

DC-Converter 365DH-24-SD

All parameters are specified at Ta = 25 °C, IoNom = 8.40 A, UiNom = 48 VDC.

ABSOLUTE MAXIMUM RATINGS

parameter	unit	typ
Input peak voltage	VDC	125
Feedback protection against overvoltage at the output	VDC	36
Worst-case output peak voltage in fault mode	VDC	40

THERMAL CHARACTERISTICS

parameter	min to max	typ
Ambient temperature range	-40 °C / 85 °C	
Maximum case temperature for thermal shutdown		90 °C
Full output power without derating within the specified temperature range		✓

COMMUNICATION INTERFACE

parameter	unit	fulfilled	conditions	min to max
Shutdown input (left open for operation)	VDC	✓	IoNom	-0.20 to 2.80

Signal	Low	Open	High
SD	Off	On	On

SPECIALS

parameter	unit	fulfilled	conditions	typ
Switching frequency	kHz			135
Efficiency at light load	%		0.25 IoNom	91.00
Efficiency at medium load	%		0.5 IoNom	92.00
Efficiency at full load	%		IoNom	90.00
Suitable for active loads or parallel operation		✓		
Drives high capacitive loads		✓		
CC/CV battery charging characteristic		✓		
No-load and short-circuit proof		✓		
Input-voltage range class				ultrawide
Input filter				ripple and noise
EMI filter				input and output
Primary-side control		✓		
MTTF	h		SN 29500 at 70 °C	1300000
Coupling capacitance input to output	nF			tfw
Insulation strength primary to secondary	VDC			2100
Insulation strength primary to case	VDC			2100

COMPLIANCE

standard	fulfilled	notes
IEC 60068-2-6:2007	✓	Type-tested; Vibration test – sinusoidal vibration (sweep sine)
IEC 60068-2-27:2009	✓	Type-tested; Shock test
EN 61000-6-4	✓	Type-tested; EMC emission standard for industrial environments
EN 61000-4-4	✓	Type-tested; Immunity against burst – electrical fast transients
EN 50155	✓	Railway applications
EN 61000-4-5	✓	Type-tested; Immunity against surge – high-energy surges
EN 61000-6-2	✓	Type-tested; EMC immunity standard for industrial environments
REACH	✓	REACH compliance
EN 61000-4-6	✓	Type-tested; Immunity against induced, conducted disturbances
EN 61000-4-2	✓	Type-tested; Immunity against electrostatic discharge (ESD)
EN 55022 < Class A	✓	Type-tested; Emission Class A
RoHS	✓	RoHS compliance
EN 61000-4-3	✓	Type-tested; Immunity against high-frequency electromagnetic fields
CE	✓	CE conformity

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INPUT

parameter	unit	conditions	min	typ	max
Input voltage range	VDC	IoNom	18.00	48	100
Maximum input current	A	UiNom		12.00	
Input start-up voltage	VDC	UiNom		16.00	
Undervoltage lockout	VDC	UiNom		14.50	
Superposed AC ripple and HF noise	mV	UiNom / IoNom, BW 20 MHz		45	
Reflected input ripple current	mA	UiNom / IoNom		90	
Recommended input fuse	A			15	

OUTPUT

parameter	unit	conditions	min	typ	max
Output configuration				Single output	
Output isolation				Reinforced / double isolation	
Output voltage	VDC	IoNom		24.00	
Nominal output current	A	IoNom		8.40	
Rated output power	W			200.00	
Minimum load required for the specified output voltage	%	UiNom		2	
Superposed ripple and noise on the output	mV	UiNom / IoNom, BW 20 MHz		5	

CONTROL

parameter	unit	conditions	min	typ	max
Static line regulation	%	UiMin...UiMax / IoNom		0.100	
Static load regulation	%	IoMin...IoMax / UiNom		1.20	
Dynamic load-change settling time	ms	Load change 10...90 %		0.30	
Dynamic load-change deviation from nominal output voltage	V	Load change 10...90 %		3.50	
Maximum admissible capacitive load	µF	IoNom		infinite	
Initial switch-on time	ms	IoNom		15	
Soft-start ramp-up time	ms	IoNom		15	

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MECHANICAL

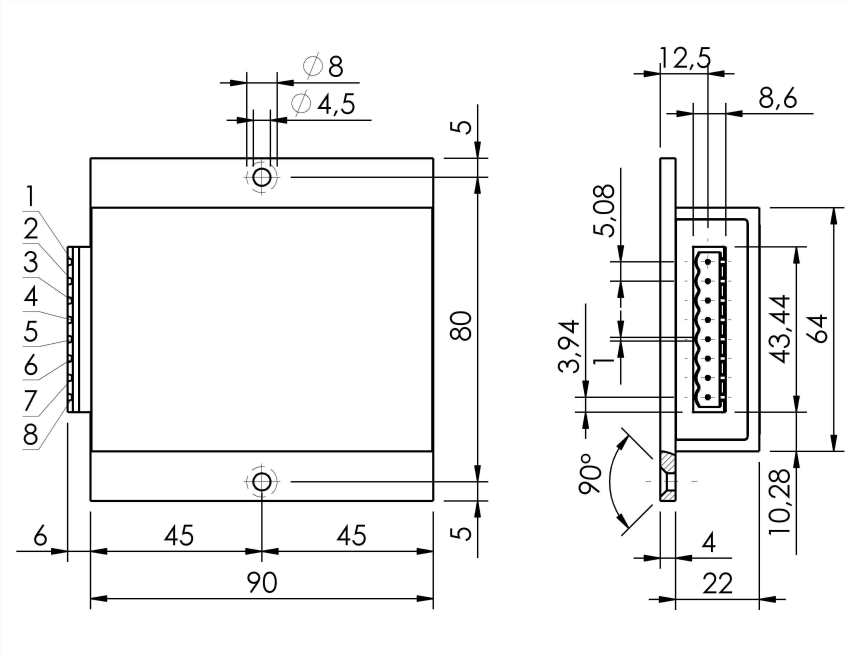
parameter	unit	
Overall dimensions (L × W × H)	mm	90 × 90 × 26
Weight	g	370
Mounting	Wall mounting	
Connector type	CCA 2,5/8-G-5,08 P26THR	
Case	mm	FMC 90x90x26

CONNECTION CONFIGURATION

Connector: CCA 2,5/8-G-5,08 P26THR

Pin No.	Function	Electrical determination
1	Vi+	Input voltage positive
2	Vi-	Input voltage negative
3	SD	Shut down
4	NC	Not connected
5	NC	Not connected
6	NC	Not connected
7	Vo-	Output voltage negative
8	Vo+	Output voltage positive

TECHNICAL DRAWING



INFO

The DC/DC converter can be operated down to 16VDC. In this operating condition, the output voltage will be below 24V. See the CCCV chart for additional information.

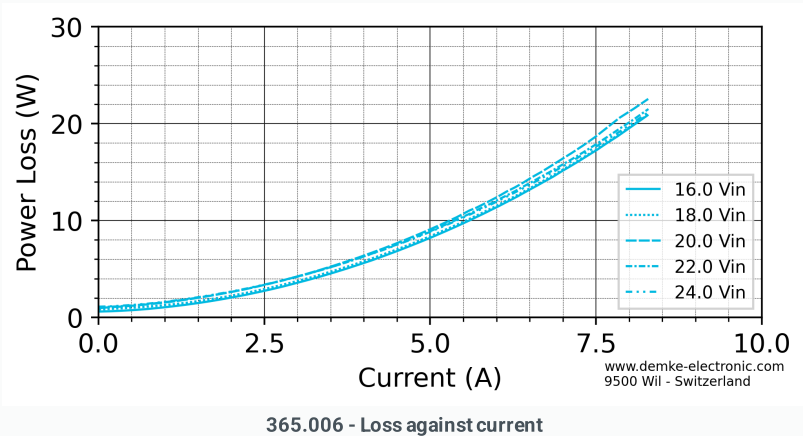
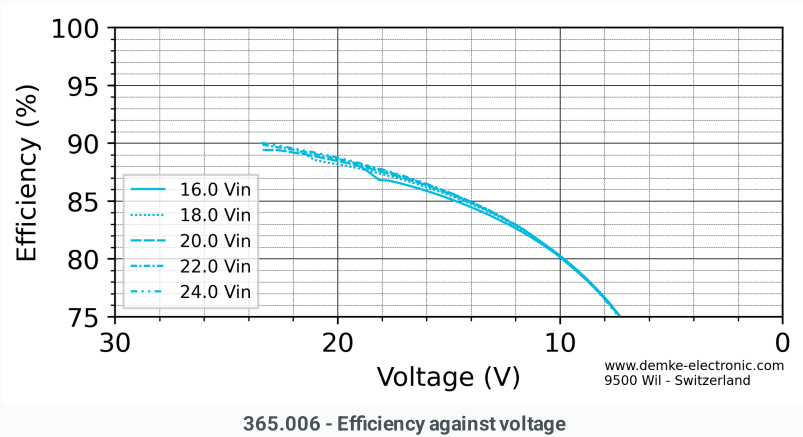
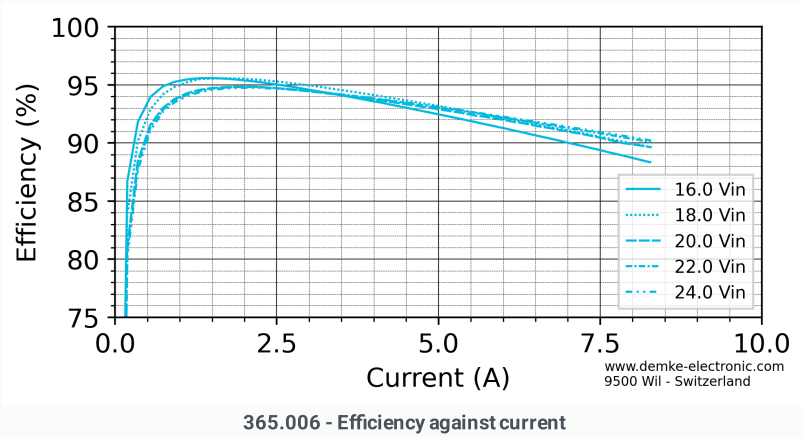
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CHARACTERISTIC CURVES

Typical characteristic curves. Unless otherwise specified, the operating conditions stated in this technical datasheet apply.



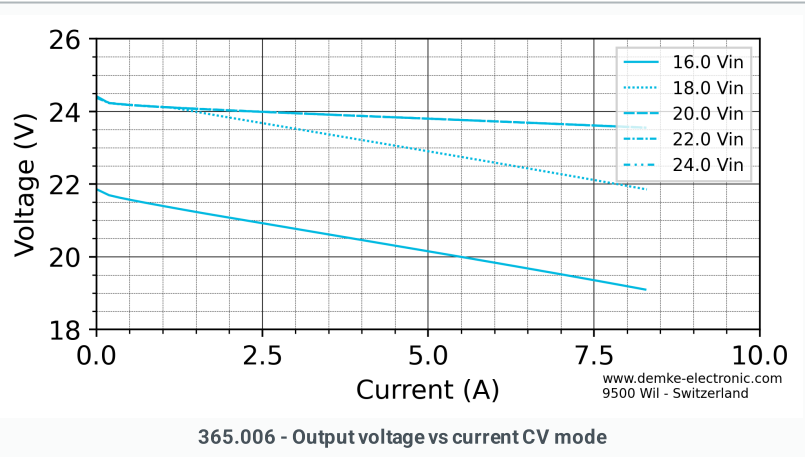
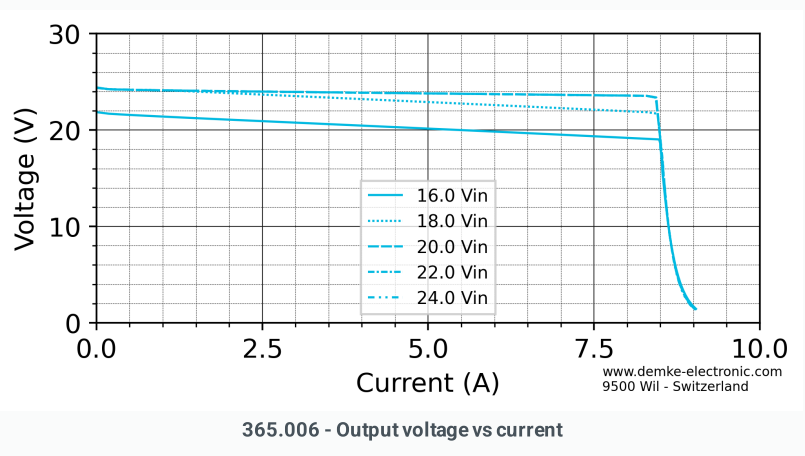
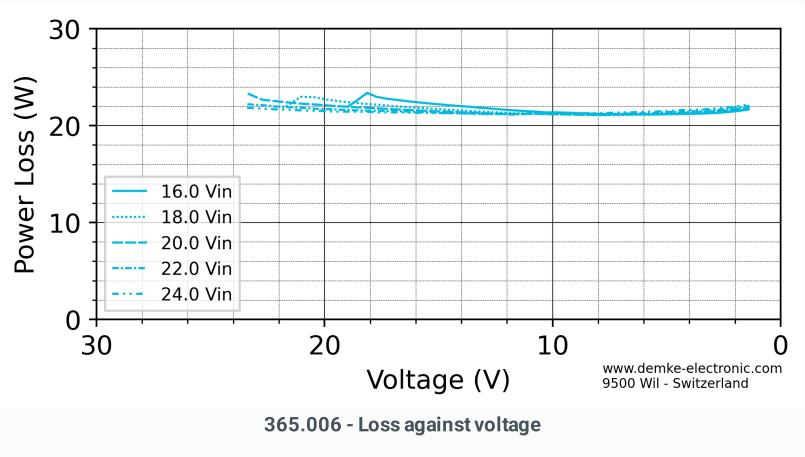
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