

Title (en)
Control push-button unit for electric plants and method and tooling for manufacturing such a push-button unit

Title (de)
Control-Taster für elektrische Anlagen und Verfahren und Werkzeuge zur Herstellung einer solchen Einheit

Title (fr)
Bouton-poussoir pour appareils électriques, et méthode et outil pour sa production

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Application
EP 11008478 A 20111021

Priority
IT VI20100289 A 20101028

Abstract (en)
A method for manufacturing a control push-button unit (2) for plants comprises the steps of shaping a lower half (4) and an upper half (5) couplable to form a box-like case (3), providing a plurality of electric elements (8, 9,10, 11, 12) and their positioning between the lower half (4) and the upper half-shell (5). The step (a) of shaping the upper half (4) comprises the steps of providing a first mold (1) having a central cavity (14) with a bottom wall (15) and an upper opening (16), inserting a matrix (17) in the cavity (14), such matrix having a shaped lower face (18) facing the bottom wall (15) to define an interspace (20) therewith. The matrix (17) is formed by a plurality of first modular inserts (21, 21', 21'',...) designed to realize housing seats (7, 7', 7'') for the electric elements (8, 9,10, 11, 12), such inserts appropriately positioned in the cavity (14) with their lower surfaces (22, 22', 22'') defining the lower face (18) of the matrix (17). A control push-button unit for plants obtainable with the method according to the invention.

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CPC (source: EP)
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Citation (applicant)
• US 2979581 A 19610411 - BALLOU RICHARD P
• US 4209820 A 19800624 - KELLER FRANK R [US], et al

Citation (search report)
• [AD] US 4209820 A 19800624 - KELLER FRANK R [US], et al
• [A] DE 10028222 A1 20010830 - MARUTAKA KANAGATA CO [JP], et al

Cited by
EP3542384B1

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AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

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