



HAVELLS

LV Switchgear Controlgear & Power Quality Products



Pricelist w.e.f. 1st March, 2023

Effective from 1st March, 2023

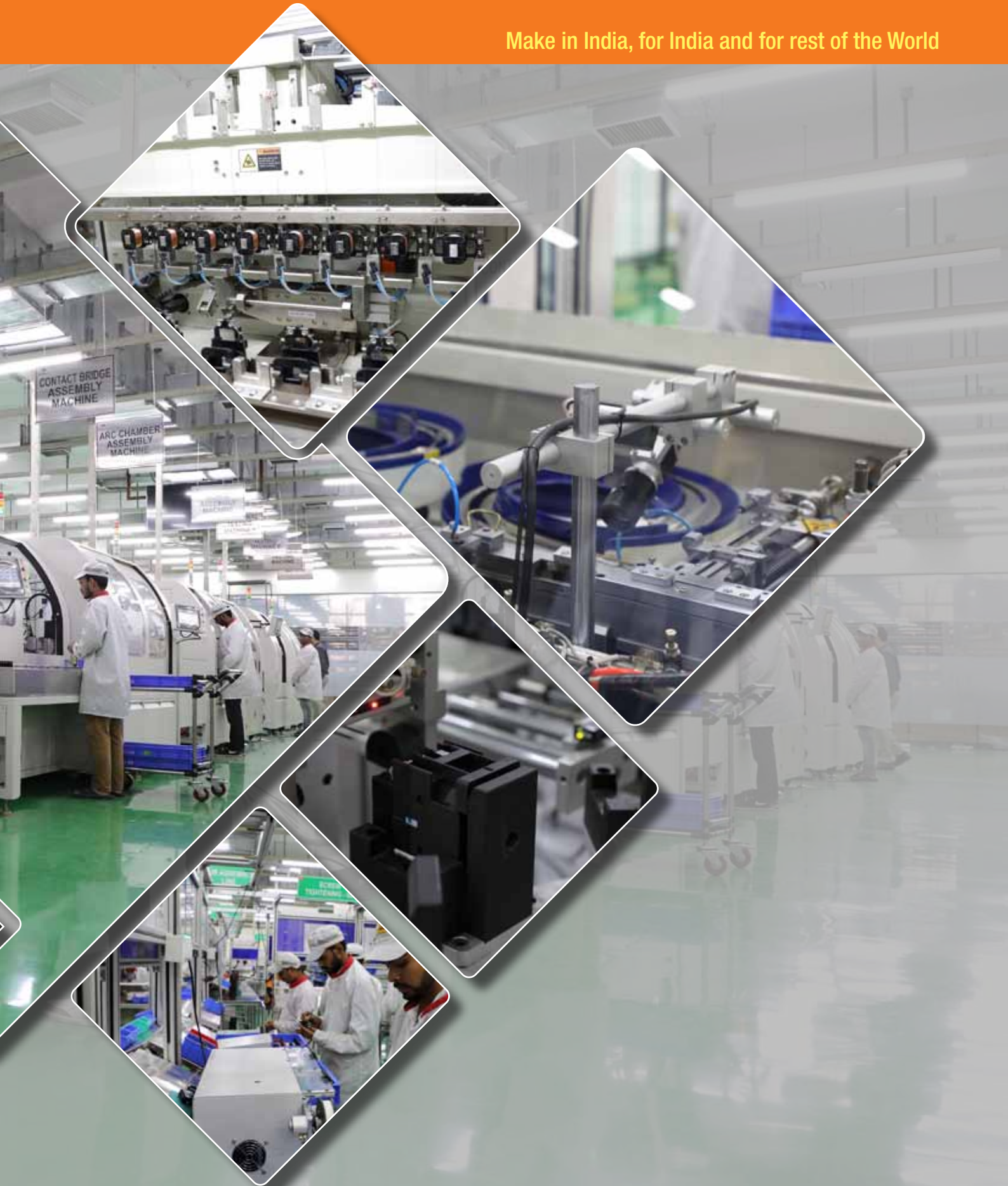
List Price (L.P.) are in Indian ₹ & as per Standard Terms & Conditions

Fully Automated Plant



Industry 4.0

Make in India, for India and for rest of the World



Comprehensive Power Quality Products



Harmonic Duty (MPP)
POWER CAPACITOR & MFD



IOT Based / GSM
IPFC RELAY



**LOAD FLOW &
HARMONICS ANALYSIS**



AHF System
**ACTIVE HARMONIC
FILTER / SVG**



Contactor+
Thyristor Switching
APFC PANEL



High PIV
Thyristor Switch



High Linearity
HD DETUNED REACTOR

**For more details on load flow analysis
Please contact nearest Havells branch**



HAVELLS

Install Havells APFC Panel
&
SAVE Money by reducing kVAh

Why pay more
due to low Power Factor

Is there still a difference in kVAh and KWH in your Electricity Bill due to Low Power Factor?

Billed Units		
334240 kVAh		1
318980 kWh		1
1404 kVA		1

Electricity bill



SecuRite APFCS - Automatic Power Factor Correction Panel



Welcome to the world of digitalization and Industry 4.0. Industry 4.0, comprises of Data exchange, Automation, Internet of the things and Cloud computing which prepares manufacturing technologies more efficient and smart. Havells (HGS) Contactors and starters are manufactured through Industry 4.0.

Range

- Output Rating: 10 kVAr -1000 kVAr other rating on request
- Switching: Contactor / Thyristorised (Ultra Fast)

Features

- Manufactured with highly precise modern Amada CNC machine
- 11 tank process for corrosion proof powder coating
- Ergonomic, compact and robust design
- Designed with Fully copper conductor
- Super Heavy Duty Capacitor power capacitor for long life
- Advance G-MOS technology based micro processor relay for intelligent power factor control
- Air core reactor for extra safety from inrush current (High currents)
- Provision of top and bottom cable entry

- Automatic temp. control through fans and louvers in panel
- Double side earthing connection
- Ref. Standard: IEC 61921/ IS 16636 / IEC 61439

Principle Operation

- To continuously sense and monitor the load conditions by the use of the external CT (whose output is fed to the control relay).
- To automatically switch ON and switch OFF relevant capacitor steps to ensure consistent power factor.
- To ensure easy user interface for enabling reliable understanding of system operation, such as display of real time power factor, number of switching operations carried out etc.
- To protect against any electrical faults in a manner that will ensure safe isolation of the power factor correction equipment.

SecuRite APFCS - Automatic Power Factor Correction Panel

IEC: 61921 / IS: 16636

HSN Code: 8537

Rating kVAr	Cat. Code	Description	Per Unit LP (₹)
Rated Voltage 415 Vac, 3 ϕ , 50 Hz, Delta Connection, Cylindrical Capacitor			
10 kVAr	QHKTCB5010X0	10 kVAr / 415 V SecuRite APFC Panel CYCAP	59945.00
12 kVAr	QHKTCB5012X0	12 kVAr / 415 V SecuRite APFC Panel CYCAP	66605.00
15 kVAr	QHKTCB5015X0	15 kVAr / 415 V SecuRite APFC Panel CYCAP	83252.00
25 kVAr	QHKTCB5025X0	25 kVAr / 415 V SecuRite APFC Panel CYCAP	138751.00
30 kVAr	QHKTCB5030X0	30 kVAr / 415 V SecuRite APFC Panel CYCAP	143857.00
50 kVAr	QHKTCB5050X0	50 kVAr / 415 V SecuRite APFC Panel CYCAP	174073.00
75 kVAr	QHKTCB5075X0	75 kVAr / 415 V SecuRite APFC Panel CYCAP	261110.00
100 kVAr	QHKTCB5100X0	100 kVAr / 415 V SecuRite APFC Panel CYCAP	314843.00
125 kVAr	QHKTCB5125X0	125 kVAr / 415 V SecuRite APFC Panel CYCAP	378419.00
150 kVAr	QHKTCB5150X0	150 kVAr / 415 V SecuRite APFC Panel CYCAP	454104.00
175 kVAr	QHKTCB5175X0	175 kVAr / 415 V SecuRite APFC Panel CYCAP	529789.00
200 kVAr	QHKTCB5200X0	200 kVAr / 415 V SecuRite APFC Panel CYCAP	592857.00
225 kVAr	QHKTCB5225X0	225 kVAr / 415 V SecuRite APFC Panel CYCAP	666965.00
250 kVAr	QHKTCB5250X0	250 kVAr / 415 V SecuRite APFC Panel CYCAP	741072.00
275 kVAr	QHKTCB5275X0	275 kVAr / 415 V SecuRite APFC Panel CYCAP	815180.00
300 kVAr	QHKTCB5300X0	300 kVAr / 415 V SecuRite APFC Panel CYCAP	870362.00
325 kVAr	QHKTCB5325X0	325 kVAr / 415 V SecuRite APFC Panel CYCAP	942893.00
350 kVAr	QHKTCB5350X0	350 kVAr / 415 V SecuRite APFC Panel CYCAP	1015422.00

APFC Technical Details

Rating kVAr	Stages	Main Incomer	Breaking Capacity	Dimensions HeightXWidthXDepth (mm)
Rated Voltage 415 Vac, 3 ϕ , 50 Hz, Delta Connection, Super Heavy Duty Cylindrical Capacitor				
10 kVAr	1,1,2,2,4	MCB 25A	10 KA	650x600x200
15 kVAr	1,2,2,2,4,4	MCB 32A	10 KA	650x600x200
20 kVAr	2,2,3,3,5,5	MCB 40A	10 KA	650x600x200
25 kVAr	2,3,5,5,5,5	MCB 63A	10 KA	650x600x200
30 kVAr	2,3,5,5,5,10	MCB 63A	10 kA	900x600x200
50 kVAr	2,3,7.5,12.5,12.5,12.5	MCCB 125A	25 kA	900x600x200
60 kVAr	2,3,5,10,20,20	MCCB 125A	25 kA	900x600x200
75 kVAr	2,3,5,5,10,10,20,20	MCCB 160A	25 KA	1100x700x250
100 kVAr	2,3,5,10,20,20,20,20	MCCB 160A	25 KA	1100x700x250
125 kVAr	2,3,5,5,10,25,25,50	MCCB 250A	35 KA	1175x800x540
150 kVAr	2,3,5,5,10,25,50,50	MCCB 320A	35 KA	1175x800x540
175 kVAr	5,5,5,10,25,25,50,50	MCCB 320A	35 KA	1175x800x540
200 kVAr	5,5,5,10,25,50,50,50	MCCB 400A	35 KA	1175x800x540
225 kVAr	5,7.5,12.5,25,25,50,50,50	MCCB 400A	35 KA	1175x800x540
250 kVAr	5,7.5,12.5,25,50,50,50,50	MCCB 400A	35 KA	1175x800x540
300 kVAr	5,7.5,12.5,25,50,50,50,100	MCCB 500A	50 KA	1675x1200x700
350 kVAr	5,7.5,12.5,25,50,50,100,100	MCCB 630A	50 kA	1675x1200x700
400 kVAr	5,7.5,12.5,25,50,50,50,100,100	MCCB 630 A	50 kA	1675x1200x700
500 kVAr	5,7.5,12.5,25,50,50,100,100,100	MCCB 800 A	50 kA	1675x1200x700

Other Ratings on request

Thyristor Switching Panel (NEW)

Rating kVAr	Cat. Code	Description	Per Unit LP (₹)
10 kVAr - 1000 kVAr	-	10 kVAr -1000 kVAr Thyristor Switching Panel	Price on Request

Current Power Factor cos φ	Achievable (Target)										Target cos φ = 0.96 ^Q
	0.9	0.91	0.92	0.93	0.94	0.95	0.96	0.97	0.98	0.99	
0.51	1.20	1.23	1.26	1.29	1.32	1.36	1.40	1.44	1.48	1.54	1.69
0.52	1.16	1.19	1.22	1.25	1.28	1.31	1.35	1.39	1.44	1.50	1.64
0.53	1.11	1.14	1.17	1.20	1.24	1.27	1.30	1.35	1.40	1.46	1.60
0.54	1.08	1.10	1.13	1.16	1.20	1.23	1.27	1.31	1.36	1.42	1.56
0.55	1.04	1.06	1.09	1.12	1.16	1.19	1.23	1.27	1.32	1.38	1.52
0.56	1.00	1.02	1.05	1.09	1.12	1.15	1.19	1.23	1.28	1.34	1.48
0.57	0.96	0.99	1.02	1.05	1.08	1.11	1.15	1.19	1.24	1.30	1.44
0.58	0.92	0.95	0.98	1.01	1.04	1.08	1.11	1.15	1.20	1.26	1.41
0.59	0.89	0.91	0.94	0.97	1.01	1.04	1.08	1.12	1.17	1.23	1.37
0.60	0.85	0.88	0.91	0.94	0.97	1.00	1.04	1.08	1.13	1.19	1.33
0.61	0.82	0.84	0.87	0.90	0.94	0.97	1.01	1.05	1.10	1.16	1.30
0.62	0.78	0.81	0.84	0.87	0.90	0.94	0.97	1.02	1.06	1.12	1.27
0.63	0.75	0.78	0.81	0.84	0.87	0.90	0.94	0.98	1.03	1.09	1.23
0.64	0.72	0.75	0.78	0.81	0.84	0.87	0.91	0.95	1.00	1.07	1.20
0.65	0.69	0.71	0.74	0.77	0.81	0.84	0.88	0.92	0.97	1.03	1.17
0.66	0.65	0.68	0.71	0.74	0.78	0.81	0.85	0.89	0.94	1.00	1.14
0.67	0.62	0.65	0.68	0.71	0.75	0.78	0.82	0.86	0.91	0.97	1.11
0.68	0.59	0.62	0.65	0.68	0.72	0.75	0.79	0.83	0.88	0.94	1.08
0.69	0.57	0.59	0.62	0.65	0.69	0.72	0.76	0.80	0.85	0.91	1.05
0.70	0.54	0.56	0.59	0.63	0.66	0.69	0.73	0.77	0.82	0.88	1.02
0.71	0.51	0.54	0.57	0.60	0.63	0.66	0.70	0.74	0.79	0.85	0.99
0.72	0.48	0.51	0.54	0.57	0.60	0.64	0.67	0.71	0.76	0.82	0.96
0.73	0.45	0.48	0.51	0.54	0.57	0.61	0.64	0.69	0.73	0.79	0.94
0.74	0.43	0.45	0.48	0.51	0.55	0.58	0.62	0.66	0.71	0.77	0.91
0.75	0.40	0.43	0.46	0.49	0.52	0.55	0.59	0.63	0.68	0.74	0.88
0.76	0.37	0.40	0.43	0.46	0.49	0.53	0.56	0.60	0.65	0.71	0.86
0.77	0.35	0.37	0.40	0.43	0.47	0.50	0.44	0.58	0.63	0.69	0.83
0.78	0.32	0.35	0.38	0.41	0.44	0.47	0.51	0.55	0.60	0.66	0.80
0.79	0.29	0.32	0.35	0.38	0.41	0.45	0.48	0.53	0.57	0.63	0.78
0.80	0.27	0.29	0.32	0.36	0.39	0.42	0.46	0.50	0.55	0.61	0.75
0.81	0.24	0.27	0.30	0.33	0.36	0.40	0.43	0.47	0.52	0.58	0.72
0.82	0.21	0.24	0.27	0.30	0.34	0.37	0.41	0.45	0.50	0.56	0.70
0.83	0.19	0.22	0.25	0.28	0.31	0.34	0.38	0.42	0.47	0.53	0.67
0.84	0.16	0.19	0.22	0.25	0.28	0.32	0.35	0.40	0.44	0.50	0.65
0.85	0.14	0.16	0.19	0.23	0.26	0.29	0.33	0.37	0.42	0.48	0.62
0.86	0.11	0.14	0.17	0.20	0.23	0.26	0.30	0.34	0.39	0.45	0.59
0.87	0.08	0.11	0.14	0.17	0.20	0.24	0.28	0.32	0.36	0.43	0.57
0.88	0.06	0.08	0.11	0.15	0.18	0.21	0.25	0.29	0.34	0.40	0.54
0.89	0.03	0.06	0.09	0.12	0.15	0.18	0.22	0.26	0.31	0.37	0.51
0.90	0.00	0.03	0.06	0.09	0.12	0.16	0.19	0.23	0.28	0.34	0.48
0.91		0.00	0.03	0.06	0.09	0.13	0.16	0.21	0.25	0.31	0.46
0.92			0.00	0.03	0.06	0.10	0.13	0.18	0.22	0.28	0.43
0.93				0.00	0.03	0.07	0.10	0.14	0.19	0.25	0.40
0.94					0.00	0.03	0.07	0.11	0.16	0.22	0.36
0.95						0.00	0.04	0.08	0.13	0.19	0.33

Example:

Actual Motor Power P=100 kW

Actual cos φ 0.61

Target cos φ (Q) 0.96

Factor F from table 1.01

Capacitor reactive power Qc = 100 x 1.01 = 101 kVAR

Selection of Capacitor

(I) Calculation of Required kVAR.

Operating load kW and its average power factor (PF) as per the electricity bill OR we can easily calculate by a simple formula

Average PF = kW / kVA

Operating load kW = kVA Demand x Average PF

Average PF is considered as the initial PF and the final PF is assumed as a target PF. From this information required kVAR can be easily calculated with reference table.

Example: Calculate required kVAR to improve PF from 0.75 to 0.96 for 500 kW installation

kVAR = kW x multiplying factor from table = 500 x 0.590 = 295 kVAR

(II) Selection of Capacitor Duty

Selection of Capacitor Type is first decision to be made

Power Factor Correction Capacitor can be classified as follows.

Splendid Duty - Torrent and Master

Heavy Duty - Champ

SHD / UHDXL - Warrior and Champion (Double Di-electric)

Refer following table for the capacitor duty based on type of Industry / Application

Power Capacitor Selection Chart on the basis of Application				
% Non linear load	≤ 10%	Up to 15%	Up to 20%	Between 20% to 30%
Square	Master Splendid Duty	Champ HD Plus	Champion UHDXL	Champ HD Plus + Reactor
Cylindrical	Torrent Splendid Duty	Warrior SHD	Warrior SHD	Warrior SHD + Reactor
Application	These Capacitors are designed for normal loads where non linear factor is <10%. Do not use normal duty capacitors for the application of Heavy Duty and Super Heavy Duty capacitors.	Commercial building with CFL lamps, SMPS, UPS etc.	Heavy Chemical Industries	Steel plant
		Garment industries (Sewing Industry)	Pharmaceutical Industries	Cement Industries
		Bakeries	Automobile plants	Stone crushing
		Flour mills	Paper Industries	Textiles (Production of Yarn/cloth)
		Oil mills	Food processing plants	Forging Industries
		Glass industries	IT Industries	Power frequency induction furnaces
		Rice mills	Fabrication shops	Sugar plants
		Cold storage	Welding shops	Rolling mills
			Machine and tool shop	
Example for Calculating Non Linear Load Installed Transformer Rating = 1000 kVA Non Linear Loads = 100 kVA % Non Linear Load = (Non Linear Load / Transformer Rating) X 100 = (100/1000) X 100 = 10%				
Example of Non Linear Loads: UPS, Arc / Induction furnace, Rectifiers, AC / DC Drives, Computer, CFL, CNC Machines.				

Consulting, Optimizing & Delivering Performance



Magnetic Contactor

Capacitor Duty Contactor

Features:

- Range : 3 kVAr to 66 kVAr
- **De-latching Type design of Resistor Switching Block**
- Low VA Burden Wide operating band coils with Class H Insulation
- Common accessories with HGS Range
- **High Operating Frequency - 240 Operations/Hour**
- Handle high inrush current capability
- Utilization category AC-6b
- Finger proof IP20 terminals

Frame Size	kVAr Rating AC-6b	Inst. Aux. Contact		Item Code	Per Unit LP (₹)
	415 V / 440 V	NO	NC		
1	3 kVAr	1	0	IHPHE003110*	2155.00
	3 kVAr	0	1	IHPHE003101*	2155.00
	5 kVAr	1	0	IHPHE005110*	2261.00
	5 kVAr	0	1	IHPHE005101*	2261.00
	10 kVAr	1	0	IHPHE010110*	2738.00
	10 kVAr	0	1	IHPHE010101*	2738.00
	12.5 kVAr	1	0	IHPHE12X110*	3093.00
	12.5 kVAr	0	1	IHPHE12X101*	3093.00
	15 kVAr	1	0	IHPHE015110*	3787.00
	15 kVAr	0	1	IHPHE015101*	3787.00
2	20 kVAr	1	0	IHPHE020210*	4163.00
	20 kVAr	0	1	IHPHE020201*	4163.00
	25 kVAr	1	0	IHPHE025210*	4748.00
	25 kVAr	0	1	IHPHE025201*	4748.00
3	33.3 kVAr	1	0	IHPHE33X210*	6882.00
	33.3 kVAr	0	1	IHPHE33X201*	6882.00
3	33.3 kVAr	1	1	IHPHE33X311*	8300.00
	40 kVAr	2	2	IHPHE040322*	12757.00
4	50 kVAr	2	2	IHPHE050422*	13272.00
	66 kVAr	2	2	IHPHE066422*	15575.00

*To complete the Cat no. suffix the coil voltage from the coil voltage table

NEW 33.3 kVAr contactor in Frame-3 can be used where higher terminal capacity is required.

Other Ratings on request

Intelligent Power Factor Controller

IEC: 61010-1

IPFC (Single CT Sensing)

HSN Code: 9032

Range:

08 and 12 Steps
7 segment LED display
Size: 144 mm x 144 mm

Features:

- Auxiliary supply 90 Vac - 550 Vac
- Intelligent Power Factor Algorithm
- Dual Password Protection
- 4 digit display (0.XXX) PF
- Alarm Indication on Display
- Switching time programmable 1 s to 180 s

Range:

08 Steps
LCD display
Size: 96 mm x 96 mm

Features:

- Auxiliary supply 230 Vac
- Advance 32 bit Micro Controller Base Processing
- Intelligent Power Factor Algorithm
- Alarm Indication on Display
- Switching time programmable 1 s to 600 s

IPFC (Three CT Sensing)

Range:

08, 12 and 14 Steps
LCD display
Relay output
Size: 144 mm x 144 mm

Features:

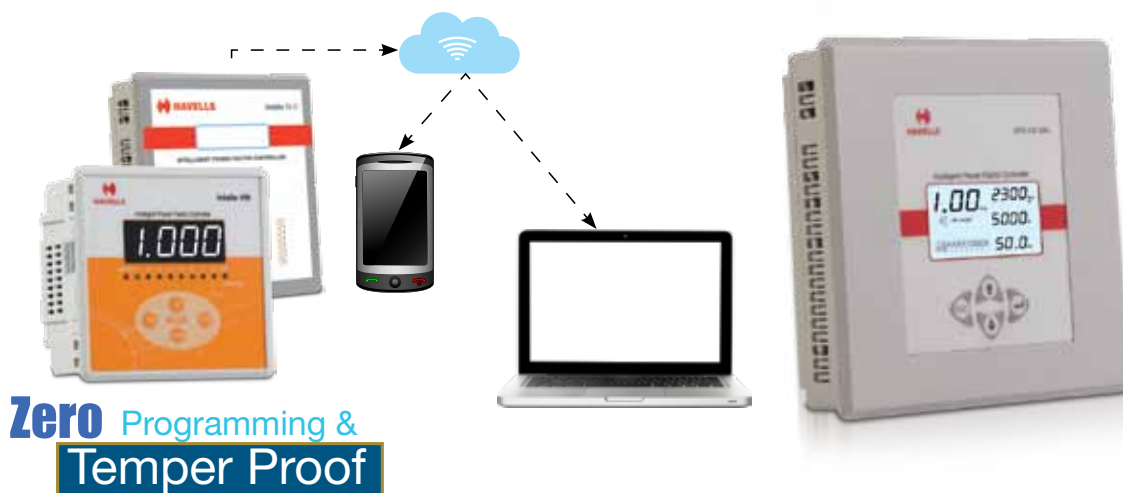
- LCD Type with dual colour backlight
- Auxiliary supply 90 Vac - 550 Vac
- Dual Password Protection
- Automatic CT Polarity detection
- NTC Temperature Sensor
- Communication Interface RS 485 & ModBus RTU (Only for 12 Relay option)
- Power Factor Measurement Range: 0.8 lag to 0.8 lead

Range:

08 and 12 Steps
LCD display
Relay / Thyristor output
Size: 144 mm x 144 mm

Features:

- Advance Micro-Controller based logic
- LCD Type with colour backlight
- Auxiliary supply 90 Vac - 550 Vac
- Data logging facility (optional)
- Automatic CT Polarity detection
- Communication Interface RS485 & ModBus RTU
GSM / WiFi
- Power Factor Measurement Range: 0.8 lag to 0.8 lead



Steps	Item Code	Description	Standard Pack No of unit/s	Master Pack No of unit/s	Per Unit LP (₹)
Intelligent Power Factor Controller (IPFC CS- 1001) 1 CT					
12	QHOSBS5N0012	IPFC CS 1001-112-90 V / 550 Vac 144 x 144	1 N	5 N	13585.00
12	QHOTBS5H0012	IPFC CS 1003-312-90 V / 550 Vac 144 x 144	1 N	5 N	23402.00
8	QHOSBS5*	IPFC CS 96 x 96	1 N	5 N	7084.00

Manufactured by Swiss Technology



Power Capacitors			
Parameters	Splendid Duty	Heavy Duty / HD Plus	UHDXL / Super Heavy Duty
Type	MPP	MPP	MPP
Over Current withstand capacity upto	1.6 X Ir	2.4 X Ir / 2.2 Ir	3.2 X Ir / 3.0 X Ir
Peak Inrush Current Withstand Capacity upto	250 times	350 times / 350 times	500 times / 500 times
Losses	0.2 W / kVAr	0.2 W / kVAr	0.2 W / kVAr
No of switching per year	35000	50000 / 52500	65000 / 80000
Max Ambient Temp (°C)	55 °C	60 °C	65 °C
Operating life in hours	120000	200000 / 215000	250000 / 300000
Notch Shield	Yes	Yes	Yes
Over pressure Disconnecter	Yes	Yes	Yes
Triple Safety	Yes	Yes	Yes



Torrent - Splendid Duty Cylindrical Capacitors

HSN Code: 8532
(IS: 13340 / IEC: 60831)

Rating kVAr	Item Code	Description	Ir A	C μF	Standard Pack No of unit/s	Master Pack No of unit/s	Per Unit LP (₹)
Rated Voltage 440 Vac, 3φ, 50 Hz, Delta Connection							
1 kVAr	QHUTCC5001X0	Torrent 440 V 50 Hz-1 kVAr 3 PH	1.31	3 X 5.5	1 N	16 N	221.00
2 kVAr	QHUTCC5002X0	Torrent 440 V 50 Hz-2 kVAr 3 PH	2.62	3 X 11.0	1 N	16 N	441.00
3 kVAr	QHUTCC5003X0	Torrent 440 V 50 Hz-3 kVAr 3 PH	3.94	3 X 16.4	1 N	16 N	666.00
4 kVAr	QHUTCC5004X0	Torrent 440 V 50 Hz-4 kVAr 3 PH	5.25	3 X 21.9	1 N	16 N	888.00
5 kVAr	QHUTCC5005X0	Torrent 440 V 50 Hz-5 kVAr 3 PH	6.56	3 X 27.4	1 N	16 N	1110.00
6 kVAr	QHUTCC5006X0	Torrent 440 V 50 Hz-6 kVAr 3 PH	7.87	3 X 32.9	1 N	8 N	1332.00
7.5 kVAr	QHUTCC5007X5	Torrent 440 V 50 Hz-7.5 kVAr 3P H	9.84	3 X 41.1	1 N	8 N	1665.00
10 kVAr	QHUTCC5010X0	Torrent 440 V 50 Hz-10 kVAr 3 PH	13.12	3 X 54.8	1 N	8 N	2220.00
12.5 kVAr	QHUTCC5012X5	Torrent 440 V 50 Hz-12.5 kVAr 3 PH	16.40	3 X 68.5	1 N	8 N	2775.00
15 kVAr	QHUTCC5015X0	Torrent 440 V 50 Hz-15 kVAr 3 PH	19.68	3 X 82.2	1 N	4 N	3330.00
20 kVAr	QHUTCC5020X0	Torrent 440 V 50 Hz-20 kVAr 3 PH	26.24	3 X 109.6	1 N	4 N	4439.00
25 kVAr	QHUTCC5025X0	Torrent 440 V 50 Hz-25 kVAr 3 PH	32.80	3 X 137.0	1 N	4 N	5550.00
30 kVAr	QHUTCC5030X0	Torrent 440 V 50 Hz-30 kVAr 3 PH	39.37	3 X 164.4	1 N	4 N	6660.00

Warrior - Super Heavy Duty Cylindrical Capacitors (NEW)

HSN Code: 8532
(IS: 13340 / IEC: 60831)

Rating kVAr	Item Code	Description	Ir A	C μF	Standard Pack No of unit/s	Master Pack No of unit/s	Per Unit LP (₹)
Rated Voltage 440 Vac, 3φ, 50 Hz, Delta Connection							
1 kVAr	QHBTCC5001X0	Warrior Super Heavy Duty 440 V 50 Hz 1 kVAr 3 PH	1.31	3 X 5.5	1 N	16 N	332.00
2 kVAr	QHBTCC5002X0	Warrior Super Heavy Duty 440 V 50 Hz 2 kVAr 3 PH	2.62	3 X 11.0	1 N	16 N	606.00
3 kVAr	QHBTCC5003X0	Warrior Super Heavy Duty 440 V 50 Hz 3 kVAr 3 PH	3.94	3 X 16.4	1 N	16 N	909.00
4 kVAr	QHBTCC5004X0	Warrior Super Heavy Duty 440 V 50 Hz 4 kVAr 3 PH	5.25	3 X 21.9	1 N	16 N	1212.00
5 kVAr	QHBTCC5005X0	Warrior Super Heavy Duty 440 V 50 Hz 5 kVAr 3 PH	6.56	3 X 27.4	1 N	16 N	1515.00
6 kVAr	QHBTCC5006X0	Warrior Super Heavy Duty 440 V 50 Hz 7.5 kVAr 3 PH	7.87	3 X 32.9	1 N	8 N	1818.00
7.5 kVAr	QHBTCC5007X5	Warrior Super Heavy Duty 440 V 50 Hz 6 kVAr 3 PH	9.84	3 X 41.1	1 N	8 N	2272.00
8 kVAr	QHBTCC5008X0	Warrior Super Heavy Duty 440 V 50 Hz 8 kVAr 3 PH	10.50	3 X 43.8	1 N	8 N	2423.00
10 kVAr	QHBTCC5010X0	Warrior Super Heavy Duty 440 V 50 Hz 10 kVAr 3 PH	13.12	3 X 54.8	1 N	4 N	3029.00
12.5 kVAr	QHBTCC5012X5	Warrior Super Heavy Duty 440 V 50 Hz 12.5 kVAr 3 PH	16.40	3 X 68.5	1 N	4 N	3786.00
15 kVAr	QHBTCC5015X0	Warrior Super Heavy Duty 440 V 50 Hz 15 kVAr 3 PH	19.68	3 X 82.2	1 N	4 N	4544.00
20 kVAr	QHBTCC5020X0	Warrior Super Heavy Duty 440 V 50 Hz 20 kVAr 3 PH	26.24	3 X 109.6	1 N	4 N	6059.00
25 kVAr	QHBTCC5025X0	Warrior Super Heavy Duty 440 V 50 Hz 25 kVAr 3 PH	32.80	3 X 137.0	1 N	4 N	7574.00
30 kVAr	QHBTCC5030X0	Warrior Super Heavy Duty 440 V 50 Hz 30 kVAr 3 PH	39.37	3 X 164.4	1 N	4 N	9089.00
Rated Voltage 480 Vac, 3φ, 50 Hz, Delta Connection							
5 kVAr	QHBTCD5005X0	Warrior Super Heavy Duty 480 V 50 Hz 5 kVAr 3 PH	6.01	3 x 23.0	1 N	16 N	1562.00
7.5 kVAr	QHBTCD5007X5	Warrior Super Heavy Duty 480 V 50 Hz 7.5 kVAr 3 PH	9.02	3 x 34.5	1 N	8 N	2345.00
10 kVAr	QHBTCD5010X0	Warrior Super Heavy Duty 480 V 50 Hz 10 kVAr 3 PH	12.03	3 x 46.0	1 N	4 N	3126.00
12.5 kVAr	QHBTCD5012X5	Warrior Super Heavy Duty 480 V 50 Hz 12.5 kVAr 3 PH	15.04	3 x 57.6	1 N	4 N	3907.00
15 kVAr	QHBTCD5015X0	Warrior Super Heavy Duty 480 V 50 Hz 15 kVAr 3 PH	18.04	3 x 69.1	1 N	4 N	4688.00
20 kVAr	QHBTCD5020X0	Warrior Super Heavy Duty 480 V 50 Hz 20 kVAr 3 PH	24.06	3 x 92.1	1 N	4 N	6251.00
25 kVAr	QHBTCD5025X0	Warrior Super Heavy Duty 480 V 50 Hz 25 kVAr 3 PH	30.07	3 x 115.1	1 N	4 N	7814.00
30 kVAr	QHBTCD5030X0	Warrior Super Heavy Duty 480 V 50 Hz 30 kVAr 3 PH	36.09	3 X 138.2	1 N	4 N	9377.00
Rated Voltage 525 Vac, 3φ, 50 Hz, Delta Connection							
5 kVAr	QHBTCF5005X0	Warrior Super Heavy Duty 525 V 50 Hz 5 kVAr 3 PH	5.50	3 X 19.2	1 N	16 N	1562.00
7.5 kVAr	QHBTCF5007X5	Warrior Super Heavy Duty 525 V 50 Hz 7.5 kVAr 3 PH	8.25	3 X 28.9	1 N	8 N	2345.00
10 kVAr	QHBTCF5010X0	Warrior Super Heavy Duty 525 V 50 Hz 10 kVAr 3 PH	13.75	3 X 48.1	1 N	4 N	3126.00
12.5 kVAr	QHBTCF5012X5	Warrior Super Heavy Duty 525 V 50 Hz 12.5 kVAr 3 PH	14.52	3 X 50.8	1 N	4 N	3907.00
15 kVAr	QHBTCF5015X0	Warrior Super Heavy Duty 525 V 50 Hz 15 kVAr 3 PH	18.37	3 X 64.3	1 N	4 N	4688.00
20 kVAr	QHBTCF5020X0	Warrior Super Heavy Duty 525 V 50 Hz 20 kVAr 3 PH	29.14	3 X 102.0	1 N	4 N	6251.00
25 kVAr	QHBTCF5025X0	Warrior Super Heavy Duty 525 V 50 Hz 25 kVAr 3 PH	27.50	3 x 96.25	1 N	4 N	7814.00
30 kVAr	QHBTCF5030X0	Warrior Super Heavy Duty 525 V 50 Hz 30 kVAr 3 PH	32.99	3 X 115.4	1 N	4 N	9378.00

Other Ratings on request

Mini / Master - Splendid Duty Square Capacitors



HSN Code: 8532
(IS: 13340 / IEC: 60831)

Rating kVAr	Item Code	Description	I A	C μ F	Standard Pack No of unit/s	Master Pack No of unit/s	Per Unit LP (₹)
Rated Voltage 440 Vac, 3 ϕ , 50 Hz, Delta Connection							
1 kVAr	QHNTMC5001X0	Mini Master 440 V 50 Hz-1 kVAr 3 PH	1.31	3 x 5.5	1 N	30 N	362.00
2 kVAr	QHNTMC5002X0	Mini Master 440 V 50 Hz-2 kVAr 3 PH	2.62	3 x 11.0	1 N	30 N	582.00
3 kVAr	QHNTMC5003X0	Mini Master 440 V 50 Hz-3 kVAr 3 PH	3.94	3 x 16.4	1 N	24 N	873.00
kVAr 4	QHNTMC5004X0	Mini Master 440 V 50 Hz-4 kVAr 3 PH	5.25	3 x 21.9	1 N	24 N	1162.00
kVAr 5	QHNTMC5005X0	Mini Master 440 V 50 Hz-5 kVAr 3 PH	6.56	3 x 27.4	1 N	24 N	1357.00
6 kVAr	QHNTMC5006X0	Master 440 V 50 Hz-6 kVAr 3 PH	7.87	3 x 32.9	1 N	1 N	1628.00
7.5 kVAr	QHNTMC5007X5	Master 440 V 50 Hz-7.5 kVAr 3 PH	9.84	3 x 41.1	1 N	1 N	2035.00
8 kVAr	QHNTMC5008X0	Master 440 V 50 Hz-8 kVAr 3 PH	10.5	3 x 43.8	1 N	1 N	2170.00
10 kVAr	QHNTMC5010X0	Master 440 V 50 Hz-10 kVAr 3 PH	13.12	3 x 54.8	1 N	1 N	2713.00
12.5 kVAr	QHNTMC5012X5	Master 440 V 50 Hz-12.5 kVAr 3 PH	16.40	3 x 68.5	1 N	1 N	3392.00
15 kVAr	QHNTMC5015X0	Master 440 V 50 Hz-15 kVAr 3 PH	19.68	3 x 82.2	1 N	1 N	4070.00
20 kVAr	QHNTMC5020X0	Master 440 V 50 Hz-20 kVAr 3 PH	26.24	6 x 54.8	1 N	1 N	5426.00
25 kVAr	QHNTMC5025X0	Master 440 V 50 Hz-25 kVAr 3 PH	32.80	6 x 68.5	1 N	1 N	6783.00
30 kVAr	QHNTMC5030X0	Master 440 V 50 Hz-30 kVAr 3 PH	39.37	6 x 82.2	1 N	1 N	8140.00
50 kVAr	QHNTMC5050X0	Master 440 V 50 Hz-50 kVAr 3 PH	65.61	12 x 68.5	1 N	1 N	13566.00

Other Ratings on request



Champ - Heavy Duty Plus Square Capacitors

HSN Code: 8532
(IS: 13340 / IEC: 60831)

Rating kVAr	Item Code	Description	Ir A	C μ F	Standard Pack No of unit/s	Master Pack No of unit/s	Per Unit LP (₹)
Rated Voltage 440 Vac, 3 ϕ , 50 Hz, Delta Connection							
1 kVAr	QHBTMC5001X0	Champ 440 V 50 Hz-1 kVAr 3 PH	1.31	3 x 5.5	1 N	30 N	426.00
2 kVAr	QHBTMC5002X0	Champ 440 V 50 Hz-2 kVAr 3 PH	2.62	3 x 11.0	1 N	30 N	775.00
3 kVAr	QHBTMC5003X0	Champ 440 V 50 Hz-3 kVAr 3 PH	3.94	3 x 16.4	1 N	24 N	1162.00
4 kVAr	QHBTMC5004X0	Champ 440 V 50 Hz-4 kVAr 3 PH	5.25	3 x 21.9	1 N	24 N	1551.00
5 kVAr	QHBTMC5005X0	Champ 440 V 50 Hz-5 kVAr 3 PH	6.56	3 x 27.4	1 N	1 N	1873.00
6 kVAr	QHBTMC5006X0	Champ 440 V 50 Hz-6 kVAr 3 PH	7.87	3 x 32.9	1 N	1 N	2248.00
7.5 kVAr	QHBTMC5007X5	Champ 440 V 50 Hz-7.5 kVAr 3 PH	9.84	3 x 41.1	1 N	1 N	2810.00
8 kVAr	QHBTMC5008X0	Champ 440 V 50 Hz-8 kVAr 3 PH	10.50	3 x 43.8	1 N	1 N	2998.00
10 kVAr	QHBTMC5010X0	Champ 440 V 50 Hz-10 kVAr 3 PH	13.12	3 x 54.8	1 N	1 N	3746.00
12.5 kVAr	QHBTMC5012X5	Champ 440 V 50 Hz-12.5 kVAr 3 PH	16.40	3 x 68.5	1 N	1 N	4684.00
15 kVAr	QHBTMC5015X0	Champ 440 V 50 Hz-15 kVAr 3 PH	19.68	3 x 82.2	1 N	1 N	5621.00
20 kVAr	QHBTMC5020X0	Champ 440 V 50 Hz-20 kVAr 3 PH	26.24	6 x 54.8	1 N	1 N	7494.00
25 kVAr	QHBTMC5025X0	Champ 440 V 50 Hz-25 kVAr 3PH	32.80	6 x 68.5	1 N	1 N	9367.00
30 kVAr	QHBTMC5030X0	Champ 440 V 50 Hz-30 kVAr 3 PH	39.37	6 x 82.2	1 N	1 N	11240.00
50 kVAr	QHBTMC5050X0	Champ 440 V 50 Hz-50 kVAr 3 PH	65.61	12 x 68.5	1 N	1 N	19703.00
75 kVAr	QHBTMC5075X0	Champ 440 V 50 Hz-75 kVAr 3 PH	98.40	18 x 68.5	1 N	1 N	29555.00
100 kVAr	QHBTMC5100X0	Champ 440 V 50 Hz-100 kVAr 3 PH	131.22	24 x 68.5	1 N	1 N	39407.00

Champ - Heavy Duty Plus Square Capacitors

HSN Code: 8532

(IS: 13340 / IEC: 60831)

Rating kVAr	Item Code	Description	I _r A	C μF	Standard Pack No of unit/s	Master Pack No of unit/s	Per Unit LP (₹)
Rated Voltage 480 Vac, 3φ, 50 Hz, Delta Connection							
5 kVAr	QHBTMD5005X0	Champ 480 V 50 Hz-5 kVAr 3 PH	6.01	3 x 23	1 N	1 N	2035.00
6 kVAr	QHBTMD5006X0	Champ 480 V 50 Hz-6 kVAr 3 PH	7.22	3 x 27.6	1 N	1 N	2442.00
7.5 kVAr	QHBTMD5007X5	Champ 480 V 50 Hz-7.5 kVAr 3 PH	9.02	3 x 34.5	1 N	1 N	3052.00
10 kVAr	QHBTMD5010X0	Champ 480 V 50 Hz-10 kVAr 3 PH	12.03	3 x 46.0	1 N	1 N	4070.00
12.5 kVAr	QHBTMD5012X5	Champ 480 V 50 Hz-12.5 kVAr 3 PH	15.04	3 x 57.6	1 N	1 N	5087.00
15 kVAr	QHBTMD5015X0	Champ 480 V 50 Hz-15 kVAr 3 PH	18.04	3 x 69.1	1 N	1 N	6105.00
20 kVAr	QHBTMD5020X0	Champ 480 V 50 Hz-20 kVAr 3 PH	24.06	6 X 46.0	1 N	1 N	8140.00
25 kVAr	QHBTMD5025X0	Champ 480 V 50 Hz-25 kVAr 3 PH	30.07	6 X 57.6	1 N	1 N	10175.00
30 kVAr	QHBTMD5030X0	Champ 480 V 50 Hz-30 kVAr 3 PH	36.09	6 X 69.1	1 N	1 N	12209.00
50 kVAr	QHBTMD5050X0	Champ 480 V 50 Hz-50 kVAr 3 PH	60.14	12 X 57.6	1 N	1 N	20349.00
60 kVAr	QHBTMD5060X0	Champ 480 V 50 Hz-60 kVAr 3 PH	72.18	12 X 69.1	1 N	1 N	24419.00
Rated Voltage 525 Vac, 3φ, 50 Hz, Delta Connection							
5 kVAr	QHBTMF5005X0	Champ 525 V 50 Hz-5 kVAr 3 PH	5.50	3 X 19.2	1 N	1 N	2035.00
6 kVAr	QHBTMF5006X0	Champ 525 V 50 Hz-6 kVAr 3 PH	6.60	3 X 23.1	1 N	1 N	2442.00
7.5 kVAr	QHBTMF5007X5	Champ 525 V 50 Hz-7.5 kVAr 3 PH	8.25	3 X 28.9	1 N	1 N	3052.00
10 kVAr	QHBTMF5010X0	Champ 525 V 50 Hz-10 kVAr 3 PH	11.00	3 X 38.5	1 N	1 N	4070.00
12.5 kVAr	QHBTMF5012X5	Champ 525 V 50 Hz-12.5 kVAr 3 PH	13.75	3 X 48.1	1 N	1 N	5087.00
15 kVAr	QHBTMF5015X0	Champ 525 V 50 Hz-15 kVAr 3 PH	16.50	3 X 57.7	1 N	1 N	6105.00
20 kVAr	QHBTMF5020X0	Champ 525 V 50 Hz-20 kVAr 3 PH	21.99	6 X 38.5	1 N	1 N	8140.00
25 kVAr	QHBTMF5025X0	Champ 525 V 50 Hz-25 kVAr 3 PH	27.49	6 X 48.1	1 N	1 N	10175.00
30 kVAr	QHBTMF5030X0	Champ 525 V 50 Hz-30 kVAr 3 PH	32.99	6 X 57.7	1 N	1 N	12209.00
50 kVAr	QHBTMF5050X0	Champ 525 V 50 Hz-50 kVAr 3 PH	54.99	12 X 48.1	1 N	1 N	20996.00
60 kVAr	QHBTMF5060X0	Champ 525 V 50 Hz-60 kVAr 3 PH	65.98	12 X 57.7	1 N	1 N	25195.00

Champion - UHDXL (Double Dielectric) Square Capacitors

Rating kVAr	Item Code	Description	I _r A	C μF	Standard Pack No of unit/s	Master Pack No of unit/s	Per Unit LP (₹)
Rated Voltage 440 Vac, 3φ, 50 Hz, Delta Connection							
1 kVAr	QHSTMC5001X0	Champion 440 V 50 Hz-1 kVAr 3 PH	1.31	3 X 5.5	1 N	24 N	879.00
2 kVAr	QHSTMC5002X0	Champion 440 V 50 Hz-2 kVAr 3 PH	2.62	3 X 11.0	1 N	1 N	1757.00
3 kVAr	QHSTMC5003X0	Champion 440 V 50 Hz-3 kVAr 3 PH	3.94	3 X 16.4	1 N	1 N	2636.00
4 kVAr	QHSTMC5004X0	Champion 440 V 50 Hz-4 kVAr 3 PH	5.25	3 X 21.9	1 N	1 N	3056.00
5 kVAr	QHSTMC5005X0	Champion 440 V 50 Hz-5 kVAr 3 PH	6.56	3 X 27.4	1 N	1 N	3084.00
6 kVAr	QHSTMC5006X0	Champion 440 V 50 Hz-6 kVAr 3 PH	7.87	3 X 32.9	1 N	1 N	3488.00
7.5 kVAr	QHSTMC5007X5	Champion 440 V 50 Hz-7.5 kVAr 3 PH	9.84	3 X 41.1	1 N	1 N	4361.00
8 kVAr	QHSTMC5008X0	Champion 440 V 50 Hz-8 kVAr 3 PH	10.5	3 X 43.8	1 N	1 N	4652.00
10 kVAr	QHSTMC5010X0	Champion 440 V 50 Hz-10 kVAr 3 PH	13.12	3 X 54.8	1 N	1 N	5814.00
12.5 kVAr	QHSTMC5012X5	Champion 440 V 50 Hz-12.5 kVAr 3 PH	16.40	3 X 68.5	1 N	1 N	7268.00
15 kVAr	QHSTMC5015X0	Champion 440 V 50 Hz-15 kVAr 3 PH	19.68	6 X 41.1	1 N	1 N	8721.00
20 kVAr	QHSTMC5020X0	Champion 440 V 50 Hz-20 kVAr 3 PH	26.24	6 X 54.8	1 N	1 N	11629.00
25 kVAr	QHSTMC5025X0	Champion 440 V 50 Hz-25 kVAr 3 PH	32.80	6 X 68.5	1 N	1 N	14535.00
30 kVAr	QHSTMC5030X0	Champion 440 V 50 Hz-30 kVAr 3 PH	39.37	12 X 41.1	1 N	1 N	18218.00
50 kVAr	QHSTMC5050X0	Champion 440 V 50 Hz-50 kVAr 3 PH	65.61	12 X 68.5	1 N	1 N	30363.00
75 kVAr	QHSTMC5075X0	Champion 440 V 50 Hz-75 kVAr 3 PH	98.41	18 X 68.5	1 N	1 N	45544.00
100 kVAr	QHSTMC5100X0	Champion 440 V 50 Hz-100 kVAr 3 PH	131.22	24 X 68.5	1 N	1 N	60726.00

Other Ratings on request

Champion - UHDXL (Double Dielectric) Square Capacitors

HSN Code: 8532

(IS: 13340 / IEC: 60831)

Rating kVAr	Item Code	Description	I _r A	C μF	Standard Pack No of unit/s	Master Pack No of unit/s	Per Unit LP (₹)
Rated Voltage 480 Vac, 3ø, 50 Hz, Delta Connection							
5 kVAr	QHSTMD5005X0	Champion 480 V 50 Hz-5 kVAr 3 PH	6.01	3 X 23.0	1 N	1 N	2907.00
6 kVAr	QHSTMD5006X0	Champion 480 V 50 Hz-6 kVAr 3 PH	7.22	3 X 27.6	1 N	1 N	3488.00
7.5 kVAr	QHSTMD5007X5	Champion 480 V 50 Hz-7.5 kVAr 3 PH	9.02	3 X 34.5	1 N	1 N	4361.00
10 kVAr	QHSTMD5010X0	Champion 480 V 50 Hz-10 kVAr 3 PH	12.03	3 X 46.0	1 N	1 N	5814.00
12.5 kVAr	QHSTMD5012X5	Champion 480 V 50 Hz-12.5 kVAr 3 PH	15.04	3 X 57.6	1 N	1 N	7268.00
15 kVAr	QHSTMD5015X0	Champion 480 V 50 Hz-15 kVAr 3 PH	18.04	6 X 34.5	1 N	1 N	8721.00
20 kVAr	QHSTMD5020X0	Champion 480 V 50 Hz-20 kVAr 3 PH	24.06	6 X 46.0	1 N	1 N	11629.00
25 kVAr	QHSTMD5025X0	Champion 480 V 50 Hz-25 kVAr 3 PH	30.07	6 X 57.6	1 N	1 N	14535.00
30 kVAr	QHSTMD5030X0	Champion 480 V 50 Hz-30 kVAr 3 PH	36.09	12 X 34.5	1 N	1 N	17830.00
50 kVAr	QHSTMD5050X0	Champion 480 V 50 Hz-50 kVAr 3 PH	60.14	12 X 57.6	1 N	1 N	29717.00
60 kVAr	QHSTMD5060X0	Champion 480 V 50 Hz-60 kVAr 3 PH	72.18	18 X 46.0	1 N	1 N	35660.00
Rated Voltage 525 Vac, 3ø, 50 Hz, Delta Connection							
5 kVAr	QHSTMF5005X0	Champion 525 V 50 Hz-5 kVAr 3 PH	5.50	3 X 19.2	1 N	1 N	3004.00
6 kVAr	QHSTMF5006X0	Champion 525 V 50 Hz-6 kVAr 3 PH	6.60	3 X 23.1	1 N	1 N	3605.00
7.5 kVAr	QHSTMF5007X5	Champion 525 V 50 Hz-7.5 kVAr 3 PH	8.25	3 X 28.9	1 N	1 N	4506.00
10 kVAr	QHSTMF5010X0	Champion 525 V 50 Hz-10 kVAr 3 PH	11.00	3 X 38.5	1 N	1 N	6008.00
12.5 kVAr	QHSTMF5012X5	Champion 525 V 50 Hz-12.5 kVAr 3 PH	13.75	3 X 48.1	1 N	1 N	7510.00
15 kVAr	QHSTMF5015X0	Champion 525 V 50 Hz-15 kVAr 3 PH	16.50	6 X 28.9	1 N	1 N	9012.00
20 kVAr	QHSTMF5020X0	Champion 525 V 50 Hz-20 kVAr 3 PH	21.99	6 X 38.5	1 N	1 N	12016.00
25 kVAr	QHSTMF5025X0	Champion 525 V 50 Hz-25 kVAr 3 PH	27.49	6 X 48.1	1 N	1 N	15020.00
30 kVAr	QHSTMF5030X0	Champion 525 V 50 Hz-30 kVAr 3 PH	33.00	12 X 28.9	1 N	1 N	18488.00
50 kVAr	QHSTMF5050X0	Champion 525 V 50 Hz-50 kVAr 3 PH	54.99	12 X 48.1	1 N	1 N	30814.00
60 kVAr	QHSTMF5060X0	Champion 525 V 50 Hz-60 kVAr 3 PH	66.00	18 X 38.5	1 N	1 N	36978.00



Hercules - Normal Duty Single Phase Cylindrical Capacitors

HSN Code: 8532

(IS: 13340)

Rating kVAr	Item Code	Description	I _r A	C μF	Standard Pack No of unit/s	Master Pack No of unit/s	Per Unit LP (₹)
Rated Voltage 250 Vac, 1ø, 50 Hz							
1 kVAr	QHNSCS5001X0	HERCULES 250 V 50 Hz-1 kVAr 1 PH	4.00 A	50.92	1 N	16 N	332.00
2 kVAr	QHNSCS5002X0	HERCULES 250 V 50 Hz-2 kVAr 1 PH	8.00 A	101.84	1 N	16 N	546.00
3 kVAr	QHNSCS5003X0	HERCULES 250 V 50 Hz-3 kVAr 1 PH	12.00 A	152.76	1 N	16 N	823.00
4 kVAr	QHNSCS5004X0	HERCULES 250 V 50 Hz-4 kVAr 1 PH	16.00 A	203.68	1 N	16 N	1099.00
5 kVAr	QHNSCS5005X0	HERCULES 250 V 50 Hz-5 kVAr 1 PH	16.00 A	254.61	1 N	16 N	1376.00
Rated Voltage 415 Vac, 1ø, 50 Hz							
1 kVAr	QHNSCB5001X0	HERCULES 415 V 50 Hz-1 kVAr 1 PH	2.41 A	18.48	1 N	16 N	332.00
2 kVAr	QHNSCB5002X0	HERCULES 415 V 50 Hz-2 kVAr 1 PH	4.62 A	36.96	1 N	16 N	546.00
3 kVAr	QHNSCB5003X0	HERCULES 415 V 50 Hz-3 kVAr 1 PH	7.23 A	55.44	1 N	16 N	823.00
4 kVAr	QHNSCB5004X0	HERCULES 415 V 50 Hz-4 kVAr 1 PH	9.64 A	73.92	1 N	16 N	1099.00
5 kVAr	QHNSCB5005X0	HERCULES 415 V 50 Hz-5 kVAr 1 PH	12.05 A	92.40	1 N	16 N	1376.00
7.5 kVAr	QHNSCB5007X5	HERCULES 415 V 50 Hz-7.5 kVAr 1 PH	18.08 A	138.60	1 N	8 N	2060.00
10 kVAr	QHNSCB5010X0	HERCULES 415 V 50 Hz-10 kVAr 1 PH	24.10 A	184.80	1 N	8 N	2745.00



Thyristor Switch

Cat. Code	Description	Per Unit LP (₹)
QHZCF00111	Thyristor Switch 15 kVAr	25465.00
QHZCF00121	Thyristor Switch 25 kVAr	29333.00
QHZCF00131	Thyristor Switch 50 kVAr	36000.00
QHZCF00141	Thyristor Switch 100 kVAr	52000.00

Note: For fast Switching Load

HD Harmonic Detuned Reactor

In a practical network, XL is contributed by the transformers and line inductances and XC is contributed by the PF capacitors. Hence for any industry with power factor correction capacitors installed, there is a possibility of resonance, due to one of the following reasons:

- Parallel resonance within a given electrical system, involving internally generated harmonics and resonance between local capacitors and the predominantly inductive supply (transformers)
- Series resonance between external harmonics (in the supply system and capacitors within electrical system)
- Interactive resonance between different harmonics filters within a given electrical network.

Addition of detuned reactors (in series to capacitors) forcefully shifts the resonant frequency to a safer level. For example, combination of capacitor and 7% detuned filter reactor has the resonance frequency of 189 Hz, which will avoid resonance with 5th harmonic and above.

Range:

- Effective Reactor output 1 kVAr to 100 kVAr
- Available in: Copper & Aluminium
- Detuning Factor: 5.67%, 7% and 14% corresponding to tuning Frequencies of 210 Hz, 189 Hz and 133 Hz for the base of 50 Hz
- Rated Voltage: 200 V, 440 V, 690 V, 800 V
- linearity : 185% to 225% of In

Features:

- High linearity 185% to 225%
- Insulation Class H
- High harmonic loading capability
- Temperature protection - NC contact (UL Approved)
- Long expected life time
- Low noise & very low losses
- IEC 61558



Selection Chart: Capacitor voltage and kVAr selection for 5.67%, 7% and 14% reactors

Effective kVAr output	With 5.67% detuned reactor		With 7% detuned reactor		With 14% detuned reactor	
	Reactor (440V)	Capacitor (480V)**	Reactor (440V)	Capacitor (480V)**	Reactor (440V)	Capacitor (525V)**
5kVAr	5 kVAr	6kVAr/480V	5 kVAr	6kVAr/480V	5 kVAr	6kVAr/525V
10kVAr	10 kVAr	12.5kVAr/480V	10 kVAr	12.5kVAr/480V	10 kVAr	12.5kVAr/525V
12.5kVAr	12.5 kVAr	15kVAr/480V	12.5 kVAr	15kVAr/480V	12.5 kVAr	15kVAr/525V
15kVAr	15 kVAr	20kVAr/480V	15 kVAr	20kVAr/480V	15 kVAr	20kVAr/525V
20kVAr	20 kVAr	25kVAr/480V	20 kVAr	25kVAr/480V	20 kVAr	25kVAr/525V
25kVAr	25 kVAr	30kVAr/480V	25 kVAr	30kVAr/480V	25 kVAr	30kVAr/525V
50kVAr	50 kVAr	60kVAr/480V	50 kVAr	60kVAr/480V	50 kVAr	60kVAr/525V

HD Harmonic Detuned Reactor - 7%

Rating kVAr	Cat. Code	Description	Per Unit LP (₹)
Rated Voltage 440 Vac, F = 50 Hz, P = 7% (Fr = 189 Hz) / Linearity: L > 0.95 Lr for current up to 1.85 . I1 (Aluminium)			
1 kVAr	QHLTLCV001X0	H. D.- REACTOR, 7% AL, 01 kVAr 440 Vac	3779.00
2 kVAr	QHLTLCV002X0	H. D.- REACTOR, 7% AL, 02 kVAr 440 Vac	4714.00
3 kVAr	QHLTLCV003X0	H. D.- REACTOR, 7% AL, 03 kVAr 440 Vac	5650.00
4 kVAr	QHLTLCV004X0	H. D.- REACTOR, 7% AL, 04 kVAr 440 Vac	6002.00
5 kVAr	QHLTLCV005X0	H. D.- REACTOR, 7% AL, 05 kVAr 440 Vac	6452.00
10 kVAr	QHLTLCV010X0	H. D.- REACTOR, 7% AL, 10 kVAr 440 Vac	9159.00
12.5 kVAr	QHLTLCV012X5	H. D.- REACTOR, 7% AL, 12.5 kVAr 440 Vac	10048.00
15 kVAr	QHLTLCV015X0	H. D.- REACTOR, 7% AL, 15 kVAr 440 Vac	10749.00
20 kVAr	QHLTLCV020X0	H. D.- REACTOR, 7% AL, 20 kVAr 440 Vac	12808.00
25 kVAr	QHLTLCV025X0	H. D.- REACTOR, 7% AL, 25 kVAr 440 Vac	13554.00
50 kVAr	QHLTLCV050X0	H. D.- REACTOR, 7% AL, 50 kVAr 440 Vac	23766.00
75 kVAr	QHLTLCV075X0	H. D.- REACTOR, 7% AL, 75 kVAr 440 Vac	31805.00
100 kVAr	QHLTLCV100X0	H. D.- REACTOR, 7% AL, 100 kVAr 440 Vac	40793.00
Rated Voltage 440 Vac, F = 50 Hz, P = 7% (Fr = 189 Hz) / Linearity: L > 0.95 Lr for current up to 1.85 . I1 (Copper)			
1 kVAr	QHCTLCV001X0	H. D.- REACTOR, 7% CU, 01 kVAr 440 Vac	4802.00
2 kVAr	QHCTLCV002X0	H. D.- REACTOR, 7% CU, 02 kVAr 440 Vac	5420.00
3 kVAr	QHCTLCV003X0	H. D.- REACTOR, 7% CU, 03 kVAr 440 Vac	6201.00
4 kVAr	QHCTLCV004X0	H. D.- REACTOR, 7% CU, 04 kVAr 440 Vac	7320.00
5 kVAr	QHCTLCV005X0	H. D.- REACTOR, 7% CU, 05 kVAr 440 Vac	8050.00
10 kVAr	QHCTLCV010X0	H. D.- REACTOR, 7% CU, 10 kVAr 440 Vac	12656.00
12.5 kVAr	QHCTLCV012X5	H. D.- REACTOR, 7% CU, 12.5 kVAr 440 Vac	14028.00
15 kVAr	QHCTLCV015X0	H. D.- REACTOR, 7% CU, 15 kVAr 440 Vac	15536.00
20 kVAr	QHCTLCV020X0	H. D.- REACTOR, 7% CU, 20 kVAr 440 Vac	18400.00
25 kVAr	QHCTLCV025X0	H. D.- REACTOR, 7% CU, 25 kVAr 440 Vac	19561.00
50 kVAr	QHCTLCV050X0	H. D.- REACTOR, 7% CU, 50 kVAr 440 Vac	32148.00
75 kVAr	QHCTLCV075X0	H. D.- REACTOR, 7% CU, 75 kVAr 440 Vac	46811.00
100 kVAr	QHCTLCV100X0	H. D.- REACTOR, 7% CU, 100 kVAr 440 Vac	66012.00

HD Harmonic Detuned Reactor - 14%

Rating kVAr	Cat. Code	Description	Per Unit LP (₹)
Rated Voltage 440 Vac, F = 50 Hz, P = 7% (Fr = 189 Hz) / Linearity: L > 0.95 Lr for current up to 1.85 . I1			
5 kVAr	QHCTLCV005X0S	H. D.- REACTOR, 14% , 05 kVAr	9404.00
10 kVAr	QHCTLCV010X0S	H. D.- REACTOR, 14% , 10 kVAr	14785.00
12.5 kVAr	QHCTLCV012X5S	H. D.- REACTOR, 14% , 12.5 kVAr	16388.00
15 kVAr	QHCTLCV015X0S	H. D.- REACTOR, 14% , 15 kVAr	18150.00
20 kVAr	QHCTLCV020X0S	H. D.- REACTOR, 14% , 20 kVAr	21495.00
25 kVAr	QHCTLCV025X0S	H. D.- REACTOR, 14% , 25 kVAr	22851.00
50 kVAr	QHCTLCV050X0S	H. D.- REACTOR, 14% , 50 kVAr	37556.00
75 kVAr	QHCTLCV075X0S	H. D.- REACTOR, 14% , 75 kVAr	54686.00
100 kVAr	QHCTLCV100X0S	H. D.- REACTOR, 14% , 100 kVAr	77116.00

Consulting, Optimizing & Delivering Performance

Power Solutions - Havells



Active Harmonic Filter and Load Balancer (NEW)

HSN Code: 8543



Rating in Ampere	Cat No.	Description	Per Unit LP (₹)
10 A		10 A / 415 AHF Panel	80000.00
20 A		20 A / 415 AHF Panel	160000.00
30 A		30 A / 415 AHF Panel	240000.00
50 A		50 A / 415 AHF Panel	400000.00
75 A		75 A / 415 AHF Panel	600000.00
100 A		100 A / 415 AHF Panel	800000.00
125 A		125 A / 415 AHF Panel	1000000.00
150 A		150 A / 415 AHF Panel	1200000.00
200 A		200 A / 415 AHF Panel	1600000.00
250 A		250 A / 415 AHF Panel	2000000.00
300 A		300 A / 415 AHF Panel	2400000.00
400 A		400 A / 415 AHF Panel	3200000.00
500 A		500 A / 415 AHF Panel	4000000.00

IEEE 519-2014 Guidelines for Harmonics Limits

Table 2 - Current distortion limits for systems rated 120 V through 69 kV

Maximum harmonic current distortion in percent of I_L						
Individual harmonic order (odd harmonics) ^{a, b}						
I_{sc}/I_L	$3 \leq h < 11$	$11 \leq h < 17$	$17 \leq h < 23$	$23 \leq h < 35$	$35 \leq h \leq 50$	TDD
<20	4.0	2.0	1.5	0.6	0.3	5.0
20<50	7.0	3.5	2.5	1.0	0.5	8.0
50<100	10.0	4.5	4.0	1.5	0.7	12.0
100<1000	12.0	5.5	5.0	2.0	1.0	15.0
>1000	15.0	7.0	6.0	2.5	1.4	20.0

AHF Technical

System Connection	3 P / 4 W or 4 P / 4 W
Input Voltage	415 V (+/-10%) and 50 Hz (+/-)5% other rating on request
Phase compensation current range	15 A - 1000 A (other ratings on request)
Technology	Two Level Topology / Three Level Topology
Harmonic filtration range	2nd to 51st order
Individual harmonic selection	Available
Power factor compensation	100% (Lead / Lag)
Load Balancing	Negative Sequence Compensation (Zero Sequence compensation in 4 P / 4 W range)
Neutral Current Compensation	Available
Reaction time	<0.3 ms
Interface (Communication)	GSM, MODBUS RTU, USB, Ethernet, Profibus Compatible
IP Protection Class	IP-41 and higher on request
System Cooling	Forced air colling
Overheating Protection	Yes
Relative Humidity	96% (Non condensing)
Ambient Temperature	No deration upto 500C



Hybrid PQ Manager

Range	Per Unit LP (₹)
10 kVAr to 3000 kVAr (Hybrid PQ Manager)	Price on request



HAVELLS

Agricultural Duty Capacitor



- Range: 1 kVAR to 15 kVAR
- Voltage: 415 V
- MPP SH, Resin filled
- Low watt loss

Note: For Agricultural use only.

Agri Boost - Normal Duty Cylindrical Capacitors for Agriculture Applications



HSN Code: 8532
(IS: 13340)

Rating kVAr	Item Code	Description	I _r A	C μF	Standard Pack No of unit/s	Master Pack No of unit/s	Per Unit LP (₹)
Rated Voltage 415 Vac, 3ø, 50 Hz, Delta Connection							
1 kVAr	QHATCB5001X0	AGRI BOOST ND 415 V 50 Hz-1 kVAr 3 PH	1.39 A	3 x 6.2	1 N	16 N	267.00
2 kVAr	QHATCB5002X0	AGRI BOOST ND 415 V 50 Hz-2 kVAr 3 PH	2.78 A	3 x 12.3	1 N	16 N	312.00
3 kVAr	QHATCB5003X0	AGRI BOOST ND 415 V 50 Hz-3 kVAr 3 PH	4.17 A	3 x 18.5	1 N	16 N	468.00
4 kVAr	QHATCB5004X0	AGRI BOOST ND 415 V 50 Hz-4 kVAr 3 PH	5.56 A	3 x 24.6	1 N	16 N	624.00
5 kVAr	QHATCB5005X0	AGRI BOOST ND 415 V 50 Hz-5 kVAr 3 PH	6.96 A	3 x 30.8	1 N	16 N	780.00
6 kVAr	QHATCB5006X0	AGRI BOOST ND 415 V 50 Hz-6 kVAr 3 PH	8.35 A	3 x 37.0	1 N	16 N	936.00
7.5 kVAr	QHATCB5007X5	AGRI BOOST ND 415 V 50 Hz-7.5 kVAr 3 PH	10.43 A	3 x 46.2	1 N	16 N	1170.00
8 kVAr	QHATCB5008X0	AGRI BOOST ND 415 V 50 Hz-8 kVAr 3 PH	11.13 A	3 x 49.3	1 N	16 N	1247.00
10 kVAr	QHATCB5010X0	AGRI BOOST ND 415 V 50 Hz-10 kVAr 3 PH	13.91 A	3 x 61.6	1 N	16 N	1559.00
12.5 kVAr	QHATCB5012X5	AGRI BOOST ND 415 V 50 Hz-12.5 kVAr 3 PH	17.39 A	3 x 77.0	1 N	8 N	1950.00
15 kVAr	QHATCB5015X0	AGRI BOOST ND 415 V 50 Hz-15 kVAr 3 PH	20.87 A	3 x 92.4	1 N	8 N	2339.00

Other Ratings on request