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# MIDATRON CHARGING SOLUTIONS

# CHARGING SOLUTIONS



## MIDATRON HF

APPLICATION	STANDARD BASIC
TECHNOLOGY	HIGH FREQUENCY SWITCHING
DESIGN	WALL MOUNTED
MAINS	SINGLE-PHASE / THREE-PHASE
CHARGING PROFILE	IU <sub>1α</sub>
CHARGING TIME	7h to 12h

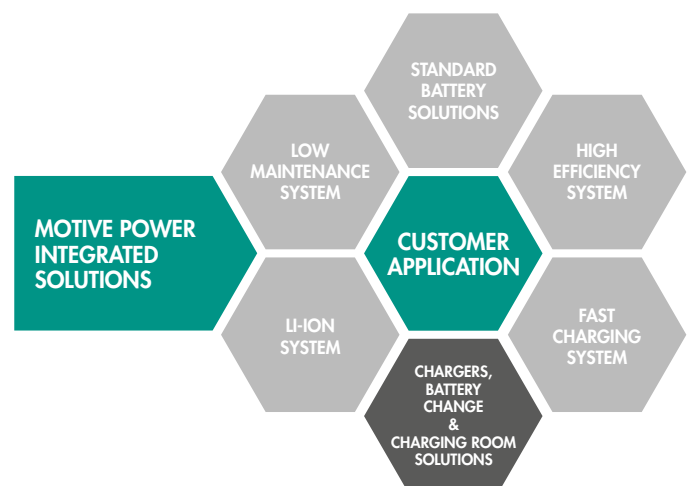


## MIDATRON MTB

APPLICATION	STANDARD BASIC
TECHNOLOGY	POWER TRANSFORMER
DESIGN	SHELF - FLOOR MOUNTED
MAINS	SINGLE-PHASE / THREE-PHASE
CHARGING PROFILE	W <sub>α</sub>
CHARGING TIME	10h to 12h

Solid charging solutions, MIDATRON HF and MIDATRON MTB represent the BASIC range with HIGH QUALITY and concrete reliability characteristics. Respectively High Frequency switching and power transformer technology, both the versions include the user-friendly interface common to all the MIDATRON products.

Soluzioni di ricarica robuste, MIDATRON HF e MIDATRON MTB rappresentano la gamma base con caratteristiche di elevata qualità e consistente affidabilità. Rispettivamente con tecnologia di commutazione ad Alta Frequenza ed a trasformatore di potenza, entrambe le versioni includono l'interfaccia utente semplice ed intuitiva comune a tutti i prodotti MIDATRON.



# CHARGING SOLUTIONS



## MIDATRON HE

APPLICATION	HIGH EFFICIENCY - FAST CHARGING
TECHNOLOGY	MULTI-VOLTAGE HIGH FREQUENCY SWITCHING / IGBT
DESIGN	WALL MOUNTED
MAINS	SINGLE-PHASE / THREE-PHASE
CHARGING PROFILE	IUIa
CHARGING TIME	7h to 12h (or FAST)

(High Power versions, see MULTI-VOLTAGE IGBT)

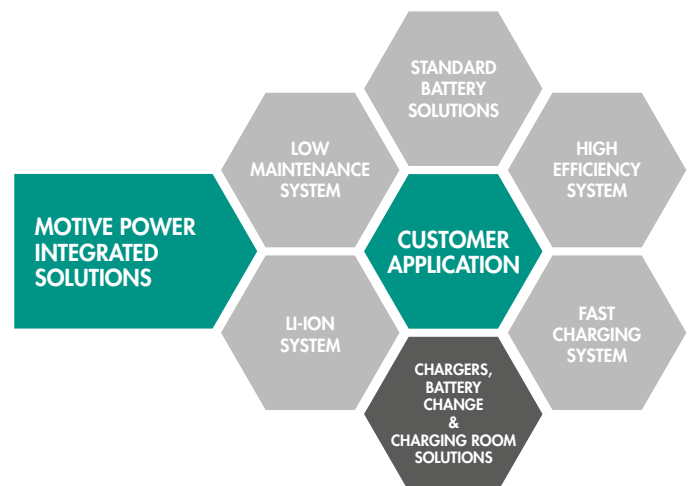


## MIDATRON MTT

APPLICATION	STANDARD TOP
TECHNOLOGY	POWER TRANSFORMER
DESIGN	SHELF - FLOOR MOUNTED
MAINS	THREE-PHASE
CHARGING PROFILE	W <sub>sa</sub> PULSE
CHARGING TIME	7h to 8h

Forefront of charging solutions, MIDATRON HE and MIDATRON MTT actually represent the TOP range from any point of view. Respectively full 100kHz High Frequency switching and 12 Pulse rectification technology, with amazing EFFICIENCY characteristics, ALL the most advanced features are included, starting from the user-friendly interface to the powerline communication with the BMU (MB2).

Avanguardia nelle soluzioni di ricarica, MIDATRON HE e MIDATRON MTT rappresentano effettivamente la gamma TOP da ogni punto di vista. Rispettivamente con tecnologia di commutazione ad Alta Frequenza 100kHz e raddrizzamento a 12 impulsi, con sorprendenti caratteristiche di EFFICIENZA, includono tutte le più avanzate soluzioni tecnologiche, dall'interfaccia utente semplice ed intuitiva alla comunicazione ad onde convogliate con il modulo batterie (BMU=MB2).



# MIDATRON MTB (12h)

## SINGLE-PHASE 50-60Hz POWER SUPPLY / ALIMENTAZIONE MONOFASE 50-60Hz

Type / Tipo	Output Uscita		Battery capacity (charging time 10 to 12 hrs) Capacità batteria (tempo di carica 10 - 12 ore)	Mains Rete	Phase Current Pmax	Housing dimensions Dimensioni armadio			Installation (Wall-Shelf-Floor) Installazione (Parete-Ripiano-Terra)	Weight Peso
	V	A				Ah/C5 (80%DoD)	±10% Vac	±10% A		
	mm	mm	mm	mm	mm	mm	mm			
<b>MTB 24-20M</b>	24	<b>20</b>	120-150	<b>230</b>	3,2	<b>475</b>	282	<b>263</b>	Shelf - Ripiano	<b>14</b>
<b>MTB 24-25M</b>	24	<b>25</b>	150-200	<b>230</b>	4,0	<b>475</b>	282	<b>263</b>	Shelf - Ripiano	<b>14</b>
<b>MTB 24-30M</b>	24	<b>30</b>	200-235	<b>230</b>	4,8	<b>475</b>	282	<b>263</b>	Shelf - Ripiano	<b>16</b>
<b>MTB 24-40M</b>	24	<b>40</b>	235-310	<b>230</b>	6,4	<b>475</b>	282	<b>263</b>	Shelf - Ripiano	<b>19</b>
<b>MTB 24-50M</b>	24	<b>50</b>	310-380	<b>230</b>	8,0	<b>475</b>	282	<b>263</b>	Shelf - Ripiano	<b>21</b>
<b>MTB 24-60M</b>	24	<b>60</b>	380-450	<b>230</b>	9,6	<b>475</b>	282	<b>263</b>	Shelf - Ripiano	<b>23</b>
<b>MTB 24-80M</b>	24	<b>80</b>	450-600	<b>230</b>	12,7	<b>475</b>	282	<b>263</b>	Shelf - Ripiano	<b>25</b>
<b>MTB 24-100M</b>	24	<b>100</b>	600-750	<b>230</b>	15,9	<b>505</b>	357	<b>692</b>	Floor - Terra	<b>38</b>
<b>MTB 24-120M</b>	24	<b>120</b>	750-900	<b>230</b>	19,1	<b>505</b>	357	<b>692</b>	Floor - Terra	<b>41</b>
<b>MTB 24-140M</b>	24	<b>140</b>	900-1050	<b>230</b>	22,3	<b>505</b>	357	<b>692</b>	Floor - Terra	<b>44</b>
<b>MTB 24-160M</b>	24	<b>160</b>	1050-1200	<b>230</b>	25,5	<b>505</b>	357	<b>692</b>	Floor - Terra	<b>49</b>
<b>MTB 36-20M</b>	36	<b>20</b>	120-150	<b>230</b>	4,7	<b>475</b>	282	<b>263</b>	Shelf - Ripiano	<b>19</b>
<b>MTB 36-25M</b>	36	<b>25</b>	150-200	<b>230</b>	5,9	<b>475</b>	282	<b>263</b>	Shelf - Ripiano	<b>20</b>
<b>MTB 36-30M</b>	36	<b>30</b>	200-235	<b>230</b>	7,1	<b>475</b>	282	<b>263</b>	Shelf - Ripiano	<b>22</b>
<b>MTB 36-40M</b>	36	<b>40</b>	235-310	<b>230</b>	9,4	<b>475</b>	282	<b>263</b>	Shelf - Ripiano	<b>24</b>
<b>MTB 36-50M</b>	36	<b>50</b>	310-380	<b>230</b>	11,8	<b>475</b>	282	<b>263</b>	Shelf - Ripiano	<b>26</b>
<b>MTB 36-60M</b>	36	<b>60</b>	380-450	<b>230</b>	14,2	<b>475</b>	282	<b>263</b>	Shelf - Ripiano	<b>30</b>
<b>MTB 36-80M</b>	36	<b>80</b>	450-600	<b>230</b>	18,9	<b>475</b>	282	<b>263</b>	Shelf - Ripiano	<b>35</b>
<b>MTB 36-100M</b>	36	<b>100</b>	600-750	<b>230</b>	23,6	<b>505</b>	357	<b>692</b>	Floor - Terra	<b>41</b>
<b>MTB 36-120M</b>	36	<b>120</b>	750-900	<b>230</b>	28,3	<b>505</b>	357	<b>692</b>	Floor - Terra	<b>50</b>
<b>MTB 48-20M</b>	48	<b>20</b>	120-150	<b>230</b>	6,2	<b>475</b>	282	<b>263</b>	Shelf - Ripiano	<b>23</b>
<b>MTB 48-25M</b>	48	<b>25</b>	150-200	<b>230</b>	7,8	<b>475</b>	282	<b>263</b>	Shelf - Ripiano	<b>24</b>
<b>MTB 48-30M</b>	48	<b>30</b>	200-235	<b>230</b>	9,3	<b>475</b>	282	<b>263</b>	Shelf - Ripiano	<b>25</b>
<b>MTB 48-40M</b>	48	<b>40</b>	235-310	<b>230</b>	12,4	<b>475</b>	282	<b>263</b>	Shelf - Ripiano	<b>26</b>
<b>MTB 48-50M</b>	48	<b>50</b>	310-380	<b>230</b>	15,6	<b>475</b>	282	<b>263</b>	Shelf - Ripiano	<b>28</b>
<b>MTB 48-60M</b>	48	<b>60</b>	380-450	<b>230</b>	18,7	<b>475</b>	282	<b>263</b>	Shelf - Ripiano	<b>31</b>
<b>MTB 48-80M</b>	48	<b>80</b>	450-600	<b>230</b>	24,9	<b>475</b>	282	<b>263</b>	Shelf - Ripiano	<b>38</b>
<b>MTB 48-100M</b>	48	<b>100</b>	600-750	<b>230</b>	31,1	<b>505</b>	357	<b>692</b>	Floor - Terra	<b>53</b>

## THREE-PHASE 50-60Hz POWER SUPPLY / ALIMENTAZIONE TRIFASE 50-60Hz

<b>MTB 24-40T</b>	24	<b>40</b>	235-310	<b>400</b>	2,0	<b>508</b>	383	<b>325</b>	Shelf - Ripiano	<b>40</b>
<b>MTB 24-60T</b>	24	<b>60</b>	310-450	<b>400</b>	3,1	<b>508</b>	383	<b>325</b>	Shelf - Ripiano	<b>40</b>
<b>MTB 24-80T</b>	24	<b>80</b>	450-600	<b>400</b>	4,1	<b>508</b>	383	<b>325</b>	Shelf - Ripiano	<b>40</b>
<b>MTB 24-100T</b>	24	<b>100</b>	600-750	<b>400</b>	5,1	<b>508</b>	383	<b>325</b>	Shelf - Ripiano	<b>46</b>
<b>MTB 24-120T</b>	24	<b>120</b>	750-900	<b>400</b>	6,1	<b>508</b>	383	<b>325</b>	Shelf - Ripiano	<b>51</b>
<b>MTB 24-140T</b>	24	<b>140</b>	900-1050	<b>400</b>	7,2	<b>505</b>	357	<b>692</b>	Floor - Terra	<b>54</b>
<b>MTB 24-160T</b>	24	<b>160</b>	1050-1200	<b>400</b>	8,2	<b>505</b>	357	<b>692</b>	Floor - Terra	<b>58</b>

## THREE-PHASE 50-60Hz POWER SUPPLY / ALIMENTAZIONE TRIFASE 50-60Hz

Type / Tipo	Output Uscita		Battery capacity (charging time 10 to 12 hrs) Capacità batteria (tempo di carica 10 - 12 ore)	Mains Rete	Phase Current Pmax	Housing dimensions Dimensioni armadio			Installation (Wall-Shelf-Floor) Installazione (Parete-Ripiano-Terra)	Weight Peso
	V	A				Ah/C5 (80%DoD)	±10% Vac	±10% A		
	mm	mm	mm	Kg						
<b>MTB 24-180T</b>	24	<b>180</b>	1200-1350	<b>400</b>	9,2	<b>505</b>	357	<b>692</b>	Floor - Terra	<b>62</b>
<b>MTB 24-200T</b>	24	<b>200</b>	1350-1500	<b>400</b>	10,2	<b>505</b>	357	<b>692</b>	Floor - Terra	<b>65</b>
<b>MTB 24-240T</b>	24	<b>240</b>	1500-1800	<b>400</b>	12,3	<b>505</b>	442	<b>901</b>	Floor - Terra	<b>95</b>
<b>MTB 36-40T</b>	36	<b>40</b>	235-310	<b>400</b>	3,0	<b>508</b>	383	<b>325</b>	Shelf - Ripiano	<b>48</b>
<b>MTB 36-60T</b>	36	<b>60</b>	310-450	<b>400</b>	4,5	<b>508</b>	383	<b>325</b>	Shelf - Ripiano	<b>50</b>
<b>MTB 36-80T</b>	36	<b>80</b>	450-600	<b>400</b>	6,1	<b>508</b>	383	<b>325</b>	Shelf - Ripiano	<b>52</b>
<b>MTB 36-100T</b>	36	<b>100</b>	600-750	<b>400</b>	7,6	<b>508</b>	383	<b>325</b>	Shelf - Ripiano	<b>54</b>
<b>MTB 36-120T</b>	36	<b>120</b>	750-900	<b>400</b>	9,1	<b>508</b>	383	<b>325</b>	Shelf - Ripiano	<b>58</b>
<b>MTB 36-140T</b>	36	<b>140</b>	900-1050	<b>400</b>	10,6	<b>505</b>	357	<b>692</b>	Floor - Terra	<b>62</b>
<b>MTB 36-160T</b>	36	<b>160</b>	1050-1200	<b>400</b>	12,1	<b>505</b>	357	<b>692</b>	Floor - Terra	<b>65</b>
<b>MTB 48-40T</b>	48	<b>40</b>	235-310	<b>400</b>	4,0	<b>508</b>	383	<b>325</b>	Shelf - Ripiano	<b>48</b>
<b>MTB 48-60T</b>	48	<b>60</b>	310-450	<b>400</b>	6,0	<b>508</b>	383	<b>325</b>	Shelf - Ripiano	<b>52</b>
<b>MTB 48-80T</b>	48	<b>80</b>	450-600	<b>400</b>	8,0	<b>508</b>	383	<b>325</b>	Shelf - Ripiano	<b>53</b>
<b>MTB 48-100T</b>	48	<b>100</b>	600-750	<b>400</b>	10,0	<b>508</b>	383	<b>325</b>	Shelf - Ripiano	<b>54</b>
<b>MTB 48-120T</b>	48	<b>120</b>	750-900	<b>400</b>	12,0	<b>508</b>	383	<b>325</b>	Shelf - Ripiano	<b>65</b>
<b>MTB 48-140T</b>	48	<b>140</b>	900-1050	<b>400</b>	14,0	<b>505</b>	357	<b>692</b>	Floor - Terra	<b>72</b>
<b>MTB 48-160T</b>	48	<b>160</b>	1050-1200	<b>400</b>	16,0	<b>505</b>	357	<b>692</b>	Floor - Terra	<b>88</b>
<b>MTB 48-180T</b>	48	<b>180</b>	1200-1350	<b>400</b>	18,0	<b>505</b>	357	<b>692</b>	Floor - Terra	<b>92</b>
<b>MTB 48-200T</b>	48	<b>200</b>	1350-1500	<b>400</b>	20,0	<b>505</b>	357	<b>692</b>	Floor - Terra	<b>113</b>
<b>MTB 72-40T</b>	72	<b>40</b>	235-310	<b>400</b>	5,9	<b>508</b>	383	<b>325</b>	Shelf - Ripiano	<b>62</b>
<b>MTB 72-60T</b>	72	<b>60</b>	310-450	<b>400</b>	8,8	<b>508</b>	383	<b>325</b>	Shelf - Ripiano	<b>64</b>
<b>MTB 72-80T</b>	72	<b>80</b>	450-600	<b>400</b>	11,7	<b>508</b>	383	<b>325</b>	Shelf - Ripiano	<b>70</b>
<b>MTB 72-100T</b>	72	<b>100</b>	600-750	<b>400</b>	14,6	<b>505</b>	357	<b>692</b>	Floor - Terra	<b>96</b>
<b>MTB 72-120T</b>	72	<b>120</b>	750-900	<b>400</b>	17,6	<b>505</b>	357	<b>692</b>	Floor - Terra	<b>98</b>
<b>MTB 80-40T</b>	80	<b>40</b>	235-310	<b>400</b>	6,4	<b>508</b>	383	<b>325</b>	Shelf - Ripiano	<b>70</b>
<b>MTB 80-60T</b>	80	<b>60</b>	310-450	<b>400</b>	9,7	<b>508</b>	383	<b>325</b>	Shelf - Ripiano	<b>72</b>
<b>MTB 80-80T</b>	80	<b>80</b>	450-600	<b>400</b>	12,9	<b>508</b>	383	<b>325</b>	Shelf - Ripiano	<b>98</b>
<b>MTB 80-100T</b>	80	<b>100</b>	600-750	<b>400</b>	16,1	<b>505</b>	357	<b>692</b>	Floor - Terra	<b>95</b>
<b>MTB 80-120T</b>	80	<b>120</b>	750-900	<b>400</b>	19,3	<b>505</b>	357	<b>692</b>	Floor - Terra	<b>113</b>
<b>MTB 80-140T</b>	80	<b>140</b>	900-1050	<b>400</b>	22,5	<b>505</b>	357	<b>692</b>	Floor - Terra	<b>123</b>
<b>MTB 80-160T</b>	80	<b>160</b>	1050-1200	<b>400</b>	25,7	<b>505</b>	442	<b>901</b>	Floor - Terra	<b>139</b>

80%DoD = regular operation as recommended | Charger models not included in the present catalogue are available on demand.

80%DoD = utilizzo regolare come raccomandato | Modelli di caricabatteria non inclusi nel presente catalogo sono disponibili su richiesta.

## THREE-PHASE 50-60Hz POWER SUPPLY / ALIMENTAZIONE TRIFASE 50-60Hz

Type / Tipo	Output Uscita		Battery capacity (charging time 7 to 8 hrs) Capacità batteria (tempo di carica 7 - 8 ore)	Mains Rete	Phase Current Pmax	Housing dimensions Dimensioni armadio			Installation (Wall-Shelf-Floor) Installazione (Parete-Ripiano-Terra)	Weight Peso
	V	A				Ah/C5 (80%DoD)	±10% Vac	±10% A		
						mm	mm	mm	Kg	
<b>MTT 24-40T</b>	24	<b>40</b>	300-375	<b>400</b>	1,8	<b>505</b>	357	<b>692</b>	Floor - Terra	<b>40</b>
<b>MTT 24-60T</b>	24	<b>60</b>	375-450	<b>400</b>	2,7	<b>505</b>	357	<b>692</b>	Floor - Terra	<b>40</b>
<b>MTT 24-80T</b>	24	<b>80</b>	450-600	<b>400</b>	3,6	<b>505</b>	357	<b>692</b>	Floor - Terra	<b>40</b>
<b>MTT 24-100T</b>	24	<b>100</b>	600-750	<b>400</b>	4,5	<b>505</b>	357	<b>692</b>	Floor - Terra	<b>46</b>
<b>MTT 24-120T</b>	24	<b>120</b>	750-900	<b>400</b>	5,4	<b>505</b>	357	<b>692</b>	Floor - Terra	<b>51</b>
<b>MTT 24-140T</b>	24	<b>140</b>	900-1050	<b>400</b>	6,3	<b>505</b>	357	<b>692</b>	Floor - Terra	<b>54</b>
<b>MTT 24-160T</b>	24	<b>160</b>	1050-1200	<b>400</b>	7,2	<b>505</b>	357	<b>692</b>	Floor - Terra	<b>58</b>
<b>MTT 24-180T</b>	24	<b>180</b>	1200-1350	<b>400</b>	8,1	<b>505</b>	357	<b>692</b>	Floor - Terra	<b>62</b>
<b>MTT 24-200T</b>	24	<b>200</b>	1350-1500	<b>400</b>	9,0	<b>505</b>	357	<b>692</b>	Floor - Terra	<b>65</b>
<b>MTT 24-240T</b>	24	<b>240</b>	1500-1800	<b>400</b>	10,8	<b>505</b>	442	<b>901</b>	Floor - Terra	<b>95</b>
<b>MTT 24-280T</b>	24	<b>280</b>	1800-2100	<b>400</b>	12,6	<b>626</b>	522	<b>1057</b>	Floor - Terra	<b>100</b>
<b>MTT 36-40T</b>	36	<b>40</b>	300-375	<b>400</b>	2,7	<b>505</b>	357	<b>692</b>	Floor - Terra	<b>50</b>
<b>MTT 36-60T</b>	36	<b>60</b>	375-450	<b>400</b>	4,0	<b>505</b>	357	<b>692</b>	Floor - Terra	<b>52</b>
<b>MTT 36-80T</b>	36	<b>80</b>	450-600	<b>400</b>	5,3	<b>505</b>	357	<b>692</b>	Floor - Terra	<b>52</b>
<b>MTT 36-100T</b>	36	<b>100</b>	600-750	<b>400</b>	6,7	<b>505</b>	357	<b>692</b>	Floor - Terra	<b>54</b>
<b>MTT 36-120T</b>	36	<b>120</b>	750-900	<b>400</b>	8,0	<b>505</b>	357	<b>692</b>	Floor - Terra	<b>58</b>
<b>MTT 36-140T</b>	36	<b>140</b>	900-1050	<b>400</b>	9,3	<b>505</b>	357	<b>692</b>	Floor - Terra	<b>62</b>
<b>MTT 36-160T</b>	36	<b>160</b>	1050-1200	<b>400</b>	10,6	<b>505</b>	357	<b>692</b>	Floor - Terra	<b>65</b>
<b>MTT 48-40T</b>	48	<b>40</b>	300-375	<b>400</b>	3,5	<b>505</b>	357	<b>692</b>	Floor - Terra	<b>48</b>
<b>MTT 48-60T</b>	48	<b>60</b>	375-450	<b>400</b>	5,3	<b>505</b>	357	<b>692</b>	Floor - Terra	<b>53</b>
<b>MTT 48-80T</b>	48	<b>80</b>	450-600	<b>400</b>	7,0	<b>505</b>	357	<b>692</b>	Floor - Terra	<b>53</b>
<b>MTT 48-100T</b>	48	<b>100</b>	600-750	<b>400</b>	8,8	<b>505</b>	357	<b>692</b>	Floor - Terra	<b>54</b>
<b>MTT 48-120T</b>	48	<b>120</b>	750-900	<b>400</b>	10,5	<b>505</b>	357	<b>692</b>	Floor - Terra	<b>65</b>
<b>MTT 48-140T</b>	48	<b>140</b>	900-1050	<b>400</b>	12,3	<b>505</b>	357	<b>692</b>	Floor - Terra	<b>72</b>
<b>MTT 48-160T</b>	48	<b>160</b>	1050-1200	<b>400</b>	14,0	<b>505</b>	442	<b>901</b>	Floor - Terra	<b>88</b>

## THREE-PHASE 50-60Hz POWER SUPPLY / ALIMENTAZIONE TRIFASE 50-60Hz

Type / Tipo	Output Uscita		Battery capacity (charging time 7 to 8 hrs) Capacità batteria (tempo di carica 7 - 8 ore)	Mains Rete	Phase Current Pmax	Housing dimensions Dimensioni armadio			Installation (Wall-Shelf-Floor) Installazione (Parete-Ripiano-Terra)	Weight Peso Kg
	V	A				Ah/C5 (80%DoD)	±10% Vac	±10% A		
	mm	mm	mm							
<b>MTT 48-180T</b>	48	<b>180</b>	1200-1350	<b>400</b>	15,8	<b>505</b>	442	<b>901</b>	Floor - Terra	<b>92</b>
<b>MTT 48-200T</b>	48	<b>200</b>	1350-1500	<b>400</b>	17,5	<b>505</b>	442	<b>901</b>	Floor - Terra	<b>113</b>
<b>MTT 48-240T</b>	48	<b>240</b>	1500-1800	<b>400</b>	21,0	<b>505</b>	442	<b>901</b>	Floor - Terra	<b>137</b>
<b>MTT 48-280T</b>	48	<b>280</b>	1800-2100	<b>400</b>	24,6	<b>626</b>	522	<b>1057</b>	Floor - Terra	<b>145</b>
<b>MTT 72-40T</b>	72	<b>40</b>	300-375	<b>400</b>	5,2	<b>505</b>	357	<b>692</b>	Floor - Terra	<b>64</b>
<b>MTT 72-60T</b>	72	<b>60</b>	375-450	<b>400</b>	7,8	<b>505</b>	357	<b>692</b>	Floor - Terra	<b>70</b>
<b>MTT 72-80T</b>	72	<b>80</b>	450-600	<b>400</b>	10,4	<b>505</b>	357	<b>692</b>	Floor - Terra	<b>70</b>
<b>MTT 72-100T</b>	72	<b>100</b>	600-750	<b>400</b>	13,0	<b>505</b>	357	<b>692</b>	Floor - Terra	<b>96</b>
<b>MTT 72-120T</b>	72	<b>120</b>	750-900	<b>400</b>	15,6	<b>505</b>	442	<b>901</b>	Floor - Terra	<b>98</b>
<b>MTT 72-140T</b>	72	<b>140</b>	900-1050	<b>400</b>	18,2	<b>505</b>	442	<b>901</b>	Floor - Terra	<b>110</b>
<b>MTT 80-40T</b>	80	<b>40</b>	300-375	<b>400</b>	5,7	<b>505</b>	357	<b>692</b>	Floor - Terra	<b>72</b>
<b>MTT 80-60T</b>	80	<b>60</b>	375-450	<b>400</b>	8,6	<b>505</b>	357	<b>692</b>	Floor - Terra	<b>98</b>
<b>MTT 80-80T</b>	80	<b>80</b>	450-600	<b>400</b>	11,4	<b>505</b>	357	<b>692</b>	Floor - Terra	<b>98</b>
<b>MTT 80-100T</b>	80	<b>100</b>	600-750	<b>400</b>	14,3	<b>505</b>	357	<b>692</b>	Floor - Terra	<b>105</b>
<b>MTT 80-120T</b>	80	<b>120</b>	750-900	<b>400</b>	17,2	<b>505</b>	442	<b>901</b>	Floor - Terra	<b>113</b>
<b>MTT 80-140T</b>	80	<b>140</b>	900-1050	<b>400</b>	20,0	<b>505</b>	442	<b>901</b>	Floor - Terra	<b>123</b>
<b>MTT 80-160T</b>	80	<b>160</b>	1050-1200	<b>400</b>	22,9	<b>505</b>	442	<b>901</b>	Floor - Terra	<b>139</b>
<b>MTT 80-180T</b>	80	<b>180</b>	1200-1350	<b>400</b>	25,7	<b>505</b>	442	<b>901</b>	Floor - Terra	<b>144</b>
<b>MTT 80-200T</b>	80	<b>200</b>	1350-1500	<b>400</b>	28,6	<b>505</b>	442	<b>901</b>	Floor - Terra	<b>150</b>
<b>MTT 80-240T</b>	80	<b>240</b>	1500-1800	<b>400</b>	34,3	<b>626</b>	522	<b>1057</b>	Floor - Terra	<b>165</b>
<b>MTT 80-280T</b>	80	<b>280</b>	1800-2100	<b>400</b>	40,0	<b>626</b>	522	<b>1057</b>	Floor - Terra	<b>185</b>

SINGLE-PHASE versions available on demand | versioni MONOFASE disponibili su richiesta

80%DoD = regular operation as recommended | Charger models not included in the present catalogue are available on demand.

80%DoD = utilizzo regolare come raccomandato | Modelli di caricabatteria non inclusi nel presente catalogo sono disponibili su richiesta.

## SINGLE-PHASE 50-60Hz POWER SUPPLY / ALIMENTAZIONE MONOFASE 50-60Hz

Type / Tipo	Output Uscita		Battery capacity (charging time 10 to 12 hrs) Capacità batteria (tempo di carica 10 - 12 ore) Ah/C5 (80%DoD)	Mains Rete ±10% Vac	Phase Current Pmax ±10% A	Housing dimensions Dimensioni armadio				Installation (Wall-Shelf-Floor) Installazione (Parete-Ripiano-Terra)	Weight Peso Kg
	V	A				L (front) mm	W (side) mm	H mm	TYPE		
HF 24-30M	24	30	150-360	230	6,6	166	105	365	3BAS	Wall - Parete	4
HF 24-40M	24	40	360-480	230	8,4	171	111	420	4BAS	Wall - Parete	6
HF 24-45M	24	45	480-540	230	9,5	171	111	420	4BAS	Wall - Parete	6
HF 24-50M	24	50	540-625	230	10,5	171	111	420	4BAS	Wall - Parete	6
HF 24-60M	24	60	625-720	230	12,6	171	111	420	4BAS	Wall - Parete	6
HF 24-80M	24	80	720-960	230	11,0	321	244	614	6BAS	Wall - Parete	15
HF 24-100M	24	100	960-1250	230	13,7	321	244	614	6BAS	Wall - Parete	15
HF 36-40M	36	40	240-480	230	12,6	171	111	420	4BAS	Wall - Parete	6
HF 36-60M	36	60	480-720	230	12,4	321	244	614	6BAS	Wall - Parete	15
HF 36-70M	36	70	720-850	230	14,4	321	244	614	6BAS	Wall - Parete	15
HF 48-30M	48	30	150-360	230	12,6	171	111	420	4BAS	Wall - Parete	6
HF 48-40M	48	40	360-480	230	11,0	321	244	614	6BAS	Wall - Parete	15
HF 48-45M	48	45	480-540	230	12,4	321	244	614	6BAS	Wall - Parete	15
HF 48-55M	48	55	540-690	230	15,1	321	244	614	6BAS	Wall - Parete	15
HF 72-20M	72	20	145-240	230	12,3	171	111	420	4BAS	Wall - Parete	6
HF 72-35M	72	35	240-430	230	14,4	321	244	614	6BAS	Wall - Parete	15
HF 80-20M	80	20	145-240	230	13,7	171	111	420	4BAS	Wall - Parete	6
HF 80-30M	80	30	240-360	230	13,7	321	244	614	6BAS	Wall - Parete	15

## THREE-PHASE 50-60Hz POWER SUPPLY / ALIMENTAZIONE TRIFASE 50-60Hz

HF 24-40T	24	40	360-480	400	2,6	321	244	614	6BAS	Wall - Parete	21
HF 24-60T	24	60	480-720	400	3,9	321	244	614	6BAS	Wall - Parete	21
HF 24-80T	24	80	720-960	400	5,3	321	244	614	6BAS	Wall - Parete	21
HF 24-100T	24	100	960-1250	400	6,6	321	244	614	6BAS	Wall - Parete	21
HF 24-120T	24	120	1250-1440	400	7,9	321	244	614	6BAS	Wall - Parete	21
HF 24-150T	24	150	1440-1850	400	9,9	321	244	614	6BAS	Wall - Parete	21
HF 36-40T	36	40	360-480	400	3,9	321	244	614	6BAS	Wall - Parete	21
HF 36-60T	36	60	480-720	400	5,9	321	244	614	6BAS	Wall - Parete	21
HF 36-80T	36	80	720-960	400	7,9	321	244	614	6BAS	Wall - Parete	21
HF 36-100T	36	100	960-1250	400	9,9	321	244	614	6BAS	Wall - Parete	21



## THREE-PHASE 50-60Hz POWER SUPPLY / ALIMENTAZIONE TRIFASE 50-60Hz

Type / Tipo	Output Uscita		Battery capacity (charging time 10 to 12 hrs) Capacità batteria (tempo di carica 10 - 12 ore)	Mains Rete	Phase Current Pmax	Housing dimensions Dimensioni armadio			Installation (Wall-Shelf-Floor) Installazione (Parete-Ripiano-Terra)	Weight Peso	
	V	A				Ah/C5 (80%DoD)	±10% Vac	±10% A			L (front)
	mm	mm	mm	mm	mm	mm	mm	mm	mm		
HF 36-120T	36	120	1250-1440	400	11,8	321	244	614	6BAS	Wall - Parete	21
HF 36-150T	36	150	1440-1850	400	14,8	321	244	614	6BAS	Wall - Parete	21
HF 48-40T	48	40	360-480	400	5,3	321	244	614	6BAS	Wall - Parete	21
HF 48-60T	48	60	480-720	400	7,9	321	244	614	6BAS	Wall - Parete	21
HF 48-80T	48	80	720-960	400	10,5	321	244	614	6BAS	Wall - Parete	21
HF 48-100T	48	100	960-1250	400	13,1	321	244	614	6BAS	Wall - Parete	21
HF 48-120T	48	120	1250-1440	400	15,8	321	244	614	6BAS	Wall - Parete	21
HF 48-150T	48	150	1440-1850	400	15,4	375	381	614	7BAS	Wall - Parete	35
HF 72-40T	72	40	360-480	400	7,9	321	244	614	6BAS	Wall - Parete	21
HF 72-60T	72	60	480-720	400	11,8	321	244	614	6BAS	Wall - Parete	21
HF 72-80T	72	80	720-960	400	15,8	321	244	614	6BAS	Wall - Parete	21
HF 72-90T	72	90	960-1125	400	13,9	375	381	614	7BAS	Wall - Parete	35
HF 72-120T	72	120	1125-1440	400	23,6	375	381	614	7BAS	Wall - Parete	40
HF 72-160T	72	160	1440-2000	400	24,7	375	381	614	7BAS	Wall - Parete	43
HF 80-40T	80	40	360-480	400	8,8	321	244	614	6BAS	Wall - Parete	21
HF 80-60T	80	60	480-720	400	13,1	321	244	614	6BAS	Wall - Parete	21
HF 80-80T	80	80	720-960	400	13,7	321	244	614	6BAS	Wall - Parete	24
HF 80-90T	80	90	960-1125	400	15,4	375	381	614	7BAS	Wall - Parete	35
HF 80-120T	80	120	1125-1440	400	26,3	375	381	614	7BAS	Wall - Parete	40
HF 80-160T	80	160	1440-2000	400	27,4	375	381	614	7BAS	Wall - Parete	43
HF 96-40T	96	40	360-480	400	10,5	321	244	614	6BAS	Wall - Parete	21
HF 96-60T	96	60	480-720	400	15,8	321	244	614	6BAS	Wall - Parete	21
HF 96-70T	96	70	720-850	400	14,4	375	381	614	7BAS	Wall - Parete	35
HF 96-100T	96	100	850-1250	400	26,3	375	381	614	7BAS	Wall - Parete	40
HF 96-120T	96	120	1250-1440	400	31,5	375	381	614	7BAS	Wall - Parete	40
HF 96-140T	96	140	1440-1750	400	28,8	375	381	614	7BAS	Wall - Parete	43

Air-Tech system available on housing type 6BAS and 7BAS only | Sistema Air-Tech disponibile solo negli armadi tipo 6BAS e 7BAS

80%DoD = regular operation as recommended | Charger models not included in the present catalogue are available on demand.

80%DoD = utilizzo regolare come raccomandato | Modelli di caricabatteria non inclusi nel presente catalogo sono disponibili su richiesta.

## SINGLE-PHASE 50-60Hz POWER SUPPLY / ALIMENTAZIONE MONOFASE 50-60Hz

Type / Tipo	Output Uscita		Battery capacity (charging time 7 to 8 hrs) Capacità batteria (tempo di carica 7 - 8 ore)	Mains Rete	Phase Current Pmax	Housing dimensions Dimensioni armadio				Installation (Wall-Shelf-Floor) Installazione (Parete-Ripiano-Terra)	Weight Peso			
	V	A				Ah/C5 (80%DoD)	±10% Vac	±10% A	L (front)			W (side)	H	TYPE
									mm			mm	mm	
<b>HF 24-30M</b>	24	<b>30</b>	100-230	<b>230</b>	6,6	<b>166</b>	105	<b>365</b>	<b>3BAS</b>	Wall - Parete	<b>4</b>			
<b>HF 24-40M</b>	24	<b>40</b>	230-310	<b>230</b>	8,4	<b>171</b>	111	<b>420</b>	<b>4BAS</b>	Wall - Parete	<b>6</b>			
<b>HF 24-45M</b>	24	<b>45</b>	310-350	<b>230</b>	9,5	<b>171</b>	111	<b>420</b>	<b>4BAS</b>	Wall - Parete	<b>6</b>			
<b>HF 24-50M</b>	24	<b>50</b>	350-380	<b>230</b>	10,5	<b>171</b>	111	<b>420</b>	<b>4BAS</b>	Wall - Parete	<b>6</b>			
<b>HF 24-60M</b>	24	<b>60</b>	380-450	<b>230</b>	12,6	<b>171</b>	111	<b>420</b>	<b>4BAS</b>	Wall - Parete	<b>6</b>			
<b>HF 24-80M</b>	24	<b>80</b>	450-620	<b>230</b>	11,0	<b>321</b>	244	<b>614</b>	<b>6BAS</b>	Wall - Parete	<b>15</b>			
<b>HF 24-100M</b>	24	<b>100</b>	620-755	<b>230</b>	13,7	<b>321</b>	244	<b>614</b>	<b>6BAS</b>	Wall - Parete	<b>15</b>			
<b>HF 36-40M</b>	36	<b>40</b>	145-310	<b>230</b>	12,6	<b>171</b>	111	<b>420</b>	<b>4BAS</b>	Wall - Parete	<b>6</b>			
<b>HF 36-60M</b>	36	<b>60</b>	310-450	<b>230</b>	12,4	<b>321</b>	244	<b>614</b>	<b>6BAS</b>	Wall - Parete	<b>15</b>			
<b>HF 36-70M</b>	36	<b>70</b>	450-530	<b>230</b>	14,4	<b>321</b>	244	<b>614</b>	<b>6BAS</b>	Wall - Parete	<b>15</b>			
<b>HF 48-30M</b>	48	<b>30</b>	100-230	<b>230</b>	12,6	<b>171</b>	111	<b>420</b>	<b>4BAS</b>	Wall - Parete	<b>6</b>			
<b>HF 48-40M</b>	48	<b>40</b>	230-310	<b>230</b>	11,0	<b>321</b>	244	<b>614</b>	<b>6BAS</b>	Wall - Parete	<b>15</b>			
<b>HF 48-45M</b>	48	<b>45</b>	310-350	<b>230</b>	12,4	<b>321</b>	244	<b>614</b>	<b>6BAS</b>	Wall - Parete	<b>15</b>			
<b>HF 48-55M</b>	48	<b>55</b>	350-420	<b>230</b>	15,1	<b>321</b>	244	<b>614</b>	<b>6BAS</b>	Wall - Parete	<b>15</b>			
<b>HF 72-20M</b>	72	<b>20</b>	120-150	<b>230</b>	12,3	<b>171</b>	111	<b>420</b>	<b>4BAS</b>	Wall - Parete	<b>6</b>			
<b>HF 72-35M</b>	72	<b>35</b>	150-265	<b>230</b>	14,4	<b>321</b>	244	<b>614</b>	<b>6BAS</b>	Wall - Parete	<b>15</b>			
<b>HF 80-20M</b>	80	<b>20</b>	120-150	<b>230</b>	13,7	<b>171</b>	111	<b>420</b>	<b>4BAS</b>	Wall - Parete	<b>6</b>			
<b>HF 80-30M</b>	80	<b>30</b>	150-230	<b>230</b>	13,7	<b>321</b>	244	<b>614</b>	<b>6BAS</b>	Wall - Parete	<b>15</b>			

## THREE-PHASE 50-60Hz POWER SUPPLY / ALIMENTAZIONE TRIFASE 50-60Hz

<b>HF 24-40T</b>	24	<b>40</b>	230-310	<b>400</b>	2,6	<b>321</b>	244	<b>614</b>	<b>6BAS</b>	Wall - Parete	<b>21</b>
<b>HF 24-60T</b>	24	<b>60</b>	310-450	<b>400</b>	3,9	<b>321</b>	244	<b>614</b>	<b>6BAS</b>	Wall - Parete	<b>21</b>
<b>HF 24-80T</b>	24	<b>80</b>	450-620	<b>400</b>	5,3	<b>321</b>	244	<b>614</b>	<b>6BAS</b>	Wall - Parete	<b>21</b>
<b>HF 24-100T</b>	24	<b>100</b>	620-755	<b>400</b>	6,6	<b>321</b>	244	<b>614</b>	<b>6BAS</b>	Wall - Parete	<b>21</b>
<b>HF 24-120T</b>	24	<b>120</b>	755-930	<b>400</b>	7,9	<b>321</b>	244	<b>614</b>	<b>6BAS</b>	Wall - Parete	<b>21</b>
<b>HF 24-150T</b>	24	<b>150</b>	930-1140	<b>400</b>	9,9	<b>321</b>	244	<b>614</b>	<b>6BAS</b>	Wall - Parete	<b>21</b>
<b>HF 24-200T</b>	24	<b>200</b>	1140-1500	<b>400</b>	13,1	<b>375</b>	381	<b>614</b>	<b>7BAS</b>	Wall - Parete	<b>40</b>
<b>HF 24-240T</b>	24	<b>240</b>	1500-1700	<b>400</b>	15,8	<b>375</b>	381	<b>614</b>	<b>7BAS</b>	Wall - Parete	<b>40</b>
<b>HF 36-40T</b>	36	<b>40</b>	230-310	<b>400</b>	3,9	<b>321</b>	244	<b>614</b>	<b>6BAS</b>	Wall - Parete	<b>21</b>
<b>HF 36-60T</b>	36	<b>60</b>	310-450	<b>400</b>	5,9	<b>321</b>	244	<b>614</b>	<b>6BAS</b>	Wall - Parete	<b>21</b>
<b>HF 36-80T</b>	36	<b>80</b>	450-620	<b>400</b>	7,9	<b>321</b>	244	<b>614</b>	<b>6BAS</b>	Wall - Parete	<b>21</b>
<b>HF 36-100T</b>	36	<b>100</b>	620-755	<b>400</b>	9,9	<b>321</b>	244	<b>614</b>	<b>6BAS</b>	Wall - Parete	<b>21</b>
<b>HF 36-120T</b>	36	<b>120</b>	755-930	<b>400</b>	11,8	<b>321</b>	244	<b>614</b>	<b>6BAS</b>	Wall - Parete	<b>21</b>

## THREE-PHASE 50-60Hz POWER SUPPLY / ALIMENTAZIONE TRIFASE 50-60Hz

Type / Tipo	Output Uscita		Battery capacity (charging time 7 to 8 hrs) Capacità batteria (tempo di carica 7 - 8 ore)	Mains Rete	Phase Current Pmax	Housing dimensions Dimensioni armadio				Installation (Wall-Shelf-Floor) Installazione (Parete-Ripiano-Terra)	Weight Peso
	V	A				Ah/C5 (80%DoD)	±10% Vac	±10% A	L (front)		
	mm	mm	mm	mm	mm	mm	mm	mm	mm		
<b>HF 36-150T</b>	36	<b>150</b>	930-1140	<b>400</b>	14,8	<b>321</b>	244	<b>614</b>	<b>6BAS</b>	Wall - Parete	<b>21</b>
<b>HF 36-200T</b>	36	<b>200</b>	1140-1500	<b>400</b>	19,7	<b>375</b>	381	<b>614</b>	<b>7BAS</b>	Wall - Parete	<b>40</b>
<b>HF 36-240T</b>	36	<b>240</b>	1500-1700	<b>400</b>	23,6	<b>375</b>	381	<b>614</b>	<b>7BAS</b>	Wall - Parete	<b>40</b>
<b>HF 48-40T</b>	48	<b>40</b>	230-310	<b>400</b>	5,3	<b>321</b>	244	<b>614</b>	<b>6BAS</b>	Wall - Parete	<b>21</b>
<b>HF 48-60T</b>	48	<b>60</b>	310-450	<b>400</b>	7,9	<b>321</b>	244	<b>614</b>	<b>6BAS</b>	Wall - Parete	<b>21</b>
<b>HF 48-80T</b>	48	<b>80</b>	450-620	<b>400</b>	10,5	<b>321</b>	244	<b>614</b>	<b>6BAS</b>	Wall - Parete	<b>21</b>
<b>HF 48-100T</b>	48	<b>100</b>	620-755	<b>400</b>	13,1	<b>321</b>	244	<b>614</b>	<b>6BAS</b>	Wall - Parete	<b>21</b>
<b>HF 48-120T</b>	48	<b>120</b>	755-930	<b>400</b>	15,8	<b>321</b>	244	<b>614</b>	<b>6BAS</b>	Wall - Parete	<b>21</b>
<b>HF 48-150T</b>	48	<b>150</b>	930-1140	<b>400</b>	15,4	<b>375</b>	381	<b>614</b>	<b>7BAS</b>	Wall - Parete	<b>35</b>
<b>HF 48-200T</b>	48	<b>200</b>	1140-1500	<b>400</b>	26,3	<b>375</b>	381	<b>614</b>	<b>7BAS</b>	Wall - Parete	<b>40</b>
<b>HF 48-240T</b>	48	<b>240</b>	1500-1700	<b>400</b>	31,5	<b>375</b>	381	<b>614</b>	<b>7BAS</b>	Wall - Parete	<b>40</b>
<b>HF 72-40T</b>	72	<b>40</b>	230-310	<b>400</b>	7,9	<b>321</b>	244	<b>614</b>	<b>6BAS</b>	Wall - Parete	<b>21</b>
<b>HF 72-60T</b>	72	<b>60</b>	310-450	<b>400</b>	11,8	<b>321</b>	244	<b>614</b>	<b>6BAS</b>	Wall - Parete	<b>21</b>
<b>HF 72-80T</b>	72	<b>80</b>	450-620	<b>400</b>	15,8	<b>321</b>	244	<b>614</b>	<b>6BAS</b>	Wall - Parete	<b>21</b>
<b>HF 72-90T</b>	72	<b>90</b>	620-700	<b>400</b>	13,9	<b>375</b>	381	<b>614</b>	<b>7BAS</b>	Wall - Parete	<b>35</b>
<b>HF 72-120T</b>	72	<b>120</b>	700-930	<b>400</b>	23,6	<b>375</b>	381	<b>614</b>	<b>7BAS</b>	Wall - Parete	<b>40</b>
<b>HF 72-160T</b>	72	<b>160</b>	930-1215	<b>400</b>	24,7	<b>375</b>	381	<b>614</b>	<b>7BAS</b>	Wall - Parete	<b>43</b>
<b>HF 80-40T</b>	80	<b>40</b>	230-310	<b>400</b>	8,8	<b>321</b>	244	<b>614</b>	<b>6BAS</b>	Wall - Parete	<b>21</b>
<b>HF 80-60T</b>	80	<b>60</b>	310-450	<b>400</b>	13,1	<b>321</b>	244	<b>614</b>	<b>6BAS</b>	Wall - Parete	<b>21</b>
<b>HF 80-80T</b>	80	<b>80</b>	450-620	<b>400</b>	13,7	<b>321</b>	244	<b>614</b>	<b>6BAS</b>	Wall - Parete	<b>24</b>
<b>HF 80-90T</b>	80	<b>90</b>	620-700	<b>400</b>	15,4	<b>375</b>	381	<b>614</b>	<b>7BAS</b>	Wall - Parete	<b>35</b>
<b>HF 80-120T</b>	80	<b>120</b>	700-930	<b>400</b>	26,3	<b>375</b>	381	<b>614</b>	<b>7BAS</b>	Wall - Parete	<b>40</b>
<b>HF 80-160T</b>	80	<b>160</b>	930-1215	<b>400</b>	27,4	<b>375</b>	381	<b>614</b>	<b>7BAS</b>	Wall - Parete	<b>43</b>
<b>HF 96-40T</b>	96	<b>40</b>	230-310	<b>400</b>	10,5	<b>321</b>	244	<b>614</b>	<b>6BAS</b>	Wall - Parete	<b>21</b>
<b>HF 96-60T</b>	96	<b>60</b>	310-450	<b>400</b>	15,8	<b>321</b>	244	<b>614</b>	<b>6BAS</b>	Wall - Parete	<b>21</b>
<b>HF 96-70T</b>	96	<b>70</b>	450-540	<b>400</b>	14,4	<b>375</b>	381	<b>614</b>	<b>7BAS</b>	Wall - Parete	<b>35</b>
<b>HF 96-100T</b>	96	<b>100</b>	540-755	<b>400</b>	26,3	<b>375</b>	381	<b>614</b>	<b>7BAS</b>	Wall - Parete	<b>40</b>
<b>HF 96-120T</b>	96	<b>120</b>	755-930	<b>400</b>	31,5	<b>375</b>	381	<b>614</b>	<b>7BAS</b>	Wall - Parete	<b>40</b>
<b>HF 96-140T</b>	96	<b>140</b>	930-1050	<b>400</b>	28,8	<b>375</b>	381	<b>614</b>	<b>7BAS</b>	Wall - Parete	<b>43</b>

Air-Tech system available on housing type 6BAS and 7BAS only | Sistema Air-Tech disponibile solo negli armadi tipo 6BAS e 7BAS

80%DoD = regular operation as recommended | Charger models not included in the present catalogue are available on demand.

80%DoD = utilizzo regolare come raccomandato | Modelli di caricabatteria non inclusi nel presente catalogo sono disponibili su richiesta.

# MIDATRON HE (HF 12h)

## SINGLE-PHASE 50-60Hz POWER SUPPLY / ALIMENTAZIONE MONOFASE 50-60Hz

Type / Tipo	Output Uscita		Battery capacity (charging time 10 to 12 hrs) Capacità batteria (tempo di carica 10 - 12 ore)	Mains Rete	Phase Current Pmax	Housing dimensions Dimensioni armadio			Installation (Wall-Shelf-Floor) Installazione (Parete-Ripiano-Terra)	Weight Peso
	V	A				Ah/C5 (80%DoD)	±10% Vac	±10% A		
	mm	mm	mm						Kg	
HE 0-A M	12	60	540-720	230	4,3	171	111	420	Wall - Parete	5
	24				8,5					
HE 0-B M	36	40	360-480	230	8,5	171	111	420	Wall - Parete	5
	48	30	240-360	230	8,5					
HE 1-A M	12	100	850-1250	230	6,9	185	215	555	Wall - Parete	16
	24				13,7					
HE 1-B M	24	70	720-850	230	9,6	185	215	555	Wall - Parete	16
	36	70	720-850	230	14,4					
	48	55	360-690	230	15,1					
HE 1-C M	72	35	240-430	230	14,4	185	215	555	Wall - Parete	16
	80	30	240-360	230	13,7					
HE 1-C2 M	72	65	430-810	230	26,8	375	378	593	Wall - Parete	38
	80	60	360-750	230	27,5					

## THREE-PHASE 50-60Hz POWER SUPPLY / ALIMENTAZIONE TRIFASE 50-60Hz

HE 3-S T	24	100	960-1250	400	4,8	321	241	593	Wall - Parete	25
	36				7,2					
	48				9,6					
HE 3-A T	24	150	1250-1850	400	7,2	321	241	593	Wall - Parete	25
	36				10,8					
	48				14,4					
HE 3-B T	72	90	960-1125	400	13,0	321	241	593	Wall - Parete	25
	80	80	720-960	400	12,8					
	96	70	720-850	400	13,5					
HE 3-B2 T	72	160	1200-2000	400	23,1	375	378	593	Wall - Parete	52
	80	140	960-1750	400	22,5					
	96	120	850-1440	400	23,1					

Air-Tech system available on all models, except HE 0 | Sistema Air-Tech disponibile in tutti i modelli, eccetto HE 0

80%DoD = utilizzo regolare come raccomandato | Modelli di caricabatteria non inclusi nel presente catalogo sono disponibili su richiesta.

80%DoD = utilizzo regolare come raccomandato | Modelli di caricabatteria non inclusi nel presente catalogo sono disponibili su richiesta.

## SINGLE-PHASE 50-60Hz POWER SUPPLY / ALIMENTAZIONE MONOFASE 50-60Hz

Type / Tipo	Output Uscita		Battery capacity (charging time 7 to 8 hrs) Capacità batteria (tempo di carica 7 - 8 ore)	Mains Rete	Phase Current Pmax	Housing dimensions Dimensioni armadio			Installation (Wall-Shelf-Floor) Installazione (Parete-Ripiano-Terra)	Weight Peso
	V	A				Ah/C5 (80%DoD)	±10% Vac	±10% A		
	mm	mm	mm						Kg	
HE 0-A M	12	60	250-450	230	4,3	171	111	420	Wall - Parete	5
	24				8,5					
HE 0-B M	36	40	230-310	230	8,5	171	111	420	Wall - Parete	5
	48	30	100-230	230	8,5					
HE 1-A M	12	100	530-755	230	6,9	185	215	555	Wall - Parete	16
	24				13,7					
HE 1-A2 M	12	200	1050-1560	230	13,7	375	378	593	Wall - Parete	38
	24				27,5					
HE 1-B M	24	70	450-530	230	9,6	185	215	555	Wall - Parete	16
	36	70	450-530	230	14,4					
	48	55	230-430	230	15,1					
HE 1-B2 M	24	140	755-1050	230	19,2	375	378	593	Wall - Parete	38
	36	140	755-1050	230	28,9					
	48	110	430-835	230	30,2					
HE 1-C M	72	35	150-265	230	14,4	185	215	555	Wall - Parete	16
	80	30	150-230	230	13,7					
HE 1-C2 M	72	65	265-500	230	26,8	375	378	593	Wall - Parete	38
	80	60	230-450	230	27,5					

## THREE-PHASE 50-60Hz POWER SUPPLY / ALIMENTAZIONE TRIFASE 50-60Hz

HE 3-S T	24	100	620-755	400	4,8	321	241	593	Wall - Parete	25
	36				7,2					
	48				9,6					
HE 3-A T	24	150	755-1140	400	7,2	321	241	593	Wall - Parete	25
	36				10,8					
	48				14,4					
HE 3-B T	72	90	620-700	400	13,0	321	241	593	Wall - Parete	25
	80	80	450-620	400	12,8					
	96	70	450-540	400	13,5					
HE 3-A2 T	24	260	1140-2000	400	12,5	375	378	593	Wall - Parete	52
	36				18,8					
	48				24,8					
HE 3-B2 T	72	160	700-1215	400	23,1	375	378	593	Wall - Parete	52
	80	140	620-1050	400	22,5					
	96	120	540-930	400	23,1					

Air-Tech system available on all models, except HE 0 | Sistema Air-Tech disponibile in tutti i modelli, eccetto HE 0

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# MIDATRON HE (IGBT 8h)

## THREE-PHASE 50-60Hz POWER SUPPLY / ALIMENTAZIONE TRIFASE 50-60Hz

Type / Tipo	Output Uscita		Battery capacity (charging time 7 to 8 hrs) Capacità batteria (tempo di carica 7 - 8 ore)	Mains Rete	Phase Current Pmax	Housing dimensions Dimensioni armadio			Installation (Wall-Shelf-Floor) Installazione (Parete-Ripiano-Terra)	Weight Peso		
	V	A				Ah/C5 (80%DoD)	±10% Vac	±10% A			L (front)	W (side)
	mm	mm				mm	mm	mm		mm	mm	
HE 12/24-200 T	12	200	1250-1510	400	4,7	550	650	1400	Floor - Terra	150		
	24				9,4							
HE 12/24-250 T	12	250	1510-1890	400	5,9	550	650	1400	Floor - Terra	170		
	24				11,8							
HE 24/48-200 T	24	200	1250-1510	400	9,3	550	650	1400	Floor - Terra	190		
	36				14,0							
	48				18,7							
HE 24/48-250 T	24	250	1510-1890	400	11,7	550	650	1400	Floor - Terra	210		
	36				17,5							
	48				23,3							
HE 24/80-120 T	24	120	745-900	400	5,5	550	650	1400	Floor - Terra	175		
	36				8,3							
	48				11,1							
	72				16,6							
	80				18,5							
HE 24/80-160 T	24	160	900-1210	400	7,4	550	650	1400	Floor - Terra	195		
	36				11,1							
	48				14,8							
	72				22,2							
	80				24,6							
HE 24/80-200 T	24	200	1210-1510	400	9,2	550	650	1400	Floor - Terra	270		
	36				13,8							
	48				18,5							
	72				27,7							
	80				30,8							
HE 24/80-250 T	24	250	1510-1890	400	11,5	550	650	1400	Floor - Terra	285		
	36				17,3							
	48				23,1							
	72				34,6							
	80				38,5							

80%DoD = regular operation as recommended | Charger models not included in the present catalogue are available on demand.

80%DoD = utilizzo regolare come raccomandato | Modelli di caricabatteria non inclusi nel presente catalogo sono disponibili su richiesta.

# CONFIGURATIONS | CONFIGURAZIONI

Feature / Option Caratteristiche / Opzioni	MTB	MTT	HF (3BAS - 4BAS)	HF (6BAS - 7BAS)	HE (HF)	HE (IGBT)
Technology Tecnologia	Power Transformer Trasformatore di potenza	Power Transformer 12 Pulse rectification Trasformatore di potenza Raddrizzamento a 12 impulsi	High Frequency Switching Commutazione Alta Frequenza	High Frequency Switching Commutazione Alta Frequenza	High Efficiency High Frequency Switching Elevata Efficienza Commutazione Alta Frequenza	High Efficiency IGBT Elevata Efficienza IGBT
Single-phase power supply Alimentazione monofase	YES	OPTIONAL	YES	YES	YES	OPTIONAL
Three-phase power supply Alimentazione trifase	YES	YES	-	YES	YES	YES
Installation (wall-shelf-floor) Installazione (parete-ripiano-terra)	SHELF-FLOOR RIPIANO-TERRA	FLOOR TERRA	WALL (OPT. SHELF/FLOOR) PARETE (OPZ. RIPIANO/TERRA)	WALL (OPT. SHELF/FLOOR) PARETE (OPZ. RIPIANO/TERRA)	WALL (OPT. SHELF/FLOOR) PARETE (OPZ. RIPIANO/TERRA)	FLOOR TERRA
Charging profile Profilo di ricarica	WA	WSA PULSE	IUIA	IUIA	IUIA	IUIA
Automatic battery equalization Equalizzazione batteria automatica	YES	YES	YES	YES	YES	YES
Charging time Tempo di ricarica	12H	8H	12H - 8H	12H - 8H	12H - 8H	8H
Real time clock calendar Funzione calendario	-	YES	-	YES	YES	YES
Low maintenance application Applicazione ridotta manutenzione	-	-	-	-	YES	YES
High efficiency application Applicazione elevata efficienza	-	-	-	-	YES	YES
Fast charging application Applicazione carica rapida	-	-	-	-	YES	YES
User interface Interfaccia utente	LEDS	LEDS - DISPLAY	LEDS (PROGRAMMER)	LEDS + DISPLAY	LEDS - DISPLAY	LEDS - DISPLAY
ON/OFF switch Interruttore ON/OFF	YES	YES	YES	YES	YES	YES
Anti-arcing kit Kit antiarco	OPTIONAL	OPTIONAL	OPTIONAL	OPTIONAL	OPTIONAL	OPTIONAL
Multi-voltage configuration Configurazione multi-tensione	-	-	-	-	YES	YES
Automatic battery detection Rilevamento automatico batteria	-	OPTIONAL	-	-	YES	YES
Multi-chemistry configuration Configurazione multi-tecnologia	-	-	YES	YES	YES	YES
Temperature-controlled charging Carica controllata in temperatura	-	-	-	-	OPTIONAL	OPTIONAL
Battery module unit (MB2) Modulo batteria (MB2)	-	OPTIONAL	-	-	OPTIONAL	OPTIONAL
Air-pump (Air-Tech) Pompa insufflazione aria (Air-Tech)	-	OPTIONAL	-	OPTIONAL	OPTIONAL (except HE 0)	OPTIONAL
Automatic battery watering Rabboccamento automatico	-	OPTIONAL	-	-	OPTIONAL	OPTIONAL
Data recording & USB downloading Registrazione e scarico dati (USB)	-	OPTIONAL	OPTIONAL	OPTIONAL	YES	YES
Bluetooth data downloading Scarico dati (bluetooth)	-	OPTIONAL	-	-	OPTIONAL	OPTIONAL
Canbus system networking/management Collegamento canbus rete e gestione sistema	-	OPTIONAL	-	-	YES	YES
Stand for shelf installation Supporto per installazione su ripiano	-	-	OPTIONAL	OPTIONAL	OPTIONAL	-
Stand for floor installation Supporto per installazione a pavimento	OPTIONAL	OPTIONAL	OPTIONAL	OPTIONAL	OPTIONAL	OPTIONAL
Stack-up installation kit Kit per installazione ad impilamento	OPTIONAL	OPTIONAL	-	-	-	-
Cooling Raffreddamento	NATURAL NATURALE	NATURAL - FAN NATURALE - VENTOLA	FAN VENTOLA	FAN VENTOLA	FAN VENTOLA	FAN VENTOLA
Air-filter Filtro aria	-	OPTIONAL (FAN)	OPTIONAL	OPTIONAL	OPTIONAL	OPTIONAL
Protection Protezione	IP21	IP21	IP21	IP21	IP21	IP21
Certification DNV-GL BMW CLASS I Certificazione DNV-GL BMW CLASS I	-	-	-	OPTIONAL	YES	-
CSA-UL configuration (USA) CSA-UL configurazione (USA)	OPTIONAL	OPTIONAL	-	OPTIONAL	OPTIONAL	OPTIONAL



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#### **MIDAC SPA HEADQUARTERS, SOAVE, VERONA, ITALY**

Unica realtà a produrre batterie avviamento, trazione e stazionarie in un singolo stabilimento produttivo, è diventata una delle aziende leader in Europa con prodotti distribuiti in tutto il mondo.

*The only company that produces Automotive, Motive power and Stationary batteries in the same manufacturing plant, it has become one of the leading companies in Europe and its products are sold worldwide.*

#### **MIDAC PRODUZIONE VERDE**

Midac utilizza l'energia pulita prodotta dal proprio impianto fotovoltaico per la produzione di batterie e accumulatori, evitando l'emissione di 945 tonnellate di CO<sub>2</sub> ogni anno.

#### **MIDAC FABRICATION ÉCOLOGIQUE**

Midac utilise l'énergie propre provenant de votre système photovoltaïque pour la production de batteries et d'accumulateurs, en évitant l'émission de 945 tonnes de CO<sub>2</sub> chaque année.

#### **MIDAC PRODUCCIÓN DE ENERGÍA VERDE**

Midac utiliza energía limpia producida por su propio sistema fotovoltaico para producir baterías y acumuladores, evitando la emisión de 945 toneladas de CO<sub>2</sub> cada año.

#### **MIDAC GRÜNE ENERGIE**

Midac verwendet grüne Energie, welche von der eigenen Solaranlage geliefert wird, um ihre Batterien und Akkumulatoren herzustellen. So sind wir in der Lage 945 Tonnen an CO<sub>2</sub> einzusparen.

#### **MIDAC GREEN PRODUCTION**

Midac uses clean energy produced by its own photovoltaic system to produce batteries and accumulators, avoiding the emission of 945 CO<sub>2</sub> tons every year.



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