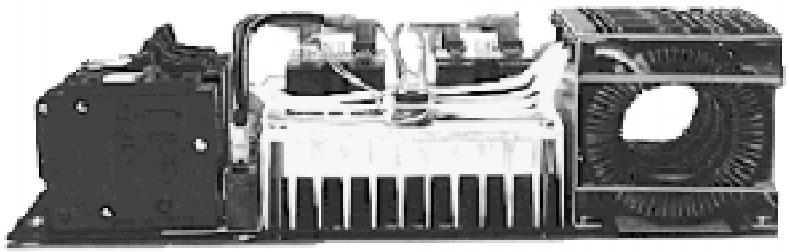
Architectural Dimmers

Incandescent Dimmer Modules

Features:

- U.L. Listed
- Fully magnetic circuit breakers
- No interaction between dimmers
- Overheat and overcurrent protected



Description

Designed for extended service life and simplicity Prolite dimmer modules control any combination o standard and low-voltage incandescent, quartz, fluorescent, neon, and cold-cathode sources.

The dimmer modules are designed with the control electronics housed away from dimmer-generated heat. A cooler environment optimizes electronic life and performance.

Each module is designed with an oversize heatsink for individual forced-air cooling.

All Prolite modules are made to the same rugged construction and superior quality standards used throughout EDI's product lines.

Ordering Information

Module No.	Dimmers	Kw	Breakers / Terminal Blocks			
			Primary (Amps)		Branch (Amps)	
PLJ-Q1.8	4	1.8	4	15	4	15
PLJ-D2.4	2	2.4	2	20	4	20
PLJ-D2.4 HP*	2	2.4	2	20	4	20
PLJ-D3.6	2	3.6	2	30	4	20
PLJ-6.0	1	6.0	1	50	4	20
PLJ-Q1.8/ND	4	1.8	4	15	4	TB
PLJ-CB			--	--	1-8	20

Module No.	Dimmers	Kw	Breakers / Terminal Blocks			
			Primary (Amps)		Branch (Amps)	
PLS-Q2.4	4	2.4	4	20	4	15
PLS-D2.4	2	2.4	2	20	4	20
PLS-D2.4 HP*	2	2.4	2	20	4	20
PLS-D3.6	2	3.6	2	30	4	20
PLS-6.0	1	6.0	1	50	4	20
PLS-Q2.4/ND	4	2.4	4	20	4	TB
PLS-CB			--	--	1-10	20

*Denotes High Perforrmance chokes.

Dimming Modules

- ❒ PLJ-Q1/I Quad 1.8kw
- ❒ PLJ-D2/I Dual 2.4kw
- ❒ PLJ-D2/I Dual 2.4kw HP
- ❒ PLJ-D3/I Dual 3.6kw
- ❒ PLJ-6/I Single 6.0kw
- ❒ PLJ Electronic Ballast
- ❒ PLS-Q2/I Quad 2.4kw
- ❒ PLS-D2/I Dual 2.4kw
- ❒ PLS-D2/I Dual 2.4kw HP
- ❒ PLS-D3/I Dual 3.6kw
- ❒ PLS-6/I Single 6.0kw
- ❒ PLS Electronic Ballast

Auxiliary Modules

- ❒ PLJ-Q1/ND
- ❒ PLJ-D2/ND
- ❒ PLS-Q2/ND (4) 20 Amp solid-state relays which function as latching relay equivalent.
- ❒ PLJ-CB 1-8 20A circuit breakers for additional constant circuits
- ❒ PLS-CB 1-10 20A circuit breakers for additional constant circuits
- ❒ Saf-T-Qube™

JOB NUMBER:

JOB NAME:

CUSTOMER:

P. O. #

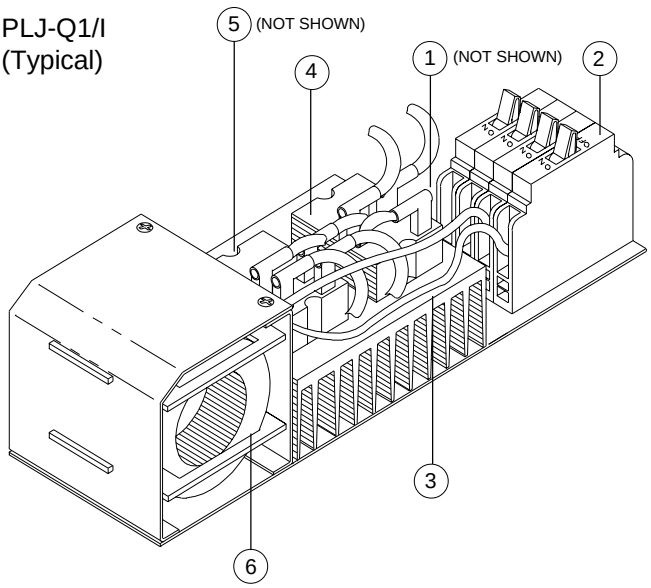
APPROVAL STAMP

Electronics Diversified, Inc.

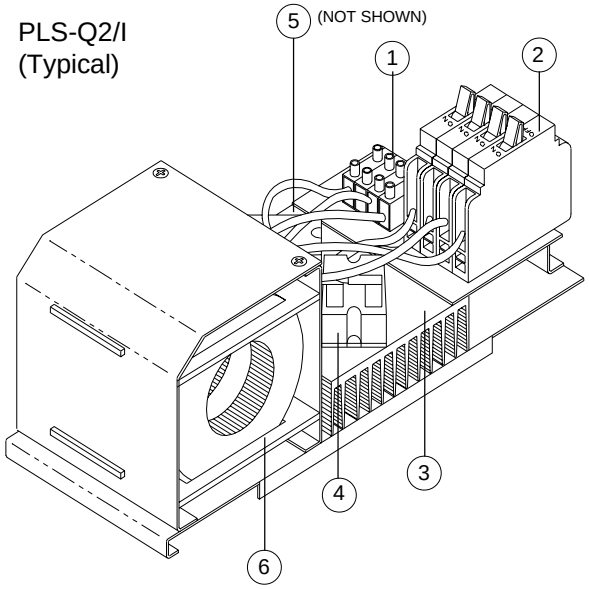
1675 N.W. Cornelius Pass Road ● Hillsboro, Oregon 97124 U.S.A.

Phone: (503) 645-5533 ● FAX: (503) 629-9877 ● Web Site: www.edionline.com

PLJ-Q1/I
(Typical)



PLS-Q2/I
(Typical)



LEGEND

1. TERMINAL BLOCK
2. BRANCH CIRCUIT BREAKERS
3. HEAVY-DUTY HEATSINK
4. SILICON CONTROLLED RECTIFIERS
5. THERMAL SENSOR
6. HEAVY-DUTY TOROIDAL CHOKES

Specifications

1. Dimmer modules shall be a self-contained assembly, factory wired and installed in a properly sized cabinet prior to shipment to the project site. All primary circuit breakers in the dimmer modules shall be rated at the capacity of the dimmer. Both the primary and branch circuit breakers shall be fully magnetic, have a minimum rating of 10,000 A.I.C. and a "must trip" capacity of 125%. The breaker will also serve as the disconnect for the circuit.
2. Each dimmer module shall operate over an input voltage range of 90 to 140 VAC. at 60Hz. in an ambient air temperature from 0 to 40° C. Each module shall include a thermal sensor to shut down the dimmer's output when heatsink temperature exceeds 185° F (85° C). Systems without thermal sensors or systems which shut down the entire dimmer cabinet shall not be acceptable.
3. Each dimmer shall be completely solid-state incorporating an encapsulated pair of silicon controlled rectifiers to provide symmetrical alternating current output to the load at any output level from OFF to FULL intensity. The entire output load shall be carried solely by the silicon-controlled rectifiers. Dimmers employing triacs will not be acceptable.
4. The solid-state switch devices shall be mounted in a substrate material for maximum heat dissipation. The substrate shall be encapsulated in an epoxy filled high-impact plastic case along with an optical isolator, a snubbing network and all required gating circuitry on the high voltage side of an integral opto-coupled control voltage isolator providing a minimum of 2500V RMS isolation between line and control in the switch device. A 2.4Kw module shall have a minimum rating of 500 A peak single cycle surge current and 600V transient capacity.
5. In addition to the optical isolation provided internally in the power cube device, an additional protection design shall employ a combination of Metal Oxide Varistors (MOV's), Pico fuses and/or transzorbs to provide the highest level of protection to control inputs shall be available as an option.

   Systems that only provide secondary isolation between the dimmer bank and controls are not acceptable.
6. The module shall be provided with an integral iron core, copper-wound toroidal filter inductor for each dimmer which shall limit the change in current with respect to time. The purpose of the filter is to limit objectionable harmonics, radiated radio frequencies, electromagnetically-induced interference, and acoustical noise in the lamp filament. The filter shall limit the current rise at any point of the curve to 0.75% of dimmers RMS rating (milliamps per microsecond). As an example, a 20 Amp dimmer would have a rating of not more than 150 mA/µS. This specification meets the industry standard.
7. The power efficiency of the dimmer shall be a minimum of 97%. The maximum heat loss for each 2.4Kw module shall be no greater than 59 watts per dimmer or 100 BTU's per hour per connected Kw of load.
8. Each dimmer in conjunction with control circuitry shall maintain the output RMS voltage within ±2% with changes in line voltage from 90 to 104 volts RMS. The dimmer shall maintain output RMS voltage within ±2% with changes in load from 25 watts to full rated load at any point on the dimming curve.
9. The dimmer module shall be a U.L. listed product and manufactured as the Prolite series by Electronics Diversified, Inc., Hillsboro, Oregon U.S.A.

A101 0898

Electronics Diversified, Inc.
1675 N.W. Cornelius Pass Road, Hillsboro, Oregon 97124 U.S.A. Phone Toll Free 1-800-547-2690