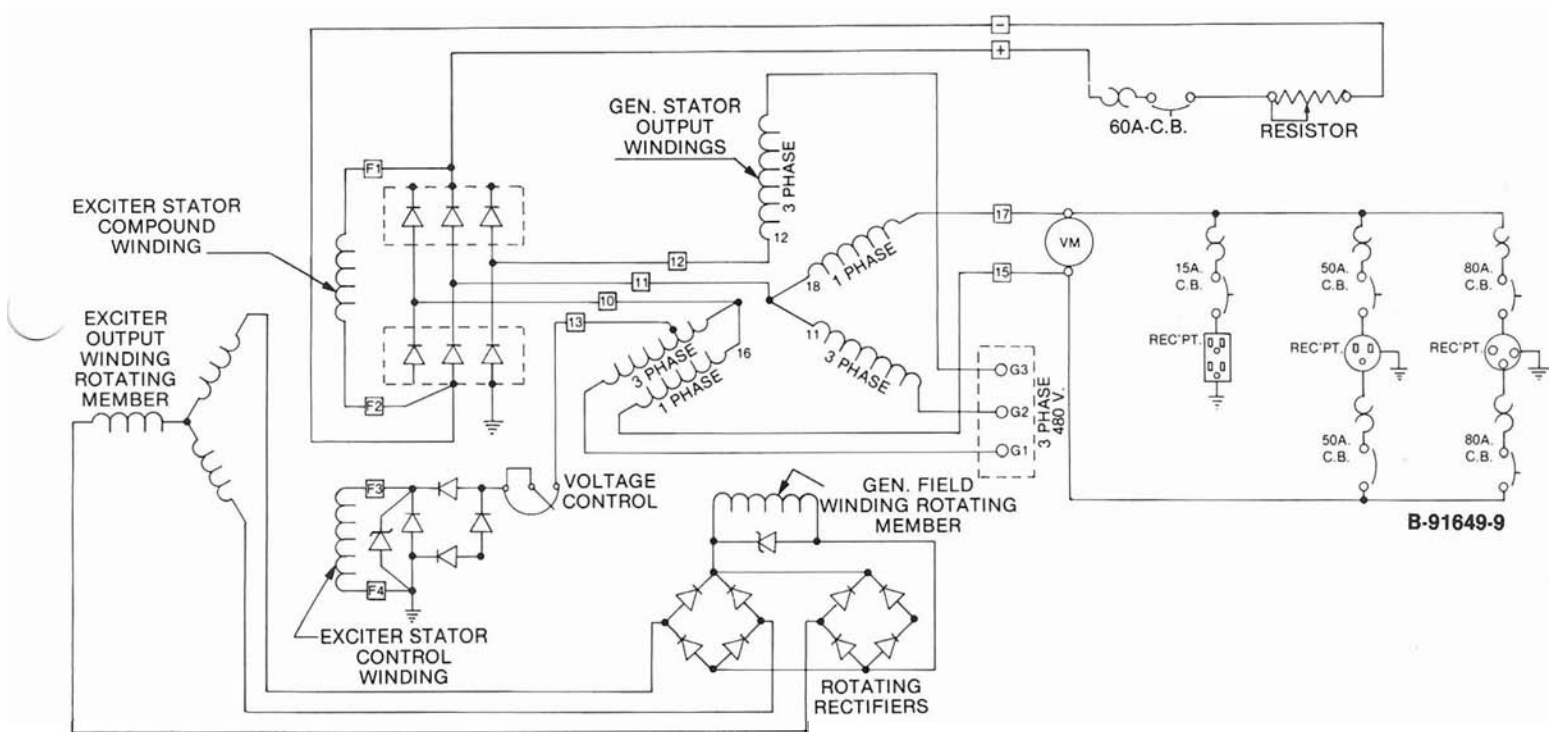
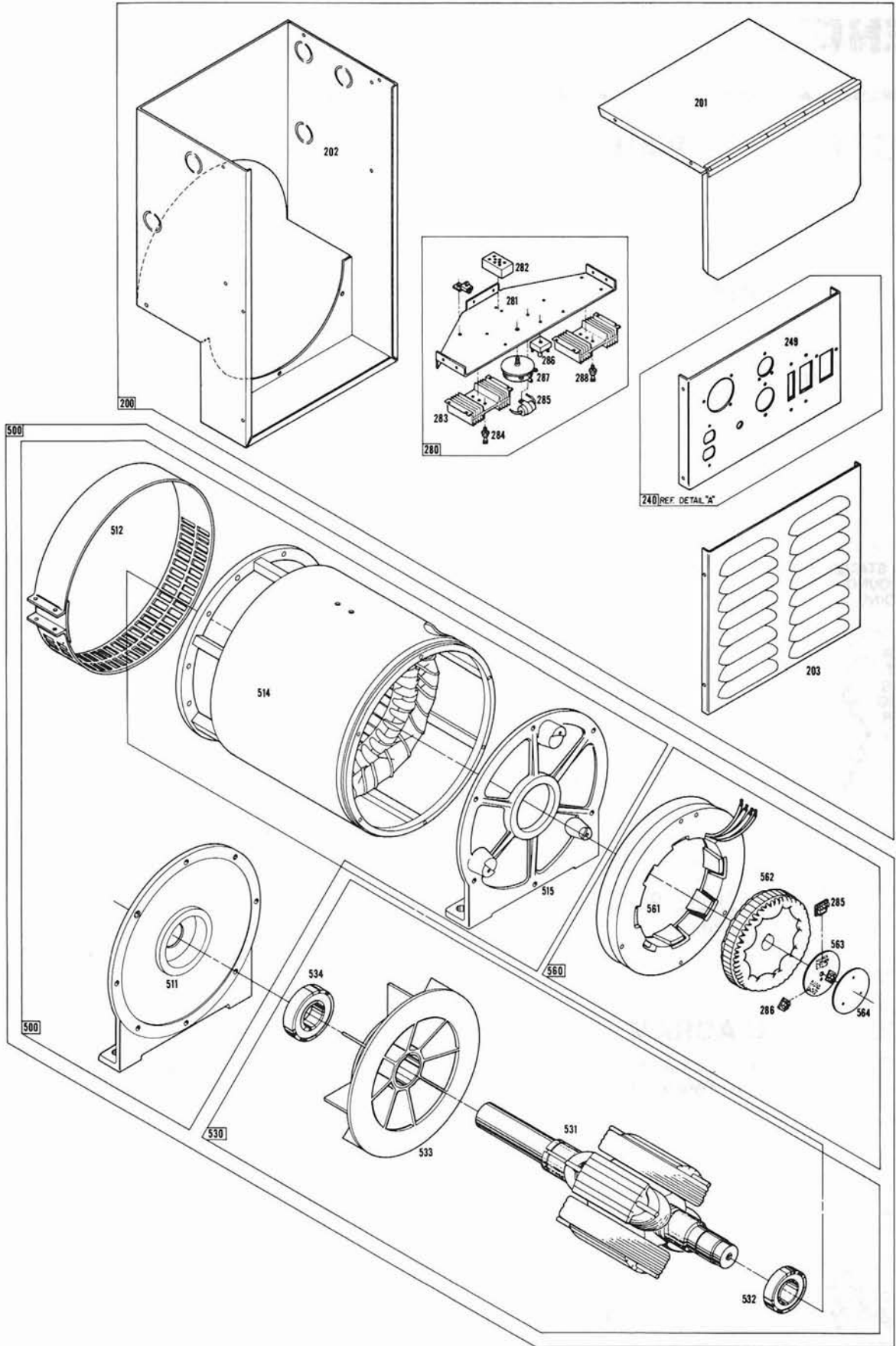


ILLUSTRATED PARTS LIST



SCHEMATIC DIAGRAM

This IPL contains wiring, illustration, parts list, ordering information and technical data to perform routine maintenance on this generator. Consult factory with model no., serial no. and test data for further assistance.



DETAIL "A"



MODEL 20PS4G-25

REF. NO.	DESCRIPTION	QTY.	PART NO.	REF. NO.	DESCRIPTION	QTY.	PART NO.
200	Control Panel Ass'y.			286	Rectifier	3	91452
201	Hinged Cover Ass'y.	1	91639	287	Rheostat (Volt Adj.)	1	91483
202	Welded Box Ass'y.	1	91624	288	Diode Standard Polarity	3	91508
203	Louvered Cover Ass'y.	1	91645				
				500	Generator Ass'y.	1	91986
240	Front Panel Ass'y.	1	91927	510	Generator Stator Ass'y.	1	
243	Resistor .05-180 w/ Adj.	1	91788	511	End Bracket Drive End	1	91381
249	Front Panel (Bare)	1	91878	512	Cover Ass'y.	1	91337
252	Receptacle (Octopus)	1	91333	514	Stator Ass'y.	1	91148-9
253	Voltmeter	1	91370	515	End Bracket	1	91380
254	Circuit Breaker 2P 80A	1	57212-2				
255	Circuit Breaker 2P 50A	1	57030	530	Rotor Ass'y.	1	91407
256	Circuit Breaker 1P 60A	1	91977-1	531	Rotor	1	91406
257	Receptacle	1	57325	532	Bearing	1	91111
258	Circuit Breaker 15A	1	91286	533	Impeller	1	91101
259	Receptacle (Duplex)	1	24749	534	Bearing Drive End	1	91401
280	Shelf Ass'y.	1	91979	560	Exciter Ass'y.	1	
281	Rectifier Shelf Bare	1	91463-1	561	Exciter Stator	1	91674
282	Terminal Block	1	57795	562	Exciter Rotor	1	91442
283	Heat Sink	2	91978	563	Rotating Rectifier Ass'y.	1	91413
284	Diode Reverse Polarity	3	91509	564	Cover (Rotating Rect.)	1	91411-1
285	Surge Suppressor	2	91455				

PARTS ORDERING INFORMATION REQUIRED



To fill your order for service parts, please advise the complete WINCO Generator model number and serial number, part number(s), and part description. If in doubt, consult the factory prior to placing the order. Send all parts orders to Energx Corporation, 225 South Cordova Ave., Le Center, MN 56057.

TECHNICAL DATA

GENERATOR SPECIFICATIONS:

KW—20; Volts—277/480(120); Amps.—30/15; PF—0.8; PH—3; Hz—60; RPM—1800
Generator Rotation—Either direction

Normal Voltage:	No Load	Full Load
Stator Output 1 \emptyset	240-255 Volts A.C.	240-260 Volts A.C.
3 \emptyset	480-490 Volts A.C.	480-490 Volts A.C.

3 \emptyset Voltage is adjustable between 400 and 520 Volts.

Residual Voltage:

1 \emptyset 20-30 Volts A.C. L to L; 10-15 Volts A.C. L to N
3 \emptyset 40-60 Volts A.C. L to L; 20-30 Volts A.C. L to N
Main field open 30 8.5 VAC L to L; 5 VAC L to N

Resistance:

Exciter Field—Control winding F3-F4 43.5 ohms; Forcing winding F1-F2 0.02 ohm
Exciter Rotor—.35 ohms
Rotating Field—3.5 ohms
Stator Main—.07 ohms L to N per phase

Separately Excited:

12 VDC to Exciter Field; F3 Positive-F4 Negative
1 \emptyset —Approximately 190 Volts L to L; 95 Volts L to N
3 \emptyset —Approximately 400 Volts L to L; 230 Volts L to N

Convenience Outlet: /B Models Only

KW—20; Volts—120/240; Amps.—166/83; PF—1.0; PH—1; Hz—60

BASIC TEST PROCEDURE:

Refer to illustration for component location by Reference Number.
Example: No output—Check rectifiers, Reference Number 286.

Reference Number 280 is shelf assembly; Reference Number 286, a rectifier, is mounted on shelf assembly.

Reference Number 563 is rotating rectifier assembly; there are two Reference Number 286 rectifiers mounted on rectifier assembly.

No Output:

- Check for loose or open connections.
- Check residual voltage output, Reference Number 258 (1 \emptyset)—282 (3 \emptyset).
- Check rectifiers, Reference Number 286.
- Check winding resistance, opens and grounds, Reference Numbers 514, 531, 561, and 562.
- Separately excite and check output.

Low Voltage—No Load:

- Check speed (1800 RPM nominal).
- Check for loose connections.
Check voltage adjust rheostat, Reference Number 287.
Check rectifiers, Reference Number 286.
- Check exciter field resistance, F3 to F4 to ground and F1, Reference Number 561.

Low Voltage—Full Load:

- Check speed (1800 RPM nominal)
- Check for loose connections.
- Check rectifiers, Reference Numbers 284, 288, 286.
- Check voltage adjust rheostat, Reference Number 287.
- Check exciter field resistance, F3 and F4, Reference Number 561.
- Check compound field resistance, F1 to F2, Reference Number 561

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