



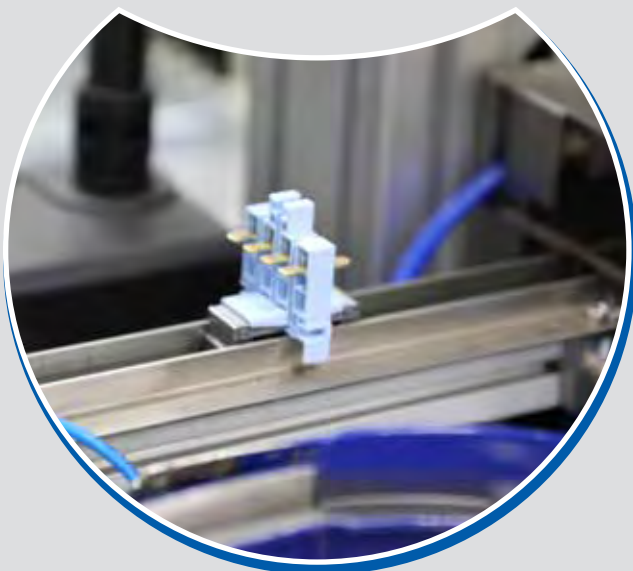
HAVELLS



LV Switchgear, Controlgear & Power Quality Products

Pricelist w.e.f. 11th March, 2024

Fully Automated Plant



Industry 4.0

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



Power Quality Solutions



**Contactor / Thyristor
Switching APFC Panel**



**IOT Based / GSM
IPFC RELAY**



**AHF System
Active Harmonic Filter / SVG**



**Harmonic Duty (MPP)
Power Capacitor**



**Capacitor Duty
Contactor**



**High Linearity
Detuned Reactor**



**High PIV
Thyristor Switch**

Power Quality Solutions

MPP Power Capacitor



Power Capacitors

Parameters	Splendid Duty	Heavy Duty Plus / Heavy Duty	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
Total Losses	≤ 0.45 W / kVAr	≤ 0.45 W / kVAr	≤ 0.45 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

Selection of Capacitor

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% THD I. Do not use normal duty capacitors for the application of Heavy Duty and Super Heavy Duty capacitors.	<15% THD I. Commercial building with CFL lamps, SMPS, UPS etc.	<20% THD I. Heavy Chemical Industries	<25% THD I. 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.				

Current Power Factor Cos φ	Achievable (Target) Cos φ					Target Cos φ = 0.96	Q				
	0.90	0.91	0.92	0.94	0.95	0.96		0.97	0.98	0.99	1
0.51	1.20	1.23	1.26	1.32	1.36	1.40		1.44	1.48	1.54	1.69
0.52	1.16	1.19	1.22	1.28	1.31	1.35		1.39	1.44	1.50	1.64
0.53	1.11	1.14	1.17	1.24	1.27	1.30		1.35	1.40	1.46	1.60
0.54	1.08	1.10	1.13	1.20	1.23	1.27		1.31	1.36	1.42	1.56
0.55	1.04	1.06	1.09	1.16	1.19	1.23		1.27	1.32	1.38	1.52
0.56	1.00	1.02	1.05	1.12	1.15	1.19		1.23	1.28	1.34	1.48
0.57	0.96	0.99	1.02	1.08	1.11	1.15		1.19	1.24	1.30	1.44
0.58	0.92	0.95	0.98	1.04	1.08	1.11		1.15	1.20	1.26	1.41
0.59	0.89	0.91	0.94	1.01	1.04	1.08		1.12	1.17	1.23	1.37
0.60	0.85	0.88	0.91	0.97	1.00	1.04		1.08	1.13	1.19	1.33
0.61	0.82	0.84	0.87	0.94	0.97	1.01		1.05	1.10	1.16	1.30
0.62	0.78	0.81	0.84	0.90	0.94	0.97		1.02	1.06	1.12	1.27
0.63	0.75	0.78	0.81	0.87	0.90	0.94		0.98	1.03	1.09	1.23
0.64	0.72	0.75	0.78	0.84	0.87	0.91		0.95	1.00	1.07	1.20
0.65	0.69	0.71	0.74	0.81	0.84	0.88		0.92	0.97	1.03	1.17
0.66	0.65	0.68	0.71	0.77	0.81	0.85		0.89	0.94	1.00	1.14
0.67	0.62	0.65	0.68	0.74	0.78	0.82		0.86	0.91	0.97	1.11
0.68	0.59	0.62	0.65	0.71	0.75	0.79		0.83	0.88	0.94	1.08
0.69	0.57	0.59	0.62	0.68	0.72	0.76		0.80	0.85	0.91	1.05
0.70	0.54	0.56	0.59	0.65	0.69	0.73		0.77	0.82	0.88	1.02
0.71	0.51	0.54	0.57	0.63	0.66	0.70		0.74	0.79	0.85	0.99
0.72	0.48	0.51	0.54	0.60	0.64	0.67		0.71	0.76	0.82	0.96
0.73	0.45	0.48	0.51	0.57	0.61	0.64		0.69	0.73	0.79	0.94
0.74	0.43	0.45	0.48	0.54	0.58	0.62		0.66	0.71	0.77	0.91
0.75	0.40	0.43	0.46	0.51	0.55	0.59		0.63	0.68	0.74	0.88
0.76	0.37	0.40	0.43	0.49	0.53	0.56		0.60	0.65	0.71	0.86
0.77	0.35	0.37	0.40	0.46	0.50	0.44		0.58	0.63	0.69	0.83
0.78	0.32	0.35	0.38	0.43	0.47	0.51		0.55	0.60	0.66	0.80
0.79	0.29	0.32	0.35	0.41	0.45	0.48		0.53	0.57	0.63	0.78
0.80	0.27	0.29	0.32	0.38	0.42	0.46		0.50	0.55	0.61	0.75
0.81	0.24	0.27	0.30	0.36	0.40	0.43		0.47	0.52	0.58	0.72
0.82	0.21	0.24	0.27	0.33	0.37	0.41		0.45	0.50	0.56	0.70
0.83	0.19	0.22	0.25	0.30	0.34	0.38		0.42	0.47	0.53	0.67
0.84	0.16	0.19	0.22	0.28	0.32	0.35		0.40	0.44	0.50	0.65
0.85	0.14	0.16	0.19	0.25	0.29	0.33		0.37	0.42	0.48	0.62
0.86	0.11	0.14	0.17	0.23	0.26	0.30		0.34	0.39	0.45	0.59
0.87	0.08	0.11	0.14	0.20	0.24	0.28		0.32	0.36	0.43	0.57
0.88	0.06	0.08	0.11	0.17	0.21	0.25		0.29	0.34	0.40	0.54
0.89	0.03	0.06	0.09	0.15	0.18	0.22		0.26	0.31	0.37	0.51
0.90	0.00	0.03	0.08	0.12	0.16	0.19		0.23	0.28	0.34	0.48
0.91		0.00	0.03	0.09	0.13	0.16		0.21	0.25	0.31	0.46
0.92			0.00	0.06	0.10	0.13		0.18	0.22	0.28	0.43
0.93				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

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

Hercules - Normal Duty Single Phase Cylindrical Capacitors

- Design in Cylindrical Aluminium can.
- Output range 1 kVAr to 5 kVAr.
- Compact volume, low weight
- Easy connection and installation



HSN Code: 8532

Rating kVAr	Item Code	Description	Standard Pack No of unit/s	Master Pack No of unit/s	Per Unit LP (₹)
Rated Voltage 250 Vac, 1ϕ, 50 Hz					
1 kVAr	QHNSCS5001X0	HERCULES 250 V 50 Hz-1 kVAr 1 PH	1 N	16 N	487.00
2 kVAr	QHNSCS5002X0	HERCULES 250 V 50 Hz-2 kVAr 1 PH	1 N	16 N	675.00
3 kVAr	QHNSCS5003X0	HERCULES 250 V 50 Hz-3 kVAr 1 PH	1 N	16 N	1024.00
4 kVAr	QHNSCS5004X0	HERCULES 250 V 50 Hz-4 kVAr 1 PH	1 N	16 N	1345.00
5 kVAr	QHNSCS5005X0	HERCULES 250 V 50 Hz-5 kVAr 1 PH	1 N	8 N	1664.00

Torrent - Splendid Duty Cylindrical Capacitors

- Design in Cylindrical Aluminium can.
- Output range 1 kVAr to 30 kVAr.
- Long life expectancy upto 120000 Hours
- Compact volume, low weight
- Easy connection and installation



HSN Code: 8532

Rating kVAr	Item Code	Description	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 N	16 N	375.00
2 kVAr	QHUTCC5002X0	Torrent 440 V 50 Hz-2 kVAr 3 PH	1 N	16 N	575.00
3 kVAr	QHUTCC5003X0	Torrent 440 V 50 Hz-3 kVAr 3 PH	1 N	16 N	900.00
4 kVAr	QHUTCC5004X0	Torrent 440 V 50 Hz-4 kVAr 3 PH	1 N	16 N	1000.00
5 kVAr	QHUTCC5005X0	Torrent 440 V 50 Hz-5 kVAr 3 PH	1 N	16 N	1144.00
6 kVAr	QHUTCC5006X0	Torrent 440 V 50 Hz-6 kVAr 3 PH	1 N	16 N	1372.00
7.5 kVAr	QHUTCC5007X5	Torrent 440 V 50 Hz-7.5 kVAr 3P H	1 N	16 N	1715.00
10 kVAr	QHUTCC5010X0	Torrent 440 V 50 Hz-10 kVAr 3 PH	1 N	8 N	2287.00
12.5 kVAr	QHUTCC5012X5	Torrent 440 V 50 Hz-12.5 kVAr 3 PH	1 N	8 N	2859.00
15 kVAr	QHUTCC5015X0	Torrent 440 V 50 Hz-15 kVAr 3 PH	1 N	4 N	3430.00
20 kVAr	QHUTCC5020X0	Torrent 440 V 50 Hz-20 kVAr 3 PH	1 N	4 N	4573.00
25 kVAr	QHUTCC5025X0	Torrent 440 V 50 Hz-25 kVAr 3 PH	1 N	4 N	5717.00
30 kVAr	QHUTCC5030X0	Torrent 440 V 50 Hz-30 kVAr 3 PH	1 N	4 N	6860.00

Warrior - Super Heavy Duty Cylindrical Capacitors

- High inrush current withstand capability.
- Output range 1 kVAr to 30 kVAr.
- Soft sticky resin to withstand high temperature and current stress.
- Penta safety protection.
- Explosion proof, low losses & high over current withstand capabilities.



HSN Code: 8532

Rating kVAr	Item Code	Description	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	QHBTC5001X0	Warrior Super Heavy Duty 440 V 50 Hz 1 kVAr 3 PH	1 N	16 N	495.00
2 kVAr	QHBTC5002X0	Warrior Super Heavy Duty 440 V 50 Hz 2 kVAr 3 PH	1 N	16 N	750.00
3 kVAr	QHBTC5003X0	Warrior Super Heavy Duty 440 V 50 Hz 3 kVAr 3 PH	1 N	16 N	936.00
4 kVAr	QHBTC5004X0	Warrior Super Heavy Duty 440 V 50 Hz 4 kVAr 3 PH	1 N	16 N	1248.00
5 kVAr	QHBTC5005X0	Warrior Super Heavy Duty 440 V 50 Hz 5 kVAr 3 PH	1 N	16 N	1622.00
6 kVAr	QHBTC5006X0	Warrior Super Heavy Duty 440 V 50 Hz 7.5 kVAr 3 PH	1 N	8 N	1946.00
7.5 kVAr	QHBTC5007X5	Warrior Super Heavy Duty 440 V 50 Hz 6 kVAr 3 PH	1 N	8 N	2432.00
8 kVAr	QHBTC5008X0	Warrior Super Heavy Duty 440 V 50 Hz 8 kVAr 3 PH	1 N	8 N	2593.00
10 kVAr	QHBTC5010X0	Warrior Super Heavy Duty 440 V 50 Hz 10 kVAr 3 PH	1 N	8 N	3242.00
12.5 kVAr	QHBTC5012X5	Warrior Super Heavy Duty 440 V 50 Hz 12.5 kVAr 3 PH	1 N	4 N	4052.00
15 kVAr	QHBTC5015X0	Warrior Super Heavy Duty 440 V 50 Hz 15 kVAr 3 PH	1 N	4 N	4863.00
20 kVAr	QHBTC5020X0	Warrior Super Heavy Duty 440 V 50 Hz 20 kVAr 3 PH	1 N	4 N	6484.00
25 kVAr	QHBTC5025X0	Warrior Super Heavy Duty 440 V 50 Hz 25 kVAr 3 PH	1 N	4 N	8105.00
30 kVAr	QHBTC5030X0	Warrior Super Heavy Duty 440 V 50 Hz 30 kVAr 3 PH	1 N	4 N	9726.00
Rated Voltage 480 Vac, 3ϕ, 50 Hz, Delta Connection					
5 kVAr	QHBTC5005X0	Warrior Super Heavy Duty 480 V 50 Hz 5 kVAr 3 PH	1 N	16 N	1672.00
7.5 kVAr	QHBTC5007X5	Warrior Super Heavy Duty 480 V 50 Hz 7.5 kVAr 3 PH	1 N	8 N	2510.00
10 kVAr	QHBTC5010X0	Warrior Super Heavy Duty 480 V 50 Hz 10 kVAr 3 PH	1 N	8 N	3345.00
12.5 kVAr	QHBTC5012X5	Warrior Super Heavy Duty 480 V 50 Hz 12.5 kVAr 3 PH	1 N	4 N	4181.00
15 kVAr	QHBTC5015X0	Warrior Super Heavy Duty 480 V 50 Hz 15 kVAr 3 PH	1 N	4 N	5017.00
20 kVAr	QHBTC5020X0	Warrior Super Heavy Duty 480 V 50 Hz 20 kVAr 3 PH	1 N	4 N	6689.00
25 kVAr	QHBTC5025X0	Warrior Super Heavy Duty 480 V 50 Hz 25 kVAr 3 PH	1 N	4 N	8361.00
30 kVAr	QHBTC5030X0	Warrior Super Heavy Duty 480 V 50 Hz 30 kVAr 3 PH	1 N	4 N	10034.00
Rated Voltage 525 Vac, 3ϕ, 50 Hz, Delta Connection					
5 kVAr	QHBTC5005X0	Warrior Super Heavy Duty 525 V 50 Hz 5 kVAr 3 PH	1 N	16 N	1672.00
7.5 kVAr	QHBTC5007X5	Warrior Super Heavy Duty 525 V 50 Hz 7.5 kVAr 3 PH	1 N	8 N	2510.00
10 kVAr	QHBTC5010X0	Warrior Super Heavy Duty 525 V 50 Hz 10 kVAr 3 PH	1 N	8 N	3345.00
12.5 kVAr	QHBTC5012X5	Warrior Super Heavy Duty 525 V 50 Hz 12.5 kVAr 3 PH	1 N	4 N	4181.00
15 kVAr	QHBTC5015X0	Warrior Super Heavy Duty 525 V 50 Hz 15 kVAr 3 PH	1 N	4 N	5017.00
20 kVAr	QHBTC5020X0	Warrior Super Heavy Duty 525 V 50 Hz 20 kVAr 3 PH	1 N	4 N	6689.00
25 kVAr	QHBTC5025X0	Warrior Super Heavy Duty 525 V 50 Hz 25 kVAr 3 PH	1 N	4 N	8361.00
30 kVAr	QHBTC5030X0	Warrior Super Heavy Duty 525 V 50 Hz 30 kVAr 3 PH	1 N	4 N	10034.00

(IS: 13340 / IEC: 60831)

Mini / Master - Splendid Duty Square Capacitors

- High inrush current withstand capability.
- Output range 1 kVAr to 50 kVAr.
- Soft sticky resin to withstand high temperature and current stress.
- Penta safety protection.
- Explosion proof, low losses & high over current withstand capabilities.



HSN Code: 8532

Rating kVAr	Item Code	Description	Standard Pack No of unit/s	Master Pack No of unit/s	Per Unit LP (₹)
1 kVAr	QHNTMC5001X0	Mini Master 440 V 50 Hz-1 kVAr 3 PH	1 N	30 N	450.00
2 kVAr	QHNTMC5002X0	Mini Master 440 V 50 Hz-2 kVAr 3 PH	1 N	30 N	612.00
3 kVAr	QHNTMC5003X0	Mini Master 440 V 50 Hz-3 kVAr 3 PH	1 N	24 N	917.00
4 kVAr	QHNTMC5004X0	Mini Master 440 V 50 Hz-4 kVAr 3 PH	1 N	24 N	1221.00
5 kVAr	QHNTMC5005X0	Mini Master 440 V 50 Hz-5 kVAr 3 PH	1 N	24 N	1425.00
6 kVAr	QHNTMC5006X0	Master 440 V 50 Hz-6 kVAr 3 PH	1 N	1 N	1710.00
7.5 kVAr	QHNTMC5007X5	Master 440 V 50 Hz-7.5 kVAr 3 PH	1 N	1 N	2137.00
8 kVAr	QHNTMC5008X0	Master 440 V 50 Hz-8 kVAr 3 PH	1 N	1 N	2279.00
10 kVAr	QHNTMC5010X0	Master 440 V 50 Hz-10 kVAr 3 PH	1 N	1 N	2849.00
12.5 kVAr	QHNTMC5012X5	Master 440 V 50 Hz-12.5 kVAr 3 PH	1 N	1 N	3562.00
15 kVAr	QHNTMC5015X0	Master 440 V 50 Hz-15 kVAr 3 PH	1 N	1 N	4274.00
20 kVAr	QHNTMC5020X0	Master 440 V 50 Hz-20 kVAr 3 PH	1 N	1 N	5698.00
25 kVAr	QHNTMC5025X0	Master 440 V 50 Hz-25 kVAr 3 PH	1 N	1 N	7123.00
30 kVAr	QHNTMC5030X0	Master 440 V 50 Hz-30 kVAr 3 PH	1 N	1 N	8547.00
50 kVAr	QHNTMC5050X0	Master 440 V 50 Hz-50 kVAr 3 PH	1 N	1 N	14245.00



Champ - Heavy Duty Plus Square Capacitors

- High inrush current withstand capability.
- Output range 1 kVAr to 100 kVAr.
- Soft sticky resin to withstand high temperature and current stress.
- Penta safety protection.
- Explosion proof, low losses & high over current withstand capabilities.



HSN Code: 8532

Rating kVAr	Item Code	Description	Standard Pack No of unit/s	Master Pack No of unit/s	Per Unit LP (₹)
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Rated Voltage 440 Vac, 3 ϕ , 50 Hz, Delta Connection

1 kVAr	QHBTMC5001X0	Champ 440 V 50 Hz-1 kVAr 3 PH	1 N	30 N	500.00
2 kVAr	QHBTMC5002X0	Champ 440 V 50 Hz-2 kVAr 3 PH	1 N	30 N	822.00
3 kVAr	QHBTMC5003X0	Champ 440 V 50 Hz-3 kVAr 3 PH	1 N	24 N	1232.00
4 kVAr	QHBTMC5004X0	Champ 440 V 50 Hz-4 kVAr 3 PH	1 N	24 N	1645.00
5 kVAr	QHBTMC5005X0	Champ 440 V 50 Hz-5 kVAr 3 PH	1 N	1 N	1986.00
6 kVAr	QHBTMC5006X0	Champ 440 V 50 Hz-6 kVAr 3 PH	1 N	1 N	2383.00
7.5 kVAr	QHBTMC5007X5	Champ 440 V 50 Hz-7.5 kVAr 3 PH	1 N	1 N	2979.00
8 kVAr	QHBTMC5008X0	Champ 440 V 50 Hz-8 kVAr 3 PH	1 N	1 N	3178.00
10 kVAr	QHBTMC5010X0	Champ 440 V 50 Hz-10 kVAr 3 PH	1 N	1 N	3971.00
12.5 kVAr	QHBTMC5012X5	Champ 440 V 50 Hz-12.5 kVAr 3 PH	1 N	1 N	4966.00
15 kVAr	QHBTMC5015X0	Champ 440 V 50 Hz-15 kVAr 3 PH	1 N	1 N	5959.00
20 kVAr	QHBTMC5020X0	Champ 440 V 50 Hz-20 kVAr 3 PH	1 N	1 N	7944.00
25 kVAr	QHBTMC5025X0	Champ 440 V 50 Hz-25 kVAr 3PH	1 N	1 N	9930.00
30 kVAr	QHBTMC5030X0	Champ 440 V 50 Hz-30 kVAr 3 PH	1 N	1 N	11915.00
50 kVAr	QHBTMC5050X0	Champ 440 V 50 Hz-50 kVAr 3 PH	1 N	1 N	20886.00
75 kVAr	QHBTMC5075X0	Champ 440 V 50 Hz-75 kVAr 3 PH	1 N	1 N	31329.00
100 kVAr	QHBTMC5100X0	Champ 440 V 50 Hz-100 kVAr 3 PH	1 N	1 N	41772.00

Rated Voltage 480 Vac, 3 ϕ , 50 Hz, Delta Connection

5 kVAr	QHBTMD5005X0	Champ 480 V 50 Hz-5 kVAr 3 PH	1 N	1 N	2137.00
6 kVAr	QHBTMD5006X0	Champ 480 V 50 Hz-6 kVAr 3 PH	1 N	1 N	2565.00
7.5 kVAr	QHBTMD5007X5	Champ 480 V 50 Hz-7.5 kVAr 3 PH	1 N	1 N	3205.00
10 kVAr	QHBTMD5010X0	Champ 480 V 50 Hz-10 kVAr 3 PH	1 N	1 N	4274.00
12.5 kVAr	QHBTMD5012X5	Champ 480 V 50 Hz-12.5 kVAr 3 PH	1 N	1 N	5342.00
15 kVAr	QHBTMD5015X0	Champ 480 V 50 Hz-15 kVAr 3 PH	1 N	1 N	6411.00
20 kVAr	QHBTMD5020X0	Champ 480 V 50 Hz-20 kVAr 3 PH	1 N	1 N	8547.00
25 kVAr	QHBTMD5025X0	Champ 480 V 50 Hz-25 kVAr 3 PH	1 N	1 N	10684.00
30 kVAr	QHBTMD5030X0	Champ 480 V 50 Hz-30 kVAr 3 PH	1 N	1 N	12820.00
50 kVAr	QHBTMD5050X0	Champ 480 V 50 Hz-50 kVAr 3 PH	1 N	1 N	21367.00
60 kVAr	QHBTMD5060X0	Champ 480 V 50 Hz-60 kVAr 3 PH	1 N	1 N	25640.00

Rated Voltage 525 Vac, 3 ϕ , 50 Hz, Delta Connection

5 kVAr	QHBTMF5005X0	Champ 525 V 50 Hz-5 kVAr 3 PH	1 N	1 N	2137.00
6 kVAr	QHBTMF5006X0	Champ 525 V 50 Hz-6 kVAr 3 PH	1 N	1 N	2565.00
7.5 kVAr	QHBTMF5007X5	Champ 525 V 50 Hz-7.5 kVAr 3 PH	1 N	1 N	3205.00
10 kVAr	QHBTMF5010X0	Champ 525 V 50 Hz-10 kVAr 3 PH	1 N	1 N	4274.00
12.5 kVAr	QHBTMF5012X5	Champ 525 V 50 Hz-12.5 kVAr 3 PH	1 N	1 N	5342.00
15 kVAr	QHBTMF5015X0	Champ 525 V 50 Hz-15 kVAr 3 PH	1 N	1 N	6411.00
20 kVAr	QHBTMF5020X0	Champ 525 V 50 Hz-20 kVAr 3 PH	1 N	1 N	8547.00
25 kVAr	QHBTMF5025X0	Champ 525 V 50 Hz-25 kVAr 3 PH	1 N	1 N	10684.00
30 kVAr	QHBTMF5030X0	Champ 525 V 50 Hz-30 kVAr 3 PH	1 N	1 N	12820.00
50 kVAr	QHBTMF5050X0	Champ 525 V 50 Hz-50 kVAr 3 PH	1 N	1 N	22046.00
60 kVAr	QHBTMF5060X0	Champ 525 V 50 Hz-60 kVAr 3 PH	1 N	1 N	26455.00

(IS: 13340 / IEC: 60831)

Champion - SHD Square Capacitors

- High inrush current withstand capability.
- Output range 1 kVAr to 100 kVAr.
- Soft sticky resin to withstand high temperature and current stress.
- Penta safety protection.
- Explosion proof, low losses & high over current withstand capabilities.



HSN Code: 8532

Rating kVAr	Item Code	Description	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 N	16 N	1143.00
2 kVAr	QHSTMC5002X0	Champion 440 V 50 Hz-2 kVAr 3 PH	1 N	1 N	2285.00
3 kVAr	QHSTMC5003X0	Champion 440 V 50 Hz-3 kVAr 3 PH	1 N	1 N	3427.00
4 kVAr	QHSTMC5004X0	Champion 440 V 50 Hz-4 kVAr 3 PH	1 N	1 N	3973.00
5 kVAr	QHSTMC5005X0	Champion 440 V 50 Hz-5 kVAr 3 PH	1 N	1 N	4010.00
6 kVAr	QHSTMC5006X0	Champion 440 V 50 Hz-6 kVAr 3 PH	1 N	1 N	4535.00
7.5 kVAr	QHSTMC5007X5	Champion 440 V 50 Hz-7.5 kVAr 3 PH	1 N	1 N	5670.00
8 kVAr	QHSTMC5008X0	Champion 440 V 50 Hz-8 kVAr 3 PH	1 N	1 N	6048.00
10 kVAr	QHSTMC5010X0	Champion 440 V 50 Hz-10 kVAr 3 PH	1 N	1 N	7559.00
12.5 kVAr	QHSTMC5012X5	Champion 440 V 50 Hz-12.5 kVAr 3 PH	1 N	1 N	9449.00
15 kVAr	QHSTMC5015X0	Champion 440 V 50 Hz-15 kVAr 3 PH	1 N	1 N	11338.00
20 kVAr	QHSTMC5020X0	Champion 440 V 50 Hz-20 kVAr 3 PH	1 N	1 N	15118.00
25 kVAr	QHSTMC5025X0	Champion 440 V 50 Hz-25 kVAr 3 PH	1 N	1 N	18896.00
30 kVAr	QHSTMC5030X0	Champion 440 V 50 Hz-30 kVAr 3 PH	1 N	1 N	23684.00
50 kVAr	QHSTMC5050X0	Champion 440 V 50 Hz-50 kVAr 3 PH	1 N	1 N	39472.00
75 kVAr	QHSTMC5075X0	Champion 440 V 50 Hz-75 kVAr 3 PH	1 N	1 N	59208.00
100 kVAr	QHSTMC5100X0	Champion 440 V 50 Hz-100 kVAr 3 PH	1 N	1 N	78944.00
Rated Voltage 480 Vac, 3ϕ, 50 Hz, Delta Connection					
5 kVAr	QHSTMD5005X0	Champion 480 V 50 Hz-5 kVAr 3 PH	1 N	1 N	3198.00
6 kVAr	QHSTMD5006X0	Champion 480 V 50 Hz-6 kVAr 3 PH	1 N	1 N	3837.00
7.5 kVAr	QHSTMD5007X5	Champion 480 V 50 Hz-7.5 kVAr 3 PH	1 N	1 N	4798.00
10 kVAr	QHSTMD5010X0	Champion 480 V 50 Hz-10 kVAr 3 PH	1 N	1 N	6396.00
12.5 kVAr	QHSTMD5012X5	Champion 480 V 50 Hz-12.5 kVAr 3 PH	1 N	1 N	7995.00
15 kVAr	QHSTMD5015X0	Champion 480 V 50 Hz-15 kVAr 3 PH	1 N	1 N	9594.00
20 kVAr	QHSTMD5020X0	Champion 480 V 50 Hz-20 kVAr 3 PH	1 N	1 N	12792.00
25 kVAr	QHSTMD5025X0	Champion 480 V 50 Hz-25 kVAr 3 PH	1 N	1 N	15989.00
30 kVAr	QHSTMD5030X0	Champion 480 V 50 Hz-30 kVAr 3 PH	1 N	1 N	19613.00
50 kVAr	QHSTMD5050X0	Champion 480 V 50 Hz-50 kVAr 3 PH	1 N	1 N	32689.00
60 kVAr	QHSTMD5060X0	Champion 480 V 50 Hz-60 kVAr 3 PH	1 N	1 N	39226.00
Rated Voltage 525 Vac, 3ϕ, 50 Hz, Delta Connection					
5 kVAr	QHSTMF5005X0	Champion 525 V 50 Hz-5 kVAr 3 PH	1 N	1 N	3305.00
6 kVAr	QHSTMF5006X0	Champion 525 V 50 Hz-6 kVAr 3 PH	1 N	1 N	3966.00
7.5 kVAr	QHSTMF5007X5	Champion 525 V 50 Hz-7.5 kVAr 3 PH	1 N	1 N	4957.00
10 kVAr	QHSTMF5010X0	Champion 525 V 50 Hz-10 kVAr 3 PH	1 N	1 N	6609.00
12.5 kVAr	QHSTMF5012X5	Champion 525 V 50 Hz-12.5 kVAr 3 PH	1 N	1 N	8261.00
15 kVAr	QHSTMF5015X0	Champion 525 V 50 Hz-15 kVAr 3 PH	1 N	1 N	9914.00
20 kVAr	QHSTMF5020X0	Champion 525 V 50 Hz-20 kVAr 3 PH	1 N	1 N	13218.00
25 kVAr	QHSTMF5025X0	Champion 525 V 50 Hz-25 kVAr 3 PH	1 N	1 N	16522.00
30 kVAr	QHSTMF5030X0	Champion 525 V 50 Hz-30 kVAr 3 PH	1 N	1 N	20337.00
50 kVAr	QHSTMF5050X0	Champion 525 V 50 Hz-50 kVAr 3 PH	1 N	1 N	33896.00
60 kVAr	QHSTMF5060X0	Champion 525 V 50 Hz-60 kVAr 3 PH	1 N	1 N	40676.00

Other Ratings on request

Effective from 11th March, 2024

(IS: 13340)

List Price (LP) are in Indian ₹ & as per Standard Terms & Conditions

Harmonic Detuned Reactor

Range:

- 1 kVAr to 100 kVAr
- Available in: Copper & Aluminium
- Detuning Factor: 5.67%, 7% and 14% corresponding to tuning Frequencies of 210 Hz, 190 Hz and 135 Hz for the base of 50 Hz
- Rated Voltage: 380 V to 690 V
- linearity : 185% to 225% of In

Features:

- High linearity 185% to 225%
- Insulation Class H
- Temperature protection - NC contact (UL Approved)
- Long expected life time
- Low noise & very low losses
- Compliance to 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)**
5 kVAr	5 kVAr	6 kVAr/480V	5 kVAr	6 kVAr/480V	5 kVAr	6 kVAr/525V
10 kVAr	10 kVAr	12.5 kVAr/480V	10 kVAr	12.5 kVAr/480V	10 kVAr	12.5 kVAr/525V
12.5 kVAr	12.5 kVAr	15 kVAr/480V	12.5 kVAr	15 kVAr/480V	12.5 kVAr	15 kVAr/525V
15 kVAr	15 kVAr	20 kVAr/480V	15 kVAr	20 kVAr/480V	15 kVAr	20 kVAr/525V
20 kVAr	20 kVAr	25 kVAr/480V	20 kVAr	25 kVAr/480V	20 kVAr	25 kVAr/525V
25 kVAr	25 kVAr	30 kVAr/480V	25 kVAr	30 kVAr/480V	25 kVAr	30 kVAr/525V
50 kVAr	50 kVAr	60 kVAr/480V	50 kVAr	60 kVAr/480V	50 kVAr	60 kVAr/525V
75 kVAr	75 kVAr	90 kVAr/480V	75 kVAr	90 kVAr/480V	75 kVAr	90 kVAr/525V
100 kVAr	100 kVAr	120 kVAr/480V	100 kVAr	120 kVAr/480V	100 kVAr	120 kVAr/525V



Harmonic Detuned Reactor Aluminium

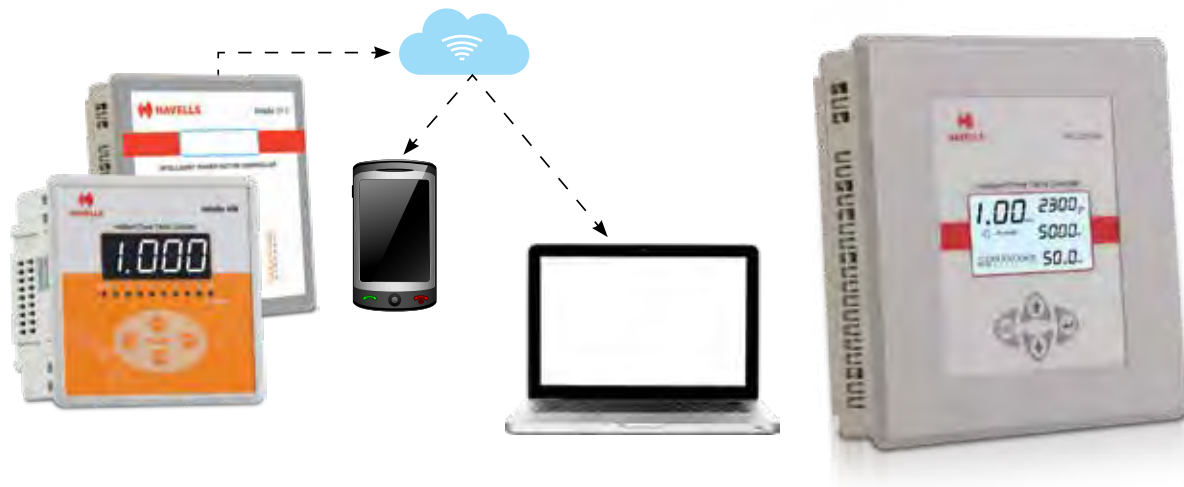
Rating kVAr	Cat. Code	Description	Per Unit LP (₹)
Rated Voltage 440 Vac, F = 50 Hz, P = 7% (Fr = 189 Hz) / Linearity: L > 0.95 Lr for current up to 1.85 . I1 (Aluminium)			
1 kVAr	QHLTLCV001X0	H. D.- REACTOR, 7% AL, 01 kVAr 440 Vac	5665.00
2 kVAr	QHLTLCV002X0	H. D.- REACTOR, 7% AL, 02 kVAr 440 Vac	6179.00
3 kVAr	QHLTLCV003X0	H. D.- REACTOR, 7% AL, 03 kVAr 440 Vac	6999.00
4 kVAr	QHLTLCV004X0	H. D.- REACTOR, 7% AL, 04 kVAr 440 Vac	7441.00
5 kVAr	QHLTLCV005X0	H. D.- REACTOR, 7% AL, 05 kVAr 440 Vac	9176.00
10 kVAr	QHLTLCV010X0	H. D.- REACTOR, 7% AL, 10 kVAr 440 Vac	11161.00
12.5 kVAr	QHLTLCV012X5	H. D.- REACTOR, 7% AL, 12.5 kVAr 440 Vac	11409.00
15 kVAr	QHLTLCV015X0	H. D.- REACTOR, 7% AL, 15 kVAr 440 Vac	16244.00
20 kVAr	QHLTLCV020X0	H. D.- REACTOR, 7% AL, 20 kVAr 440 Vac	17858.00
25 kVAr	QHLTLCV025X0	H. D.- REACTOR, 7% AL, 25 kVAr 440 Vac	18476.00
50 kVAr	QHLTLCV050X0	H. D.- REACTOR, 7% AL, 50 kVAr 440 Vac	29500.00
75 kVAr	QHLTLCV075X0	H. D.- REACTOR, 7% AL, 75 kVAr 440 Vac	48858.00
100 kVAr	QHLTLCV100X0	H. D.- REACTOR, 7% AL, 100 kVAr 440 Vac	55803.00
Rated Voltage 440 Vac, F = 50 Hz, P = 14% (Fr = 189 Hz) / Linearity: L > 0.95 Lr for current up to 1.85 . I1 (Aluminium)			
5 kVAr	QHLTCLW005X0	H. D.- REACTOR, 14% AL, 05 kVAr 440 Vac	Price on Request
10 kVAr	QHLTCLW010X0	H. D.- REACTOR, 14% AL, 10 kVAr 440 Vac	
12.5 kVAr	QHLTCLW012X5	H. D.- REACTOR, 14% AL, 12.5 kVAr 440 Vac	
15 kVAr	QHLTCLW015X0	H. D.- REACTOR, 14% AL, 15 kVAr 440 Vac	
20 kVAr	QHLTCLW020X0	H. D.- REACTOR, 14% AL, 20 kVAr 440 Vac	
25 kVAr	QHLTCLW025X0	H. D.- REACTOR, 14% AL, 25 kVAr 440 Vac	
50 kVAr	QHLTCLW050X0	H. D.- REACTOR, 14% AL, 50 kVAr 440 Vac	
75 kVAr	QHLTCLW075X0	H. D.- REACTOR, 14% AL, 75 kVAr 440 Vac	
100 kVAr	QHLTCLW100X0	H. D.- REACTOR, 14% AL, 100 kVAr 440 Vac	

Harmonic Detuned Reactor Copper

Rating kVAr	Cat. Code	Description	Per Unit LP (₹)
Rated Voltage 440 Vac, F = 50 Hz, P = 7% (Fr = 133 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	7807.00
2 kVAr	QHCTLCV002X0	H. D.- REACTOR, 7% CU, 02 kVAr 440 Vac	8525.00
3 kVAr	QHCTLCV003X0	H. D.- REACTOR, 7% CU, 03 kVAr 440 Vac	9664.00
4 kVAr	QHCTLCV004X0	H. D.- REACTOR, 7% CU, 04 kVAr 440 Vac	10272.00
5 kVAr	QHCTLCV005X0	H. D.- REACTOR, 7% CU, 05 kVAr 440 Vac	11973.00
10 kVAr	QHCTLCV010X0	H. D.- REACTOR, 7% CU, 10 kVAr 440 Vac	16737.00
12.5 kVAr	QHCTLCV012X5	H. D.- REACTOR, 7% CU, 12.5 kVAr 440 Vac	17215.00
15 kVAr	QHCTLCV015X0	H. D.- REACTOR, 7% CU, 15 kVAr 440 Vac	24675.00
20 kVAr	QHCTLCV020X0	H. D.- REACTOR, 7% CU, 20 kVAr 440 Vac	25539.00
25 kVAr	QHCTLCV025X0	H. D.- REACTOR, 7% CU, 25 kVAr 440 Vac	26023.00
50 kVAr	QHCTLCV050X0	H. D.- REACTOR, 7% CU, 50 kVAr 440 Vac	39251.00
75 kVAr	QHCTLCV075X0	H. D.- REACTOR, 7% CU, 75 kVAr 440 Vac	64735.00
100 kVAr	QHCTLCV100X0	H. D.- REACTOR, 7% CU, 100 kVAr 440 Vac	83199.00
Rated Voltage 440 Vac, F = 50 Hz, P = 14% (Fr = 189 Hz) / Linearity: L > 0.95 Lr for current up to 1.85 . I1 (Copper)			
5 kVAr	QHCTLCW005X0	H. D.- REACTOR, 14% CU, 05 kVAr 440 Vac	Price on Request
10 kVAr	QHCTLCW010X0	H. D.- REACTOR, 14% CU, 10 kVAr 440 Vac	
12.5 kVAr	QHCTLCW012X5	H. D.- REACTOR, 14% CU, 12.5 kVAr 440 Vac	
15 kVAr	QHCTLCW015X0	H. D.- REACTOR, 14% CU, 15 kVAr 440 Vac	
20 kVAr	QHCTLCW020X0	H. D.- REACTOR, 14% CU, 20 kVAr 440 Vac	
25 kVAr	QHCTLCW025X0	H. D.- REACTOR, 14% CU, 25 kVAr 440 Vac	
50 kVAr	QHCTLCW050X0	H. D.- REACTOR, 14% CU, 50 kVAr 440 Vac	
75 kVAr	QHCTLCW075X0	H. D.- REACTOR, 14% CU, 75 kVAr 440 Vac	
100 kVAr	QHCTLCW100X0	H. D.- REACTOR, 14% CU, 100 kVAr 440 Vac	

Intelligent Power Factor Controller

IEC: 61010-1



Range:

- 08 and 12 Steps
- 7 segment LED display
- 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
- Advance Micro-Controller based logic
- Data logging facility (optional)

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					
8	QHOSBS5D0008	IPFC CS 96 x 96	1 N	5 N	7,084.00
8	QHOSBS5N0008	IPFC CS 144 x 144	1 N	5 N	11701.00
12	QHOSBS5N0012	IPFC CS 1001-112-90 V / 550 Vac 144 x 144	1 N	5 N	13585.00
Intelligent Power Factor Controller (IPFC CS- 1003) 3 CT					
8	QHOTBS5H0008	IPFC CS 1001-112-90 V / 550 Vac 144 x 144	1 N	5 N	18760.00
12	QHOTBS5H0012	IPFC CS 1003-312-90 V / 550 Vac 144 x 144	1 N	5 N	23402.00

Capacitor Switching Solutions

- Fast Switching Speed
- High power handling capacity
- Low losses
- Reliability and longevity
- Real time power factor correction



Thyristor Switch

Cat. Code	Description	Per Unit LP (₹)
QHZCF00111	Thyristor Switch 15 kVAr	31,725.00
QHZCF00121	Thyristor Switch 25 kVAr	36,200.00
QHZCF00131	Thyristor Switch 50 kVAr	43,525.00
QHZCF00141	Thyristor Switch 100 kVAr	65,500.00

Note: For fast Switching Load

Other Ratings on request

89 HAVELLS Effective from 11th March, 2024

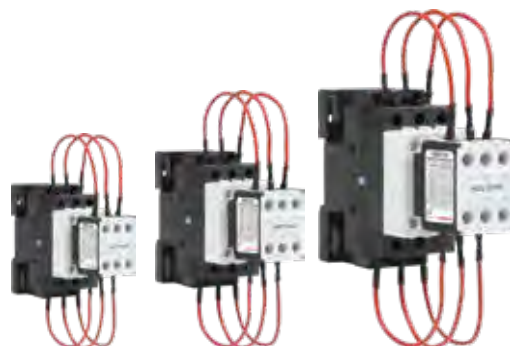
List Price (LP) are in Indian ₹ & as per Standard Terms & Conditions

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 per hour
- Handle high inrush current capability
- Utilization category AC-6b
- Finger proof IP20 terminals



HSN Code: **8536**

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*	2522.00
	3 kVAr	0	1	IHPHE003101*	2522.00
	5 kVAr	1	0	IHPHE005110*	2646.00
	5 kVAr	0	1	IHPHE005101*	2646.00
	10 kVAr	1	0	IHPHE010110*	3204.00
	10 kVAr	0	1	IHPHE010101*	3204.00
	12.5 kVAr	1	0	IHPHE012X110*	3619.00
	12.5 kVAr	0	1	IHPHE012X101*	3619.00
	15 kVAr	1	0	IHPHE015110*	4431.00
	15 kVAr	0	1	IHPHE015101*	4431.00
	20 kVAr	1	0	IHPHE020210*	4871.00
2	20 kVAr	0	1	IHPHE020201*	4871.00
	25 kVAr	1	0	IHPHE025210*	5556.00
	25 kVAr	0	1	IHPHE025201*	5556.00
	33.3 kVAr	1	0	IHPHE33X210*	8052.00
	33.3 kVAr	0	1	IHPHE33X201*	8052.00
3	33.3 kVAr	1	1	IHPHE33X311*	9711.00
	40 kVAr	2	2	IHPHE040322*	14926.00
4	50 kVAr	2	2	IHPHE050422*	15529.00
	66 kVAr	2	2	IHPHE066422*	18223.00

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

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

Coil Voltage Selection Table (3)

3 kVAr - 66 kVAr AC Coil

Product	24 Vac	110 Vac	240 Vac	150 Vac-300 Vac	260 Vac-440 Vac	415 Vac
HGS Capacitor Duty Contactor (3 kVAr - 66 kVArA)	B	H	N	S*	W	T

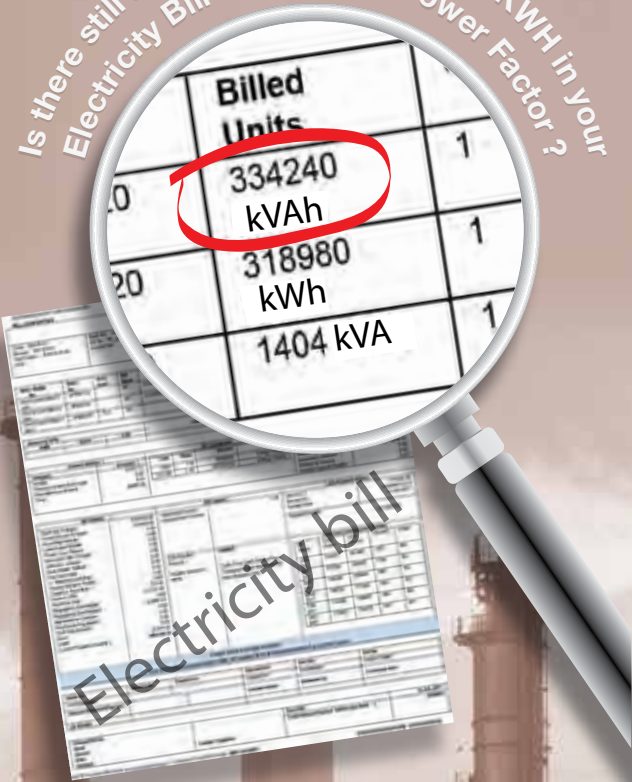
*upto 33.3 kVAr for AC - 6B



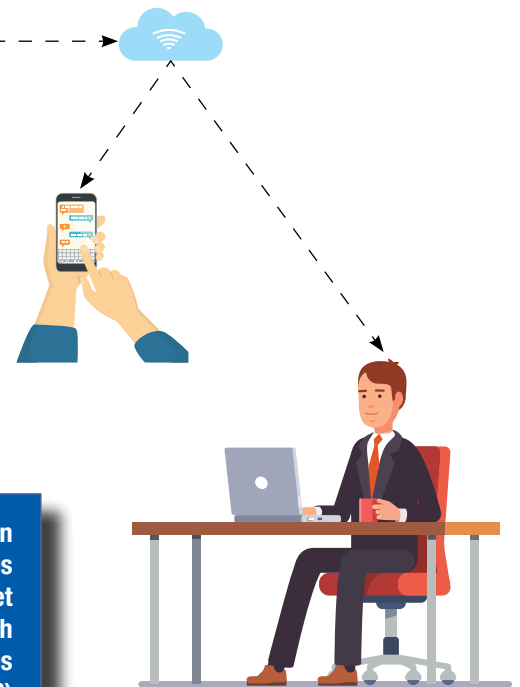
Install Havells APFC Panel
&
SAVE Money by reducing kVAh

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?



Smarty - Automatic Power Factor Correction Panel



Range

- ▶ Output Rating: 10 kVAR - 350 kVAR as a standard SKU
- ▶ Other ratings 350 kVAR above on request
- ▶ Switching: Contactor / Thyristorised (Ultra Fast)
- ▶ APFC with Thyristor available on request

Features

- ▶ Ergonomic, compact and robust design
- ▶ Designed with Fully copper conductor
- ▶ Super Heavy Duty Capacitor power capacitor for long life
- ▶ Advance C-MOS technology based micro processor relay for intelligent power factor control
- ▶ Air core reactor for extra safety from inrush current (High currents)
- ▶ Automatic temp. control through fans and louvers in panel

Construction

- ▶ Manufactured with highly precise modern Amada CNC machine
- ▶ 11 tank process for corrosion proof powder coating
- ▶ Provision of top and bottom cable entry
- ▶ Double side earthing connection
- ▶ IP 30 & above as per customer demand
- ▶ Ref. Standard: 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.

Smarty - Automatic Power Factor Correction Panel

IEC: 61921 / IS: 16636

APFC Panel without Reactor

HSN Code: 8537

Rating kVAr	Cat. Code	Description	Main Incomer	Per Unit LP (₹)
Rated Voltage 415 Vac, 3ø, 50 Hz, Delta Connection, Super Heavy Duty Cylindrical Capacitor				
10 kVAr	QHXTCB5010X0	10 kVAr / 415 V APFC Panel CYCAP	MCB 40A / 10 KA	65,000.00
15 kVAr	QHXTCB5015X0	15 kVAr / 415 V APFC Panel CYCAP	MCB 40A / 10 KA	75,000.00
20 kVAr	QHXTCB5020X0	20 kVAr / 415 V APFC Panel CYCAP	MCB 40A / 10 KA	81,000.00
25 kVAr	QHXTCB5025X0	25 kVAr / 415 V APFC Panel CYCAP	MCB 63A / 10 KA	90,500.00
30 kVAr	QHXTCB5030X0	30 kVAr / 415 V APFC Panel CYCAP	MCB 63A / 10 KA	1,08,000.00
40 kVAr	QHXTCB5040X0	40 kVAr / 415 V APFC Panel CYCAP	MCCB 100A / 25 KA	1,47,188.00
50 kVAr	QHXTCB5050X0	50 kVAr / 415 V APFC Panel CYCAP	MCCB 100A / 25 KA	1,65,800.00
75 kVAr	QHXTCB5075X0	75 kVAr / 415 V APFC Panel CYCAP	MCCB 160A / 25 KA	2,45,000.00
80 kVAr	QHXTCB5080X0	80 kVAr / 415 V APFC Panel CYCAP	MCCB 160A / 25 KA	2,60,500.00
100 kVAr	QHXTCB5100X0	100 kVAr / 415 V APFC Panel CYCAP	MCCB 160A / 25 KA	2,85,500.00
125 kVAr	QHXTCB5125X0	125 kVAr / 415 V APFC Panel CYCAP	MCCB 250A / 25 KA	3,95,000.00
150 kVAr	QHXTCB5150X0	150 kVAr / 415 V APFC Panel CYCAP	MCCB 320A / 35 KA	4,49,500.00
175 kVAr	QHXTCB5175X0	175 kVAr / 415 V APFC Panel CYCAP	MCCB 320A / 35 KA	4,97,000.00
200 kVAr	QHXTCB5200X0	200 kVAr / 415 V APFC Panel CYCAP	MCCB 400A / 35 KA	5,69,700.00
225 kVAr	QHXTCB5225X0	225 kVAr / 415 V APFC Panel CYCAP	MCCB 400A / 35 KA	6,40,912.00
250 kVAr	QHXTCB5250X0	250 kVAr / 415 V APFC Panel CYCAP	MCCB 500A / 35 KA	7,05,700.00
275 kVAr	QHXTCB5275X0	275 kVAr / 415 V APFC Panel CYCAP	MCCB 500A / 50 KA	7,75,890.00
300 kVAr	QHXTCB5300X0	300 kVAr / 415 V APFC Panel CYCAP	MCCB 630A / 50 KA	8,15,000.00
325 kVAr	QHXTCB5325X0	325 kVAr / 415 V APFC Panel CYCAP	MCCB 630A / 50 KA	8,82,916.00
350 kVAr	QHXTCB5350X0	350 kVAr / 415 V APFC Panel CYCAP	MCCB 630A / 50 KA	9,17,500.00

* for Higher rating please contact our branch office

APFC Technical Details

Rating kVAr	Stages	Dimensions HeightXWidthXDepth (mm)
Rated Voltage 415 Vac, 3ø, 50 Hz, Delta Connection, Super Heavy Duty Cylindrical Capacitor		
10 kVAr	2x1 kVAr + 4x2 kVAr	650x600x200
15 kVAr	2x4 kVAr + 3x2 kVAr + 1x1 kVAr	650x600x200
20 kVAr	2x5 kVAr + 2x3 kVAr + 2x2 kVAr	650x600x200
25 kVAr	4x5 kVAr + 1x3 kVAr + 1x2 kVAr	650x600x200
30 kVAr	1x10 kVAr + 3x5 kVAr + 1x3 kVAr + 1x2 kVAr	900x600x200
40 kVAr	2x12.5 kVAr + 2x5 kVAr + 1x3 kVAr + 1x2 kVAr	900x600x200
50 kVAr	3x12.5 kVAr + 1x7.5 kVAr + 1x3 kVAr + 1x2 kVAr	900x600x200
75 kVAr	2x20 kVAr + 2x10 kVAr + 2x5 kVAr + 1x3 kVAr + 1x2 kVAr	1100x700x250
80 kVAr	2x20 kVAr + 2x10 kVAr + 2x5 kVAr + 2x3 kVAr + 2x2 kVAr	1100x700x250
100 kVAr	4x20 kVAr + 1x10 kVAr + 1x5 kVAr + 1x3 kVAr + 1x2 kVAr	1100x700x200
125 kVAr	1x50 kVAr + 2x25 kVAr + 1x10 kVAr + 2x5 kVAr + 1x3 kVAr + 1x2 kVAr	1175x800x540
150 kVAr	2x50 kVAr + 1x25 kVAr + 1x10 kVAr + 2x5 kVAr + 1x3 kVAr + 1x2 kVAr	1175x800x540
175 kVAr	2x50 kVAr + 2x25 kVAr + 1x10 kVAr + 2x5 kVAr + 1x3 kVAr + 1x2 kVAr	1175x800x540
200 kVAr	3x50 kVAr + 1x25 kVAr + 1x10 kVAr + 3x5 kVAr	1175x800x540
225 kVAr	3x50 kVAr + 2x25 kVAr + 1x10 kVAr + 3x5 kVAr	1175x800x540
250 kVAr	4x50 kVAr + 1x25 kVAr + 2x10 kVAr + 1x5 kVAr	1175x800x540
275 kVAr	1x100 kVAr + 2x50 kVAr + 2x25 kVAr + 2x10 kVAr + 1x5 kVAr	1675x1200x700
300 kVAr	1x100 kVAr + 3x50 kVAr + 1x25 kVAr + 2x10 kVAr + 1x5 kVAr	1675x1200x700
325 kVAr	2x100 kVAr + 1x50 kVAr + 2x25 kVAr + 2x10 kVAr + 1x5 kVAr	1675x1200x700
350 kVAr	2x100 kVAr + 2x50 kVAr + 1x25 kVAr + 2x10 kVAr + 1x5 kVAr	1675x1200x700

APFC Panel with Detuned Reactor / Thyristor Switching

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

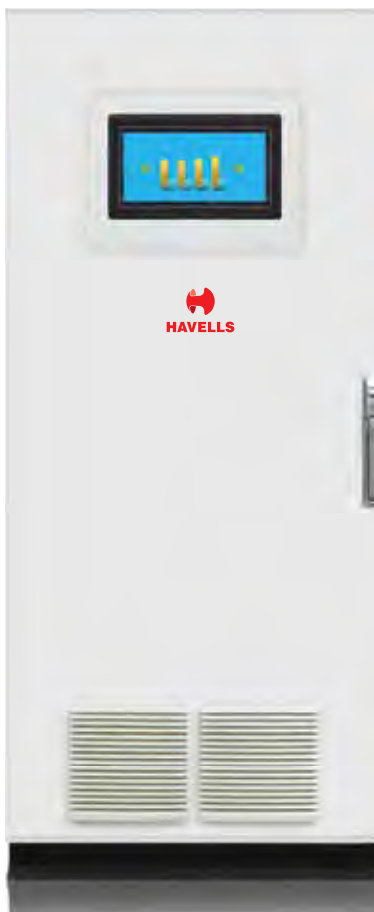
Active Harmonic Filter



Rating in Ampere	Cat No.	Description	Per Unit MRP (₹)
10 A	On Request	10 A / 415 AHF Panel	On Request
20 A		20 A / 415 AHF Panel	
30 A		30 A / 415 AHF Panel	
50 A		50 A / 415 AHF Panel	
75 A		75 A / 415 AHF Panel	
100 A		100 A / 415 AHF Panel	
125 A		125 A / 415 AHF Panel	
150 A		150 A / 415 AHF Panel	
200 A		200 A / 415 AHF Panel	
250 A		250 A / 415 AHF Panel	
300 A		300 A / 415 AHF Panel	
400 A		400 A / 415 AHF Panel	
500 A		500 A / 415 AHF Panel	

SVG (Static Var Generator)

Rating kVar	Cat. Code	Description	Per Unit LP (₹)
50 kVar - 1000 kVar		50 kVar -1000 kVar SVG Panel	Price on Request



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	$3 \leq h < 11$	$11 \leq h < 17$	$17 \leq h < 23$	$23 \leq h < 35$	$35 \leq h < 50$	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 3 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 3 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-30 and higher on request
System Cooling	Forced air colling
Overheating Protection	Yes
Relative Humidity	96% (Non condensing)
Ambient Temperature	No deration upto 50 °C

HSN Code: 8543



Active Harmonic Filter & SVG (Static Var Generator)

Range:

- Rating: 10 A - 5000 A

AHF Technology & Innovation

- Heavy Duty IGBT used for Switching Technology
- Advanced LCD display with intelligent 32 bit microprocessor.
- User friendly programs and customization as per customer requirement for data display.
- Modular design enclosure fabricated by latest Amada CNC Machines & painted through fully automatic powder coating plant after 11 tank process.

AHF Features:

- The Havells make AHF is a unique innovation solution for Power Quality that address all power quality issues effectively. Major features are:
- Ultra- fast response
- No deration up-to 50 °C ambient temperature
- Havells unique Quad Pro feature- These features enables user to program AHF as per its priority for following compensation :
 - ☐ Current harmonics
 - ☐ Reactive compensation
 - ☐ Load balancing
 - ☐ Neutral compensation
- Priority selection feature for maximum capacity utilization as per the system requirement.



Compliance
IEEE-519



Printing Press



Pharmaceutical



Data Center



IT Park



Automobiles



Textiles



Hospitals



Airports

Consulting, Optimizing & Delivering Performance

Power Quality Audit Scope

- Capturing load profile of all relevant sections (with non linear loads) starting with the PCC.
- Checking effectiveness of installed Reactive power compensation system
- Identify zones of failures harmonic.
- Study electricity bills and identify scope of optimization in energy consumption pattern.

Final Deliverables

- A summary of various electrical parameters & recorded trends.
- Analysis of above data mentioning Key high lights
- Recommended Solution address the various power quality issues identified
- Estimate Potential Saving - Estimate the direct savings and provide ROI calculation (wherever applicable).



Agriculture Duty Capacitor



- Range : 1 kVAr to 15 kVAr
- Voltage 415 V
- MPP SH, Resin Velled
- Low Watt loss

Agri Boost Cylindrical Capacitors for Agriculture Applications

HSN Code: 8532

Rating kVAr	Item Code	Description	Standard Pack No of unit/s	Master Pack No of unit/s	Per Unit LP (₹)
Rated Voltage 415 Vac, 3φ, 50 Hz, Delta Connection					
1 kVAr	QHATCB5001X0	AGRI BOOST [™] 415 V 50 Hz-1 kVAr 3 PH	1 N	16 N	350.00
2 kVAr	QHATCB5002X0	AGRI BOOST [™] 415 V 50 Hz-2 kVAr 3 PH	1 N	16 N	395.00
3 kVAr	QHATCB5003X0	AGRI BOOST [™] 415 V 50 Hz-3 kVAr 3 PH	1 N	16 N	575.00
4 kVAr	QHATCB5004X0	AGRI BOOST [™] 415 V 50 Hz-4 kVAr 3 PH	1 N	16 N	710.00
5 kVAr	QHATCB5005X0	AGRI BOOST [™] 415 V 50 Hz-5 kVAr 3 PH	1 N	16 N	858.00
6 kVAr	QHATCB5006X0	AGRI BOOST [™] 415 V 50 Hz-6 kVAr 3 PH	1 N	16 N	1030.00
7.5 kVAr	QHATCB5007X5	AGRI BOOST [™] 415 V 50 Hz-7.5 kVAr 3 PH	1 N	16 N	1287.00
8 kVAr	QHATCB5008X0	AGRI BOOST [™] 415 V 50 Hz-8 kVAr 3 PH	1 N	16 N	1372.00
10 kVAr	QHATCB5010X0	AGRI BOOST [™] 415 V 50 Hz-10 kVAr 3 PH	1 N	16 N	1715.00
12.5 kVAr	QHATCB5012X5	AGRI BOOST [™] 415 V 50 Hz-12.5 kVAr 3 PH	1 N	8 N	2145.00
15 kVAr	QHATCB5015X0	AGRI BOOST [™] 415 V 50 Hz-15 kVAr 3 PH	1 N	8 N	2573.00

(IS: 13340)