MIRUS International Inc.
31 Sun Pac Blvd., Brampton, Ontario, Canada L6S 5P6

TECHNICAL DATA **CNCE™**

Combined Neutral Current Eliminator

GENERAL SPECIFICATIONS:

PRIMARY Voltage, Phase, Frequency
120/208V, 3-phase 4-wire, 60Hz

SECONDARY Voltage, Phase, Frequency
120/208V, 3-phase 4-wire, 60Hz

OPERATING TEMPERATURE RISE
130°C [115°C] [80°C]

***INSULATION* CLASS**
220°C

ANGULAR DISPLACEMENT
30° lag [0° lag]

OUTPUT ZERO SEQUENCE IMPEDANCE
Zo < 0.95%, Xo < 0.3%

SHORT CIRCUIT IMPEDANCE
1.0 – 2.0%

PRIMARY TAPS
± 1 x 5%

K-FACTOR CAPABILITY
20

CREST FACTOR CAPABILITY
4.5

NEUTRAL BUS AMPACITY
200% of phase current or
300% with FAI

FULL LOAD EFFICIENCY
> 97%

MAGNETISING INRUSH
< 10 times FL RMS

WINDING MATERIAL
Copper

INSULATING VARNISH IMPREGNATION
Polyester Resin

AUDIBLE SOUND LEVEL
As per NEMA ST-20 & CSA C9

ENCLOSURE
Type: NEMA-3R, ventilated
Paint: Polyester powder coated
Colour: ANSI 61 Grey

***NEUTRAL CURRENT AMMETER*[1]**
Flush mounted

OPTIONS:

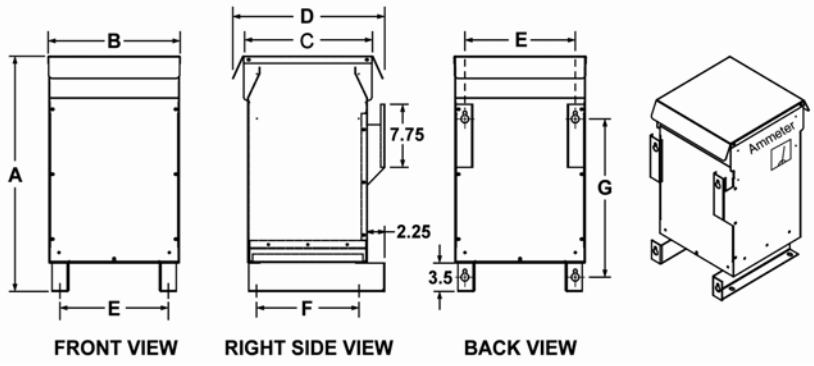
FIELD ADJUSTABLE IMPEDANCE (FAI)
Selecting FAI option lowers input Zo to permit input side neutral current treatment[5]

OVER-TEMPERATURE SWITCH(ES)
[170°C] [200°C]

SOLID BOTTOM PLATE* *(Case 'MT' only)
[yes], [no]

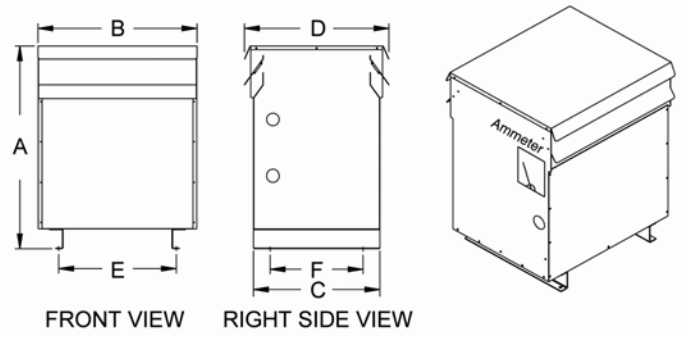
CAPACITIVE REACTIVE COMP.
[CRC] Compensation for leading PF load.

'MT1', 'MT2' ENCLOSURE DIM. - inches [mm]



CASE	A	B	C	D	E	F	G
MT1	29.00 [737]	16.75 [425]	15.00 [381]	19.00 [483]	13.75 [349]	13.00 [330]	19.50 [495]
MT2	38.00 [965]	21.50 [546]	19.50 [495]	23.50 [597]	17.00 [432]	17.50 [445]	25.00 [635]

'MT3', 'MT4', 'LT1' ENCLOSURE DIM. - inches [mm]



CASE	A	B	C	D	E	F
MT3	45.00 [1143]	26.00 [661]	21.00 [534]	25.00 [635]	21.50 [546]	19.00 [483]
MT4	51.50 [1308]	32.00 [813]	25.50 [648]	29.50 [749]	23.50 [597]	23.50 [597]
LT1	59.00 [1499]	39.50 [1003]	30.00 [762]	34.00 [864]	24.00 [610]	32.00 [813]

Product Code:

CNCE - dd - hhh - kVA - STD

- **CNCE** — Combined Neutral Current Eliminator
- **dd** — Angular Displacement: 30, 00
- **hhh** — System L-L Voltage: 208 (consult factory for other voltages)
- **kVA** — Device kVA: 15, 30, 45, 60, 75, 112.5, 150, 225
- **STD** — Options: STD = Standard; FAI = Field Adjustable Impedance; CRC = Capacitive Reactance Compensation

Sizes				Efficiency	Connections for 120/208V CNCE–STD[7]						O.C. Protection
kVA Pri.	Max.[8] Inductive Reactive Power, Q (kVAR)	Case Style	Weight lb [kg][2]	@35%-65% Load	Mechanical Lugs Provided			Suggested Conductor Sizes (Copper 75°C, in conduit)[6]			Suggested CB at 120/208V (Not Included)
					Input Phase & Neutral	Output Phase	Output Neutral	Input Phase & Neutral	Output Phase	Output Neutral	
15	1.5	MT1	230 [104]	97.0%	#2-#14	#2-#14	1/0-#14	#6	#6	#2	50A
30	3.0	MT2	320 [145]	97.5%	1/0-#14	2/0-#14	250MCM-#6	#2	#1	4/0	100A
45	4.5	MT2	410 [186]	97.7%	250MCM-#6	250MCM-#6	350MCM-#6	2/0	3/0	350MCM	150A
60	6.0	MT3	470 [213]	97.8%	250MCM-#6	250MCM-#6	2x250MCM-#6	4/0	250MCM	2x250MCM	200A
75	7.5	MT3	540 [245]	98.0%	350MCM-#6	350MCM-#6	2x350MCM-#6	250MCM	350MCM	2x350MCM	250A
112.5	11.25	MT4	700 [318]	98.2%	2x250MCM-#6	2x250MCM-#6	4x250MCM-#6	2x4/0	2x250MCM	4x250MCM	350A
150	1.5	MT4	890 [404]	98.3%	2x250MCM-#6	2x350MCM-#6	4x350MCM-#2	2x250MCM	2x350MCM	4x350MCM	500A
225	2.25	LT1	1350 [612]	98.5%	None (N4)[3]	None (N4)[3]	None (N4)[3]	2x500MCM	3x350MCM	6x350MCM	750A

1. Ammeter displays amount of neutral current removed from the system by the CNCE™.
2. For additional information refer to: Typical Specifications, Technical Guide, Internal Layout and Connection Diagrams.
3. [N4] = Busbar drilled with Nema 4-hole pattern, no lugs included.
4. Specifications are subject to change without notice.
5. CNCE-FAI shipped with high input Zo selected (T1-T2 jumper open, folded back to T1). Consult factory before closing jumper.
6. End user is responsible for ensuring that the CNCE installation and wiring satisfies all applicable electrical and safety code requirements.
7. For CNCE-FAI model, use CNCE-STD output cable and lug sizes for both input and output, because triplen harmonics will be attracted to both input and output.
8. Max. inductive reactive power (Q) applies to CRC Option only. Provides inductive reactive power to compensate for leading PF loads.