



2021 Don-Bur Operating
Instructions for Air Cooled
Transformer Rectifier Unit Rating
28 VDC @ 300 ADC



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2021 Operating Instructions: 24VDC @ 300ADC Transformer



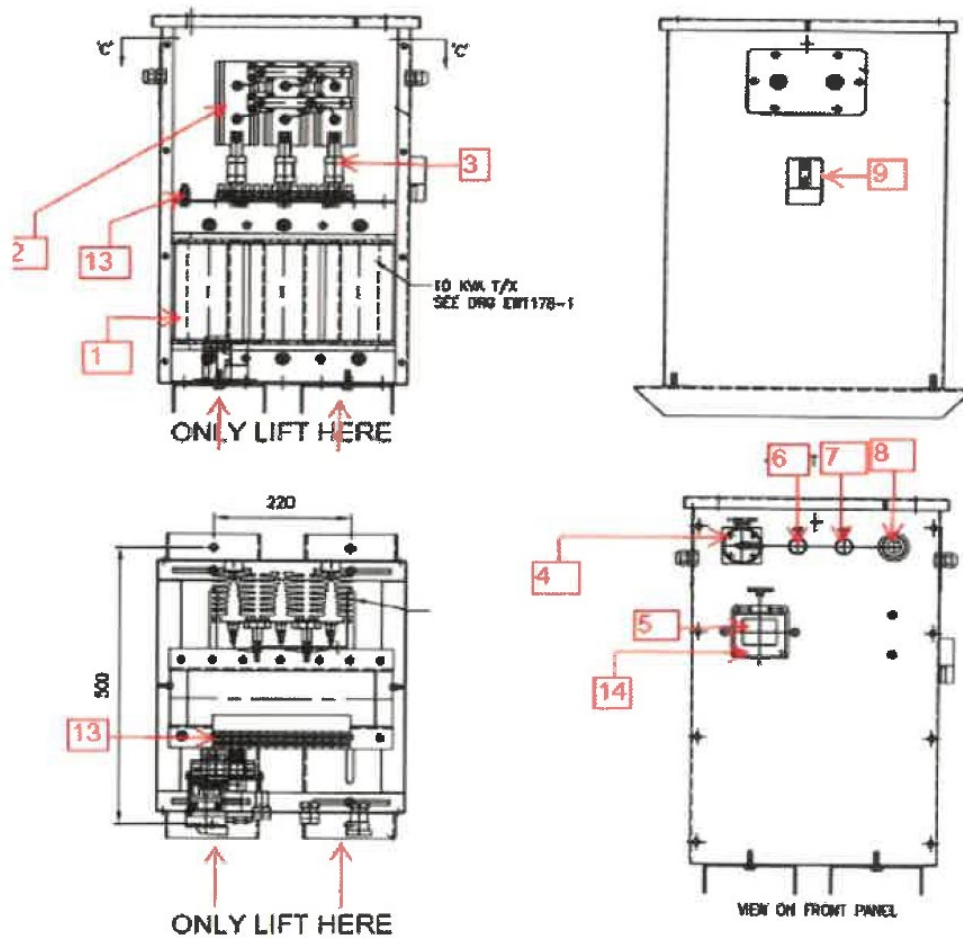
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1 Technical Data

SUPPLY VOL TS:	415VAC THREE PHASE & EARTH
FREQUENCY:	50/60Hz
MAINS CONNECTION:	32A 415V Spin IP44 IEC60309 or hard wired in
PROTECTION INPUT:	25A TP MCB
PRIMARY COIL VOL TS:	415VAC THREE PHASE
PRIMARY TAPS:	± 10% & 15% select at terminal block.
PRIMARY AMPS:	14.7A
No PHASES:	Three (3)
INSULATION:	Class F
PROTECTION OUTPUT:	Transformer secondary. Semiconductor fuse link.
RECTIFIER VOL TS:	31.6VDC OFF LOAD
RECTIFIER VOLTS:	28VDC ON LOAD
OUTPUT CURRENT:	300ADC
DUTY:	Continuous
COOLING:	ANAN
DIMENSIONS:	H:714 x W:480 x D:550
WEIGHT:	100kg

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1. Three Phase Transformer
2. Three Phase Bridge Rectifier
3. Secondary AC Fuses
4. Rotary Isolator
5. Primary MCB (Miniature Circuit Breaker)
6. Indicator Lens Illuminated (white) "415V ON"
7. Push Button Illuminated Switch (green) "24VDC ON"
8. Emergency Stop Button
9. Output Power Connector
10. NA
11. NA
12. Terminal Block
13. Protective Earth Terminal
14. MCB Cover



2 Start Up

2.1 Application and Installation:

The transformer rectifier unit is used to provide a DC Voltage supply to a trailer in the absence of an alternate DC supply. The purpose of the Power Supply Unit is to provide DC power in circumstances when a trailer's tractor unit is not present or other means is not available (i.e., on board battery packs, etc.).

The Power Supply Unit will have been manufactured to meet with a user's specific requirements. The power supply rating is clearly marked on the label and must be used within its capability. Operators need to assess their trailer fleet to ensure the trailer tail lift or lifting deck is compatible with the PSU. This equipment is not to be used as a battery charger.

DO NOT USE IF THE TRAILER HAS A TRACTOR UNIT ATTACHED OR HAS ON BOARD BATTERIES. The unit can only be used under these conditions if the tractor's electrical circuit or trailers on board batteries can be isolated from the PSU. Advice should be sought from a commercial automotive electrician.

Installation location and application can be changed as required. Please refer to installation manual.

2.2 Electrical Considerations:

Connection to 400/415V 3 phase 50/60Hz alternating current is required for operation of the transformer rectifier unit. The unit is provided with a 1 m long cable with a connector (unless otherwise specified).

Transformers are inductive devices and as a result exhibit a current inrush when its iron core is energised (during switch ON). The magnitude of the inrush is dependent upon a number of conditions present at the time of energising. Inrush current values can be up to 15 to 20 times the full load primary current value. The inrush occurs over a very short period of time.

MCBs with a D curve magnetic trip point: 10 to 20 times the rated current. D curve devices are suitable for applications where high levels of inrush are expected. The high magnetic trip point prevents nuisance tripping in high inductive applications such as motors, transformers and power supplies.

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Installers must consider the inrush spikes when selecting a protective device such as a miniature circuit breaker while bearing in mind its time-current curve.

2.3 Electrical Connection:

When connecting the 32A 415V Spin IP44 IEC60309 plug into a mains outlet or if the unit has been hard wired to the electrical supply, before connecting to the mains supply:

Check:

- a) The rotary isolator (4) is turned to its off position.
- b) The primary TP MCB (5) is set to OFF.
- c) The emergency stop button (8) (if fitted) is out (twist/pull to reset).
- d) Plug DC extension lead into the transformer rectifier unit output power connector (9).
- e) Plug DC extension lead into input power connector at the trailer.

2.4 Power Up from Mains

After following the connection instructions above:

- a) Insert the 415V 5pin plug into the mains outlet and switch ON.
- b) Check Switch primary MCB (5) to ON position.
- c) Turn rotary isolator (4) to ON position.
- d) Check the 415V Power ON indicator (white lens) (6) is now illuminated.
- e) If provided with a push button switch, pressing the green push button 28VDC ON (7) will illuminate (green lens). Models with an illuminated indicator (without a push button switch) will have the green lens automatically illuminate.
- f) DC voltage is now present at the power connector (9).



3 Power Down

3.1 Switch Off

Upon completion of use, it is recommended the unit is de-energised as follows:

- a) Turn rotary isolator to its OFF position.
- b) The push button 28V ON (7) (green lens is not lit) and no output at output power connector (9).

3.2 Emergency Switch Off

Units are provided with an emergency stop button unless ordered without.

- a) Press the emergency stop button (8).

3.3 Other Safety Considerations:

The steps above must be carried out ensure that the transformer and rectifier are operated correctly. If at any stage operation is not as expected, contact the manufacturer. Also:

DO NOT connect or disconnect extension leads with the equipment switched ON. Switch OFF the power supply first.

DO NOT connect or disconnect extension leads on the trailer with the equipment switched ON. Switch OFF the power supply.

DO NOT use extension leads which are contaminated with dirt, grease, have exposed conductors or damaged connectors.

DO NOT leave the power supply switched on when not in use.

DO NOT stack or place objects on or against the, equipment's enclosure.

DO NOT move the equipment when switched ON.

DO NOT lift the equipment other than at dedicated lifting points.

DO fix to the floor. If the unit is supplied with swivel castors, lock off the braked castors once placed in position.

DO store away extension cables when not in use.