



# HE3 SERIES

Surge Protective Device Type 1 and Type 2  
100 – 300 kA per Phase

Surge Protection Devices (PSDs), designed for Type 1 and Type 2 surge Protection for electrical distribution systems against the risk of harmful effects of transient surges.

- Direct and indirect lightning strikes
- Power company load switching

### Typical Applications:

- Commercial
- Industrial
- Communications
- Renewable Energy
- Critical Power (Hospitals, Data Centers, etc.)



### Features:

- UL 1449 4<sup>th</sup> Type 1 SPDs with SCCR up to 200 kArms without external fuse or CB
- UL 1449 4<sup>th</sup> Type 2 SPDs with Sine Wave Tracking, SCCR 200 kArms
- Full modes protection
- High surge energy capability with compact size
- Low voltage protection rating
- Two type enclosure, NEMA 4X plastic and NEMA 4 metal enclosure
- Degradation failure indication.
- Surge event counter optional
- Sine wave tracking function optional (for UL Type 2 listed)
- Remote Alarm optional
- Threaded NPT

### Specifications:

<b>Certification</b>	ANIS/UL 1449 4 <sup>th</sup> edition Type 1 / Type 2
<b>Connection Type</b>	Parallel Connected
<b>Surge Capacity</b>	100 – 300 kA per Phase
<b>SCCR</b>	200 kArms
<b>Sine Wave Tracking</b>	Optional for UL Type 2 listed
<b>Lightning Counter Current</b>	≥ 200 A (with Reset button)
<b>Failure Pre-Test</b>	Press 2S (Test Button)
<b>Power Status Indication</b>	Normal = Blue LED On
<b>Working Status Indication</b>	Normal = Blue LED ON; Fail = Blue LED Turn To Red
<b>Connection Wire</b>	10AWG, 300mm (11.8") Length, (L1 = Black; L2 = Red; L3 = Blue; N = White; PE = Green)
<b>Signal Cable</b>	16AWG, 300mm (11.8") Length, (C = Red; NC = Blue; NO = Brown)
<b>Working Environments</b>	Temperature -40°C ~ +75°C, Humidity Relative 5~95% (25°C), Altitude ≤ 3km



**Specifications:**

Case Type	PLASTIC	METAL
Dimensions (W x Dx H)	200 x 150 x 100 mm	286 x 200 120 mm
Threaded NPT	3/4" NPT	
Enclosure	Plastic Enclosure, NEMA 4X	Metal Enclosure, NEMA 4
Net Weight (Typical Value)	1.59 kg	4.3 kg

**Technical Data:**

Model No. DT1	System Voltage (50/60Hz)	In (kA)	Voltage Protection Mode Ratings (VPR @ 6kV/3kA)				MCOV	Fig.
			L-N	L-G	N-G	L-L		
HE3120P•PT1CTA	120/240V SP	20	700	800	800	1200	150/320*	1
HE3120P•PT2CTA	120/240V SP	20	700	800	800	1200	150/320*	1
HE3120P•MT1CTA	120/240V SP	20	700	800	800	1200	150/320*	1
HE3120P•MT2CTA	120/240V SP	20	700	800	800	1200	150/320*	1
HE3240P•PT1CTA	240/480V SP	20	1200	1200	1200	2000	320/550*	1
HE3240P•PT2CTA	240/480V SP	20	1200	1200	1200	2000	320/550*	1
HE3240P•MT1CTA	240/480V SP	20	1200	1200	1200	2000	320/550*	1
HE3240P•MT2CTA	240/480V SP	20	1200	1200	1200	2000	320/550*	1
HE3120S•PT1CTA	120V S	20	700	800	800	-	150	2
HE3120S•PT2CTA	120V S	20	700	800	800	-	150	2
HE3120S•MT1CTA	120V S	20	700	800	800	-	150	2
HE3120S•MT2CTA	120V S	20	700	800	800	-	150	2
HE3127S•PT1CTA	127V S	20	700	800	800	-	150	2
HE3127S•PT2CTA	127V S	20	700	800	800	-	150	2
HE3127S•MT1CTA	127V S	20	700	800	800	-	150	2
HE3127S•MT2CTA	127V S	20	700	800	800	-	150	2
HE3240S•PT1CTA	240V S	20	1200	1200	1200	-	320	2
HE3240S•PT2CTA	240V S	20	1200	1200	1200	-	320	2
HE3240S•MT1CTA	240V S	20	1200	1200	1200	-	320	2
HE3240S•MT2CTA	240V S	20	1200	1200	1200	-	320	2
HE3277S•PT1CTA	277V S	20	1200	1200	1200	-	320	2
HE3277S•PT2CTA	277V S	20	1200	1200	1200	-	320	2
HE3277S•MT1CTA	277V S	20	1200	1200	1200	-	320	2
HE3277S•MT2CTA	277V S	20	1200	1200	1200	-	320	2
HE3347S•PT1CTA	347V S	20	1500	1500	1500	-	420	2
HE3347S•PT2CTA	347V S	20	1500	1500	1500	-	420	2
HE3347S•MT1CTA	347V S	20	1500	1500	1500	-	420	2
HE3347S•MT2CTA	347V S	20	1500	1500	1500	-	420	2



**Technical Data:**

Model No. DT1	System Voltage (50/60Hz)	In (kA)	Voltage Protection Mode Ratings (VPR @ 6kV/3kA)				MCOV	Fig.
			L-N	L-G	N-G	L-L		
HE3127Y•PT1CTA	220Y/127V Y	20	700	800	800	1200	150	3
HE3127Y•PT2CTA	220Y/127V Y	20	700	800	800	1200	150	3
HE3127Y•MT1CTA	220Y/127V Y	20	700	800	800	1200	150	3
HE3127Y•MT2CTA	220Y/127V Y	20	700	800	800	1200	150	3
HE3120Y•PT1CTA	208Y/120V Y	20	700	800	800	1200	150	3
HE3120Y•PT2CTA	208Y/120V Y	20	700	800	800	1200	150	3
HE3120Y•MT1CTA	208Y/120V Y	20	700	800	800	1200	150	3
HE3120Y•MT2CTA	208Y/120V Y	20	700	800	800	1200	150	3
HE3240Y•PT1CTA	415Y/240V Y	20	1200	1200	1200	2000	320	3
HE3240Y•PT2CTA	415Y/240V Y	20	1200	1200	1200	2000	320	3
HE3240Y•MT1CTA	415Y/240V Y	20	1200	1200	1200	2000	320	3
HE3240Y•MT2CTA	415Y/240V Y	20	1200	1200	1200	2000	320	3
HE3277Y•PT1CTA	480Y/277V Y	20	1200	1200	1200	2000	320	3
HE3277Y•PT2CTA	480Y/277V Y	20	1200	1200	1200	2000	320	3
HE3277Y•MT1CTA	480Y/277V Y	20	1200	1200	1200	2000	320	3
HE3277Y•MT2CTA	480Y/277V Y	20	1200	1200	1200	2000	320	3
HE3347Y•PT1CTA	600Y/347V Y	20	1500	1500	1500	2500	420	3
HE3347Y•PT2CTA	600Y/347V Y	20	1500	1500	1500	2500	420	3
HE3347Y•MT1CTA	600Y/347V Y	20	1500	1500	1500	2500	420	3
HE3347Y•MT2CTA	600Y/347V Y	20	1500	1500	1500	2500	420	3
HE3120H•PT1CTA	120/240V HL	20	700/1200	800/1200	800	1200/2000	150/320	3
HE3120H•PT2CTA	120/240V HL	20	700/1200	800/1200	800	1200/2000	150/320	3
HE3120H•MT1CTA	120/240V HL	20	700/1200	800/1200	800	1200/2000	150/320	3
HE3120H•MT2CTA	120/240V HL	20	700/1200	800/1200	800	1200/2000	150/320	3
HE3240H•PT1CTA	240/480V HL	20	1200/1800	1200/1800	1200	2000/3000	320/550	3
HE3240H•PT2CTA	240/480V HL	20	1200/1800	1200/1800	1200	2000/3000	320/550	3
HE3240H•MT1CTA	240/480V HL	20	1200/1800	1200/1800	1200	2000/3000	320/550	3
HE3240H•MT2CTA	240/480V HL	20	1200/1800	1200/1800	1200	2000/3000	320/550	3
HE3240D•PT1CTA	240V D	20	-	1200	-	1200	320	4
HE3240D•PT2CTA	240V D	20	-	1200	-	1200	320	4
HE3240D•MT1CTA	240V D	20	-	1200	-	1200	320	4
HE3240D•MT2CTA	240V D	20	-	1200	-	1200	320	4
HE3480D•PT1CTA	480V D	20	-	1800	-	2000	550	4
HE3480D•PT2CTA	480V D	20	-	1800	-	2000	550	4
HE3480D•MT1CTA	480V D	20	-	1800	-	2000	550	4
HE3480D•MT2CTA	480V D	20	-	1800	-	2000	550	4
HE3600D•PT1CTA	600V D	20	-	2000	-	2500	690	4
HE3600D•PT2CTA	600V D	20	-	2000	-	2500	690	4
HE3600D•MT1CTA	600V D	20	-	2000	-	2500	690	4
HE3600D•MT2CTA	600V D	20	-	2000	-	2500	690	4

*\*Note: Replace • With TPMOV Combination Per Phase Configuration. See Chart Below.*



**Configuration:**

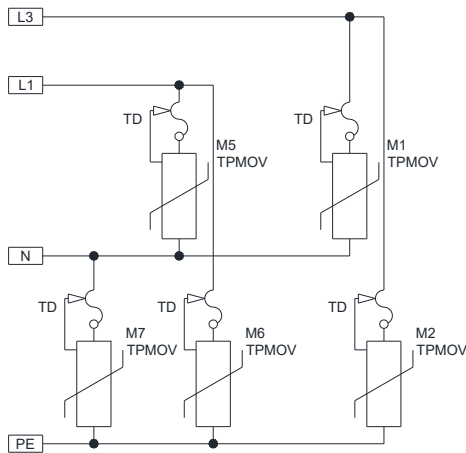
•	22	32	42	52	62
TPMOV Combination	100kA/PHASE, 50kA/MODE	150kA/PHASE, 75kA/MODE	200kA/PHASE, 100kA/MODE	250kA/PHASE, 125kA/MODE	300kA/PHASE, 150kA/MODE

**Configure & Ordering Information:**

<b>Part Number:</b> HE 3 120 P 22 P T1 CTA 1 2 3 4 5 6 7 8	<b>3. Voltage Code:</b> 120 127 240 277 347 480 600	<b>4. System Configuration</b> S - Single Phase P - Split Phase Y - WYE H - High Leg Delta D - Delta	<b>5. TP MOV Combination</b> 22 32 42 52 62
<b>1: Product ID:</b> HE – Hulk Series			<b>6. Material:</b> P - Plastic M - Metal
<b>2: Series Category:</b> 3 – HE3			<b>7. SPD Type:</b> T1 - Type 1 T2 - Type 2
		<b>8. Options:</b> C – Surge Counter T – Failure Test A – Remote Alarm	

**Basic Circuits:**

**Fig. 1**



**Fig. 2**

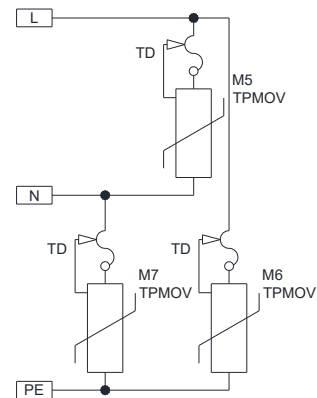


Fig. 3

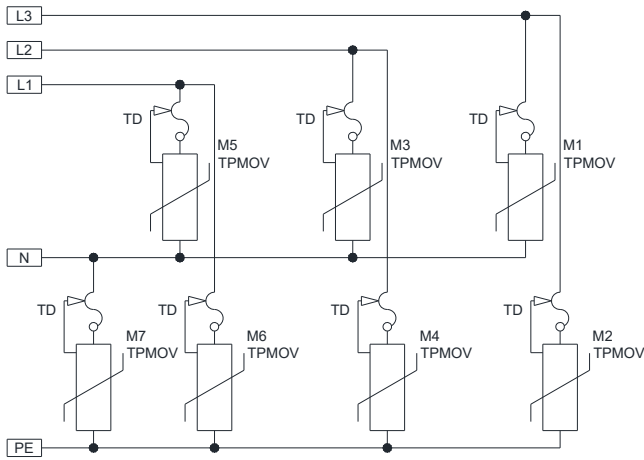
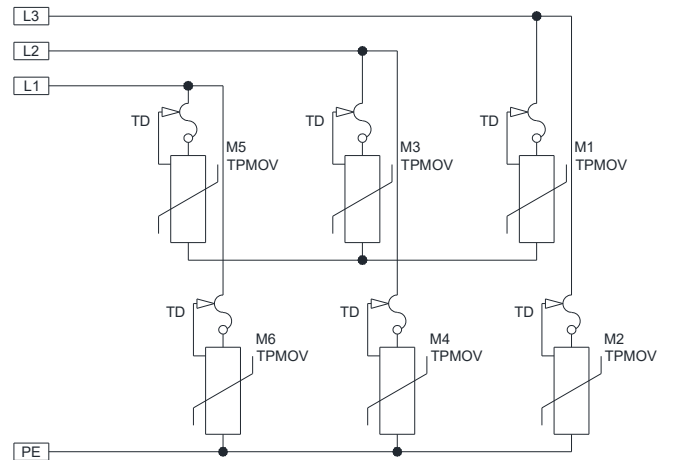
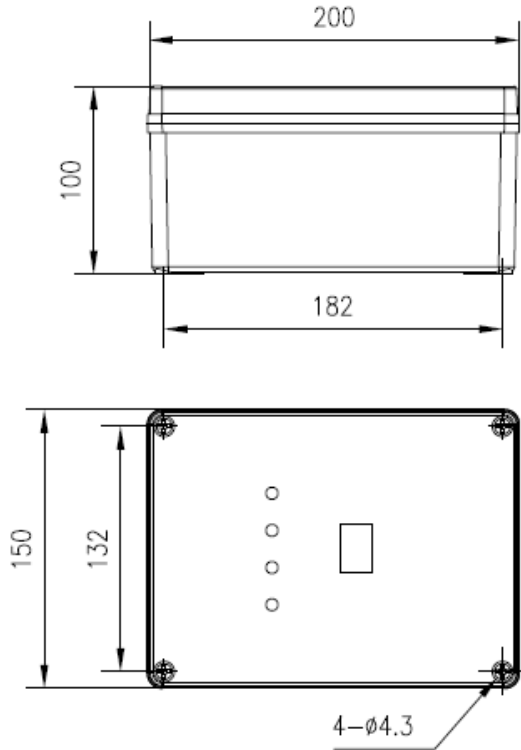


Fig. 4

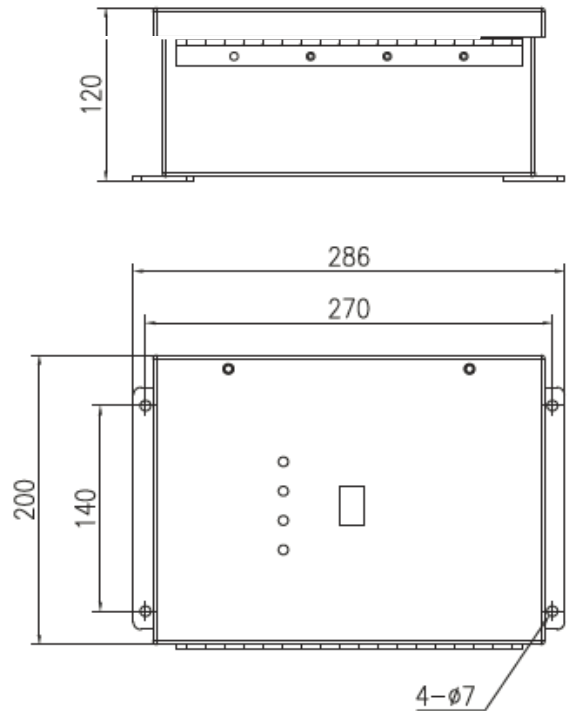


**Dimensions:**

**NEMA 4X**



**NEMA 4**



**Certification:**

