

Proprietary Information of:  bel POWER SOLUTIONS & PROTECTION a bel group	Title: EN 50155 Declaration of Conformity	Document No. URR.20085	Rev. B
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Declaration of Conformity

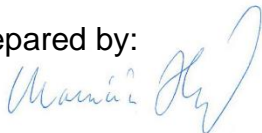
We, Bel Fuse Inc., hereby declare under our sole responsibility that the products herein after referred to are in compliance with the **EN 50155:2021**.

Manufacturer/Address: **Bel Fuse Inc.**
206 Van Vorst Street, Jersey City, New Jersey,
USA 07302

Product: **50W Watt DC-DC and AC-DC Converters**

Type Designation: **M Series per datasheet part number description**
 (Refer to part numbers description below)

Standard(s): **EN 50155:2021**
EN 50124-1:2017
EN 50125-1:2014
EN 50121-3-2:2016
EN 50121-4:2016
EN 60529:1991
EN 61373:2010
EN 45545-2:2020
 (Refer to Table 2 listing achieved compliance)

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Table 2: Compliance status

Subclause	Title	Default requirement	Product compliance
4.4.1	Altitude	Class A1 (1400 meters) Table 1 of EN 50125-1	Fulfilled (2000 m)
4.4.2	Operating temperature	Table1: Class OT3 (-25 to +71 degC)	(OT4) fulfilled for version -9 (OT3) fulfilled for version -7
4.4.3	Switch-on extended op. temp.	Table2: Class ST1 (Test cycle B)	Fulfilled (ST1)
4.4.4	Rapid temperature variation	Table3: Class H1 (No requirements),	Fulfilled (H1)
4.4.5	Shock and Vibration	Category 1; Class B of EN 61373:2010	Fulfilled
4.4.6	Electromagnetic compatibility	In compliance with EN 50121-3-2:2016	Fulfilled
4.4.7	Relative humidity	In compliance with EN 50125-1:2014	Fulfilled
4.5.2	Atmospheric pollutants	No requirements apply by default	Fulfilled (Salt Mist per EN 50155:2021, clause 13.4.13)
5.2.2	The nominal voltage of equipment (Un)	Either of following values: 24 V, 28 V, 36 V, 48 V, 72 V, 96 V, 110, 120 V	Fulfilled (24V, 36V, 48V, 72V, 96, 110, 120V)
5.2.2	Continuous DC power supply range	Table4: 0.7 x Un – 1.25 x Un	Fulfilled (16.8V – 150V)
5.2.3	Temporary DC power supply fluctuation	Table4: 0.6 x Un – 1.4 x Un (for 100msec)	Fulfilled (12.0V – 168V)
5.2.4	Interruption of voltage supply	Table5: Class S2 (10 msec)	Fulfilled (S2)
5.2.5	Supply Change-Over	Table6: Class C1	Fulfilled (C1)
5.2.7	DC ripple factor	Ripple factor of +/- 5%	Fulfilled (+/-5%)
6.2	Useful life	Class L4	Fulfilled (L4)
6.3.2	Preventive maintenance	No periodic maintenance applies	Fulfilled (No maintenance required)
7.2.1	Insulation Coordination	Pollution degree PD2 of EN 50124-1:2017	Fulfilled (PD2)
		Table 13 (13.4.7): Insulation & withstand test voltages shall be applied	Fulfilled
10.2.1	Electronic assembly acceptability	Class 2 according to IPC-A-610	Fulfilled (Class 2)
10.2.5	IC Sockets and Edge connectors	Class K2 (not allowed)	Fulfilled (K2)
10.7	Protective coatings for PCB's	Class PC2	Fulfilled (PC2)
10.9	Mounting	Enclosure shall provide the necessary protection (IP code acc to EN60529:1991)	Fulfilled (IP40) – Note 1
10.10	Cooling and ventilation	Forced ventilation for cooling is not allowed	Fulfilled (No forced cooling)
11.4	Fire behavior requirements	Fire behavior testing shall be according to EN 45545-2:2020.	Fulfilled (Hazard level 3)
12.7.8.3	Programmable component	Table10: Class M0	Not Applicable (No user programmable components)

Note 1:

IP 40: All models, except those with options P or A, and except those with option D/V with potentiometer.

IP 30: All models fitted with options A or option D/V without potentiometer.

IP 20: All models fitted with option P or with option D/V with potentiometer.

Datasheet part numbers description

M Series
 50 W DC-DC and AC-DC Converters



Part Number Description

			CM	2	5	40	-9	E	P	D3	A	H	G
Operating input range V_i :	8 – 35 VDC	A											
	14 – 70 VDC	B											
	20 – 100 VDC	F											
	28 – 140 VDC	C											
	44 – 220 VDC	D											
	67 – 385 VDC	E											
	85 – 264 VAC, 88 – 372 VDC	L											
Series		M											
Number of outputs ⁴		1, 2, 3 ⁴											
Output 1, $V_{o1 \text{ nom}}$:	5.1 V	0, 1, 2											
	12 V	3											
	15 V	4, 5											
	24 V	6											
	other voltages	7, 8											
	48 V	9											
Single-output models (different specs.)		01 – 99											
Outputs 2, 3: $V_{o2 \text{ nom}}$, $V_{o3 \text{ nom}}$:	5.1 V	01 – 19											
	12 V	20 – 39											
	15 V	40 – 59											
	24 V	60 – 69											
	other voltages and specs.	21 – 99											
Ambient temperature range T_A :	-25 to 71 °C	-7											
	-40 to 71 °C	-9											
	customer-specific	-0, -5, -6, -8											
Auxiliary functions and options:													
	Inrush current limitation (CM, EM, LM)	E											
	Output voltage control input (single-output models)	R ²											
	Potentiometers for adjustment of output voltages	P ²											
	Save data signal (D0 – D9, to be specified)	D ¹											
	ACFAIL signal (V0, V2, V3, to be specified)	D ¹											
	Output voltage test sockets	A											
	Increased electric strength test voltage	H											
	Input fuse built-in (not accessible)	F ³											
	Coding strip at the connector	K											
	RoHS-compliant for all 6 substances	G											

¹ Option D excludes option V and vice versa

² Feature R is fitted to single-output models only. Option P excludes option R (and vice versa).

³ Only for FM1000

⁴ Models with 220 mm case length. Just add 6000 to the standard model number, e.g., DM3020-9AG → DM9020-9AG.