

TA series Site Transformers

Blakley Electrics TA series Construction Site Transformers are manufactured in accordance with BS4363:1998 and provide a 110V Reduced Low Voltage supply in accordance with BS7671 (IET Wiring Regulations, 18th Edition). Standard TA series Site Transformers are available in ratings of 5 and 10 kVA single phase or 7.5, 10 or 20 kVA three-phase, in a range of enclosure designs. Different distribution arrangements are available featuring 16A and 32A 2P+E 110V sockets and / or hard wired lighting outlets with MCB protection and the option of RCD protection. Models are also available with plug-in mains connection via an appliance inlet (a fixed plug), as are dedicated Site Lighting Transformers with integral time clock and contactors for the automatic control of lighting circuits.

The different ranges are outlined below and part numbers and other details are provided on pages 2, 3 and 4 of this data sheet.



Standard Site Transformers

Available in continuous ratings from 5kVA single-phase to 20kVA three-phase. Standard site transformers are fitted with socket outlets, with or without RCD protection. Models are available fitted with appliance inlets (fixed plugs), allowing Site Transformers to be plug-in and supplied via 230V or 400V extension leads.

Site Lighting Transformers

Dedicated Site lighting transformers are rated at 10kVA single-phase or three-phase and are fitted with hard wired lighting connection points, which prevent lighting circuits from being casually unplugged. Site Lighting transformers are also available with time clock control, allowing lights to be turned ON and OFF automatically. Circuits can be individually protected by RCD.



Power & Lighting Site Transformers

Combined Power and Lighting transformers are rated at 10kVA single or three-phase and incorporate socket outlets to supply power tools and hard wired connection points for lighting circuits, with or without RCD protection. Sockets can also be RCD protected.

Slim Line Site Transformers

As the name suggests, Slim Line transformers are designed for installation in corridors and other areas with restricted space, where the side mounted sockets lower the risk of physical damage. Slim Line transformers are continuously rated at 5kVA single-phase or 7.5kVA three-phase. They are available with sockets and / or hard wired lighting circuits, with or without RCD protection.





Standard Site Transformers

Part No.	Type	Rating	Input MCB	Distribution
S210237	TA/P/1/5/S5	5 kVA, single-phase	25A DP	4 x 16A sockets, 1 x 32A socket #
S210237E	TA/P/1/5/RCD-S5	5 kVA, single-phase	25A DP	As S210237 but with overall 100mA sensitivity RCD
S210338	TA/AI/P/1/5/S5 ###	5 kVA, single-phase	25A DP	As S210237 but with 32A 3P Appliance Inlet (plug-in)
S210338E	TA/AI/P/1/5/RCD-S5 ###	5 kVA, single-phase	25A DP	As S210338 but with overall 100mA sensitivity RCD
S210238	TA/P/1/10/S6	10 kVA, single-phase	50A DP	4 x 16A sockets, 2 x 32A sockets #
S210238E	TA/P/1/10/RCD-S6	10 kVA, single-phase	50A DP	As S210238 but with overall 100mA sensitivity RCD
S210230	TA/P/3/10/S6	10 kVA, three-phase	16A TP	4 x 16A sockets, 2 x 32A sockets ##
S210230E	TA/P/3/10/RCD-S6	10 kVA, three-phase	16A TP	As S210230 but with overall 100mA sensitivity RCD
S210339	TA/AI/P/3/10/S6 ###	10 kVA, three-phase	16A TP	As S210230 but with 32A 5P Appliance Inlet (plug-in)
S210339E	TA/AI/P/3/10/RCD-S6 ###	10 kVA, three-phase	16A TP	As S210339 but with overall 100mA sensitivity RCD
S210340	TA/AI-S1/P/3/10/S6 ###	10 kVA, three-phase	16A TP	As S210339 but with 32A 5P 400V through socket
S210340E	TA/AI-S1/P/3/10/RCD-S6 ###	10 kVA, three-phase	16A TP	As S210340 but with overall 100mA sensitivity RCD
S210122	TA/P/3/20/S12	20 kVA, three-phase	25A TP	8 x 16A sockets, 4 x 32A sockets ##
S210122E	TA/P/3/20/RCD-S12	20 kVA, three-phase	25A TP	As S210122 but with overall 300mA sensitivity RCD



Site Lighting Transformers

Part No.	Type	Rating	Input MCB	Distribution
S210259	TA/P/1/10/C6-16	10 kVA, single-phase	50A DP	6 x 16A DP MCBs with lighting glands (3C)
S210302	TA/P/1/10/C6-10/RCCB	10 kVA, single-phase	50A DP	As S210259 + RCD protection of 10A lighting MCBs
S210260	TA/P/3/10/C6-16	10 kVA, three-phase	16A TP	6 x 16A DP MCBs with lighting glands (3C)
S210303	TA/P/3/10/C6-10/RCCB	10 kVA, three-phase	16A TP	As S210260 + RCD protection of 10A lighting MCBs
S210078	TA/P/3/10/C6-16/TC/4C	10 kVA, three-phase	16A TP	6 x 16A DP MCBs with lighting glands, time clock control (4C)
S210305	TA/P/3/10/C6-10/RCCB/TC/4C	10 kVA, three-phase	16A TP	As S210078 + RCD protection of 10A lighting MCBs



Power & Lighting Site Transformers

Part No.	Type	Rating	Input MCB	Distribution
S210214	TA/P/1/10/S6/C2-16	10 kVA, single-phase	50A DP	As S210238 + 2 x 16A DP MCBs with lighting glands (3C)
S210306E	TA/P/1/10/RCD-S6/C2-10/RCCB	10 kVA, single-phase	50A DP	As S210307E but single-phase
S210231	TA/P/3/10/S6/C2-16	10 kVA, three-phase	16A TP	As S210230 + 2 x 16A DP MCBs with lighting gland (3C)
S211285	TA/P/3/10/RCBO-S6/RCBO2	10 kVA, three-phase	16A TP	As S210231 with RCBOs in place of MCBs
S210307	TA/P/3/10/S6/C2-10/RCCB	10 kVA, three-phase	16A TP	As S210231 + RCD protection of 10A lighting MCBs
S210307E	TA/P/3/10/RCD-S6/RCBO2	10 kVA, three-phase	16A TP	As S210307 with overall 100mA RCD protection of sockets



Slim Line Site Transformers

Part No.	Type	Rating	Input MCB	Distribution
S210341	TA-SL/P/1/5/S5	5 kVA, single-phase	25A DP	4 x 16A sockets, 1 x 32A Socket #
S210341E	TA-SL/P/1/5/RCD-S5	5 kVA, single-phase	25A DP	As S210341 but with overall 100mA sensitivity RCD
S210342	TA-SL/P/1/5/S3/C2-10	5 kVA, single-phase	25A DP	2 x 16A and 1 x 32A socket, 2 x 10A lighting MCBs (3C) #
S210343	TA-SL/P/1/5/S3/C2-10/RCCB	5 kVA, single-phase	25A DP	As S210342 plus 1 x RCCB per lighting MCB #
S210343E	TA-SL/P/1/5/RCD-S3/C2-10/RCCB	5 kVA, single-phase	25A DP	As S210343 but with 100mA RCD protecting sockets
S210344	TA-SL/P/1/5/C6-10	5 kVA, single-phase	25A DP	6 x 10A DP MCBs with lighting glands (3C)
S210345	TA-SL/P/1/5/RCBO6-10	5 kVA, single-phase	25A DP	6 x 10A DP RCBOs with lighting glands (3C)
S210354	TA-SL/P/3/7.5/S6	7.5 kVA, three-phase	10A TP	4 x 16A sockets, 2 x 32A Sockets ##
S210354E	TA-SL/P/3/7.5/RCD-S6	7.5 kVA, three-phase	10A TP	As S210354 but with overall 100mA sensitivity RCD
S210355	TA-SL/P/3/7.5/S6/C2-10	7.5 kVA, three-phase	10A TP	As S210354 + 2 x 10A MCBs with lighting glands (3C) ##
S210356	TA-SL/P/3/7.5/S6/C2-10/RCCB	7.5 kVA, three-phase	10A TP	As S210355 plus 1 x RCCB per lighting MCB (3C)
S210356E	TA-SL/P/3/7.5/RCD-S6/C2-10/RCCB	7.5 kVA, three-phase	10A TP	As S210356 but with 100mA RCD protecting sockets
S210357	TA-SL/P/3/7.5/C8-10	7.5 kVA, three-phase	10A TP	8 x 10A DP MCBs with lighting glands (3C)
S210358	TA-SL/P/3/7.5/RCBO8-10	7.5 kVA, three-phase	10A TP	8 x 10A DP RCBOs with lighting glands (3C)

Enclosure Dimensions and Weight

5 kVA single-phase:	512H x 442W x 444D mm;	Weight 59kg.
10 kVA single-phase:	512H x 442W x 444D mm;	Weight 82kg.
10 kVA three-phase:	590H x 542W x 527D mm;	Weight 89kg.
20 kVA three-phase:	680H x 708W x 610D mm;	Weight 190kg.
5 kVA Slim Line:	575H x 450W x 285D mm;	Weight 49kg.
7.5kVA Slim Line:	670H x 600W x 285D mm;	Weight 85kg.

Key

= 2 x 16A sockets protected by 1 x 16A DP MCB.

= Each 16A socket protected by 1 x 16A DP MCB.

= A cowl is available (S120318), which provides physical protection to the appliance inlet. Cows can be factory fitted or customer fitted.

Overcurrent Protection

Input MCBs are Type "D" and output MCBs are Type "C", to BS EN 60898.

16A sockets in single phase site transformers are protected in pairs (2 x 16A sockets protected by 1 x 16A DP MCB) and 16A sockets in three-phase site transformers are protected by individual 16A DP MCBs.

All 32A sockets are individually protected by 32A DP MCBs.

Lighting circuits without RCD are protected by 10A or 16A DP MCB, as detailed above.

RCD Protection

RCCBs are to BS EN 61008 and RCBOs to BS EN 61009. Both types of device are double-pole and suitable for 110V operation.

Sockets are generally group protected by a single 100mA* RCCB (single-phase transformers are fitted with a DP 100mA RCCB and three-phase transformers with a 4P 100mA RCCB). Part S211285 has individual 30mA RCBOs protecting each socket. Hard wired lighting circuits are individually protected by a DP MCB / 30mA RCCB combination or a DP 110V RCBO.

*Prior to 2024, RCCBs with a 300mA sensitivity were fitted as standard (and not 100mA). In the first few months of 2024 (the transition period) transformers may be fitted with 300mA or 100mA RCCBs.

Compliance

Please refer to Tech Data Sheet TDS19 for detailed information on designing 110V Reduced Low Voltage circuits that meet the 5 second line to earth disconnection time requirement of the IET Wiring Regulations, 18th Edition, (BS7671, Regulation 411.8.3) and also protection from the effects of line to line faults on long 110V circuits (BS 7671 Regulation 434.5.2 refers).

