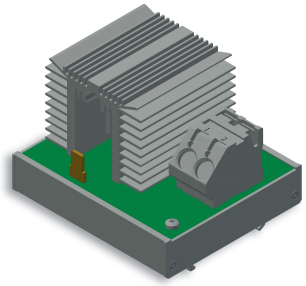
Technical data sheet

Diode Module



Identification

Type	DGE-2043 / FK DC 110V
Part No.	812043

Product version

Hardware revision	A
Datasheet version	02

Safety

Important safety advice	Risk of burns from hot surfaces. The surface of the device becomes hot during operation. Touching the surface may cause burns.

Use/Application/Properties

Description	Diode module equipped with 1 diode VS-60APU02-N3.

Technical data

Rated voltage U_N	DC 110 V
Rated current (at U_N)	20 A
Number of diodes	1
Diode	Vishay VS-60APU02-N3 (60 A / 200 V)
Diode blocking voltage	200 V
Connection type	X1 / X2: Spring terminal: 0.2 – 16 mm² Stripping length: 12 – 13 mm Screwdriver: 5.5 × 0.8 mm PE: Contact pin 6,3 mm
Storage temperature range	-40 °C … +85 °C

General

Dimensions (w × h × d)	90.0 mm × 79.0 mm × 66.0 mm
Weight/unit	0.27 kg

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Mounting	DIN rail mounting
Installation postition	vertical

Environmental service conditions

Altitude	2000 m
Operating temperature class	OT4: -40 °C … +70 °C
Switch-on extended Operating temperature class	No switch-on extended operating temperature
Temperature variation class	H1:no requirements
Shock/Vibration	Category 1, class B
Useful life class	L4: 20 years
Protection class	IP00

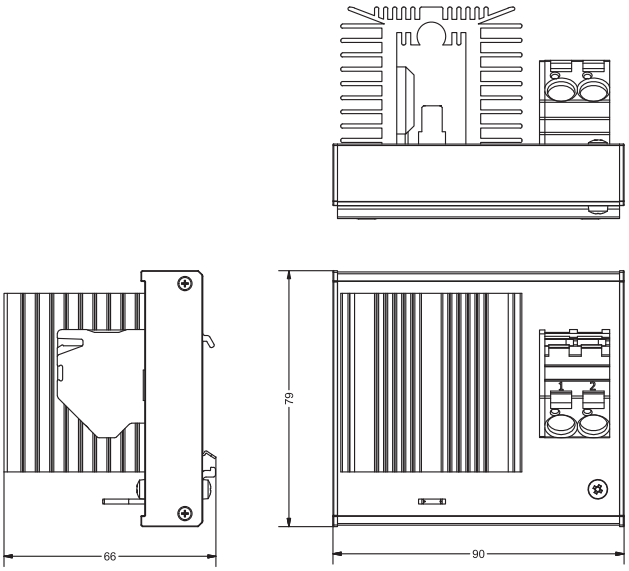
Failure Rate Prediction (MTBF)

Standards	Electronic components – Reliability – Reference conditions for failure rates and stress models for conversion: EN/IEC 61709 Failure Rates of Components – Expected values: SN 29500
Failure rate at +45 °C	3 fit
Failure rate at +45 °C	380662354 h
	1 fit equals one failure per 10^9 component hours
	The indicated temperature is the mean component ambient temperature.
Comments	The results are valid under following conditions: Automotive environment or industrial areas without extreme dust levels and harmful substances Continuous operation 8760 h per year

Standards/Certifications

Standards	EN 50155:2007: Railway applications – Rolling stock – Electronic equipment EN 50155:2017: Railway applications – Rolling stock – Electronic equipment (testing according chapter 13.3 table 12) EN 50124-1:2017: Railway applications – Insulation coordination – Part 1: Basic requirements – Clearances and creepage distances for all electrical and electronic equipment EN 61373:1999: Railway applications – Rolling stock equipment – Shock and vibration tests EN 61373:2010: Railway applications – Rolling stock equipment – Shock and vibration tests EN 45545-2:2013+A1:2015: Railway applications – Fire protection on railway vehicles – Part 2: Requirements for fire behaviour of materials and components

Dimensions



Circuit diagram