



Features

- ◆ Switch mode power supplies for DIN-rail mount
- ◆ 6 power ranges with 2, 3, 6, 12, 20 and 24 A output current (24 VDC models)
- ◆ Selectable 115/230 VAC input
- ◆ Very low ripple and noise
- ◆ EMI complies with EN 61000-6-3 and EN 61000-6-4
- ◆ Operating temp. range -25°C to $+70^{\circ}\text{C}$
- ◆ For system operation available with built-in functions:
 - RED:** Redundancy module for N+1 Systems with true current sharing
 - SIG:** Signal module with AC-power-fail, power good signal and external On/Off control
 - UDS:** DC-UPS module for uninterruptible battery backed-up power systems
- ◆ Worldwide safety approvals incl. class I, div. 2 location
- ◆ Easy snap-on mount on DIN-rails or chassis mount
- ◆ 3-year product warranty



The switching power supplies of the TIS series have been particularly designed for applications in industrial process control systems and with machine tools. Excellent specifications and high immunity against electrical disturbances guarantee reliable power for sensitive loads in rugged industrial environments. With the help of optional function modules specific requirements for system applications can be easily realized with a standard model. With the UDS module the power supplies can be extended to a perfect DC-UPS with automatic battery- backup. This function is very often required in applications where a time delayed shutdown of a system is necessary. To monitor and control the power supply a signal module can be installed. For parallel operation with active power sharing a redundancy option is available. This flexibility makes the TIS series power supplies a cost effective solution for many industrial applications.

Models

Order Code (includes terminal plugs)	Input Voltage nom.	Output Power max.	Output Voltage nom.	Output Current max.
TIS 50-112 TIS 50-124	115–240 VAC universal input	50 W	12 VDC 24 VDC	3.5 A 2.0 A
TIS 75-112 TIS 75-124 TIS 75-148	115/230 VAC selectable	75 W	12 VDC 24 VDC 48 VDC	6.0 A 3.0 A 1.5 A
TIS 150-124 TIS 150-148	115/230 VAC selectable	150 W	24 VDC 48 VDC	6.0 A 3.0 A
TIS 300-124 TIS 300-148 TIS 300-172	115/230 VAC selectable	300 W	24 VDC 48 VDC 72 VDC	12.0 A 6.0 A 4.2 A
TIS 500-124-115 TIS 500-124-230	115 VAC 230 VAC	500 W 500 W	24 VDC 24 VDC	20.0 A 20.0 A
TIS 600-124 TIS 600-148 TIS 600-172	115/230 VAC selectable	600 W	24 VDC 48 VDC 72 VDC	24.0 A 12.0 A 8.5 A

Input Specifications

Input voltage range	TIS 50: 93 – 264 VAC TIS 75, 150, 300, 600: 93 – 132 VAC / 187 – 264 VAC TIS 500-124-230: 187 – 264 VAC TIS 500-124-115: 93 – 132 VAC																					
Input frequency	47 – 63 Hz																					
Input current at full load (typ.)	<table border="1"> <thead> <tr> <th></th> <th>at 115 VAC</th> <th>at 230 VAC</th> </tr> </thead> <tbody> <tr> <td>TIS 50:</td> <td>0.85 A</td> <td>0.50 A</td> </tr> <tr> <td>TIS 75:</td> <td>1.3 A</td> <td>0.75 A</td> </tr> <tr> <td>TIS 150:</td> <td>2.7 A</td> <td>1.6 A</td> </tr> <tr> <td>TIS 300:</td> <td>4.9 A</td> <td>2.9 A</td> </tr> <tr> <td>TIS 500:</td> <td>6.0 A</td> <td>4.3 A</td> </tr> <tr> <td>TIS 600:</td> <td>7.0 A</td> <td>5.0 A</td> </tr> </tbody> </table>		at 115 VAC	at 230 VAC	TIS 50:	0.85 A	0.50 A	TIS 75:	1.3 A	0.75 A	TIS 150:	2.7 A	1.6 A	TIS 300:	4.9 A	2.9 A	TIS 500:	6.0 A	4.3 A	TIS 600:	7.0 A	5.0 A
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Recommended circuit breaker, characteristic C or fuse, slow blow typ	TIS 50: 5.0 A TIS 75: 5.0 A TIS 150: 10.0 A TIS 300: 15.0 A TIS 500: 15.0 A TIS 600: 20.0 A																					

Output Specifications

Output voltage adj. range	12 VDC models: 12 – 14 VDC 24 VDC models: 24 – 28 VDC 48 VDC models: 48 – 52 VDC 72 VDC models: 60 – 76 VDC												
Regulation	<table border="1"> <thead> <tr> <th></th> <th>– Input variation</th> <th>– Load variation (10–90%)</th> </tr> </thead> <tbody> <tr> <td>TIS 50, TIS 75, TIS 150:</td> <td>0.2 %</td> <td>1.0 %</td> </tr> <tr> <td>TIS 300, TIS 500, TIS 600:</td> <td>0.3 %</td> <td>0.3 %</td> </tr> </tbody> </table> (2.0 % in parallel operation)		– Input variation	– Load variation (10–90%)	TIS 50, TIS 75, TIS 150:	0.2 %	1.0 %	TIS 300, TIS 500, TIS 600:	0.3 %	0.3 %			
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TIS 50, TIS 75, TIS 150:	0.2 %	1.0 %											
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Ripple and noise (20MHz bandwidth)	<50 mV pk-pk												
Electronic short circuit protection	current limitation at 110 % typ. (constant current, automatic restart)												
Over voltage protection, trigger point at	140 % typ. Vout nom.												
Hold-up time	<table border="1"> <thead> <tr> <th></th> <th>115 VAC</th> <th>230 VAC</th> </tr> </thead> <tbody> <tr> <td>TIS 50 ... TIS 300:</td> <td>min. 25 ms</td> <td>min. 30 ms</td> </tr> <tr> <td>TIS 500:</td> <td>min. 20 ms</td> <td>min. 40 ms</td> </tr> <tr> <td>TIS 600:</td> <td>min. 15 ms</td> <td>min. 25 ms</td> </tr> </tbody> </table>		115 VAC	230 VAC	TIS 50 ... TIS 300:	min. 25 ms	min. 30 ms	TIS 500:	min. 20 ms	min. 40 ms	TIS 600:	min. 15 ms	min. 25 ms
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