



DATA SHEET

Document Title:	Transformer Rectifier -REG -3 PH-50V 50A	Rev:01
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Transformer Rectifier 50 V 50 A Regavolt

00	03/07/2024	ISSUE FOR APPROVAL	S.Solgi	Z.Asadi	H.Taherkhani
REV.	DATE	DESCRIPTION	PREPARED	CHECKED	APPROVED



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6. DIMENSIONS & WEIGHT							
6.1 Body Dimension		Height 100 cm		Depth 65 cm		Width 60 cm	
6.2 Overall Dimension		Height 140 cm		Depth 95 cm		Width 90 cm	
6.3 Weight (Net)		200 kg					
6.3 Weight (Gross)		330 kg					
7. TRANSFORMER OIL							
7.1 Capacity 150 Liter				7.2 Class 1			
8. TERMINALS							
8.1 Input terminal		<input checked="" type="checkbox"/> Phase	<input checked="" type="checkbox"/> MP	<input type="checkbox"/> Half Cell	<input type="checkbox"/> M 10	<input type="checkbox"/> Bruss	<input checked="" type="checkbox"/> Rail Mounted
8.2 Earth Terminal		<input checked="" type="checkbox"/> M10	<input type="checkbox"/> Bruss	<input type="checkbox"/> Rail Mounted			
8.3 Output terminal		<input checked="" type="checkbox"/> +DC	<input checked="" type="checkbox"/> -DC	<input type="checkbox"/> Alarm	<input type="checkbox"/> M 10	<input type="checkbox"/> Bruss	<input checked="" type="checkbox"/> Rail Mounted <input type="checkbox"/> AIO/DIO
9. CASE CONFIGURE							
9.1 Thickness (all parts of transformer (main tank, cover, <u>except</u> sun shade))						<input type="checkbox"/> 2mm	<input checked="" type="checkbox"/> 3mm
9.2		<input checked="" type="checkbox"/> Carbon Steel <input type="checkbox"/> Stainless Steel					
10. HOUSING TYPE							
<input type="checkbox"/> O 1	<input type="checkbox"/> A 1	<input checked="" type="checkbox"/> O 2	<input type="checkbox"/> A2	<input type="checkbox"/> O 3	<input type="checkbox"/> A3	<input type="checkbox"/> O 4	<input type="checkbox"/> A4
<input type="checkbox"/> O5	<input type="checkbox"/> A5	<input type="checkbox"/> O6	<input type="checkbox"/> A6	<input type="checkbox"/> U1	<input type="checkbox"/> U2	<input type="checkbox"/> U3	<input type="checkbox"/> U4
ELECTRICAL CHARACTERISTICS							
11. AC INPUT RATING							
11.1 Phase		<input type="checkbox"/> 1 Ph.		<input checked="" type="checkbox"/> 3 Ph.			
11.2 Input voltage		<input type="checkbox"/> 230V		<input checked="" type="checkbox"/> 400V			
11.3 Input current		6 Amp (full load)		0.1 Amp (no load)		15 Amp (max inrush current)	
11.4 Variation		$\pm 10\%$					
11.5 Frequency		50 HZ $\pm 5\%$					
12. DC OUTPUT RATING							
12.1 Output DC voltage		50 Volt		12.2 Ripple voltage		$\leq 2\%$	
						12.3 Output current 50 Amp	
13. DC OUTPUT CONTROL							
13.1 63 Step <input type="checkbox"/>							
13.2 Constant Voltage & Auto Trans <input checked="" type="checkbox"/>							
13.3 Constant Current <input type="checkbox"/>							
13.4 Constant Voltage & Constant Current <input type="checkbox"/>							
13.5 Constant Voltage & Constant Current & Reference Potential <input type="checkbox"/>							
13.6 Constant Voltage & Constant Currents and Regavolt <input type="checkbox"/>							
13.7 Reference Potential & Constant Voltage & Constant Currents and Regavolt <input type="checkbox"/>							



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14. RECTIFYING UNIT

- 14.1 Stack Element SCR Selenium Silicon
- 14.2 Rectifier Mode 1 Phase 3 Phase
- 14.3 Rectification type Full Wave Half Control Bridge Full Wave Full Control Bridge(6 pulse)
 Full Wave Full Diode Bridge
- 14.4. Peak inverse voltage 1200 Volt

15. POWER TRANSFORMER RATING

- 15.1. No. of phase --3-- Ph.
- 15.2. Frequency 50 Hz.
- 15.3. Primary input voltage -400—Volt
- 15.4. .Rating Secondary Power 3.4 KVA (Apparent power) 3 KW (Active power)
- 15.5. Primary input Current 5.8 Amps.
- 15.6. Secondary output voltage (V_{OUTPUT AC}) 47 Volt.
- 15.7. Secondary output Current 42 Amps(AC).
- 15.8. Vector Group DD0
- 15.9. Winding Insulation Class F & Temperature Rise Class E
Winding temp. rise: 60.9K
Insulation Oil temp. rise: 55.9K
Winding Hot spot: 73.9K
- 15.10. Efficiency Full Load--95-- %
- 15.11. Cos ϕ = -0.9--
- 15.12. Isolation: Double wounded – Electro Static shield : 2 KV

16. PROTECTION

- | | |
|--|--|
| 16.1. Surge Protection for input <input checked="" type="checkbox"/> | 16.9. Over Voltage Protection for Output <input checked="" type="checkbox"/> |
| 16.2. Surge Protection for output <input checked="" type="checkbox"/> | 16.10. Suppressor Protection <input checked="" type="checkbox"/> |
| 16.3. Current limit for DC circuit <input type="checkbox"/> | 16.11. Oil gage protection <input checked="" type="checkbox"/> |
| 16.4. phase monitoring relay for input <input checked="" type="checkbox"/> | 16.12. Humidity protection <input type="checkbox"/> |
| 16.5. Volt meter fuse <input checked="" type="checkbox"/> | 16.13. Temperature Oil protection <input checked="" type="checkbox"/> |
| 16.6. Input MCB <input checked="" type="checkbox"/> | 16.14. Controller fuse <input type="checkbox"/> |
| 16.7. Input MCCB <input type="checkbox"/> | 16.15. Output Fast DC MCB <input checked="" type="checkbox"/> |
| 16.8. Fast fuse <input type="checkbox"/> | 16.16. Over Voltage Protection for Input <input checked="" type="checkbox"/> |

MEASURING INSTRUMENT

17. MECHANICAL MEASUREMENT DEVICE

- 17.1 Dial time thermometer scale from 0 To 120 °C
- 17.2 Oil Gage



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18. ELECTRICAL MEASUREMENT DEVICE

18.1 <input checked="" type="checkbox"/> Analog multi meter	18.2 <input type="checkbox"/> Digital multi meter	18.3 <input type="checkbox"/> PLC base
18.3.1 <input checked="" type="checkbox"/> AC input voltmeter scale from0.... To...300V...(Signal lamp type voltmeter)		
18.3.2 <input type="checkbox"/> AC input Ammeter scale from To.....		
18.3.3 <input checked="" type="checkbox"/> DC output voltmeter scale from ...0.....To...75V...		
18.3.4 <input checked="" type="checkbox"/> DC output Ammeter scale from ...0.....To...75A.....		
18.3.5 <input type="checkbox"/> Reference cell voltage scale fromTo.....		
18.3.6. <input type="checkbox"/> hour meter		
18.3.7. <input checked="" type="checkbox"/> Temperature Meter		
18.3.8. <input checked="" type="checkbox"/> Oil Meter		
18.3.9. <input checked="" type="checkbox"/> Phase Meter		

19. FITTING REQUIRED

19.1. lifting lugs <input checked="" type="checkbox"/>	19.6. Padlock for isolating means <input checked="" type="checkbox"/>
19.2. Oil level site gage <input checked="" type="checkbox"/>	19.7. Provision for remote alarm <input type="checkbox"/>
19.3. Oil Drain Cock <input checked="" type="checkbox"/>	19.8. Schematic circuit diagram plate <input checked="" type="checkbox"/>
19.4. Sun shade <input checked="" type="checkbox"/>	19.9. Oil breather <input checked="" type="checkbox"/>
19.5. Rating plate <input checked="" type="checkbox"/>	19.10. Maximum noise level 65 Db(A)

20. OPERATION

20.1. Continues & Timer Selector Switch <input checked="" type="checkbox"/>	
20.2. Timer Controller (from 1 to 300 sec) <input checked="" type="checkbox"/>	20.4 SCR & Variac switch <input type="checkbox"/>
20.3. Constant voltage/ Constant Current /RP Switch <input type="checkbox"/>	20.5 Constant Voltage & Constant Current <input type="checkbox"/>

21. MONITORING

Power line carrier <input type="checkbox"/>	Radio <input type="checkbox"/>	GSM <input type="checkbox"/>
GPRS <input type="checkbox"/>	Optical fiber <input type="checkbox"/>	Wifi <input type="checkbox"/>

22. SPARE PART

B. <input checked="" type="checkbox"/> No <input type="checkbox"/> yes.	B. <input checked="" type="checkbox"/> No <input type="checkbox"/> yes.
22.1 COMMISSIONING	22.2 TWO YEARS SPARE PART