

Overview

These transformers up to 63 VA provide a safety extra-low voltage for supplying control current circuits, switching relays or Insta contactors in continuous operation as alternating voltage power supply for 8 V, 12 V or 24 V AC.

Siemens transformers for permanent loading are protected against short circuit or moderate overload by a PTC resistor. If a disconnection occurs, the transformer must be switched off for approx. 30 min to allow the PTC resistor to cool down.

EN 61558-2-2 specifies that with transformers for permanent loading the difference between the non-loaded output voltage and the output voltage loaded with the rated load must not exceed 10 %. This requirement places the highest demands on the design of this type of transformer. It can only be met by using high-quality core materials and a core design with an extraordinarily high efficiency, such as type EI to DIN 41302.

Benefits

- The transformers with 24 VA, 40 VA and 63 VA cores are molded, which means that they are hum-free and suitable for installation in sound-sensitive distribution boards
- Reliable device protection through PTC; provide longstanding protection against overload and short circuits
- The transformers are IMQ and VDE approved – this ensures operational safety.

Technical specifications

		4AC3 408	4AC3 516	4AC3 524	4AC3 540	4AC3 616	4AC3 624	4AC3 640	4AC3 663
Standards		EN 61558-2-2							
Approvals		EN 61558-2, IMQ							
Rated operational power P_s	VA	8	16	24	40	16	24	40	63
Rated short-time power p.f. = 0.5; $t = 10$ s	VA	10	18	27	48	18	27	48	80
Rated operational voltage U_e	V AC	230							
Operating range at 50/60 Hz	$\times U_e$	0.9 ... 1.1							
Rated frequency	Hz	50							
Operating frequency range	Hz	48 ... 62							
Rated secondary voltage U_{sec} In series connection	V AC V AC	8 No	2 × 4 8	8 No		2 × 12 24			
Rated secondary current I_{sec} • At 4 V • At 8 V • At 12 V • At 24 V	A AC A AC A AC A AC	No 1 No No	2 × 2 2	No 3	5	No 2 × 0.67 0.67	2 × 1 1	2 × 1.67 1.67	2 × 2.62 2.62
Rated power dissipation P_V • In no-load operation • At rated load	VA W	3.5 2.6	10.3 4.6	8.0 2.7	13.8 6.9	8.0 3.6	13.1 6.3	8.3 5.7	23.0 10.0
Hum-free Core molded		No		Yes		No	Yes		
Safe separation Creepage distances and clearances	mm	≥ 3							
Insulation class		B							
Test voltage, 50 Hz, 1 minute Primary against secondary winding	kV	≥ 4							
Terminals ±screw (Pozidriv)		1							
Conductor cross-sections • Rigid • Flexible, with end sleeve, min.	mm ² mm ²	1 ... 6 0.75							
Permissible ambient temperature In operation	°C	-10 ... +40							
Permissible humidity	%	≤ 80							
Degree of protection	Acc. to EN 60529	IP20							
Safety class	Acc. to EN 61140/VDE 0140-1	II							