 | |
| 6 | 6 | 6 | |
| 5 | 5 | 5 | |
| 4 | 4 | 4 | |
| 3 | 3 | 3 | |
| 2 | 2 | 2 | |
| 1 | 1 | 1 | |

(M) ANTRIEBSSEITE
DRIVE SIDE

STELLUNG DES WENDERS
POSITION OF REVERSING CHANGE-OVER SELECTOR

BETRIEBSSTELLUNG
SERVICE POSITION

BEZEICHNUNG DER WÄHLERKONTAKTE
DESIGNATION OF TAP SELECTOR CONTACTS

BEZEICHNUNG DER STELLUNGEN
DESIGNATION OF POSITIONS

REGELBEREICH (kV)
REGULATION RANGE (kV)

| | |
|-----------------------------------------------|----|
| BETRIEBSSTELLUNGEN SERVICE POSITIONS | 19 |
| VERSCHIEDENE SPANNUNGEN DIFFERENT VOLTAGES | 19 |
| JUSTIERSTELLUNG ADJUSTMENT POSITION | 10 |

LASTSTUFENSCHALTER ON-LOAD TAP-CHANGER OILTAP® M III 600Y-170/RC-10 19 1W

| NO. | MODIFICATION | DATE | NAME |
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DATE 27.02.2015
 EXEC. KONFIG
 VERIFIED CSO
 STANDARD

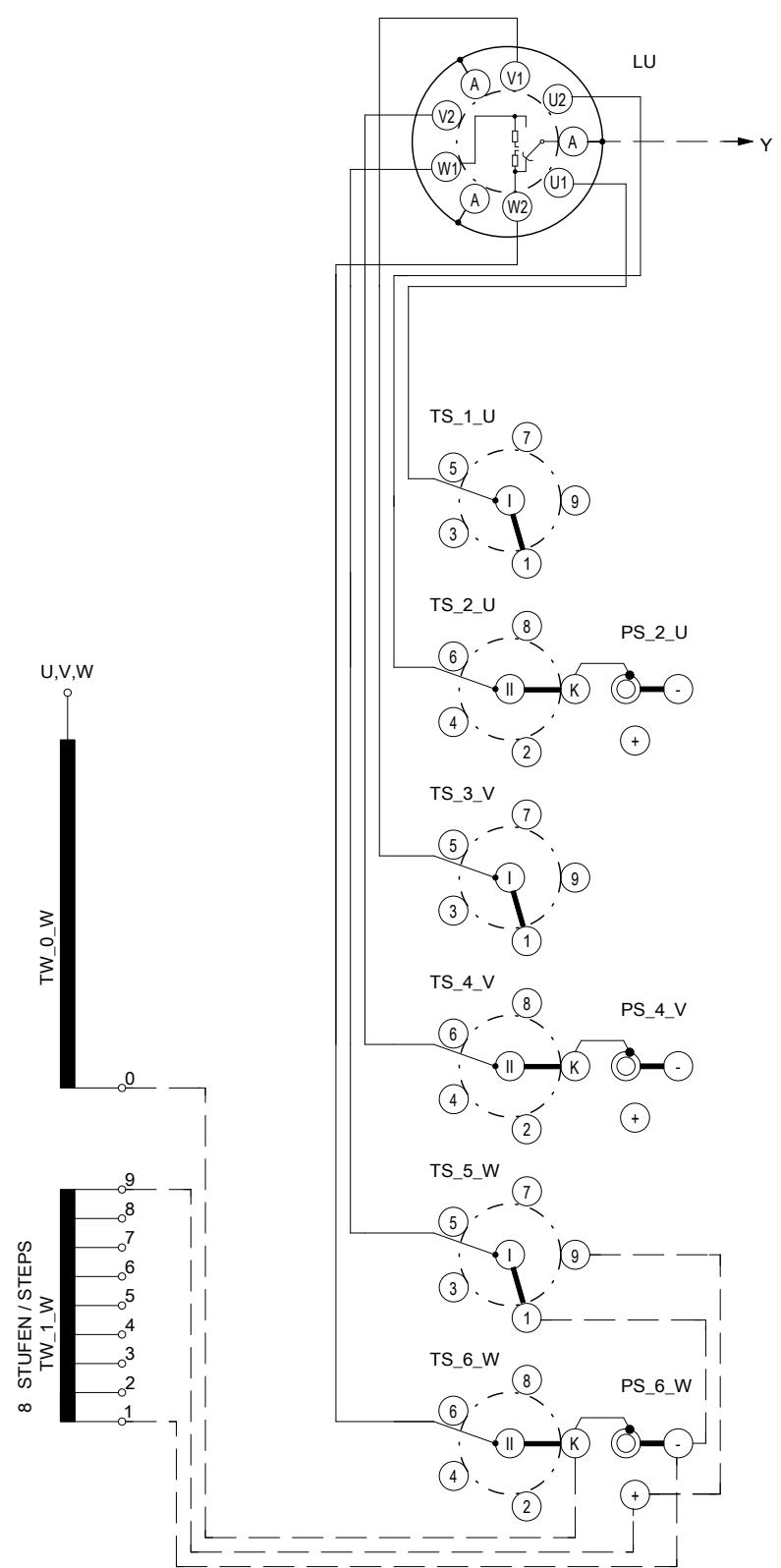
SCHALTBILD
CONNECTION DIAGRAM

LANGUAGE: DE PROJECT: 4327934_00
 EN

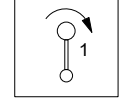
SHEET 1 OF 1

FÜR DIESE TECHNISCHE UNTERLAGE BEHALTEN WIR UNS GEMÄSS DIN 34 ABSCHNITT 2.1 UND 2.2 ALLE RECHTE VOR.
 DRAWING BY CAD DO NOT MODIFY MANUALLY

- MR VERBINDUNGEN
MR CONNECTIONS
- - - KUNDEN VERBINDUNGEN
CUSTOMER CONNECTIONS
- TS_1_U WÄHLEREBENE_U
TAP SELECTOR PLANE_U
- TS_2_U WÄHLEREBENE_U
TAP SELECTOR PLANE_U
- TS_3_V WÄHLEREBENE_V
TAP SELECTOR PLANE_V
- TS_4_V WÄHLEREBENE_V
TAP SELECTOR PLANE_V
- TS_5_W WÄHLEREBENE_W
TAP SELECTOR PLANE_W
- TS_6_W WÄHLEREBENE_W
TAP SELECTOR PLANE_W
- PS_2_U WENDER_U
REVERSING CHANGE-OVER SELECTOR_U
- PS_4_V WENDER_V
REVERSING CHANGE-OVER SELECTOR_V
- PS_6_W WENDER_W
REVERSING CHANGE-OVER SELECTOR_W
- TW_0_W TRAFOWICKLUNG_W
TRANSFORMER WINDING_W
- TW_1_W STUFENWICKLUNG_W
TAP WINDING_W
- LU LASTUMSCHALTER
DIVERTER SWITCH
- Y STERNPUNKT
STAR POINT



MOTORANTRIEB
MOTOR DRIVE UNIT



| | | | |
|----|---|----|--|
| 19 | 9 | 17 | |
| 18 | 8 | 16 | |
| 17 | 7 | 15 | |
| 16 | 6 | 14 | |
| 15 | 5 | 13 | |
| 14 | 4 | 12 | |
| 13 | 3 | 11 | |
| 12 | 2 | 10 | |
| 11 | 1 | 9C | |
| 10 | K | 9B | |
| 9 | 9 | 9A | |
| 8 | 8 | 8 | |
| 7 | 7 | 7 | |
| 6 | 6 | 6 | |
| 5 | 5 | 5 | |
| 4 | 4 | 4 | |
| 3 | 3 | 3 | |
| 2 | 2 | 2 | |
| 1 | 1 | 1 | |

(M)
ANTRIEBSSEITE
DRIVE SIDE

STELLUNG DES WENDERS
POSITION OF REVERSING CHANGE-OVER SELECTOR

BETRIEBSSTELLUNG
SERVICE POSITION

BEZEICHNUNG DER WÄHLERKONTAKTE
DESIGNATION OF TAP SELECTOR CONTACTS

BEZEICHNUNG DER STELLUNGEN
DESIGNATION OF POSITIONS

REGELBEREICH (kV)
REGULATION RANGE (kV)

| | |
|-----------------------------------------------|----|
| BETRIEBSSTELLUNGEN SERVICE POSITIONS | 19 |
| VERSCHIEDENE SPANNUNGEN DIFFERENT VOLTAGES | 17 |
| JUSTIERSTELLUNG ADJUSTMENT POSITION | 9B |

LASTSTUFENSCHALTER ON-LOAD TAP-CHANGER OILTAP® M III 600Y-170/RC-10 19 3W

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| 01 | 8 Stufen, vers. Spg | 26.11.2015 | EFR |
| NO. | MODIFICATION | DATE | NAME |

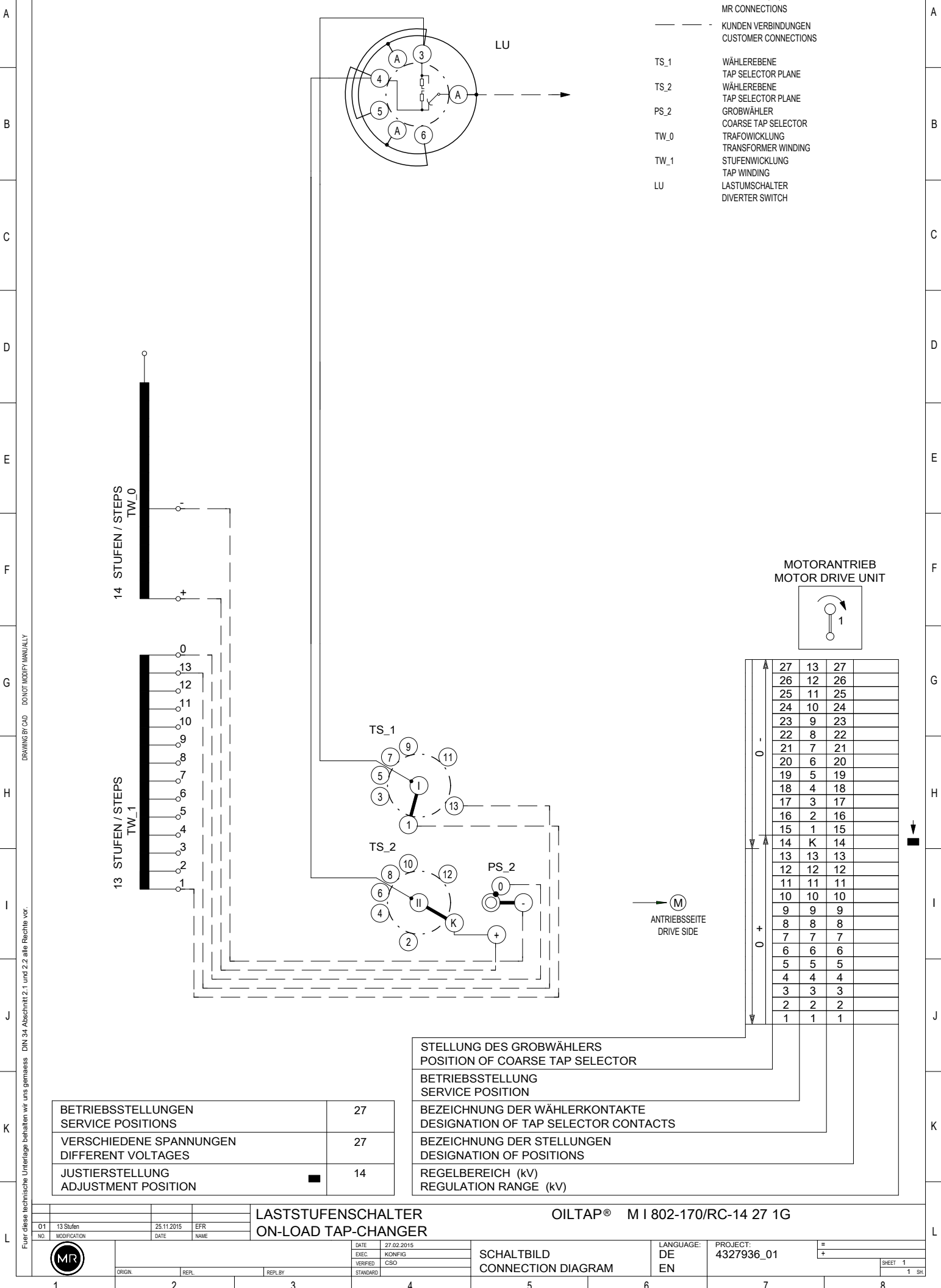


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| DATE | 27.02.2015 |
| ERIC | KONFIG |
| VERIFIED | CSO |
| STANDARD | |

SCHALTBILD
CONNECTION DIAGRAM

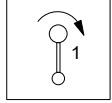
LANGUAGE:
DE PROJECT: 4327935_01
EN

Für diese technische Unterlage behalten wir uns gemäss DIN 34 Abschnitt 2.1 und 2.2 alle Rechte vor. DRAWING BY CAD DO NOT MODIFY MANUALLY



- MR VERBINDUNGEN
MR CONNECTIONS
- - - KUNDEN VERBINDUNGEN
CUSTOMER CONNECTIONS
- TS_1 WÄHLEREBENE
TAP SELECTOR PLANE
- TS_2 WÄHLEREBENE
TAP SELECTOR PLANE
- PS_2 GROBWÄHLER
COARSE TAP SELECTOR
- TW_0 TRAFOWICKLUNG
TRANSFORMER WINDING
- TW_1 STUFENWICKLUNG
TAP WINDING
- LU LASTUMSCHALTER
DIVERTER SWITCH

**MOTORANTRIEB
MOTOR DRIVE UNIT**



| | | | |
|----|----|----|--|
| 27 | 13 | 27 | |
| 26 | 12 | 26 | |
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| 24 | 10 | 24 | |
| 23 | 9 | 23 | |
| 22 | 8 | 22 | |
| 21 | 7 | 21 | |
| 20 | 6 | 20 | |
| 19 | 5 | 19 | |
| 18 | 4 | 18 | |
| 17 | 3 | 17 | |
| 16 | 2 | 16 | |
| 15 | 1 | 15 | |
| 14 | K | 14 | |
| 13 | 13 | 13 | |
| 12 | 12 | 12 | |
| 11 | 11 | 11 | |
| 10 | 10 | 10 | |
| 9 | 9 | 9 | |
| 8 | 8 | 8 | |
| 7 | 7 | 7 | |
| 6 | 6 | 6 | |
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| 4 | 4 | 4 | |
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→ (M)
ANTRIEBSSEITE
DRIVE SIDE

| |
|------------------------------------------------------------------------|
| STELLUNG DES GROBWÄHLERS POSITION OF COARSE TAP SELECTOR |
| BETRIEBSSTELLUNG SERVICE POSITION |
| BEZEICHNUNG DER WÄHLERKONTAKTE DESIGNATION OF TAP SELECTOR CONTACTS |
| BEZEICHNUNG DER STELLUNGEN DESIGNATION OF POSITIONS |
| REGELBEREICH (kV) REGULATION RANGE (kV) |

| | |
|-----------------------------------------------|----|
| BETRIEBSSTELLUNGEN SERVICE POSITIONS | 27 |
| VERSCHIEDENE SPANNUNGEN DIFFERENT VOLTAGES | 27 |
| JUSTIERSTELLUNG ADJUSTMENT POSITION | 14 |

LASTSTUFENSCHALTER ON-LOAD TAP-CHANGER OILTAP® M I 802-170/RC-14 27 1G

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| 01 | 13 Stufen | 25.11.2015 | EFR |
| NO. | MODIFICATION | DATE | NAME |

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| DATE | 27.02.2015 |
| ERIC | KONFIG |
| VERIFIED | CSO |
| STANDARD | |

SCHALTBILD
CONNECTION DIAGRAM

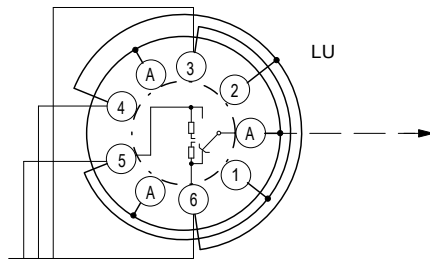
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| PROJECT: | 4327936_01 |

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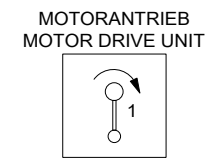
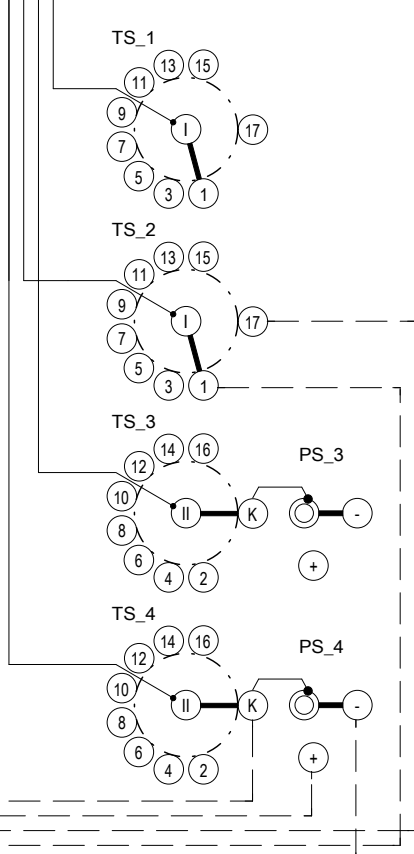
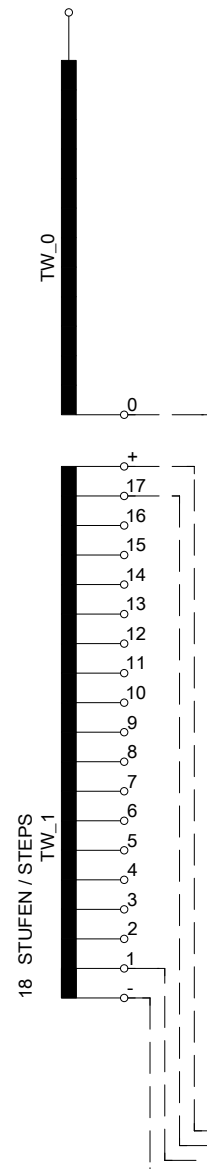
DIN 34 Abschnitt 2.1 und 2.2 alle Rechte vor. DRAWING BY CAD DO NOT MODIFY MANUALLY



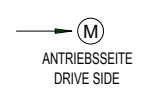
A
B
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E
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 FÜR DIESE TECHNISCHE UNTERLAGE BEHALTEN VIEL UNS GEMÄSS DIN 34 ABSCHNITT 2.1 UND 2.2 ALLE RECHTE VOR.
 DRAWING BY CAD DO NOT MODIFY MANUALLY



- MR VERBINDUNGEN
MR CONNECTIONS
- - - KUNDEN VERBINDUNGEN
CUSTOMER CONNECTIONS
- TS_1 WÄHLEREBENE
TAP SELECTOR PLANE
- TS_2 WÄHLEREBENE
TAP SELECTOR PLANE
- TS_3 WÄHLEREBENE
TAP SELECTOR PLANE
- TS_4 WÄHLEREBENE
TAP SELECTOR PLANE
- PS_3 WENDER
REVERSING CHANGE-OVER SELECTOR
- PS_4 WENDER
REVERSING CHANGE-OVER SELECTOR
- TW_0 TRAFOWICKLUNG
TRANSFORMER WINDING
- TW_1 STUFENWICKLUNG
TAP WINDING
- LU LASTUMSCHALTER
DIVERTER SWITCH



| | | |
|----|----|----|
| 35 | 17 | 35 |
| 34 | 16 | 34 |
| 33 | 15 | 33 |
| 32 | 14 | 32 |
| 31 | 13 | 31 |
| 30 | 12 | 30 |
| 29 | 11 | 29 |
| 28 | 10 | 28 |
| 27 | 9 | 27 |
| 26 | 8 | 26 |
| 25 | 7 | 25 |
| 24 | 6 | 24 |
| 23 | 5 | 23 |
| 22 | 4 | 22 |
| 21 | 3 | 21 |
| 20 | 2 | 20 |
| 19 | 1 | 19 |
| 18 | K | 18 |
| 17 | 17 | 17 |
| 16 | 16 | 16 |
| 15 | 15 | 15 |
| 14 | 14 | 14 |
| 13 | 13 | 13 |
| 12 | 12 | 12 |
| 11 | 11 | 11 |
| 10 | 10 | 10 |
| 9 | 9 | 9 |
| 8 | 8 | 8 |
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| 5 | 5 | 5 |
| 4 | 4 | 4 |
| 3 | 3 | 3 |
| 2 | 2 | 2 |
| 1 | 1 | 1 |



| | |
|-----------------------------------------------|----|
| BETRIEBSSTELLUNGEN SERVICE POSITIONS | 35 |
| VERSCHIEDENE SPANNUNGEN DIFFERENT VOLTAGES | 35 |
| JUSTIERSTELLUNG ADJUSTMENT POSITION | 18 |

| | |
|------------------------------------------------------------------------|--|
| STELLUNG DES WENDERS POSITION OF REVERSING CHANGE-OVER SELECTOR | |
| BETRIEBSSTELLUNG SERVICE POSITION | |
| BEZEICHNUNG DER WÄHLERKONTAKTE DESIGNATION OF TAP SELECTOR CONTACTS | |
| BEZEICHNUNG DER STELLUNGEN DESIGNATION OF POSITIONS | |
| REGELBEREICH (kV) REGULATION RANGE (kV) | |

LASTSTUFENSCHALTER ON-LOAD TAP-CHANGER OILTAP® M I 1503-170/RC-18 35 1W

| | | | |
|-----|--------------|------|------|
| NO. | MODIFICATION | DATE | NAME |
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| | |
|----------|------------|
| DATE | 27.02.2015 |
| ERIC | KONFIG |
| VERIFIED | CSO |
| STANDARD | |

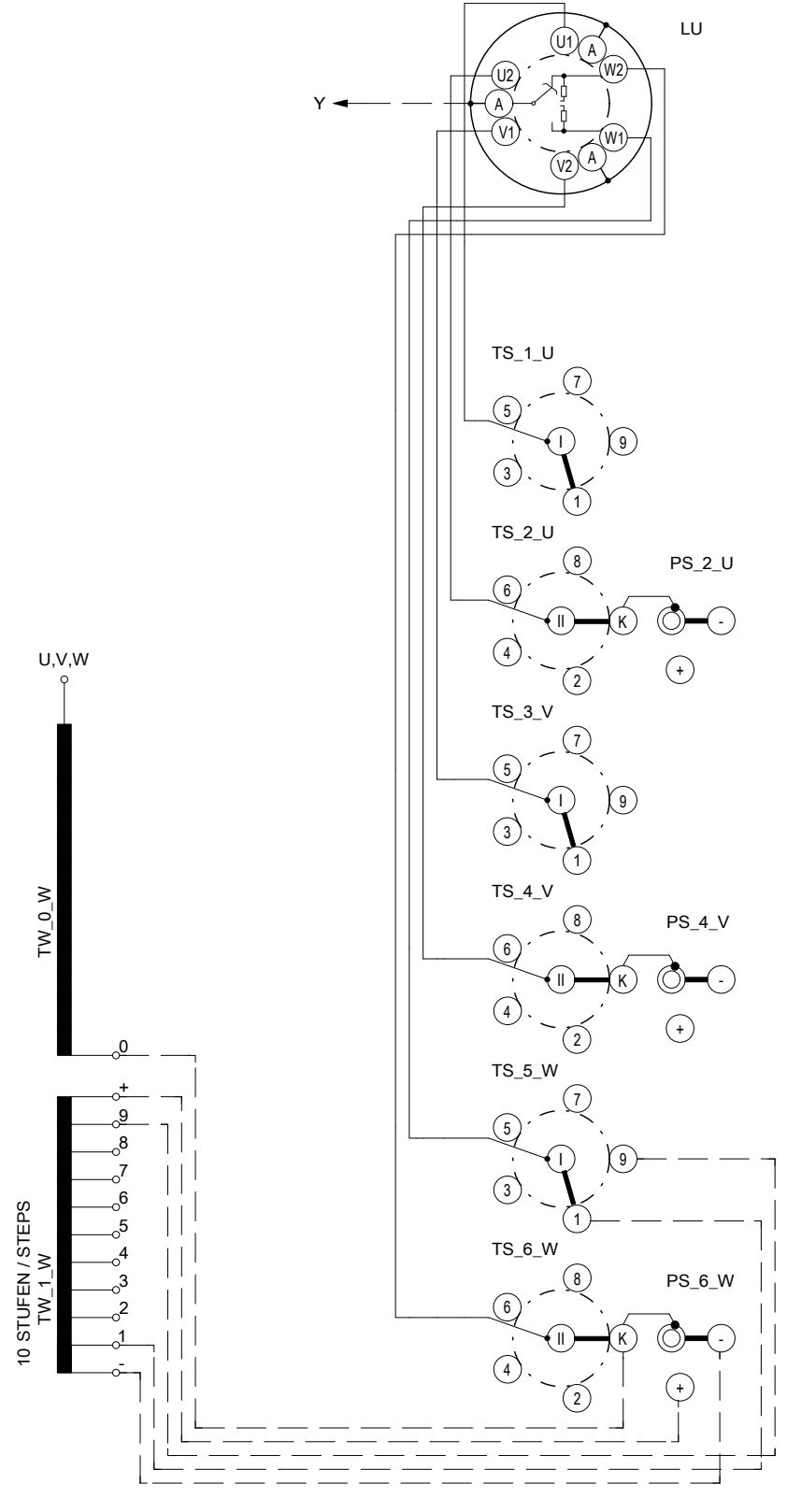
SCHALTBILD
CONNECTION DIAGRAM

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| LANGUAGE: | DE |
| EN | |
| PROJECT: | 4327937_00 |

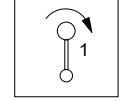


5.11 OILTAP® R 的接线图示例

- MR VERBINDUNGEN
MR CONNECTIONS
- KUNDEN VERBINDUNGEN
CUSTOMER CONNECTIONS
- TS_1_U WÄHLEREBENE_U
TAP SELECTOR PLANE_U
- TS_2_U WÄHLEREBENE_U
TAP SELECTOR PLANE_U
- TS_3_V WÄHLEREBENE_V
TAP SELECTOR PLANE_V
- TS_4_V WÄHLEREBENE_V
TAP SELECTOR PLANE_V
- TS_5_W WÄHLEREBENE_W
TAP SELECTOR PLANE_W
- TS_6_W WÄHLEREBENE_W
TAP SELECTOR PLANE_W
- PS_2_U WENDER_U
REVERSING CHANGE-OVER SELECTOR_U
- PS_4_V WENDER_V
REVERSING CHANGE-OVER SELECTOR_V
- PS_6_W WENDER_W
REVERSING CHANGE-OVER SELECTOR_W
- TW_0_W TRAFOWICKLUNG_W
TRANSFORMER WINDING_W
- TW_1_W STUFENWICKLUNG_W
TAP WINDING_W
- LU LASTUMSCHALTER
DIVERTER SWITCH
- Y STERNPUNKT
STAR POINT



MOTORANTRIEB
MOTOR DRIVE UNIT



(M)
ANTRIEBSSEITE
DRIVE SIDE

| | | | |
|----|---|----|--|
| 19 | 9 | 19 | |
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| 11 | 1 | 11 | |
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|-----------------------------------------------|----|
| BETRIEBSSTELLUNGEN SERVICE POSITIONS | 19 |
| VERSCHIEDENE SPANNUNGEN DIFFERENT VOLTAGES | 19 |
| JUSTIERSTELLUNG ADJUSTMENT POSITION | 10 |

| | |
|------------------------------------------------------------------------|--|
| STELLUNG DES WENDERS POSITION OF REVERSING CHANGE-OVER SELECTOR | |
| BETRIEBSSTELLUNG SERVICE POSITION | |
| BEZEICHNUNG DER WÄHLERKONTAKTE DESIGNATION OF TAP SELECTOR CONTACTS | |
| BEZEICHNUNG DER STELLUNGEN DESIGNATION OF POSITIONS | |
| REGELBEREICH (kV) REGULATION RANGE (kV) | |

LASTSTUFENSCHALTER ON-LOAD TAP-CHANGER OILTAP® R III 1200Y-123/RC-10 19 1W

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| | | | |

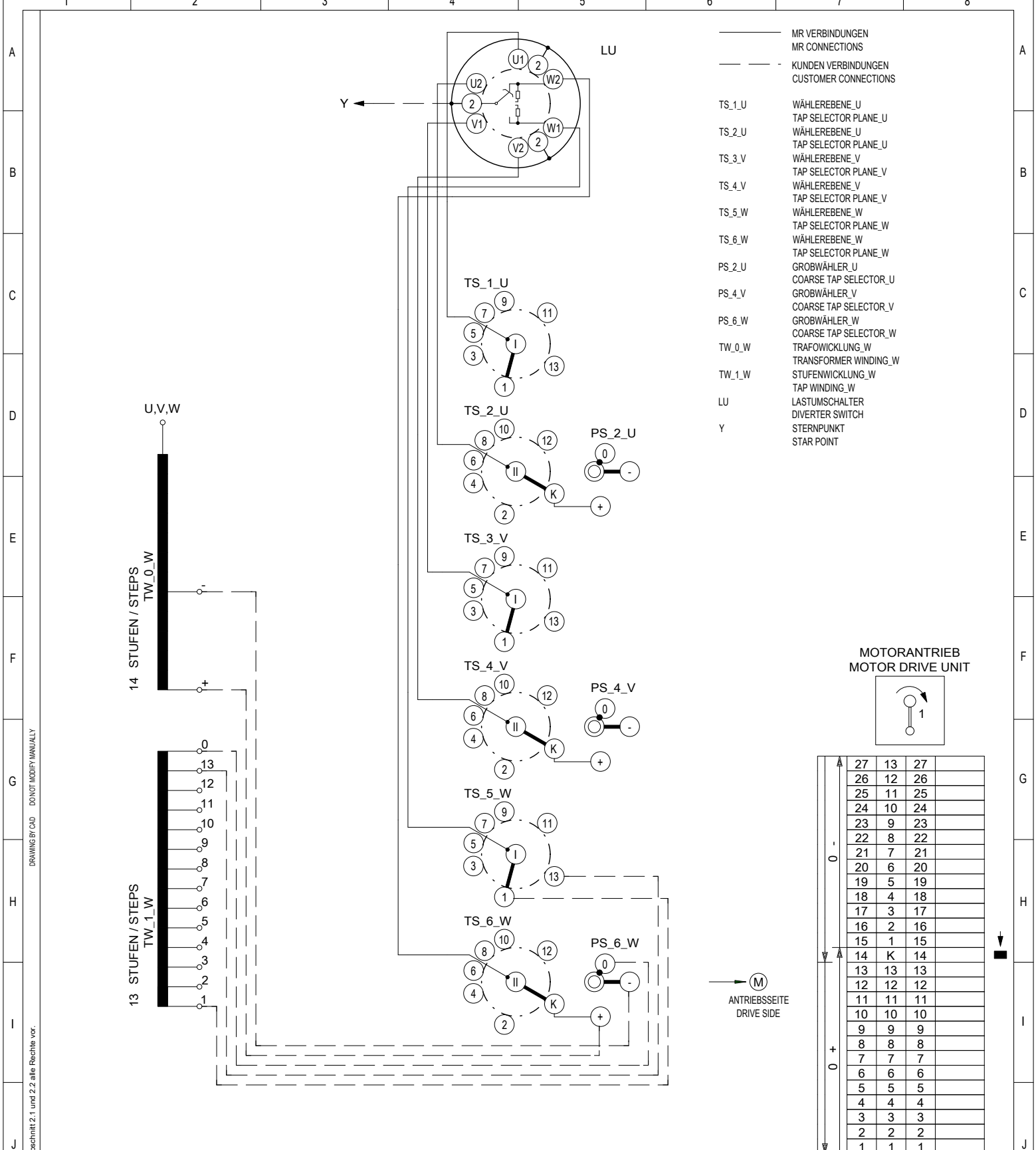


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| DATE | 24.02.2015 |
| ERIC | KONFIG |
| VERIFIED | CSO |
| STANDARD | |

SCHALTBILD
CONNECTION DIAGRAM

LANGUAGE:
DE PROJECT: 4324681_00
EN

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 DRAWING BY CAD DO NOT MODIFY MANUALLY

| | |
|-----------------------------------------------|----|
| BETRIEBSSTELLUNGEN SERVICE POSITIONS | 27 |
| VERSCHIEDENE SPANNUNGEN DIFFERENT VOLTAGES | 27 |
| JUSTIERSTELLUNG ADJUSTMENT POSITION | 14 |

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|------------------------------------------------------------------------|----|
| STELLUNG DES GROBWÄHLERS POSITION OF COARSE TAP SELECTOR | 27 |
| BETRIEBSSTELLUNG SERVICE POSITION | 27 |
| BEZEICHNUNG DER WÄHLERKONTAKTE DESIGNATION OF TAP SELECTOR CONTACTS | 27 |
| BEZEICHNUNG DER STELLUNGEN DESIGNATION OF POSITIONS | 27 |
| REGELBEREICH (kV) REGULATION RANGE (kV) | 14 |

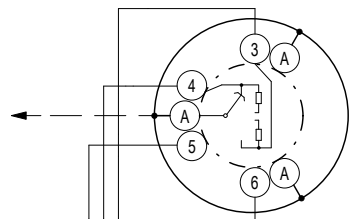
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| 17 | 3 | 17 | |
| 16 | 2 | 16 | |
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| 14 | K | 14 | |
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| 7 | 7 | 7 | |
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| 1 | 1 | 1 | |

LASTSTUFENSCHALTER ON-LOAD TAP-CHANGER OILTAP® R III 1200Y-123/RC-14 27 1G

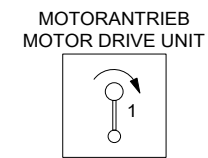
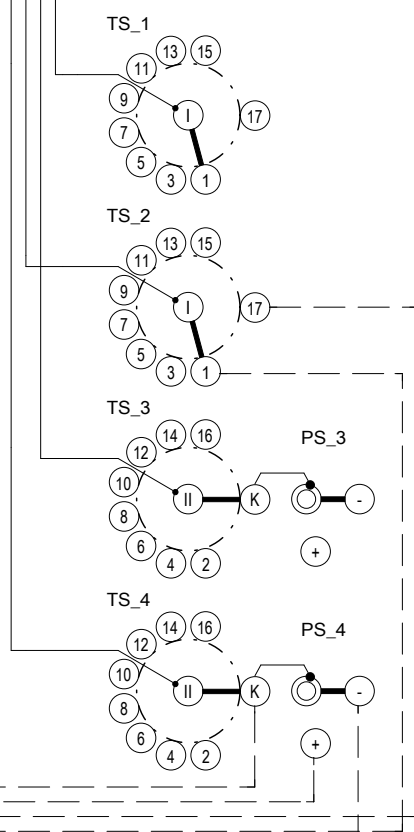
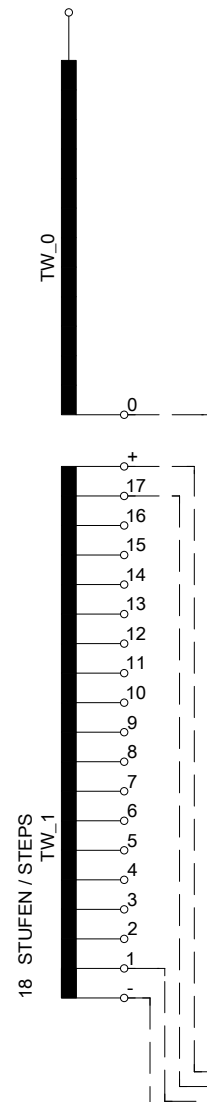
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| MR | DATE | 25.02.2015 | SCHALTBILD CONNECTION DIAGRAM | LANGUAGE: | DE | PROJECT: 4324682_00 | = |
| | DESIGNED BY | KONFIG | | EN | + | | |
| NO. | MODIFICATION | DATE | NAME | STANDARD | VERIFIED | CSO | SHEET 1 |
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ACHTUNG
 PARALLELBRÜCKEN VON MR NICHT ANGEBAUT
 VON TS_1 NACH TS_2
 VON TS_3 (PS_3) NACH TS_4 (PS_4)

ATTENTION !
 PARALLEL BRIDGES ARE NOT INSTALLED BY MR
 FROM TS_1 TO TS_2
 FROM TS_3 (PS_3) TO TS_4 (PS_4)



- MR VERBINDUNGEN
MR CONNECTIONS
- KUNDEN VERBINDUNGEN
CUSTOMER CONNECTIONS
- TS_1 WÄHLEREBENE
TAP SELECTOR PLANE
- TS_2 WÄHLEREBENE
TAP SELECTOR PLANE
- TS_3 WÄHLEREBENE
TAP SELECTOR PLANE
- TS_4 WÄHLEREBENE
TAP SELECTOR PLANE
- PS_3 WENDER
REVERSING CHANGE-OVER SELECTOR
- PS_4 WENDER
REVERSING CHANGE-OVER SELECTOR
- TW_0 TRAFOWICKLUNG
TRANSFORMER WINDING
- TW_1 STUFENWICKLUNG
TAP WINDING
- LU LASTUMSCHALTER
DIVERTER SWITCH



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| 35 | 17 | 35 |
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(M)
ANTRIEBSSEITE
DRIVE SIDE

STELLUNG DES WENDERS
POSITION OF REVERSING CHANGE-OVER SELECTOR

BETRIEBSSTELLUNG
SERVICE POSITION

BEZEICHNUNG DER WÄHLERKONTAKTE
DESIGNATION OF TAP SELECTOR CONTACTS

BEZEICHNUNG DER STELLUNGEN
DESIGNATION OF POSITIONS

REGELBEREICH (kV)
REGULATION RANGE (kV)

| | |
|-----------------------------------------------|----|
| BETRIEBSSTELLUNGEN SERVICE POSITIONS | 35 |
| VERSCHIEDENE SPANNUNGEN DIFFERENT VOLTAGES | 35 |
| JUSTIERSTELLUNG ADJUSTMENT POSITION | 18 |

LASTSTUFENSCHALTER ON-LOAD TAP-CHANGER OILTAP® R I 2002-170/RC-18 35 1W

| | | | |
|-----|--------------|------|------|
| NO. | MODIFICATION | DATE | NAME |
| | | | |

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 EXEC: KONFIG
 VERIFIED: CSO
 STANDARD:

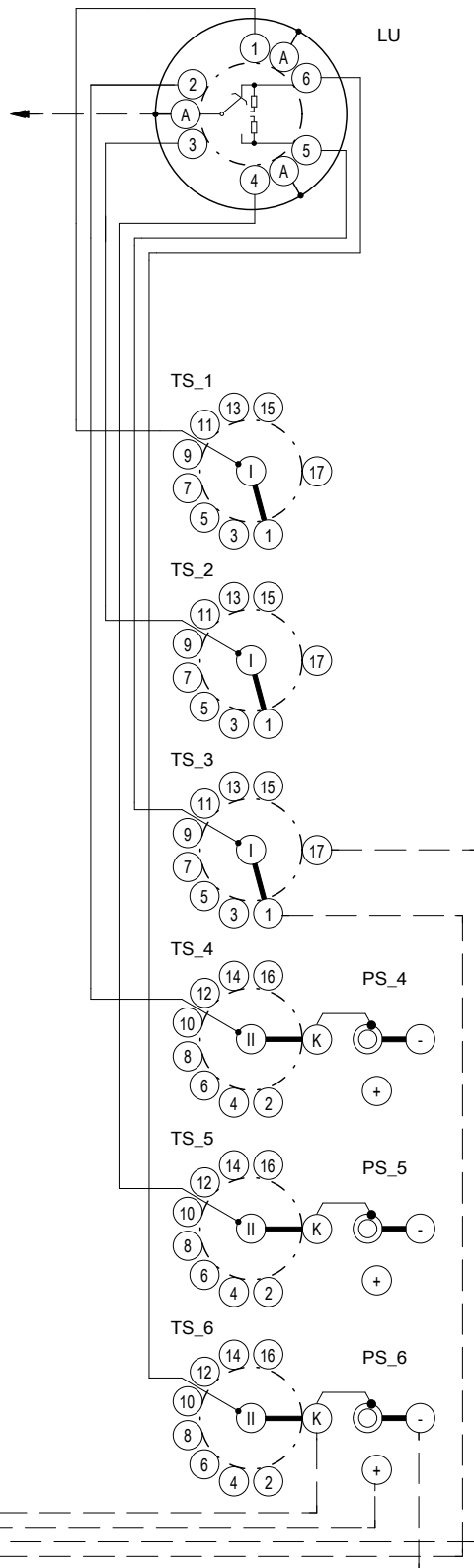
SCHALTBILD
CONNECTION DIAGRAM

LANGUAGE: DE EN
 PROJECT: 4324683_00

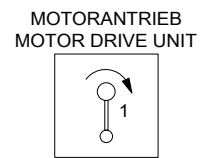
FÜR DIESE TECHNISCHE UNTERLAGE BEHALTEN WIR UNS GEMÄSS DIN 34 ABSCHNITT 2.1 UND 2.2 ALLE RECHTE VOR.
 DRAWING BY CAD DO NOT MODIFY MANUALLY

ACHTUNG
 PARALLELBRÜCKEN VON MR ANGEBAUT
 VON TS_1 NACH TS_2 NACH TS_3
 VON TS_4 (PS_4) NACH TS_5 (PS_5) NACH TS_6 (PS_6)

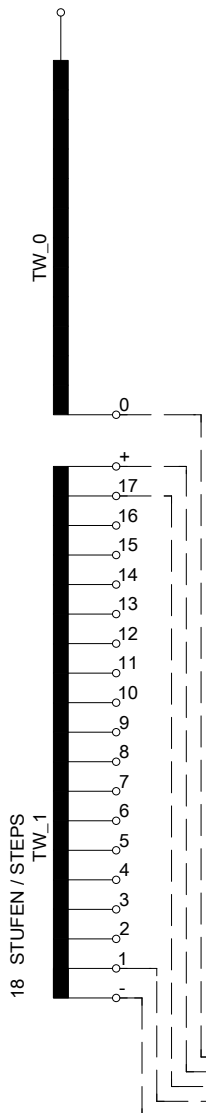
ATTENTION !
 PARALLEL BRIDGES ARE INSTALLED BY MR
 FROM TS_1 TO TS_2 TO TS_3
 FROM TS_4 (PS_4) TO TS_5 (PS_5) TO TS_6 (PS_6)



- MR VERBINDUNGEN
MR CONNECTIONS
- KUNDEN VERBINDUNGEN
CUSTOMER CONNECTIONS
- TS_1 WÄHLEREBENE
TAP SELECTOR PLANE
- TS_2 WÄHLEREBENE
TAP SELECTOR PLANE
- TS_3 WÄHLEREBENE
TAP SELECTOR PLANE
- TS_4 WÄHLEREBENE
TAP SELECTOR PLANE
- TS_5 WÄHLEREBENE
TAP SELECTOR PLANE
- TS_6 WÄHLEREBENE
TAP SELECTOR PLANE
- PS_4 WENDER
REVERSING CHANGE-OVER SELECTOR
- PS_5 WENDER
REVERSING CHANGE-OVER SELECTOR
- PS_6 WENDER
REVERSING CHANGE-OVER SELECTOR
- TW_0 TRAFOWICKLUNG
TRANSFORMER WINDING
- TW_1 STUFENWICKLUNG
TAP WINDING
- LU LASTUMSCHALTER
DIVERTER SWITCH



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STELLUNG DES WENDERS
POSITION OF REVERSING CHANGE-OVER SELECTOR

BETRIEBSSTELLUNG
SERVICE POSITION

BEZEICHNUNG DER WÄHLERKONTAKTE
DESIGNATION OF TAP SELECTOR CONTACTS

BEZEICHNUNG DER STELLUNGEN
DESIGNATION OF POSITIONS

REGELBEREICH (kV)
REGULATION RANGE (kV)

| | |
|-----------------------------------------------|----|
| BETRIEBSSTELLUNGEN SERVICE POSITIONS | 35 |
| VERSCHIEDENE SPANNUNGEN DIFFERENT VOLTAGES | 35 |
| JUSTIERSTELLUNG ADJUSTMENT POSITION | 18 |

LASTSTUFENSCHALTER ON-LOAD TAP-CHANGER OILTAP® R I 3003-170/RC-18 35 1W

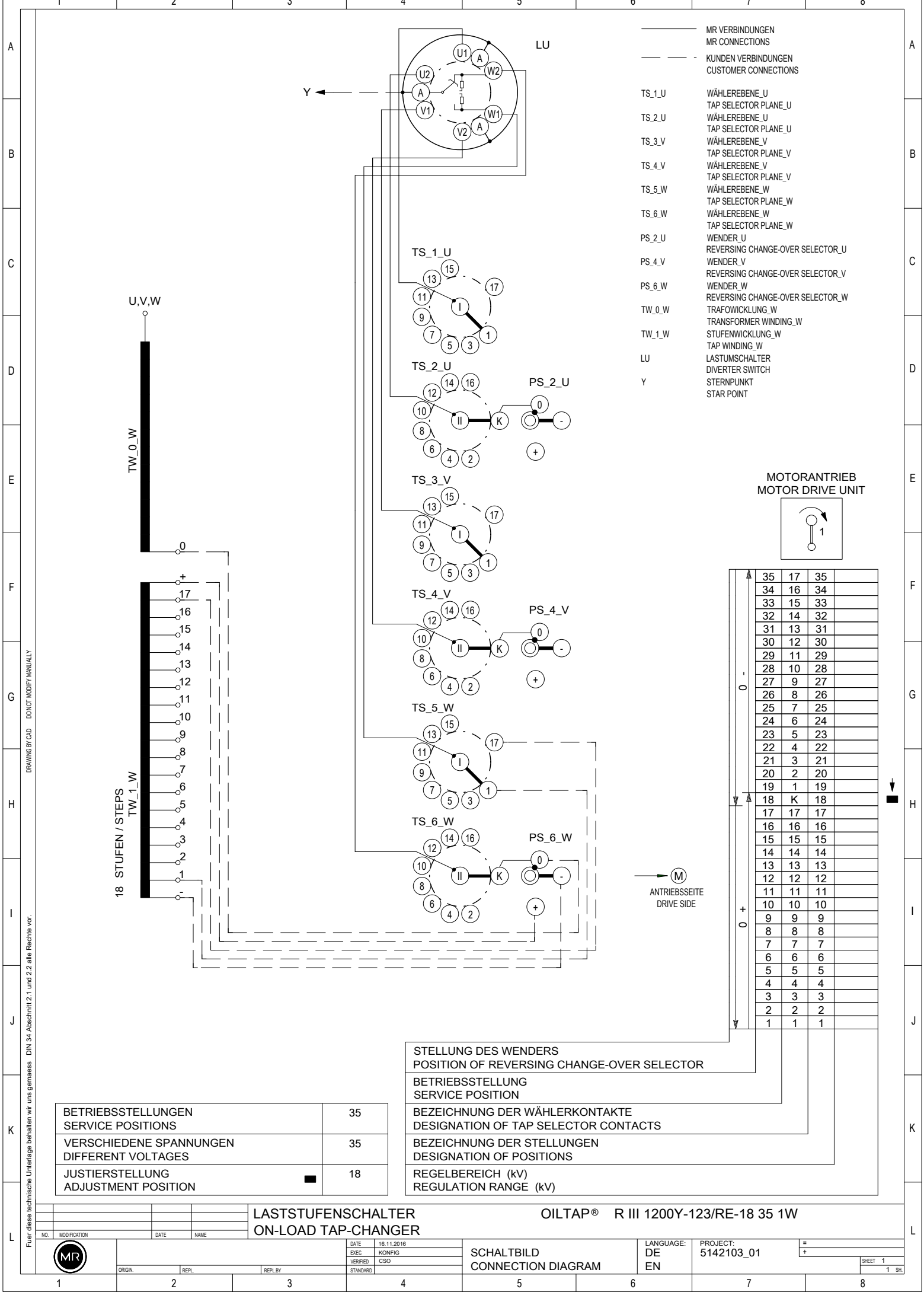
FÜR DIESE TECHNISCHE UNTERLAGE BEHALTEN WIR UNS GEMÄSS DIN 34 ABSCHNITT 2.1 UND 2.2 ALLE RECHTE VOR.

| NO. | MODIFICATION | DATE | NAME |
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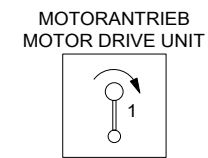
DATE: 25.02.2015
 EXEC: KONFIG
 VERIFIED: CSO
 STANDARD:

SCHALTBILD
CONNECTION DIAGRAM

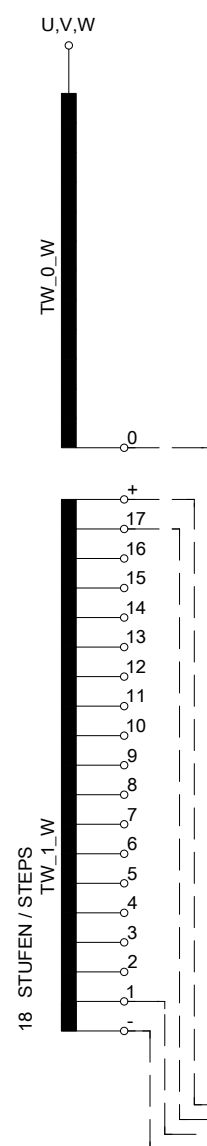
LANGUAGE: DE EN
 PROJECT: 4324684_00



- MR VERBINDUNGEN
MR CONNECTIONS
- KUNDEN VERBINDUNGEN
CUSTOMER CONNECTIONS
- TS_1_U WÄHLEREBENE_U
TAP SELECTOR PLANE_U
- TS_2_U WÄHLEREBENE_U
TAP SELECTOR PLANE_U
- TS_3_V WÄHLEREBENE_V
TAP SELECTOR PLANE_V
- TS_4_V WÄHLEREBENE_V
TAP SELECTOR PLANE_V
- TS_5_W WÄHLEREBENE_W
TAP SELECTOR PLANE_W
- TS_6_W WÄHLEREBENE_W
TAP SELECTOR PLANE_W
- PS_2_U WENDER_U
REVERSING CHANGE-OVER SELECTOR_U
- PS_4_V WENDER_V
REVERSING CHANGE-OVER SELECTOR_V
- PS_6_W WENDER_W
REVERSING CHANGE-OVER SELECTOR_W
- TW_0_W TRAFOWICKLUNG_W
TRANSFORMER WINDING_W
- TW_1_W STUFENWICKLUNG_W
TAP WINDING_W
- LU LASTUMSCHALTER
DIVERter SWITCH
- Y STERNPUNKT
STAR POINT



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| 18 | K | 18 |
| 17 | 17 | 17 |
| 16 | 16 | 16 |
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|------------------------------------------------------------------------|
| STELLUNG DES WENDERS POSITION OF REVERSING CHANGE-OVER SELECTOR |
| BETRIEBSSTELLUNG SERVICE POSITION |
| BEZEICHNUNG DER WÄHLERKONTAKTE DESIGNATION OF TAP SELECTOR CONTACTS |
| BEZEICHNUNG DER STELLUNGEN DESIGNATION OF POSITIONS |
| REGELBEREICH (kV) REGULATION RANGE (kV) |

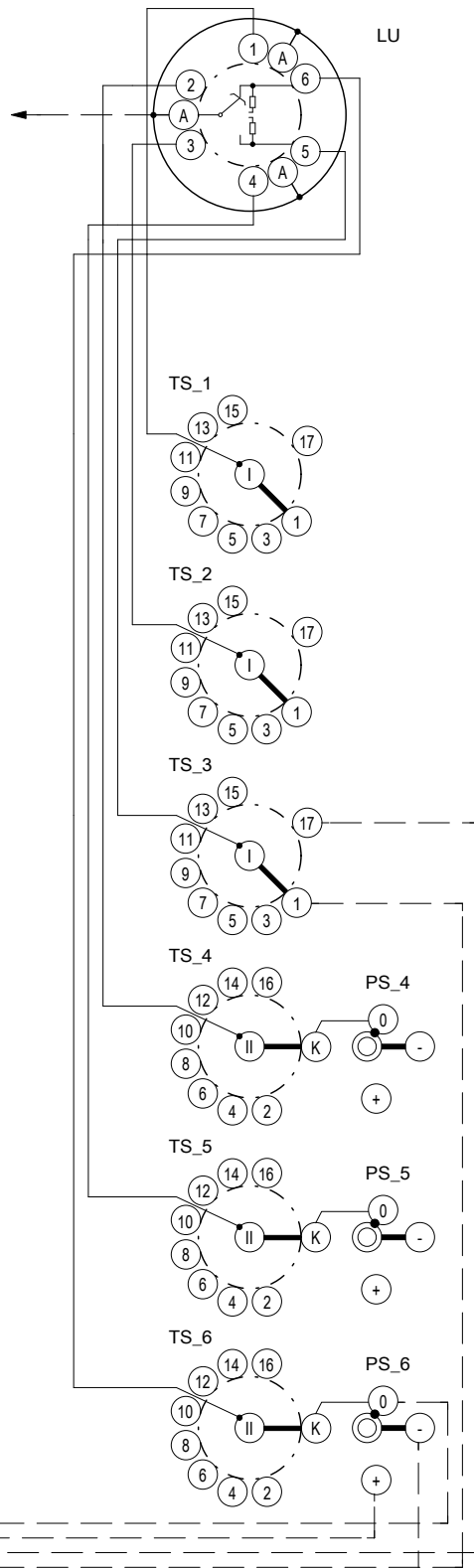
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| BETRIEBSSTELLUNGEN SERVICE POSITIONS | 35 |
| VERSCHIEDENE SPANNUNGEN DIFFERENT VOLTAGES | 35 |
| JUSTIERSTELLUNG ADJUSTMENT POSITION | 18 |

LASTSTUFENSCHALTER ON-LOAD TAP-CHANGER OILTAP® R III 1200Y-123/RE-18 35 1W

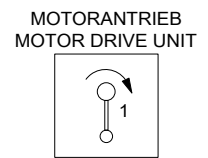
FÜR DIESE TECHNISCHE UNTERLAGE BEHALTEN WIR UNS GEMÄSS DIN 34 ABSCHNITT 2.1 UND 2.2 ALLE RECHTE VOR.
 DRAWING BY CAD DO NOT MODIFY MANUALLY

ACHTUNG
 PARALLELBRÜCKEN VON MR NICHT ANGEBAUT
 VON TS_1 NACH TS_2 NACH TS_3
 VON TS_4 (PS_4) NACH TS_5 (PS_5) NACH TS_6 (PS_6)

ATTENTION !
 PARALLEL BRIDGES ARE NOT INSTALLED BY MR
 FROM TS_1 TO TS_2 TO TS_3
 FROM TS_4 (PS_4) TO TS_5 (PS_5) TO TS_6 (PS_6)



- MR VERBINDUNGEN
MR CONNECTIONS
- KUNDEN VERBINDUNGEN
CUSTOMER CONNECTIONS
- TS_1 WÄHLEREbene
TAP SELECTOR PLANE
- TS_2 WÄHLEREbene
TAP SELECTOR PLANE
- TS_3 WÄHLEREbene
TAP SELECTOR PLANE
- TS_4 WÄHLEREbene
TAP SELECTOR PLANE
- TS_5 WÄHLEREbene
TAP SELECTOR PLANE
- TS_6 WÄHLEREbene
TAP SELECTOR PLANE
- PS_4 WENDER
REVERSING CHANGE-OVER SELECTOR
- PS_5 WENDER
REVERSING CHANGE-OVER SELECTOR
- PS_6 WENDER
REVERSING CHANGE-OVER SELECTOR
- TW_0 TRAFOWICKLUNG
TRANSFORMER WINDING
- TW_1 STUFENWICKLUNG
TAP WINDING
- LU LASTUMSCHALTER
DIVERTER SWITCH



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| 18 | K | 18 |
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(M)
ANTRIEBSSEITE
DRIVE SIDE

STELLUNG DES WENDERS
POSITION OF REVERSING CHANGE-OVER SELECTOR

BETRIEBSSTELLUNG
SERVICE POSITION

BEZEICHNUNG DER WÄHLERKONTAKTE
DESIGNATION OF TAP SELECTOR CONTACTS

BEZEICHNUNG DER STELLUNGEN
DESIGNATION OF POSITIONS

REGELBEREICH (kV)
REGULATION RANGE (kV)

| | |
|-----------------------------------------------|----|
| BETRIEBSSTELLUNGEN SERVICE POSITIONS | 35 |
| VERSCHIEDENE SPANNUNGEN DIFFERENT VOLTAGES | 35 |
| JUSTIERSTELLUNG ADJUSTMENT POSITION | 18 |

LASTSTUFENSCHALTER ON-LOAD TAP-CHANGER OILTAP® R I 3003-123/RE-18 35 1W

| NO. | MODIFICATION | DATE | NAME |
|-----|--------------|------|------|
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| | |
|----------|------------|
| DATE | 16.11.2016 |
| ERIC | KONFIG |
| VERIFIED | CSO |
| STANDARD | |

SCHALTBILD
CONNECTION DIAGRAM

LANGUAGE:
DE
EN

PROJECT:
5142105_01

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MR worldwide

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Fax: +61 2 9502 2224
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Fax: +55 11 4785 2185
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Fax: +1 450 659 3092
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Fax: +352 27 3347 99
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50450 Kuala Lumpur
Phone: +60 3 2142 6481
Fax: +60 3 2142 6422
E-Mail: mr_rap@my.reinhausen.com

P.R.C. (China)

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