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

TECHNICAL DATA **HARMONY-3E™**

Nema STD TP1 Compliant Harmonic Mitigating Transformer

GENERAL SPECIFICATIONS:

PRIMARY
3-phase, 3-wire, 60Hz

THREE SECONDARIES [each]
3-phase, 4-wire, 60Hz, 40% rated

OPERATING TEMPERATURE RISE[6]
130°C [115°C] [80°C]

***INSULATION* CLASS**[6]
220°C

ANGULAR DISPLACEMENT
20° between secondary groups

ZERO SEQUENCE IMPEDANCE
Zo < 0.95%, Xo < 0.3%
(or as per table below)

PRIMARY TAPS
15kVA (and all 208V): ± 1 x 5%
30kVA – 300kVA: ± 2 x 2.5%

K-FACTOR CAPABILITY
20

CREST FACTOR CAPABILITY
4.5

COMMON NEUTRAL BUS AMPACITY
200% of phase current

ENERGY EFFICIENCY *(see table below)*
NEMA TP1 Compliant **and better**

MAGNETISING INRUSH
< 10 times FL RMS

WINDING MATERIAL
Copper

INSULATING VARNISH IMPREGNATION
Polyester Resin

AUDIBLE SOUND LEVEL
As per NEMA ST-20
15 - 45kVA: 45dB
75 – 150kVA: 50dB
225 – 300kVA: 55dB

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

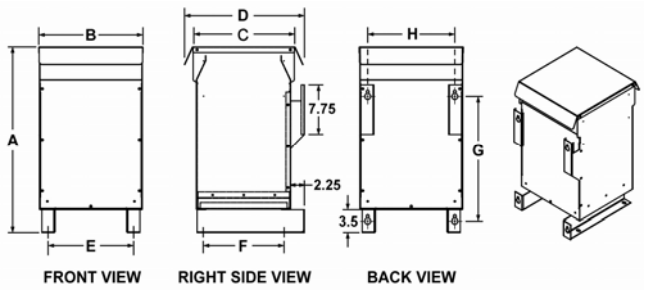
ELECTROSTATIC SHIELD
Single, [double]

OPTIONS:

OVER-TEMPERATURE SENSORS
[170°C], [200°C]

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

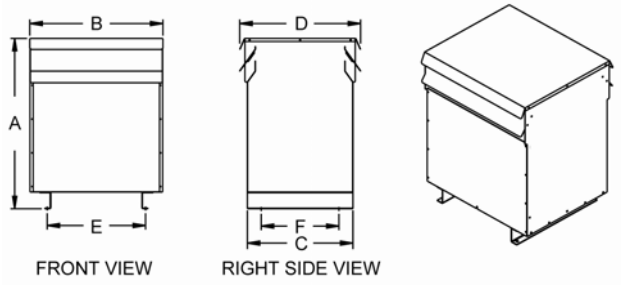
'MT1', 'MT2' STYLE ENCLOSURE



DIMENSIONS - 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', 'LT' STYLE ENCLOSURE



DIMENSIONS - inches *[mm]*

CASE STYLE	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]
LT2	66.00 [1677]	44.00 [1118]	34.00 [864]	38.00 [965]	26.00 [660]	36.00 [915]

Product Code:

H3E t - dd - hhh - xxx - kVA - 40 - X

- **t** — Transformer Type: T = (isolation), A = (autotransformer)
- **dd** — Angular Displacement: 20
- **hhh** — Primary L-L Voltage: 208, 480, 600
- **xxx** — Primary kVA: 15, 30, 45, 75, 112.5, 150, 225, 300
- **kVA** — Secondary L-L Voltage: 208, 480, 600
- **40** — Secondary Rating [each]: 40% (of primary kVA)
- **X** — Electrostatic Shield: X = (no shield), s = (single shield), ss = (double shield)

Sizes			Efficiency	Impedances			Terminal Lugs Provided (Mechanical Type)				
kVA Primary	Case Style	Weight lb *[kg]*[1]	@35% - 65% Load	3 Phase Short Circuit[4]	Zero Sequence[5] Zo	Zero Sequence[5] Xo	Primary 208V	Primary 480V	Primary 600V	Each Sec. Phase 120/208V	Total on Common Neutral
30	MT2	430 *[195]*	97.0%	2.8-3.5%	< 0.95%	< 0.3%	2/0-#6	#2-#14	#2-#14	#2-#14	3x2/0-#6
45	MT2	550 *[250]*	97.5%	2.8-3.5%	< 0.95%	< 0.3%	250MCM-#6	#2-#14	#2-#14	2/0-#6	6x2/0-#6
75	MT3	820 *[375]*	97.7%	2.8-3.5%	< 0.95%	< 0.3%	600MCM-#2	2/0-#6	2/0-#6	2/0-#6	6x250MCM-#6
112.5	MT4	1100 *[500]*	98.0%	2.8-3.5%	< 0.95%	< 0.3%	2x350MCM-#6	250MCM-#6	2/0-#6	250MCM-#6	6x250MCM-#6
150	MT4	1400 *[635]*	98.2%	2.8-3.5%	< 0.95%	< 0.3%	2x350MCM-#6	350MCM-#6	250MCM-#6	350MCM-#6	6x350MCM-#6
225	LT1	1950 *[885]*	98.3%	3.2-4.5%	< 1.0%	< 0.5%	2x600MCM-#2	600MCM-#2	600MCM-#2	600MCM-#2	6x600MCM-#2
300	LT2	2600 *[1180]*	98.5%	3.2-4.5%	< 1.0%	< 0.5%	Copper Pad	Copper Pad	Copper Pad	Copper Pad	Copper Pad

1. Estimated Values.
2. For additional information refer to: Typical Specifications, Technical Guide, Internal Layout and Connection Diagrams.
3. Specifications are subject to change without notice.
4. Based on primary side kVA rating and measured with one secondary short circuited.
5. Based on kVA rating of one secondary and measured with only one secondary short circuited.
6. 30kVA transformer has 200 ^{o} C insulation class.
7. 80 ^{o} C and 115 ^{o} C temperature rise may require larger enclosure.

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