

TECHNICAL DATASHEET

ELECTRICAL SPECIFICATIONS

Item No. 145.005 / Page 1 / 3

Print Date 29.12.2025 11:36

DC-Converter 145-24-SD

240 Watt, non isolated, single output buck converter

All parameters defined on Ta=25°C, IoNom = 10.0 ADC and UiNom = 80VDC

ABSOLUTE MAXIMUM RATINGS

parameter	unit	typ
Input peak voltage	VDC	125.00
Output overvoltage protection	VDC	27.0

THERMAL CHARACTERISTICS

parameter	min to max	typ
Ambient temperature range	-40°C / +85°C	
Max. case temperature for thermal shut down [°C]		+90°C
Storage temperature (device not in operation)	-10°C / +65°C	
Relative maximum humidity under storage		75% RH
Storage under worst conditions [in days]		25

COMMUNICATION INTERFACE

parameter	unit	fulfilled	conditions	min to max
Option shut down (left open for operation)		✓		
Shutdown voltage for transformer	VDC		IoNom	-0.2 to 2.8

SPECIALS

parameter	unit	fulfilled	conditions	typ
Switching frequency	kHz			140
Efficiency at light loads	%		0.25IoNom	96.00
Efficiency at medium loads	%		0.5IoNom	96.00
Efficiency at full loads	%		IoNom	95.00
CC/CV battery load characteristic		✓		
Insulation strength primary to case	VDC			1500

COMPLIANCE

parameter	fulfilled	notes
61000-6-2 (EMC-Immunity standard for industrial environment)	✓	
61000-4-2 (immunity against ESD-electrostatic discharge)	✓	
61000-4-3 (immunity High frequency electromagnetic fields)	✓	
61000-4-4 (immunity against burst – electrical fast transients)	✓	
61000-4-5 (immunity against surge - high energy surges)	✓	
61000-4-6 (immunity against induced, conducted disturbances)	✓	
61000-6-4 (EMC – Emission standard for industrial environment)	✓	
55022<A	✓	

All technical and general information is provided in all conscience. However, completeness and accuracy cannot be guaranteed. Demke recommends to fully test the product in its determined application. Due to permanent improvements to our products, we reserve the right to change specifications at any time and without prior notification and without obligation to update products already supplied. This is a component for professional equipment manufacturers. Read the safety and installation instruction for proper use. Safety aspect and EMC-aspect must be considered in the end application.

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INPUT

parameter	unit	conditions	min	typ	max
Input voltage range	VDC	IoNom	26	80	100
No load input current	mA	UiNom		11	
Max. input current	A	UiNom		11	
Input start up voltage	VDC	UiNom		24.0	
Undervoltage lockout	VDC	UiNom		22.0	

OUTPUT

parameter	unit	conditions	min	typ	max
Output voltage	VDC	IoNom		24.0	
Minimum required load to obtain the specified output voltage	%	UiNom		0	
Output voltage overshoot at initial switch-on	%	IoNom		overdamped	
Rated output power	W			240	

CONTROL

parameter	unit	conditions	min	typ	max
Static line regulation	%	IoNom/UiMin...UiMa		0.10	
Static load regulation	%	IoMin...IoMax/UiNo		1.0	
Dynamic load change adjusting time	ms	LoadChange 10...90		0.30	
Maximum admissible capacitive load	uF	IoNom		infinite	

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MECHANICAL

parameter	unit	
Overall dimensions	mm	77x52x19
Weight	g	165

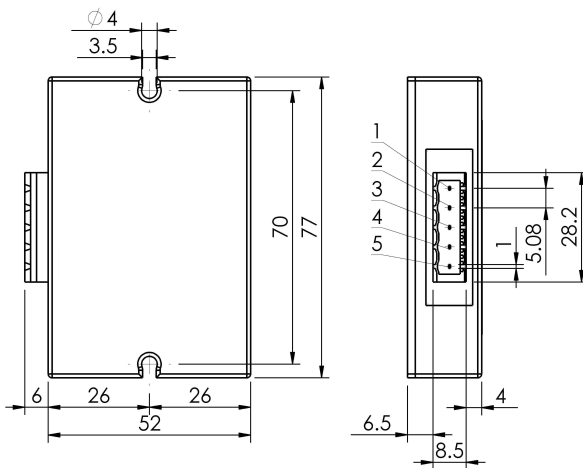
Pin No.	Function	Electrical Determination
1	SD	Shut down
2	Vi+	Input voltage positive
3	Vi-	Input voltage negative
4	Vo-	Output voltage negative
5	Vo+	Output voltage positive

Mechanical dimensions and Pin configuration

All dimensions in mm

Connector type: CCA 2,5/5-G-5,08 P26THR

Case: FMC 77x52x19



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