CH20M12 B AGY/BK 3747

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Product image

Superior efficiency, flexibility and design - the "standard tailor-made fit"

When selecting a housing design, flexibility is a key factor. Other important criteria are: scalability, customized design, innovative functionality and cost efficiency. You need a choice which offers the maximum performance with the minimum overhead.

The CH20M12 modular electronics housing is the "small" option amongst the "large" housing solutions for compact electronics applications.

The entire system is characterized by excellence: outstanding scalability and flexibility, a high security level, innovative application functionality and a variety of practical details.

- **Quicker installation** with features such as "Wire ready" the universal multi-tool screw head
- **User-friendly operations:** with clear and permanent labelling and extra marking possibilities, integrated release clip or transparent cover
- **Maximum interference immunity** with EMC-compliant construction featuring deeply overlapping module joint edges made from high-performance plastic
- **High operational reliability** with the unique Auto-Set coding system and featuring double-sided touch protection on the pin header and socket blocks

CH20M - a compact name for the most flexible system available on the market. It doesn't just stand for "Component Housing IP20 Modular".

CH20M also stands for efficiency and innovation throughout design, production and use.

General ordering data

Version	Modular housing, OMNIMATE Housing - series CH20M Agate grey, Base element, Width: 12.5 mm
Order No.	2554620000
Type	CH20M12 B AGY/BK 3747
GTIN (EAN)	4050118565058
Qty.	14 pc(s).

Creation date May 9, 2024 9:58:32 PM CEST

CH20M12 B AGY/BK 3747

Technical data

Dimensions and weights

Depth	107.4 mm	Depth (inches)	4.228 inch
Height	109.2 mm	Height (inches)	4.299 inch
Width	12.5 mm	Width (inches)	0.492 inch
Net weight	31.47 g		

Temperatures

Operating temperature range	-40 °C...120 °C	Humidity	5 - 93% rel. humidity, Tu = 40°C, no condensation

Material data

Comparative Tracking Index (CTI)	600 ≤ CTI	Insulating material	PA 66 GF 30
Insulating material group	I	UL 94 flammability rating	V-0

General data

Colour	Agate grey	Colour chart (similar)	RAL 7038
Encapsulation option	No	Protection degree	IP20 in installed state
Rail	TS 35		

Assembly properties

Number of slots for female connectors of the mounted assembly, max.	6	Number of PCBs, max.	1
Number of connection levels, max.	3	Number of poles, max.	12
Height of components on the PCB, max.	6.1 mm	Type of assembly of the PCB	double-sided

Mechanical tests

According to Standard	DIN EN 61373:1999 (shock and vibration)		
Test conditions	five housings installed in a row, 100g additional weight on the PCB		
Proved axles	X, Y, Z		
Shock test	General test advices	All mechanical tests were tested on examplary setup, or in view of depending regulation. The specified results do not replace approval relevant tests. They are just orientation values.	
	Test category	1	
	Number of shocks per axle	3 in positive and negative direction	
	Shock duration	30 ms	
	Acceleration horizontal	30 m/s²	
	Acceleration vertical	30 m/s²	
	Acceleration longitudinal	50 m/s²	
Vibration test	Test duration	5 hours per axle	
	Test category	1B	
	Effective acceleration	7.9 m/s²	

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Thermal tests

Thermal tests	General test advices		All thermal tests were tested on examplary set-up, or in view of depending regulation. The specified results do not replace approval relevant tests. They are just orientation values.
	Test conditions		seven housings installed in a row - no spacing
	Test axles		horizontal
	Ambient temperature		80 °C
	Power dissapation, max.		0.8 W
	Ambient temperature		60 °C
	Power dissapation, max.		1.35 W
	Ambient temperature		40 °C
	Power dissapation, max.		1.9 W
	Ambient temperature		20 °C
	Power dissapation, max.		2.65 W

Component properties

Color of clip-on foot	black	Number of connection levels, max.	3

Design - IN requirements

PCB thickness	1.6 mm	Tolerance for the PCB shape	±0.1 mm
Tolerance of circuit board thickness	±0.15 mm		

Individualization options

Alternitive colours	More on request	Customer specific labelling possible	Yes
Customer specific order process	See guideline under downloads	Processing possibilities	
			Laser processing

Classifications

ETIM 8.0	EC001031	ETIM 9.0	EC001031
ECLASS 11.0	27-18-27-92	ECLASS 12.0	27-18-27-92
ECLASS 13.0	27-19-06-01		

Important note

Product information	Circuit board contour, restricted zones, and other information for the design in of the circuit board can be found in the category connection technology under the corresponding male headers in the downloads.

Approvals

ROHS	Conform

Downloads

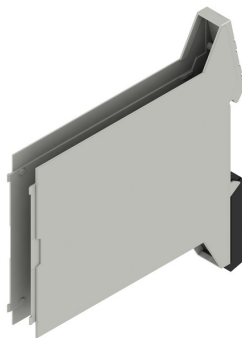|	
Engineering Data	[CAD data – STEP](#) [CAD data – PCB_position_50880_LP-POSITION_12MM](#) [CAD data – Pin_header_pin_length_CH20M_A_OV_PCB-SHL_70315](#)
User Documentation	[Guideline customerspecific housings](#) [Guideline kundenspezifische Gehäuse](#)
Catalogues	[Catalogues in PDF-format](#)

CH20M12 B AGY/BK 3747

Drawings

Product image

Product image

Base element without cut-out in snap-in foot area

Dimensioned drawing

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Catalogue status 04.05.2024 / We reserve the right to make technical changes.

4