**SMART SYSTEMS LTD – tEL – 01934 876100**

L20 DOORS/SHUTTERS/HATCHES

280 DOORS

SMART DESIGNER DOOR Arrangement to PAS24 : 2016

Designed as flush rebated leaf and frame.

Designed for use as open in, single, with sidelight options, for domestic and light / medium commercial applications.

Door and door frames are extruded from aluminium alloy 6060 T6 and comply with the recommendations of BS EN 12020-2; 2001/BS 755-9:2001. Profiles can be Electrostatic powder coat finished in a range of RAL colours to APA Qualicoat guidelines with the option of Bi-colour, different internal and external colours. All doors are hung on aluminium knuckle hinges and fitted with multi-point locking mechanisms.

Glazing conforms to the requirements of BS 6262 and Part ‘N’ of the Building Regulations for both thickness and type. Weatherseals are EPDM set in undercut channels and high density polypropylene woven pile to low threshold.

Modern door designs without mouldings accommodate 66.8mm triple glazing. Traditional designs & Modern designs with frame mouldings accommodate 61.6mm triple glazing.

Doors are manufactured according to customer requirements from a range of standard designs and incorporate a range of options, therefore it is advisable to contact Smart Systems technical design department early in the design process.

Doors are manufactured to the required design to within the following maximum limitations (subject to location).

Single door overall dimensions – Max width 1200mm. Max height 2400mm.

Subject to agreement it may be possible to exceed these limitations depending on design criteria, contact Smart Systems Technical Department for details.

Consult Smart Systems Ltd technical literature for details. Smart Systems Ltd can also provide design and specification guidance and it is recommended that they are consulted early in the design process.

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**Product reference**: Designer Door

**Materials**: All profiles are extruded from aluminium alloy 6060 T6 and comply with the recommendations of BS EN 12020-2; 2001/BS 755-9: 2001. Thermal breaks are formed with polyamide strips PA 6.6 25 reinforced with glass fibre sections capable of withstanding temperatures up to 200°C for over painting.

**Exposure**: Design Wind Pressure **TBA**

**Thermal**: All doors, in conjunction with a suitable glazing specification, to achieve an average project U-value to meet the current requirements of the approved Building Regulation Document L1/L2 for England and Wales.

**Security:** Tested PAS24:2016

**Structure**: All structural profiles to be designed so as the maximum deflection of any glass edge into a framing member under wind load shall not exceed L/175 of its span with no evidence of any permanent deformation once the load has been removed. All horizontal framing members to restrict dead load deflection to L/400, up to a maximum of 3mm.

**Construction**: All doorsets shall be manufactured, installed and glazed in strict accordance with Smart Systems instructions and guidelines as set down in the appropriate technical literature, details and specifications. Depth of outer frame sections shall be 70mm incorporating two 22mm polyamide thermal break sections within the profiles. For full frame designs, all outer frame and door members to be 45° mitred corner construction, reinforced by means of extruded aluminium cleats and stainless steel corner braces. All corner joints to be secured by gluing and crimping or gluing and mechanical corner Cleats. All low threshold joints to be cut/shaped and secured using stainless steel screws driven into integral screw ports within the sections. All joints to be sealed during construction using suitable ‘small gap’ sealant. It is recommended that the door system be drained and ventilated in accordance with Smart Systems Technical Manual. Drip bar shall be used to all doors.

**Finish as Delivered:** Internal Colour: TBA External Colour: TBA

**Glazing details**: Doors shall be supplied pre-glazed. Fixed lights shall be glazed as section L40. Fixed lights shall be glazed internally with square bead. Fixed light unit thickness range is **24-56** mm. Fixed lights to be dry glazed using ‘snap in’ extruded aluminium beads and EPDM extruded gaskets.

**Ironmongery / Accessories:** TBA

**Fixing**: All fixings to be in strict accordance with the relevant British Standards, including BS 6262 and BS8213 Part 4: 2007, and shall ensure the door frame is retained securely within the opening without incurring any damage or distortion to the frame. Generally, fixings to be positioned 150mm from each corner and each mullion/transom and at centres not exceeding 600mm. Fixing lugs/straps only to be used where they can be suitably concealed to approval. All Fixing of door frames to the supporting structure to be achieved using a suitable lug and/or frame anchor fixing method capable of accommodating all applicable loads, deflection, tolerances and expansion expected on site. Details of the proposed fixing method shall be submitted to the project engineer for approval prior to installation.