MPP Standard Duty Capacitors

- Up to 50 kvar
- Stack Winding
- Soft Resin-impregnated
- 4 Safety Features

General

The Standard Duty series is one of the most popular capacitor sold across the world, covering the power range up to 50 kvar with just one capacitor in a cylindrical aluminium case.

The Standard Duty is especially designed for use in commercial and industrial applications. The capacitors are made in stack windings to allow for better heat dissipation.

Applications

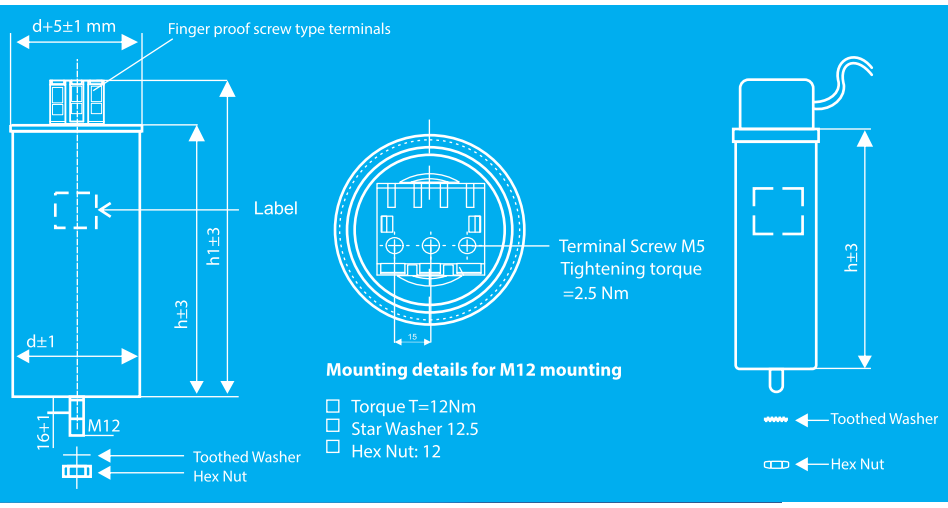
- Automatic PFC equipment, capacitor banks
- Individual fixed PFC (e.g. motors, transformers, lighting)
- Group fixed PFC
- Tuned and detuned capacitor banks
- Filter applications
- Dynamic PFC
- Hybrid capacitor banks with active filters.

Features

- Compact design in cylindrical aluminium can with stud
- Low weight
- Stacked type construction
- MPP-technology with heavy edge ramp metallization
- Voltage range 230 to 480 V
- Output range 1 to 50 kvar (50 Hz)
- Starts from 1 kvar, to help achieve Power Factor close to unity
- Low losses
- Zero Maintenance

Safety

- Self Healing Technology
- Pressure Sensitive Device
- IP 20 Terminals
- Comes with In built discharge resistors



Standards IEC 60831-1+2 | EN 60831-1+2 | IS 13340-1+2

Power	QR	1 to 50 kvar
Rated Voltage	VR	230 to480 V AC
Overvoltage	Vmax	VR + 10% (up to 8 h daily) / VR + 15% (up to 30 min daily) / VR + 20% (up to 5 min daily) / VR + 30% (up to 1 min daily)
Overcurrent	Imax	up to 1.5 • IR including combined effects of harmonics, overvoltages and capacitance tolerance
Inrush current	IS	up to 200 • IR
Losses:		
– Dielectric	W/kvar	< 0.2
– Total*	W/kvar	< 0.45
Rated frequency	f	50/60 Hz
Capacitance tolerance		– 5% / +10%
Test voltage, terminal/terminal	VTT	2.15 • VR1, AC, 10 s
Test voltage, terminal/case	VTC	3600 V AC, 2 s
Mean life expectancy		up to 135 000 h (temperature class –40/C) up to 100 000 h (temperature class –40/D)
Ambient temperature		–40/D; max. temp. 55 °C; max. mean 24 h = 45 °C; max. mean 1 year = 35 °C; lowest temperature = –25 °C
Cooling		natural or forced
Humidity	Hrel	max. 95%
Altitude		max. 3000 m above sea level
Mounting position		upright
Mounting and grounding		threaded M12 stud on bottom of case
Safety		soft resin impregnated, pressure sensitive device, self-healing technology, maximum allowed fault current 10 000 A in accordance with UL 810
Discharge resistors		in built
Case		extruded aluminium can
Enclosure		IP20, indoor mounting
Dielectric		polypropylene film
Impregnation		Soft Polyurethane Resin (NPCB)
Terminals		optimized capacitor safety terminal with electric shock protection (IP20), max. 25 mm2 cable cross section, max. current 130 A
Number of switching operations		up to 5 000 switching operations per year according to IEC 60831-1+/2

* Without discharge resistor

STANDARD DUTY POWER FACTOR CORRECTION CAPACITORS

			Dimensions	Rated Reactive Power in KVAR @ rated voltage 50 Hz						
Sl.No	**Item/Code**	**Capacitance (µF) * 3**	**LxWxH(mm)**	**230**	**250**	**300**	**400**	**415**	**440**	**480**
1	VTCCF-301	5.5	50 x 110	0.3	0.3	0.5	0.8	0.9	1.0	1.2
2	VTCCF-302	11.0	50 x 130	0.5	0.6	0.9	1.7	1.8	2.0	2.4
3	VTCCF-303	16.5	50 x 155	0.8	1.0	1.4	2.5	2.7	3.0	3.6
4	VTCCF-304	32.9	63.5 x 133	1.6	1.9	2.8	5.0	5.3	6.0	7.1
5	VTCCF-305	27.4	63.5 x 155	1.4	1.6	2.3	4.1	4.4	5.0	6.0
6	VTCCF-306	32.8	63.5 x 190	1.6	1.9	2.8	4.9	5.3	6.0	7.1
7	VTCCF-307	41.1	75 x 160	2.0	2.4	3.5	6.2	6.7	7.5	8.9
8	VTCCF-308	45.7	75 x 160	2.3	2.7	3.9	6.9	7.4	8.3	9.9
9	VTCCF-310	54.8	75 x 203	2.7	3.2	4.7	8.3	8.9	10.0	11.9
10	VTCCF-312	68.5	85 x 203	3.4	4.0	5.8	10.3	11.1	12.5	14.9
11	VTCCF-315	82.2	85 x 203	4.1	4.8	7.0	12.4	13.3	15.0	17.9
12	VTCCF-320	109.6	85 x 278	5.5	6.5	9.3	16.5	17.8	20.0	23.8
13	VTCCF-325	137.0	90 x 278	6.8	8.1	11.6	20.7	22.2	25.0	29.8
14	VTCCF-330	164.4	100 x 278	8.2	9.7	13.9	24.8	26.7	30.0	
15	VTCCF-340	219.1	116 x 278	10.9	12.9	18.6	33.1	35.6	40.0	
16	VTCCF-350	273.9	136 x 278	13.7	16.1	23.2	41.3	44.5	50.0	