

Regulated SIL-7 DC/DC Converters FY-Series 1 Watt, Single Output



- DC/DC regulated converter modules
- Industry standard pinning
- 1s short circuit proof
- 1kVdc isolation voltage
- UL 94V-0 package material
- Output voltage control

- DC/DC Wandler geregelt
- Industriestandard pinning
- 1s kurzschlussfest
- 1kVdc galvanische Trennung
- UL 94V-0 Gehäusematerial und Vergussmasse
- Steuerspannung

- Convertisseur DC/DC régulé
- Brochage standard industriel
- Résistant 1s au court-circuit
- Isolation galvanique 1kVdc
- Matériaux de boîtier et masse de remplissage conformes UL 94V-0

Product range		Typenübersicht		Sommaire des types		
PART NUMBER	PINNING	INPUT VOLTAGE		OUTPUT		EFFICIENCY
		Nominal	Range	Voltage	Current	Typical
FY(xx)-05SM	SIL-7	5, 9, 12, 15, 24 VDC	±5%	5 VDC	180 mA	58-60%
FY(xx)-09SM			±5%	9 VDC	111 mA	56-62%
FY(xx)-12SM			±5%	12 VDC	84 mA	60-66%
FY(xx)-15SM			±5%	15 VDC	66 mA	60-66%
FY(xx)-24SM			±5%	24 VDC	42 mA	60-68%

Ordering Example:

Substitute (xx) for 05, 09, 12, 15 or 24

FY 05 - 09 S M

Product Series

Nominal Input Voltage

Nominal Output Voltage
(09 = 9V)

M = 1'000 Vdc isolation voltage

S = Single Output Voltage

Specifications

Spezifikationen

Spécifications

All values refer to an ambient temperature of 25°C and nominal rated values where nothing else is specified

INPUT SPECIFICATIONS

Characteristics		Conditions	min	typ	max	unit
U_{in}	Input voltage	$T_A < T_{Amax}$	±5			% $U_{in nom}$
	Input filter		capacitor type			

OUTPUT SPECIFICATIONS

Characteristics		Conditions	min	typ	max	unit
U_{acc}	Output voltage accuracy	of nominal output voltage			±5	% U_{out}
	Line regulation				±1	% U_{out}
	Load regulation	10% to 100% load			±1	% U_{out}
$U_{r n}$	Output ripple & noise	Single output			100	mVpp
	Output short circuit characteristic			fold-back		
	Output short circuit protection		1			sec
	Output voltage control	See "output voltage control", page 3				

GENERAL SPECIFICATIONS

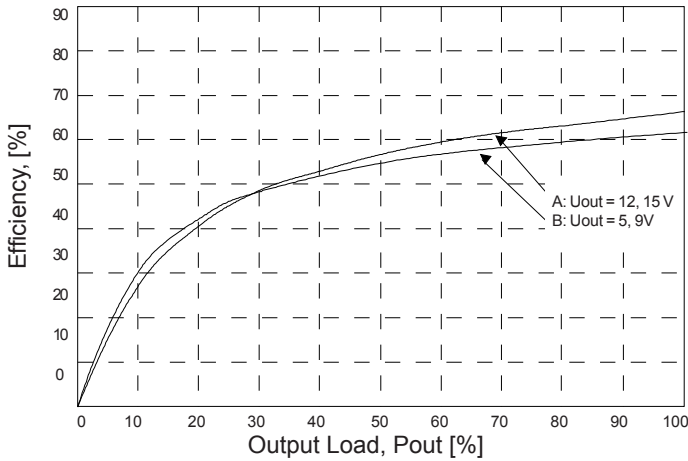
Characteristics		Conditions	min	typ	max	unit
U_{iso}	Isolation voltage	input/output	1'000			Vdc
R_{iso}	Isolation resistance	Input to output		10		GOhm
$C_{I/O}$	Input / output capacitance	Input to output	30		150	pF
f_s	Switching frequency	Fixed, at full load	30		88	kHz
	Case material		Plastic, UL 94V-0			
	Weight	SIL-7		2.8		g
	Dimensions	LxWxH	19.65 x 7.05 x 10.2			mm

ENVIRONMENTAL SPECIFICATIONS

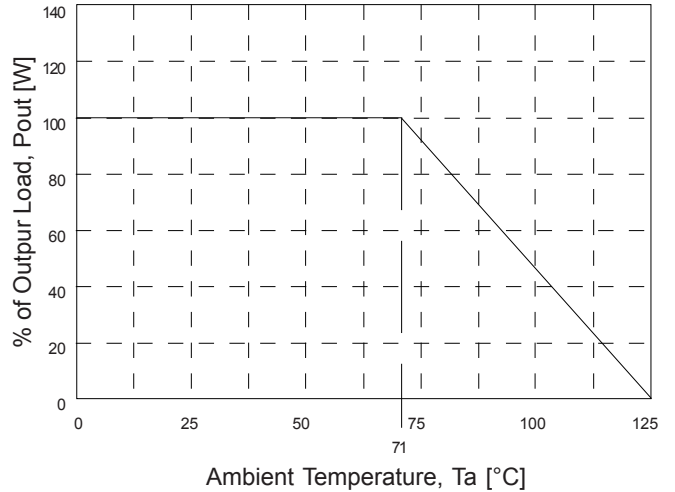
Characteristics		Conditions	min	typ	max	unit
T_A	Operating temperature	Ambient temperature, see also "Derating" page 3	-40		+71	°C
	Storage temperature	Ambient temperature	-55		+125	°C

Typical characteristics

Efficiency (typical values)



Derating



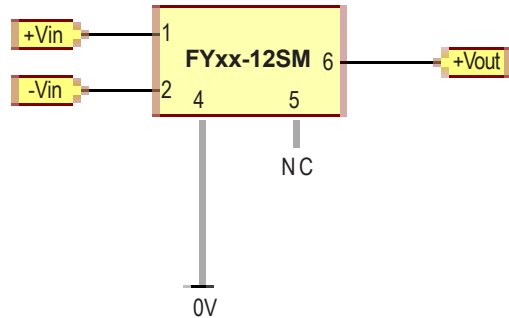
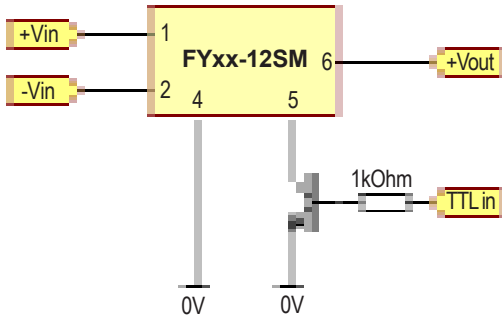
Flash PROM output voltage control:

Example:

TTLin = 0V; +Vout = 12V

TTLin = 1V; +Vout = 1.2V

If pin 5 (Ctrl) is not connected (NC), then output voltage is nominal:

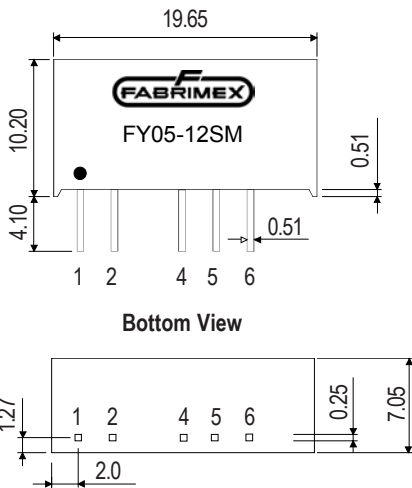


Case

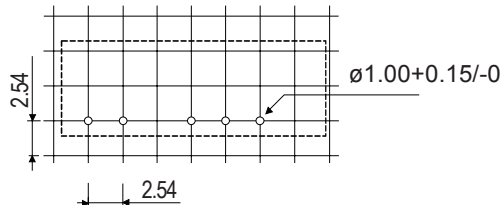
Gehäuse

Boîtier

Dimensions in mm. Normal tolerance 1/10 ±0.5 mm, 1/100 ±0.25 mm



Recommended Footprint, Bottom View



Pin	Single
1	+Vin
2	-Vin
3	NP
4	-Vout
5	Ctrl
6	+Vout
7	NP

NP = No Pin

Notice: All statements, technical information, and recommendations related to FABRIMEX's products are based on information believed to be reliable, but the accuracy or completeness thereof is not guaranteed. Before utilizing the product, the user should determine the suitability of the product for its intended use.



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