

DC/DC Converters

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TES 20 Series, 20 Watt

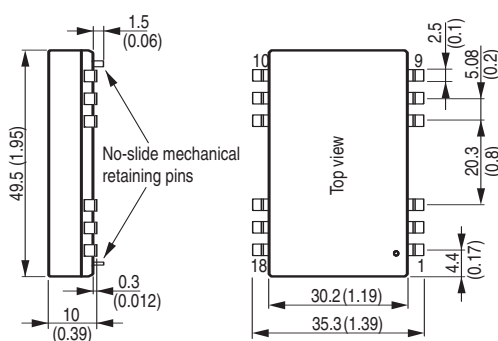
- = Compact SMD-Package
- = Wide 2:1 Input Range
- = Very high Efficiency up to 87%
- = Operating Temperature Range -40°C to $+71^{\circ}\text{C}$
- = I/O Isolation 1500 VDC
- = Short Circuit Protection
- = Remote On/Off
- = Adjustable Output Voltage



Line regulation:	$\pm 0.5\%$ max.
Load regulation:	$\pm 0.5\%$ max.
Output voltage adjustment:	$\pm 10\%$ (by external resistor)
Ripple & Noise:	– 2.0/3.3 VDC output models: < 50 mVpk-pk (20 MHz BW) – other output models: < 75 mVpk-pk (20 MHz BW)
Conducted EMI:	EN 55022, class A and FCC, level A (with external capacitor)
Short circuit protection:	continuous, automatic recovery
Efficiency:	85% typ.
	2.0 VDC output models: 81% typ.
Operating temperature range:	-40°C ... $+71^{\circ}\text{C}$ (no derating)
I/O isolation voltage:	1500 VDC
Safety standards / approvals:	cUL/UL 60950, IEC/EN 60950
Case:	plastic (UL 94 V-O rating)
Remote On/Off:	shutdown input for low input current (16 mA) in standby operation
Option:	switching frequency synchronisation input

Models			
Order Code	Input voltage	Output voltage	Output current max.
TES 20-4809	36 – 75 VDC	2.0 VDC	4000 mA
TES 20-4810		3.3 VDC	4000 mA
TES 20-4811		5 VDC	4000 mA
TES 20-4812		12 VDC	1670 mA
TES 20-4813		15 VDC	1330 mA

Pin-Out	
Pin	Single output
1	+ Vout
2	– Vout
3	No con.
7	Trim
8	No con.
9	No con.
10	No con.
11	Remote On/Off
12	Sync (optional)
16	No con.
17	– Vin (GND)
18	+ Vin (Vcc)



() = Inches