

Features

- 11 Watt output power
- DIP24 package
- 4:1 input voltage range
- Industry standard pin-out
- 5 KVAC isolation
- Operating temperature range -40°C to +105°C
- High efficiency up to 87.5%
- Medical safety meets 2xMOPP per 3rd Edition of IEC/EN 60601-1 approval

Isolated DC-DC converter

RS Stock No.: 2853138



RS PRO is the own brand of RS. The RS PRO Seal of Approval is your assurance of professional quality, a guarantee that every part is rigorously tested, inspected, and audited against demanding standards. Making RS PRO the Smart Choice for our customers.

Product Description

The DC-DC converter is specially designed for industrial control systems, medical equipment, and high isolation required.
 OP temperature is full load from -40 °C to 74°C and 5000Vac isolation.
 No minimum load required.

General Specifications

Type	11W Isolated DC-DC converter
Regulated/Unregulated	Regulated
Efficiency * ¹	Typ. 87.5%
Applications	Industrial control system, medical equipment, high isolation requires

Specifications

Output Voltage	24V dc
Input Voltage	9-36V dc Nom.24V dc
Output Current	458mA
Input Curren @ no load	6mA
Input Voltage Range	Min. 9V dc/ Max. 36V dc
Input Surge Voltage	Max. 50V dc (1s max.)
Under Voltage Lockout	Typ. 7.5V dc (0%-100% load)
Start-up Voltage	Typ. 9V dc (0%-100% load)
Start-up Time	Typ. 30ms (100% load at nominal Vin)
Output Voltage Accuracy	Max. ±1%
Capacitive Load * ²	Max. 125µF
Operating Frequency	Typ. 350KHz
Ripple and Noise * ³	Max. 50mV pp
Transient Response Recovery Time	Typ. 250µs (75%-100% load)
MTBF	Min. 1192000hours (25°C)
Line Regulation	Max. ±0.2% (LL-HL at 100% load)
Load Regulation	Max. ±0.2% (0%-100% load)
Minimum Load	0%
Isolation Voltage	Min. 5000V ac/ 1 min., Input to Output
Isolation Resistance	Min. 1000M Ω
Isolation Capacitance	Max. 15pF
Short Circuit Protection	Continuous, automatic recovery
Over Load Protection	Typ. 150%
Over Voltage Protection	Min. 26.9V dc/ Max. 31.2V dc

Isolated DC-DC converter

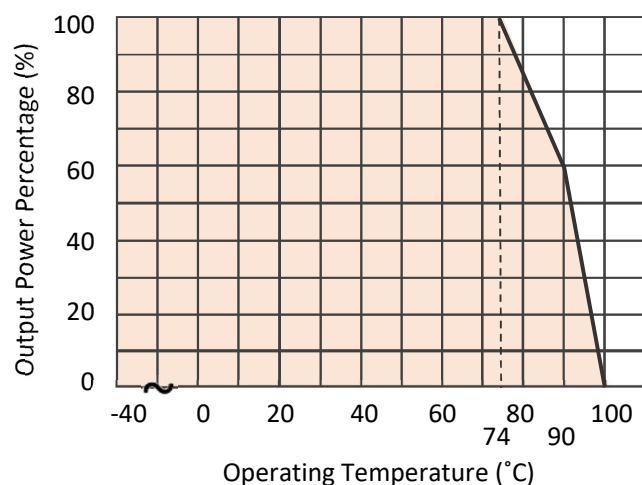


Safety Approvals	Medical safety meets 2xMOPP per 3rd Edition of IEC/EN 60601-1
Vibration	MIL-STD-202G, IEC68-2-6
Certificate	RoHS / REACH

General Specifications

Operating Temperature	-40 to 105°C
Storage Temperature	-55 to 125°C
Relative Humidity	5 to 95%RH

Derating

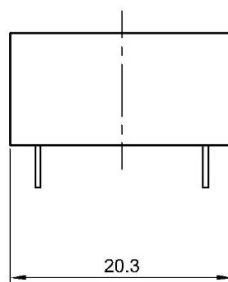
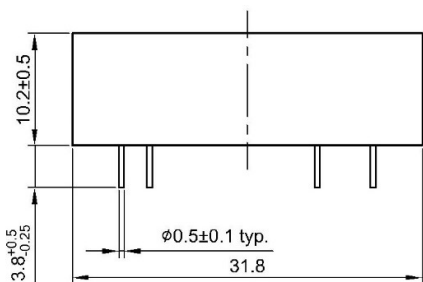


EMC Specifications

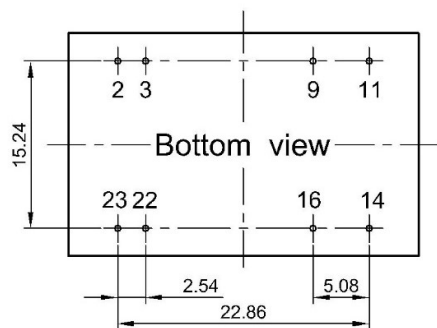
EMI ^{*4}	Class A EN 55011
ESD	Criteria A EN 61000-4-2, Air±15kV; Contact±8kV
RS	Criteria A EN 61000-4-3, 10V/m
EFT ^{*5}	Criteria A EN 61000-4-4, ±2kV
Surge ^{*5}	Criteria A EN 61000-4-5, ±2kV
CS	Criteria A EN 61000-4-6, 10V/rms
PFMF	Criteria A EN 61000-4-8, 30A/m

Mechanical Specifications

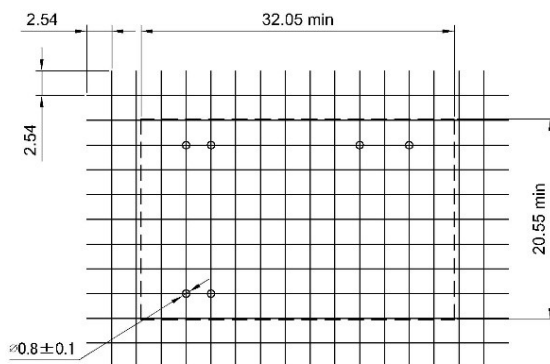
Case Material	Plastic
Potting Material	Silicone
Dimensions	31.80 x 20.30 x 10.20 mm
Weight	13g
Cooling	Natural convection

Dimension & Pinning

Pin	Pin-Out
2, 3	-Vin
9	No pin
11	No pin
14	+Vout
16	-Vout
22, 23	+Vin

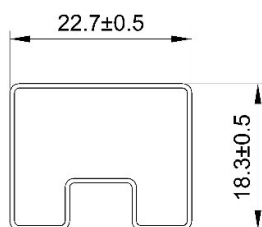


Projection : Third angle projection
Unit : mm
Tolerance : ± 0.25 mm

Recommend Footprint

Footprint (Top view)

Package



UNIT:mm
1 Tube = 15 pcs
Length:520±2mm

1. ^{*1} The efficiency is tested by nominal input and maximum full load @25°C
2. ^{*2} The capacitive load is tested by minimum input and constant resistive load.
3. ^{*3} Ripple& noise: 20MHZ BW at Vin range with a 1µF/50V X7R MLCC.
4. ^{*4} EMI class A without external circuit.
5. ^{*5} Test with E-CAP 220uF/100V at input terminal.
6. All specifications valid at nominal input voltage, full load and 25°C after warm-up time unless otherwise stated.