

## TDC series Transformer Distribution Cubicles

Combined transformer and double-pole MCB distribution assembly, rated from 2 kVA to 10 kVA, single-phase, providing a Reduced Low Voltage (RLV) supply in accordance with BS 7671, to feed 16A and 32A, 110V, socket outlets, to BS EN 60309-2, in workshops, plant rooms, etc.

### Enclosures

Fabricated from 1.5mm sheet steel and available in wall mounting or floor standing formats. Standard wall mounting assemblies are vented to IP23, have bottom cable entry and exit and are finished in a durable paint finish, standard shade Traffic Yellow. Floor standing models are non-vented to IP55, have top cable entry and exit and are finished in a durable paint finish, shade Matt Black. Dimensioned drawings are on our website.

### Ratings

2, 5 and 10 kVA single-phase, continuously rated

### Voltages

Primary Volts: 230V with tapplings at 220, 240 and 250 volts

Secondary Volts: 110 CTE Reduced Low Voltage

BS7671:2018 (IET Wiring Regulations) allows a supply voltage tolerance of -6% / +10%. Any variation in the voltage connected to the primary winding will vary the secondary voltage in proportion and it will also alter the inrush current characteristics. To address the effect of supply voltage variation, the primary windings are tapped, as detailed above.

### Switchgear

Primary: MCB, double-pole, Type "D"

Secondary: Up to 22 no. DP MCBs or RCBOs.

### RCD Protection

To ensure compliance with BS7671 Regulation 411.8.3, which specifies a 5 second disconnection time for RLV circuits, the outputs of standard TDCs are protected by DP 300mA RCCBs, which are suitable for 110V operation. If 30mA RCDs are to be installed downstream of a standard TDC, a Selective RCCB (with time delay) will need to be fitted within the TDC, to discriminate with the downstream 30mA devices. Please contact us for full details.

### Socket Outlets

Please see page 2 for details of 16A and 32A, 110V, IP44 and IP66/67, surface sockets, with and without RCD protection, to BS EN 60309-2.

### Standard Models, all 230:110CTE with 300mA Type A RCD Protection

Part No.	Type	Distribution
Wall mounting, vented to IP23, bottom cable entry and exit.		
S210033	TDC/2/RCD-300/C4-16/WM	2 kVA, 4 x 16A DP MCBs
S210035	TDC/5/RCD-300/C10-16/WM	5 kVA, 10 x 16A DP MCBs
S210310	TDC/10/RCD-300/C16-16/WM	10 kVA, 16 x 16A DP MCBs
Floor standing, non-vented to IP55, top cable entry and exit.		
S210321	TDC/5/RCD-300/C6-16/FS	5 kVA, 6 x 16A DP MCBs
S210322	TDC/5/RCD-300/C10-16/FS	5 kVA, 10 x 16A DP MCBs
S210323	TDC/5/RCD-300/C14-16/FS	5 kVA, 14 x 16A DP MCBs
As standard, primary MCBs are Type "D" and secondary MCBs are Type "C"		



TDC 5 kVA Wall Mounting  
c/w 4 no. 16A DP MCBs



TDC 5 kVA Floor Standing  
c/w 6 no. 16A DP MCBs

## Sockets for 110V Installations, with or without RCD

To complement our range of Transformer Distribution Cubicles (TDC), we offer 110V surface sockets to BSEN 60309-2, rated at 16A and 32A, with ingress protection to IP44 or IP66/67. Sockets are available with and without RCD protection.

In order to meet the 5 second disconnection time required for fault protection of RLV circuits, as specified in Regulation 411.8.3 of BS7671 (IET Wiring Regulations, 18<sup>th</sup> Edition), the output of standard TDC transformers incorporate RCD protection rated at 300mA. If local RCD protection is to be incorporated into sockets downstream of the TDC, it is recommended that a Selective RCCB (with time delay) is incorporated within the TDC, which will discriminate with the sub-circuit RCDs. Please contact us for details (i) of TDCs with Selective RCD protection or (ii) if you require a TDC with individual RCD protection of each outgoing way.

Although RCCBs are current operated, many are not suitable for use on 110V supplies. The RCCBs used within Blakley TDCs and 110V protected sockets are designed for operation on 110V RLV supplies.

Detailed below are part numbers, etc., for 110V surface sockets rated at 16A and 32A, IP44 or IP66/IP67, with or without 30mA RCD protection. Please contact us for details of 110V sockets with the addition of double-pole MCB protection, which are required when the overcurrent rating of the protective device supplying the socket circuit exceeds the rating of the socket i.e. when a 32A MCB feeds a circuit of 16A sockets.

### Order References:

Part No.	Type No.	Description
S190392	ERC/1/16/110V	Surface Socket, 16A, 110V, 2P+E, IP44 c/w RCD
S190393	ERC/1/32/110V	Surface Socket, 32A, 110V, 2P+E, IP44 c/w RCD
S190394	ERC/1/16/110/WT	Surface Socket, 16A, 110V, 2P+E, IP66 c/w RCD
S190395	ERC/1/32/110/WT	Surface Socket, 32A, 110V, 2P+E, IP66 c/w RCD
S201071	B513.1650T	Surface Socket, 16A, 110V, 2P+E, IP44
S201082	B513.3250T	Surface Socket, 32A, 110V, 2P+E, IP44
S201182	B518.1650T	Surface Socket, 16A, 110V, 2P+E, IP67
S201183	B518.3250T	Surface Socket, 32A, 110V, 2P+E, IP67
S170883	P1634/IG	Plug, 16A, 110V, 2P+E, IP44, inverted grommet
S170884	P3234/EG	Plug, 32A, 110V, 2P+E, IP44, external grommet
S170905	PW1634/SG	Plug, 16A, 110V, 2P+E, IP67, screw gland
S170937	B218.3230	Plug, 32A, 110V, 2P+E, IP67, screw gland
S200827	C1634/IG	Coupler, 16A, 110V, 2P+E, IP44, inverted grommet
S200830	C3234/EG	Coupler, 32A, 110V, 2P+E, IP44, external grommet
S201000	CW1634/SG	Coupler, 16A, 110V, 2P+E, IP67 with screw gland
S201100	B318.3240	Coupler, 32A, 110V, 2P+E, IP67 with screw gland



16A and 32A, 110V, 2P+E, IP44, Surface Sockets with 30mA RCD Protection



16A and 32A, 110V, 2P+E, IP67, Surface Sockets



16A and 32A, 110V, 2P+E, IP44, Surface Sockets