

A safe, reliable and high-performance solution for power factor correction in heavy-duty operating conditions.



VarplusCan HDuty



50 kVAr unit, 440V

Main features

Easy installation & maintenance

- Optimized design for low weight, compactness and reliability to ensure easy installation.
- Unique termination system that allows maintained tightness.
- 1 point for mounting and earthing.
- Vertical and horizontal position.

Application parameters

- For networks with insignificant non-linear loads: ($N_{LL} < 20\%$).
- Significant voltage disturbances.
- Standard operating temperature up to 55°C.
- Normal switching frequency up to 7000 /year.
- Maximum current (including harmonics) is $1.8 \times I_N$.

Technology

Constructed internally with three single-phase capacitor elements. Each capacitor element is manufactured with metallized polypropylene film as the dielectric, having features such as heavy edge, slope metallization and wave-cut profile to ensure increased current handling capacity and reduced temperature rise.

The active capacitor elements are coated with specially formulated sticky resin which ensures high overload capabilities and good thermal and mechanical properties

The unique finger-proof CLAMPTITE termination is fully integrated with discharge resistors, allowing suitable access for tightening and ensuring cable termination without any loose connections.

For lower ratings, double fast-on terminals with wires are provided.

Benefits

- Total safety:
 - > Self - healing
 - > Pressure- sensitive disconnecter
 - > Discharge resistor
- Long life expectancy (up to 130,000 hours).
- Installation in any position vertical or horizontal
- Optimized geometric design for improved thermal performance.
- Special resistivity and metallisation profile will enhance life and will give higher thermal efficiency with lower temperature rise.
- Unique finger-proof termination that ensures tightening for CLAMPITE terminals.

Terminal Unique Features

CLAMPITE (IP20): Three phase terminal with electric shock protection (finger proof) up to 30kVAr unit

- Termination is designed for cable entry of cross section minimum 2.5 sq mm, maximum 16 sq mm
- This unique clamptite design enables the use of cables without lugs. Which ensures better termination and avoids loose connection.
- **STUD type (IP00):** Three phase terminal provided for better current handling capabilities (for 40kVAr & 50kVAr units, 440V)
- Termination is designed for cable entry of cross section 35 sq mm for higher kVAr ratings

Technical specifications

General characteristics		
Standards		IS3340 - 1993, IS13341 - 1992, IEC 60831-1/-2
Voltage range		440V, 480V, 525V
Frequency		50Hz
Power range		1 to 50 kVAr
Losses (dielectric)		< 0.2W/kVAr
Losses (total)		< 0.5W/kVAr
Capacitance tolerance		-5%, +10%
Voltage test	Between terminals	$2.15 \times U_N$ (AC), 10s
	Between terminal & container	≤ 525 V: 3 kV (AC), 10 s or 3.66 kV (AC), 2 s > 525 V: 3.66 kV (AC), 10 s or 4.4 kV (AC), 2 s
	Impulse voltage	≤ 690 V: 8 kV
Discharge resistor		Fitted, standard discharge time 60s
Ambient temperature		-25°C / +55°C (Class D)
Humidity		95 %
Altitude		2,000 m above sea level
Overvoltage		$1.00 \times U_N$ - Continuous $1.10 \times U_N$ - up to 12 hrs per day $1.15 \times U_N$ - up to 30 min per day $1.20 \times U_N$ - 5 min $1.30 \times U_N$ - 1 min
Overcurrent		Up to $1.8 \times I_N$
Peak inrush current		$250 \times I_N$
Switching operations (max.)		Up to 7000 switching operations per year
Mean Life expectancy		Up to 130,000 hrs
Installation characteristics		
Mounting position		Indoor, upright & horizontal
Fastening		Threaded M12 stud at the bottom
Earthing		
Terminals		CLAMPTITE - three-way terminal with electric shock protection (finger-proof) & double fast-on terminal in lower kVAr
Safety features		
Safety		Self-healing + Pressure-sensitive disconnecter + Discharge device
Protection		IP20
Construction		
Casing		Extruded Aluminium Can
Dielectric		Metallized polypropylene film with Zn/Al alloy. Special resistivity & profile, special edge (wave-cut)
Impregnation		Non-PCB, PUR sticky resin (Dry)

Varplus Can Heavy Duty (H Duty), 440V, 3 Phase, 50Hz								
50 Hz		Capacitance (3*mfd)	Reference Number	Dimention		Height h+t(mm)	Net Weight	Case Code
Q _N (kVAR)	I _N (Amps)			D(mm)	H(mm)			
1	1.3	5.5	MEHVCHDY010A44	63	90	140	0.5	EC
2	2.6	11	MEHVCHDY020A44	50	195	245	0.6	DC
3	3.9	16.4	MEHVCHDY030A44	50	195	245	0.6	DC
4	5.2	21.9	MEHVCHDY040A44	50	195	245	0.7	DC
5	6.6	27.4	MEHVCHDY050A44	63	195	245	0.8	HC
7.5	9.8	41.1	MEHVCHDY075A44	63	195	245	0.9	HC
10	13.1	54.8	MEHVCHDY100A44	75	203	233	1.5	MC
12.5	16.4	68.5	MEHVCHDY125A44	90	212	242	1.6	RC
15	19.7	82.2	MEHVCHDY150A44	90	212	242	1.6	RC
20	26.2	109.7	MEHVCHDY200A44	116	212	242	2.5	TC
25	32.8	137.1	MEHVCHDY250A44	116	212	242	2.5	TC
30	39.4	164.5	MEHVCHDY300A44	136	212	242	3.2	VC
40	52.5	219.3	MEHVCHDY400A44	116	278	321	4.1	XC
50	65.6	274.2	MEHVCHDY500A44	136	278	321	5.3	YC

480V Capacitors for 5.7% / 7% detuned filter application								
Varplus Can Heavy Duty (H Duty), 480V, 3 Phae, 50Hz								
50 Hz		Capacitance (3*mfd)	Reference Number	Dimention		Height h+t(mm)	Net Weight	Case Code
Q _N (kVAR)	I _N (Amps)			D(mm)	H(mm)			
5.6	6.7	25.8	MEHVCHDY056A48	63	195	245	0.9	HC
6.7	8.1	30.9	MEHVCHDY067A48	63	195	245	0.9	HC
11.3	13.6	52.1	MEHVCHDY113A48	75	203	233	1.2	MC
12.5	15.0	57.6	MEHVCHDY125A48	90	212	242	1.6	RC
14.4	17.3	66.3	MEHVCHDY144A48	90	212	242	1.6	RC
15.5	18.6	71.4	MEHVCHDY155A48	90	212	242	1.6	RC
17	20.4	78.3	MEHVCHDY170A48	90	212	242	1.6	RC
19	22.9	87.5	MEHVCHDY190A48	116	212	242	2.5	TC
22.4	26.9	103.2	MEHVCHDY224A48	116	212	242	2.5	TC
25	30.1	115.2	MEHVCHDY250A48	116	212	242	2.5	TC
28.1	33.8	129.5	MEHVCHDY281A48	136	212	242	3.2	VC
31.5	37.9	145.1	MEHVCHDY315A48	136	212	242	3.2	VC

525V Capacitors for 5.67%, 7% & 14% detuned filter Application								
Varplus Can Heavy Duty (H Duty), 525V, 3 Phase, 50Hz								
50 Hz		Capacitance (3*mfd)	Reference Number	Dimention		Height h+t(mm)	Net Weight	Case Code
Q _N (kVAR)	I _N (Amps)			D(mm)	H(mm)			
6.9	7.6	26.6	MEHVCHDY069A52	63	195	245	0.9	HC
12.5	13.7	48.1	MEHVCHDY125A52	90	212	242	1.6	RC
13.8	15.2	53.2	MEHVCHDY138A52	90	212	242	1.6	RC
15.4	16.9	59.3	MEHVCHDY154A52	90	212	242	1.6	RC
17.2	18.9	66.2	MEHVCHDY172A52	90	212	242	1.6	RC
18.5	20.3	71.3	MEHVCHDY185A52	116	212	242	2.5	TC
20.6	22.7	79.3	MEHVCHDY206A52	116	212	242	2.5	TC
22.6	24.9	87.0	MEHVCHDY226A52	116	212	242	2.5	TC
25	27.5	96.3	MEHVCHDY250A52	116	212	242	2.5	TC
27.5	30.2	105.9	MEHVCHDY275A52	116	212	242	2.5	TC
30.6	33.7	117.9	MEHVCHDY306A52	136	212	242	3.2	VC
33.1	36.4	127.5	MEHVCHDY331A52	136	212	242	3.2	VC
34.4	37.8	132.5	MEHVCHDY344A52	136	212	242	3.2	VC
37.7	41.5	145.2	MEHVCHDY377A52	136	212	242	3.2	VC