

104 PHL-ST High Power, High Ripple Current, Long Life Aluminum Capacitors with Screw Terminals



KEY BENEFITS

- Long lifetime: 5000 h at 105 °C
- High reliability
- High ripple current up to 35 A at 100 Hz, 105 °C
- Available with high capacitance/voltage combinations (33 000 µF, 200 V to 6800 µF, 450 V; both in 90 mm x 220 mm cases)
- Available with 8 mm, M5 terminals and 13 mm, M6 terminals
- Polarized aluminum electrolytic capacitors, non-solid electrolyte
- Large types, cylindrical aluminum case, insulated with a blue sleeve
- Also available in bolt version (104 PHL-STB)
- Pressure relief in the sealing

APPLICATIONS

- Motor control (power from mains): single phase and three phase
- Inverter (power to mains): solar/wind and fuel cell
- Back-up power supplies, UPS
- Traction (trains, subways)
- Pulsed power supplies for X-rays, plasma physics, welding, and other medical/ industrial applications

RESOURCES

- Datasheet: 104 PHL-ST - <http://www.vishay.com/doc?28389>
- For technical questions contact aluminumcaps2@vishay.com
- Material categorization: For definitions of compliance please see <http://www.vishay.com/doc?99912>



RoHS
COMPLIANT

One of the World's Largest Manufacturers of
Discrete Semiconductors and Passive Components



104 PHL-ST High Power, High Ripple Current, Long Life Aluminum Capacitors with Screw Terminals

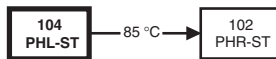


Fig. 1

QUICK REFERENCE DATA	
DESCRIPTION	VALUE
Nominal case size (Ø D x L in mm)	35 x 60 to 90 x 220
Rated capacitance range (E6 series), C _R	150 µF to 33 000 µF
Tolerance on C _R	± 20 %
Rated voltage range, U _R	200 V to 450 V
Category temperature range	- 40 °C to 105 °C
Endurance test at 105 °C	2000 h
Useful life at 105 °C	5000 h
Shelf life at 0 V, 105 °C	1000 h
Based on sectional specification	IEC 60384-4/EN130300
Climatic category IEC 60068	40/105/56

MARKING

The capacitors are marked with the following information:

- Rated capacitance (in µF)
- Tolerance on rated capacitance, code letter in accordance with IEC 60062 (± 20 %)
- Rated voltage (in V)
- Date code (YYMM)
- Name of manufacturer
- Code for factory of origin
- “-” sign to identify the negative terminal, visible from the top and side of the capacitor
- Code number
- Climatic category in accordance with IEC 60068
- “LL” for long life grade

SELECTION CHART FOR C _R , U _R , AND RELEVANT NOMINAL CASE SIZES (Ø D x L in mm)					
C _R (µF)	U _R (V)				
	200	250	350	400	450
150	-	-	-	-	35 x 60
220	-	-	-	35 x 60	35 x 80
330	-	-	35 x 60	35 x 80	35 x 105
470	-	-	35 x 80	35 x 80	50 x 80
680	35 x 60	35 x 60	35 x 105	50 x 80	50 x 105
	35 x 60	35 x 80	50 x 80	50 x 105	50 x 105
1000	35 x 80	35 x 105	-	-	65 x 105
	35 x 80	-	-	-	-
1500	35 x 80	35 x 105	50 x 105	50 x 105	65 x 105
	35 x 105	50 x 80	-	65 x 105	76 x 105
2200	35 x 105	50 x 80	65 x 105	65 x 105	76 x 105
	50 x 80	35 x 105	-	76 x 105	76 x 146
3300	50 x 80	50 x 105	-	76 x 105	76 x 146
	50 x 105	65 x 105	-	76 x 146	-
4700	50 x 105	65 x 105	-	76 x 146	76 x 220
	65 x 105	76 x 105	76 x 146	-	90 x 146
6800	65 x 105	76 x 105	76 x 146	76 x 220	90 x 220
	76 x 105	76 x 146	-	90 x 146	-
10 000	76 x 105	76 x 146	76 x 220	90 x 220	-
	76 x 146	-	90 x 146	-	-
15 000	76 x 146	76 x 220	90 x 220	-	-
	-	90 x 146	-	-	-
22 000	76 x 220	90 x 220	-	-	-
	90 x 146	-	-	-	-
33 000	90 x 220	-	-	-	-

Revision 03-Nov-11

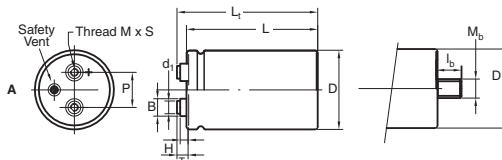
DIMENSIONS in millimeters AND AVAILABLE FORMS


Fig. 2 A: Standard M5 disc: Screw terminal (ST) and screw terminal bolt nut (STB)

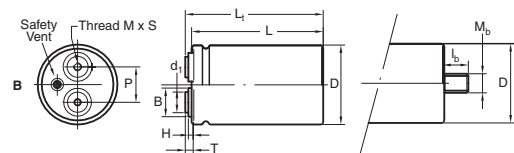


Fig. 2 B: High current M6 disc: Screw terminal (ST) and screw terminal bolt nut (STB)

Note

- Maximum permissible torque which may be applied to the termination screws: 2 Nm for M5; 2.5 Nm for M6
For accessories refer to datasheet “Mounting Accessories”.
The capacitors are delivered with screws and washers.