

Specifications

	GL20, GL40	GL50	GL60, GL110	GLQ120, GLS120	GL140	GL150	GL170	GL250, GL350	GL500
<b>Input</b>									
<b>Input Voltage</b> <sup>1</sup>	85 - 264 Vac; 120 - 300 Vdc	90 - 264 Vac 127 - 300 Vdc		85 - 264 Vac 120 - 300 Vdc		85 - 132 Vac or 170 - 264 Vac auto-selected. 220 - 300 Vdc	85 - 264 Vac; 120 - 300 Vdc		85 - 264 Vac
<b>Frequency</b>	47-63 Hz , 400± 40 Hz					47-63 Hz			
<b>Inrush Current</b>	GL20: <15A peak @ 115 Vac; <30A peak @ 230 Vac, cold start @ 25°C.  GL40: <18A peak @ 115 Vac; <36A peak @ 230 Vac, cold start @ 25°C	<60A peak @ 230 Vac, cold start @ 25°C	<18A peak @ 115 Vac, <36 A peak @ 230 Vac, cold start @ 25°C	GLQ120: 38 A max., cold start @ 25°C  GLS120: 40A max., cold start @ 25°C	38 A max, cold start @ 25°C			GL250: 20 A max., cold start @ 25°C.  GL350: 38 A max., cold start @ 25°C.	50 A max., cold start @ 25°C
<b>Efficiency</b>	70% typical at full load	80% - 85% typical at full load	70% typical at full load	GLQ120: 65% typical at full load. GLS120: 80% typical at full load	75% typical at full load				85% typical at full load, nominal line
<b>EMI/RFI</b>	FCC Class B ; CISPR 22 Class B ; EN55022 Class B								
<b>Safety Ground Leakage Current</b>	Non-Medical: <0.5 mA Medical: < 75 µA @ 50/60 Hz, 264 Vac input	Non-medical: <0.5mA Medical: 275 µA @ 50/60 Hz; 264 Vac input for Class I; <0.25mA @ 50/60 Hz; 264 Vac input for Class II (for single output only)	Non-Medical: <0.5 mA Medical: < 75µA @ 50/60 Hz; 264 Vac input	GLQ120: <1 mA @ 50/60 Hz; 264 Vac input. GLS120: 0.5mA @ 50/60 Hz, 264 Vac input	1.0 mA @ 50/60 Hz, 264 Vac input	<0.5 mA @ 50/60 Hz, 264 Vac input	Non-Medical: 0.1 mA Medical: < 250 µA @ 50/60 Hz, 264 Vac input	<0.5 mA @ 50/60 Hz, 264 Vac input	Non-Medical: <0.5 mA Medical: <0.3mA @ 50/60 Hz, 264 Vac input
<b>Output</b>									
<b>Power</b>	Refer to the selection table								
<b>Adjustment Range on Main Output</b>	-5, +10% minimum	±20% minimum for single output only models	GL60: -5, +10% minimum GL110: ±5% on main, 5-25 V on 4 <sup>th</sup> output	±5% minimum	3.3 - 5.5V on main; -12 - 15V on 3rd output 3.3 - 25 V on 4th output	±5% minimum on main, 5-25 V on 4 <sup>th</sup> output	2:1 wide ratio minimum	2:1 wide ratio	±5%
<b>Hold-up Time</b>	20 ms @ full load, 115 Vac nominal line	10/20 ms 115/230 Vac Input line	20 ms @ full load, 115 Vac nominal line						
<b>Overload</b>	Short circuit protection on all outputs. Primary overload protection								
<b>Overvoltage Protection</b>	5 V output; 5.7 to 6.7 Vdc. Other outputs 10% to 25% above nominal output	30-50% above nominal output	5 V output; 5.7 - 6.7 Vdc. Other outputs 10% to 25% above nominal output	3.3 V and 5 V output: 20% to 35% above nominal output	Tracks outputs 1, 3 & 4; 10 to 35%	5 V output: 5.7 to 6.7 Vdc. Other outputs 10% to 25% above nominal output	10% to 40% above nominal output	5 V output: 5.7 to 6.7 Vdc. Other outputs 10% to 25% above nominal output	20-35% above nominal output
<b>Remote Sense</b>	Compensates for 0.5 V lead drop minimum; Will operate without remote sense connected, Reverse connection protected								
<b>General</b>									
<b>Temperature</b> <sup>2</sup>	<b>Storage:</b> -40°C to +85°C; <b>Operating:</b> 0° to 50°C ambient. Derate each output 2.5% per degree from 50° to 70°C, -20°C start up.								
<b>Electro-magnetic Susceptibility</b>	Designed to meet IEC 801, -2, -3, -4, -5, -6, Level 3 or EN61000-4; -2, -3, -4, -5, -6, -8, -11 Level 3								
<b>Humidity</b>	Operating; non-condensing up to 95% RH								
<b>Vibration</b>	Three orthogonal axes, sweep at 1 oct/min, 5 min. dwell at four major resonances 0.75G peak 5Hz to 500 Hz (2 G peak 8 Hz to 500 Hz for GL500)								
<b>MTBF</b>	>550,000 hours demonstrated at full load and 25°C ambient conditions								
<b>Safety</b>	Non-Medical: EN60950, UL UL60950 E132002, CSA CSA 22.2-234 Level 3 LR53982C, CB Certificate and report; CE Mark (LVD) Medical: UL 2601; CSA 22.2 No. 601.1; EN 60601-1								

Notes:

1. Proper circuit protection required when operating with a DC input voltage. 2. Regulation and ripple may deviate from the spec at -20°C start up.

Selection Table

	Catalog Number	Output 1	Output 2	Output 3	Output 4	Case <sup>3</sup>	Pin Assignments <sup>3</sup>	Mating Connectors <sup>3</sup>
GL20 [40 W] 25 W	GLS22	5 V @ 5 A [8 A] <sup>6</sup>	-	-	-	1	1A	1B
	GLS23	12 V @ 2.1 A [3.3 A] <sup>6</sup>	-	-	-			
	GLS24	15 V @ 1.7 A [2.7] <sup>6</sup>	-	-	-			
	GLT22	5 V @ 3 A [4 A] <sup>7</sup>	12 V @ 1.5 A [2 A] <sup>7</sup>	-12 V @ 0.5 A [0.7 A]	-		2A	
	GLT23	5 V @ 4 A [5 A] <sup>7</sup>	12 V @ 0.5 A [0.7 A]	-12 V @ 0.5 A [0.7 A]	-			
	GLT24	5 V @ 3 A [4 A] <sup>7</sup>	12 V @ 1.5 A [2 A] <sup>7</sup>	-5 V @ 0.5 A [0.7 A]	-			
	GLT25	5 V @ 3 A [4 A] <sup>7</sup>	15 V @ 1.5 A [2 A] <sup>7</sup>	-15 V @ 0.5 A [0.7 A]	-			
GL40 [55 W] 40 W <sup>1</sup> [40 W] 25 W <sup>2</sup>	GLS42 <sup>4</sup>	5 V @ 8 A [11 A] <sup>6</sup>	-	-	-	1	3A	1B
	GLS43 <sup>4</sup>	12 V @ 3.3 A [4.5] <sup>6</sup>	-	-	-			
	GLS44 <sup>4</sup>	15 V @ 2.6 A [3.6 A] <sup>6</sup>	-	-	-			
	GLS45 <sup>4</sup>	24 V @ 1.6 A [2.3 A] <sup>6</sup>	-	-	-		4A	
	GLT42 <sup>4</sup>	5 V @ 4 A [5 A] <sup>7</sup>	12 V @ 2 A [2.5 A] <sup>7</sup>	-12 V @ 0.5 A [0.7 A]	-			
	GLT43	5 V @ 6 A [8 A] <sup>7</sup>	12 V @ 0.5 A [0.7 A]	-12 V @ 0.5 A [0.7 A]	-			
	GLT44	5 V @ 4 A [5 A] <sup>7</sup>	12 V @ 2 A [2.5 A] <sup>7</sup>	-5 V @ 0.5 A [0.7 A]	-			
	GLT45 <sup>4</sup>	5 V @ 4 A [5 A] <sup>7</sup>	15 V @ 2 A [2.5 A] <sup>7</sup>	-15 V @ 0.5 A [0.7 A]	-			
GLT46	5 V @ 4 A [5 A] <sup>7</sup>	24 V @ 1 A [1.5 A] <sup>7</sup>	+12 V @ 0.5 A [0.7 A]	-				
GL50 [50 W] 50 W	GLT52 <sup>4</sup>	5 V @ 8 A <sup>7</sup>	12 V @ 3 A <sup>7</sup>	-12 V @ 0.5 A	-	2	5A	2B
	GLT53 <sup>4</sup>	5 V @ 8 A <sup>7</sup>	15 V @ 2.4 A <sup>7</sup>	-15 V @ 0.5 A	-			
	GLT54 <sup>4</sup>	5 V @ 8 A <sup>7</sup>	24 V @ 1.5 A <sup>7</sup>	12 V @ 0.5 A	-			
GL50 [60 W] 60 W	GLS52 <sup>4</sup>	5 V @ 11 A	-	-	-	3	6A	2B
	GLS53-I <sup>5</sup>	12 V @ 5A	-	-	-			
	GLS53 <sup>4</sup>	12 V @ 5 A <sup>6</sup>	-	-	-			
	GLS54 <sup>4</sup>	15 V @ 4 A <sup>6</sup>	-	-	-			
	GLS55 <sup>4</sup>	24 V @ 2.5 A <sup>6</sup>	-	-	-			
	GLS58 <sup>4</sup>	48 V @ 1.25 A <sup>6</sup>	-	-	-			
GL60 [80 W] 60 W <sup>1</sup> [60 W] 40 W <sup>2</sup>	GLS62	5 V @ 12 A [16 A] <sup>6</sup>	-	-	-	4	7A	3B
	GLS63 <sup>4</sup>	12 V @ 5 A [6.7 A] <sup>6</sup>	-	-	-			
	GLS64 <sup>4</sup>	15 V @ 4 A [5.3 A] <sup>6</sup>	-	-	-			
	GLS65 <sup>4</sup>	24 V @ 2.5 A [3.3 A] <sup>6</sup>	-	-	-		8A	
	GLT62 <sup>4</sup>	5 V @ 7 A [8 A] <sup>7</sup>	12 V @ 3 A [3.5 A] <sup>7</sup>	-12 V @ 0.7 A [1 A]	-			
	GLT63 <sup>4</sup>	5 V @ 7 A [8 A] <sup>7</sup>	15 V @ 2.8 A [3.3 A] <sup>7</sup>	-15 V @ 0.7 A [1 A]	-			
	GLT64	5 V @ 7 A [8 A] <sup>7</sup>	12 V @ 3 A [3.5 A] <sup>7</sup>	-5 V @ 0.7 A [1 A]	-			
	GLT65	5 V @ 7 A [8 A] <sup>7</sup>	24 V @ 1.5 A [2 A] <sup>7</sup>	+12 V @ 0.7 A [1 A]	-			
GL110 [110 W] 80 W <sup>1</sup> [90 W] 70 W <sup>2</sup>	GLS114	15 V @ 5.3 A [7.3 A] <sup>6</sup>	-	-	-	5	9A	5B
	GLS115	24 V @ 3.3 A [4.6 A] <sup>6</sup>	-	-	-			
	GLQ112	5 V @ 9 A [11 A] <sup>8</sup>	12 V @ 4.5 A [5 A]	-12 V @ 0.7 A [1 A]	±5-25 V @ 2.5 A [3 A] <sup>6</sup>		10A	
	GLQ113	5 V @ 9 A [11 A] <sup>8</sup>	15 V @ 4.5 A [5 A]	-15 V @ 0.7 A [1 A]	±5-25 V @ 2.5 A [3 A] <sup>6</sup>			
	GLQ114	5 V @ 9 A [11 A] <sup>8</sup>	12 V @ 4.5 A [5 A]	-12 V @ 0.7 A [1 A]	24 V @ 3.5 A [4.5 A] <sup>8</sup>			

## Notes:

[ ] Rating with 30 CFM of air

1. Power rating when no cover option is used

2. Power rating when the cover/enclosure option is used

3. Refer to GL Series Dimensions and the sections that follow

4. Add "-M" suffix for the medical model numbers

5. Industrial version - Operating temperature -40°C to 80°C

6. Floating output

7. Approximate minimum loading: 10%

8. Approximate minimum loading: 23%