

EVAR POWER FACTOR CORRECTION EQUIPMENT (LV)

PQ30-90EVAR

- Master-slave concept
- Compact design
- Flexible solutions

CERTIFICATIONS



Our EVAR series is certified as being approved by RoHS, CETL and CUL.



PowerQ is member of Greener Canada, AQME and the Chamber of Commerce.



INNOVATION AND PERFORMANCE

The PQ30-90EVAR series offered by PowerQ, comprises capacitor banks with automatic control in steps of up to 6 levels, adapting the reactive power to the installation's fluctuations. Control is typically carried out by an electronic device (power factor controller) that monitors the actual power factor and commands the connection or disconnection of capacitors in predetermined steps, as required by the load, to achieve the targeted power factor. Our PQ30-90EVAR series is compatible with the DCRL 3/5 controller, which continuously monitors the reactive power drawn from the electrical network and automatically switches the capacitors as needed.

FEATURES

REAL-TIME COMPENSATION

- RISKS OF OVERCOMPENSATION AVOIDED WHILE ENSURING FUNCTIONAL AUTONOMY

FLEXIBILITY

- DIFFERENT CUSTOMIZED OPTIONS ARE AVAILABLE (MASTER/SECONDARY BOX MODELS – 30 KVAR, 45 KVAR, 60 KVAR, 75 KVAR AND 90 KVAR)

SAFETY

- IN THE CASE OF DEFECTS OF THE NETWORK OR EQUIPMENT, THIS WILL BE INDICATED BY AN ALARM ON THE DISPLAY PANEL

COMPACT DESIGN

- PROVIDES THE IDEAL POWER FACTOR CORRECTION SOLUTION FOR INDUSTRIAL AND COMMERCIAL NETWORKS

MODULAR CONCEPT

PowerQ brings you a master-slave concept that evolves along with your company:

30kvar → 60kvar or 75kvar
 45kvar → 75kvar or 90kvar

EVAR allows a 3kvar or a 45kvar to become a 60kvar, 75kvar or 90kvar, **just by adding a new module**



SPECIFICATIONS

MAIN	
Nominal voltage	600V AC 60Hz (480V AC upon request)
Reactive power ratings	30kvar and 45kvar (either Master or Slave)
Mode of operation	Automatic
Equipment name	Automatic capacitor bank
Type of product or equipment	Capacitor bank

COMPLEMENTARY	
Reactive power in steps of	15kvar
No. of steps	6
Cable entry	Right side (plug-in type)
Type of controller	DCRL series (Lovato)
Capacitor technology	Inert gas filled PFC capacitors
No. of poles	3
Capacity tolerance	-5% to 10%
Insulation voltage	690V
Shock voltage	8kV
Overtages for capacitors	1.1 x Un (8 hours daily) 1.15 x Un (30 min. daily) 1.2 x Un (5 min. daily) conform to IEC 60831
Overcurrent for capacitors	1.5 x In (including harmonics) conform to IEC 60831
Main incomer	Switch disconnecter UL/CSA/EAC
Protection by step	Fuse
Accessible	Front door
Colour	RAL 5002
Height	600mm
Width	500mm
Depth	250mm
Equipment include	Auxilliary transformer for control
Voltage internal transformer	600/120V 100VA/350VA
Power supply	AC/DC, 10W, 24Vcc, 0.42A
Capacitors (life expectancy)	135,000 hrs 5000 switchings per year

More options:

Add Inductance Box to be used as harmonic filter

- Fast switching: optional solid-state relay (SSR) that react in 1 to 2 seconds
- Remote communication using USB key or Wi-Fi with your PC

POWER FACTOR CONTROLLER

DCRL SERIES:

- 3 STEPS IN 96X96MM HOUSING, EXPANDABLE UP TO 6 STEPS MAX.
- EXPANDABLE WITH EXP MODULES SUCH AS INPUTS AND OUTPUTS, STEP INCREMENT AND COMMUNICATION PORTS (OPTIONAL)
- BACKLIGHT ICON DISPLAY
- OPTIC INTERFACE PORT FOR PROGRAMMING, DATA DOWNLOAD AND DIAGNOSTICS (OPTIONAL)
- INDEPENDENT VOLTAGE MEASUREMENT INPUT
- CAPACITOR OVERLOAD PROTECTION
- INTERNAL PANEL TEMPERATURE SENSOR
- CONFIGURABLE ALARMS
- VOLTAGE AND CURRENT HARMONIC-CONTENT MEASUREMENT



DCRL Front view



DCRL Rear view

Supply voltage	From 100Vac to 440Vac
Rated frequency	50Hz / 60Hz
Front plate protection	IP54
Certifications and compliance	CEI/EN 61010-1 CEI/EN 61000-6-2 CEI/EN 61010-1 CEI/EN 61000-6-2 CEI/EN 61000-6-3 UL 508 CSA C22.2 No.14

QUALITY AND TESTING

ENVIRONMENT

Norms	CEI/EN 60831-1/2 CEI/EN 60947-1 CEI/EN 60947-4-1 K60947 UL 810
Product certificates	CE, TÜV, UL, EAC, EX
Installation	Interior
IP rating	IP43 NEMA 4/12 (IP55 NEMA 3R available)
IK rating	IK10
Temperature range	-5° to 45°C

WARRANTY

Capacitor only	5 years
Equipment and parts	12 months

ORDERING INFORMATION

600V / 60Hz / 3 phases

EVAR Model	kvar rating	Qty / kvar
PQEVAR Master 30	30	1/30 Master
PQEVAR Master 45	45	1/45 Master
PQEVAR 60	60	1/30 Master + 1/30 Slave
PQEVAR 75	75	1/45 Master + 1/30 Slave
PQEVAR 90	90	1/45 Master + 1/45 Slave
PQEVAR Slave 30	30	1/30 Slave
PQEVAR Slave 45	45	1/45 Slave