Qualtek Electronics Corporation

QDG-75 Series

Features:

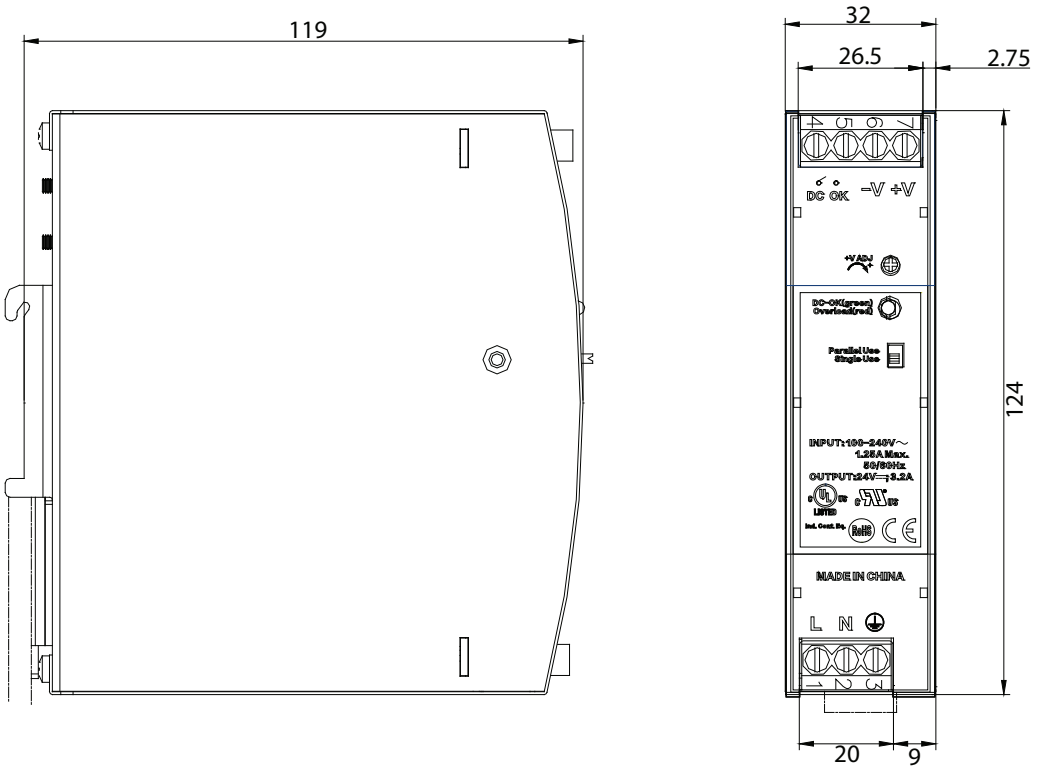
- Universal AC input/ Full range
- Support 1+1 or N+1 Redundant System (Recommended to use Redundancy Modules)
- Built-in Active PFC, PF>0.95
- High Efficiency up to 91%
- Built-in Current Sharing Function
- Built-in Current Limiting Circuit
- Output Protections: OLP/OVP/SCP/OTP
- Wide operating ambient temperature (-25°C~70°C)
- 150% Peak Load Capacity
- Easy Fuse Tripping from High Overload Current
- Excellent Partial Load Efficiency
- Built-in DC OK Relay Contact
- Can be installed on TS-35/7.5 or TS-35/15
- 100% Full Load Burn-in Test
- Suitable for critical applications
- Ultra-slim 32mm width
- 3 Year Warranty

RoHS Compliant

Model		QDG-75-12	QDG-75-24
Output Characteristics			
DC Output		12V	24V
Rated Current		6.3A	3.2A
Current Range (Note 1)		0~6.3A	0~3.2A
Ripple and Noise (Note 2)	0~70°C	≤100mV	≤120mV
	-25~0°C	≤200mV	≤240mV
Voltage ADJ. Range		12V~14V	24V~28V
Voltage Accuracy		±1.0% (Single Mode)	
Line Regulation		±0.5%	
Load Regulation		±1.0%	
Set-up Time		≤250ms (230VAC input) ≤500ms (100VAC input)	
Hold-up Time		≥20ms (230VAC input, full load)	
Temperature Coefficient		±0.03%/°C	
Overshoot and Undershoot		<5.0%	
Input Characteristics			
Voltage Range		85VAC~264VAC	
Frequency Range		47Hz-63Hz	
Power Factor (Typical)		0.99/100VAC 0.95/230VAC	
Efficiency (Typical)		88%	91%
AC Current (max)		≤0.95A/100VAC ≤0.45A/230VAC	
Inrush Current (Typical)		<30A@100VAC Cold start <60A@230VAC Cold start	
Leakage Current		Input-Output: <0.25mA Input-PG: <3.5mA	
Protection			
Over Load (OLP)		110%~150% of rated current, Constant power limiting (120%@5S, 150%@3S), then hiccup, auto recovery	
Over Power (OVP)		15~18V	29~33V
		Protection Type: Hiccup Mode, Auto recovery	
Over Temperature (OTP)		Shut down when temperature rises too High. Restart AC, Recovery when temperature reduces	
Short Circuit (SCP)		Long-term mode, auto recovery	
Environmental Characteristics			
Operating Amb. Temp. & Hum		-25°C~70°C; 20%~90% RH Non-Condensing	
Storage Temp. & Hum		-40°C~85°C: 5%-95% RH Non-Condensing	
Safety Standards		UL60950; EN60950; UL508	
Withstand Voltage		Primary-Secondary: 3.0KVAC;≤10mA, Primary-PG: 2.5KVAC;≤10mA, Secondary-PG: 0.5KVAC;≤10mA,	
Isolation Resistance		≥100M ohms	
EMC Emission		Compliance to EN55022, EN55024, FCC Part 15 Class B	
Harmonic Current		Compliance to EN61000-3-2, Class A	
EMC Immunity		Compliance to EN61000-4-2, 3, 4, 5, 6, 8, 11; EN55024 light industry level	

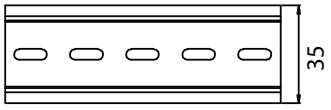
Model	QDG-75-12	QDG-75-24
General Characteristics		
MTBF (MIL-HDBK-217F)	More than 300,000Hrs (25°C, Full load)	
Dimension (LxWxH)	124x119x32mm	
Packing	28PCS/CTN	
Cooling Method	Cooling by free air convection	
Additional Functions		
Power Boost	150% of Rated Current	
Parallel Function	Supported	
Note	1. All parameters NOT specially mentioned are measured at rated input, rated load, and 25°C of ambient temperature 2. Measured at 20MHz of bandwith by using a 12" Twisted pair wire terminated with a 0.1uF & 47uF parallel capacitor 3. The SPS is considered a component which will be installed into final equipment. The equipment must be re-confirmed that it still meets EMC directives.	

MECHANICAL SPECIFICATIONS



AC CONNECTION TERMINAL BLOCK

	Pin No.	Assignment	Cable Conductor Size	Recommended Torque
CON1	1	AC-L	20 AWG - 10 AWG	1 N m
	2	AC-N		
	3	⏚		



MOUNTING RAIL:
TS35/7.5 OR TS35/15

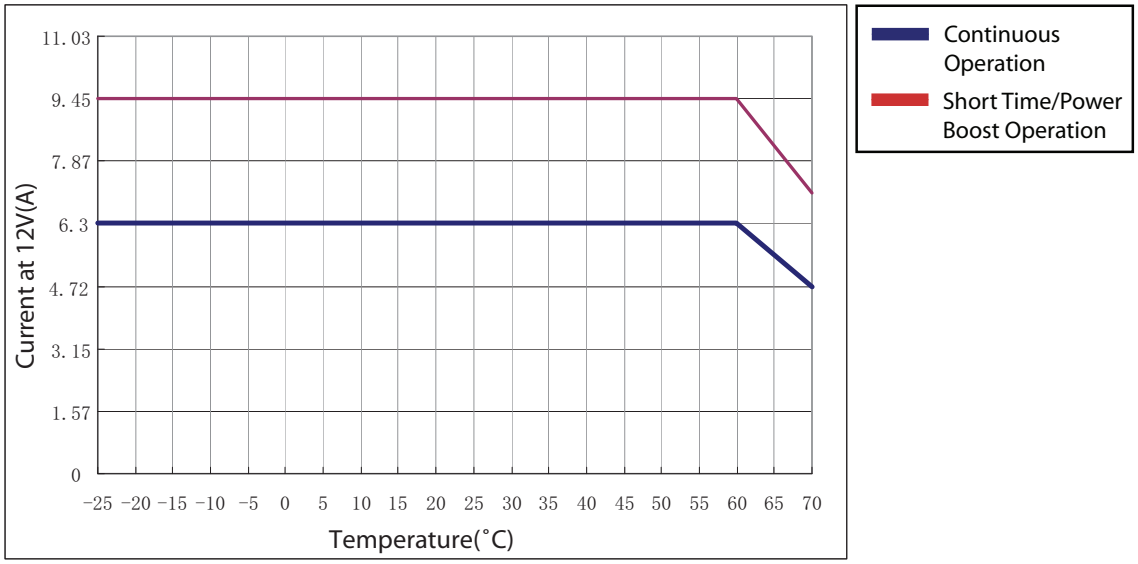
DC CONNECTION TERMINAL BLOCK

	Pin No.	Assignment	Cable Conductor Size	Recommended Torque
CON2	4/5	DC OK/RELAY CONTACT	20 AWG - 10 AWG	1 N m
	6	-V		
	7	+V		

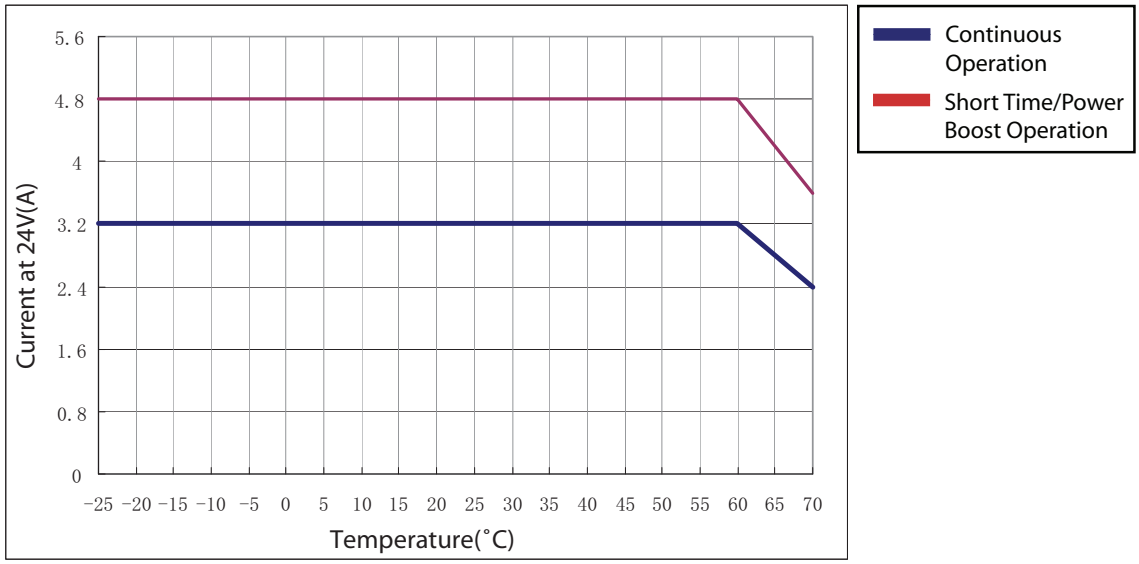
UNIT: mm

DERATING CURVE

QDG-75-12



QDG-75-24



UNIT: mm