

## ME250HXXXAQ\_CP



DWG NO.: MSSD-XXXX A0



■ Features • Input voltage: 176-305Vac

- Built-in active PFC function 0.98 Typ.
- High efficiency: up to 93% Typ.
- · Built-in Lightning protection
- Three dimming in one operation modes(0-10V Dimming / Clock Dimming(CLK)/PWM Dimming)
- Protection: OVP, SCP, OTP
- Full Power at 65%Iomax~100%Iomax (Constant Power)
- · IP67 design for indoor or outdoor installations



Version: A0

Model         105         150           (ME350HxxxAQ, CP)         93%         93%         93%         93%           Voltage Range (Vac)         178-305         93%         93%         93%         93%           Input         Frequency Range (Vac)         47-83	Specifica	ation			
(ME280HxxRAQ_CP)         93%         93%           Elineany(220/s) Typ.         93%         93%           Voltage Range (Vac)         170 - 305           Rated Input Voltage (Vac)         200-240           Frequency Range (Hz)         47-83           AC Current(Typ.)         174 - 277vac input, with 80% - 100% load conditions           AC Current(Typ.)         1.5A           Invush Qurrent(Typ.)         0.65A at 220Vac input 280 coll start           Leakage Qurrent(max).         0.75mA at 277Vac input, with 80% - 100% load conditions           AC Current(Typ.)         0.75mA at 277Vac input, with 80% - 100% load conditions           Rated Current(Typ.)         0.75mA at 277Vac input, with 80% - 100% load conditions           Rated Current(Typ.)         0.75mA at 277Vac input, with 80% - 100% load conditions           Output Voltage Rate (Nthen)         367.143         250.160           Rated Current (Set)         3.72.103         250.160           Control (Current Set)         3.72.100% load conditions         100-1500           Output Voltage Rate (Nthen)         3.72.100% load         100-1500           Constart Power (Output Set         6.5% lon max - 100% load         100-1500           Output Constart Power Output Set         6.5% lon max - 100% load         100-1500           Rated Current (Vat			105	150	
Voltage Range (Vac)         176 - 305           Rade Input Voltage (Vac)         200-240           Frequency Range (Hz)         47-63           Power Factor         >0.9 at 176 - 277Vac input, with 80% - 100% load conditions           THD         <15%, at 176 - 277Vac input, with 80% - 100% load conditions           AC Current(Typ.)         1.5A           Leakage Current(max.)         0.75m At 277Vac input, with 80% - 100% load conditions           AEd Cottput Voltage (V)         3357-233           Rated Current(Typ.)         0.75m At 277Vac input, with 80% - 100% load conditions           Output Voltage (Vac)         357-143         250-167           Output Voltage (Vac)         357-143         250-160           Output Voltage (Vac)         0.75m At 277Vac 50Hz input           Rated Current(Max)         700-1050         1000-1500           Output Voltage (VA)         70-1050         1000-1500           Current Tolerance         16% long max - 100% long max         100-1500           Current Tolerance         16% long max - 100% long max         100-1500           Current Tolerance         15%         100-1500           Current Tolerance         14%         100-1500           Leak Regulation         11%         14%           Leak Regulatin	(ME	250HxxxAQ_CP)	105	150	
Rated Input Voltage (Vac)         200-240           Frequency Range (Hz)         >>0.9 at 176 - 277Vac input, with 80%100% load conditions           Input         Frequency Range (Hz)         >>0.9 at 176 - 277Vac input, with 80%100% load conditions           Int         Current(Typ.)         1.5A           Inrush Current(Typ.)         0.55A at 230Vac input 25C cold start           Leakage Current(max)         0.75FA at 250Vac input 25C cold start           Leakage Current(max)         0.75FA at 250Vac input 25C cold start           Output Voltage (Na)         357-143         250-167           Output Voltage (Na)         700-1050         1000-1500           Output Current Range(N)         700-1050         1000-1500           Output Current Range(N)         250(max)         250(max)           Constant Power Output Set         65%lo_max - 100%io_max         260(max)           Output Current Set Range         65%lo_max - 100%io_max         260(max)           Current(Udc (pk-av)av)         10% of lo_max. (IPK-AV) (AV) with LE Default Ioded         260(max)           Rapte Current(Vac (pk-av)av)         10% of lo_max. (IPK-AV) (AV) with LE Default Ioded         260(max)           Dubut Current Voltage         420Vac 100% load         230/max           Line Regulation         11%         230/max         230/max		Efficiency(220Vac) Typ.	93%	93%	
Input         Frequency Range (Hz)         47-63           Power Factor         >>0.9.0.9.176-2777/vac input, with 80%100% load conditions           THD         <15%, at 176-2777/vac input, with 80%100% load conditions		Voltage Range (Vac)	176 -	- 305	
Input         Dower Factor         >>0.9 at 176-277Vac input, with 80%100% load conditions           THD         <15%, at 776-277Vac input, with 80%100% load conditions		Rated Input Voltage (Vac)	200-240		
THO         <15%, al 17e ~ 277Vaic input, Win 80% ~ 100% load conditions		Frequency Range (Hz)	47~	~63	
THO         <15%, al 17e ~ 277Vaic input, Win 80% ~ 100% load conditions	Input	Power Factor	>0.9 at 176 $\sim$ 277Vac input, with 80% $\sim$ 100% load conditions		
Inush Current(Typ.)         65A at 230Vac input 25°C cold start           Leakage Current(max.)         0.75m At 227Vac 50Hz input           Rated Output Voltage (V) totage (V)         357.238         250-167           Output Voltage (V) totage (V)         357.143         250-100           Rated Current(ma)         700-1050         1000-1500           Output Current Range(mA)         700-1050         100-1500           Output Current Range(mA)         65% log max/-100% log max         Rated Current(tic (pick-av)av)           Output Current Set Range         65% log max/-100% log max         Rated Power Output Set         65% log max/-100% log max           Ripple Current(tic (pick-av)av)         10% of log-max (PFK-AV)/AV) with LED default mode and full load)         Load Regulation         ±1%           Load Regulation         ±1%         Load Regulation         ±1%           Load Regulation         ±1%         Load Regulation         ±1%           Load Regulation         ±1%         Load Regulation         ±1%           Load Regulation         ±3%         Setup. Rise Time         10% of Max/MV/P, -13.2Vmax.           T2vide Output Voltage (Vdc)         10.8Vmin: -12.0Vmax         20Vmin -20Vmax           12vide Output Voltage (Vdc)         0.430V-max         32V max           12vide Output Voltage (Vdc)<		THD	< 15%, at 176 ~ 277Vac input, with 80% ~ 100% load conditions		
Leakage Current(max.)         0.75mA at 277/ac 50Hz input           Rated Output Voltage (V)         357-238         250-167           Output Voltage Range (V)         357-143         250-100           Rated Current(mA)         700-1050         1000-1500           Output Corrent Range(mA)         700-1050         1000-1500           Output Current Range(mA)         700-1050         100-1500           Output Current Range(mA)         700-1050         100-1500           Output Current Range(mA)         70-1050         100-1500           Output Current Range(mA)         65% log_max-100% log_max         100-1500           Output Current Range(mA)         10% of log_max         10% of log_max         10% of log_max           Icad Regulation         ±1%         100-1500         100-1500           Line Regulation         ±1%         12042 output Voltage (Vdc)         10.87 Voltage		AC Current(Typ.)	1.5A		
Rated Output Voltage (V)         357-238         250-167           Output Voltage Range (V)         357-143         250-100           Rated Current(mA)         700-1050         1000-1500           Output Current Range(mA)         700-1050         100-1500           Output Current Set Range         6.5%lo max-100%lo max         100-1500           Output Current Set Range         6.5%lo max-100%lo max         100-1500           Rated Power Output Set         65%lo max-100%lo max         100           Ripple Current(ldc (pk-sv)/av)         10% of lo_max. ((PK-AV) / AV) with LED default mode and full load)         10% of lo_max           Current Tolerance         Non.2         10% of lo_max. ((PK-AV) / AV) with LED default mode and full load)           Line Regulation         13%         10% of lo_max.           Load Regulation         13%         10% of lo_max.           Setup, Rise Time         10% of lo_AVIIIIN         10% of low ax           12Vdc Output Voltage (Vdc)         10.4VIIIIN         10% of low ax         2800-420M (DIM(+)0)           Dimming Control         0-10V/DMH Voltage         Absolute maximum voltage -10Vmin-20Vmax         320V max           Protection         Default 0-10V dimming mode. Other dimming modes sets to PW/MICiock Dimming(CLK) by software configuration         2800-4500A (DIM(+)=0)           D		Inrush Current(Typ.)	65A at 230Vac input 25℃ cold start		
Output Voltage Range (V)         357-143         250-100           Rated Current(mA)         700-1050         1000-1500           Output Current Range(mA)         70-1050         1000-1500           Output Current Range(mA)         70-1050         250(max)           Output Current Set Range         6.5%Lo_max-100%Lo_max         00-1500           Constant Power Output Set         65%Lo_max-100%Lo_max         00-1500           Ripple Current(ldc (pk-av)/av)         10% of lo_max. (IPK-AV) /AV) with LED default mode and full load)         Current Tolerance           Current Tolerance         10%         15%         10%           Line Regulation         41%         10.4500         10.45%           Load Regulation         43%         1240 couput Voltage (Vdc)         10.8Vmin.~12Vmp.~13.2Vmax.           Dimming Control         10-10V/DMH Voltage         Assolute maximum voltage-10Vmin.2VVmax           Output Voltage (Vdc)         10.8Vmin.~12Vmp.~13.2Vmax.         200 max           Over Voltage(V)         Default 0-10V dimming mode. Other dimming modes sets to PM/MiClock Dimming/CLK) by software configuration           DiMMING FUNCTION         Default 0-10V dimming mode. Other dimming modes sets to PW/MiClock Dimming/CLK) by software configuration           Vor Voltage(V)         Voltage Concease soutput current itimiting.           Over Voltage(		Leakage Current(max.)			
Rated Current(mA)         700-1050         1000-1500           Output Current Range(mA)         70-1050         100-1600           Rated Power (W)         250(max)         100-1600           Output Current Set Range         6.5%lo_max~100%lo_max         100-1600           Constant Power Output Set         65%lo_max~100%lo_max         100%lo_max           Constant Power Output Set         65%lo_max~100%lo_max         10%lower           Line Regulation         11%         10%lower         11%lower           Load Regulation         11%lower         11%lower         11%lower           Load Regulation         11%lower         11%lower         11%lower           Load Regulation         11%lower         118/lower         11%lower           Load Regulation         11%lower         118/lower         118/lower           Load Regulation         12Vdc Output Current(Vdc)         0mA-20m Amax         112/lower           Dimming Control         0-10V/DMH voltage         Absolute maximum voltage-10Vmin-20Vmax         10/lower           0-10V/DMH voltage(V)         Default 0-10V dimming mode. Other dimming modes sets to PWMClock Dimming(CLK) by software configuration         12/lower         12/lower           Protection         0ver Voltage(V)         No damage.The power supply shall be self-recovery when the f		Rated Output Voltage (V)	357-238	250-167	
Rated Current(mA)         700-1050         1000-1500           Output Current Range(mA)         70-1050         100-1600           Rated Power (W)         250(max)         100-1600           Output Current Set Range         6.5%lo_max~100%lo_max         100-1600           Constant Power Output Set         65%lo_max~100%lo_max         100%lo_max           Constant Power Output Set         65%lo_max~100%lo_max         10%lower           Line Regulation         11%         10%lower         11%lower           Load Regulation         11%lower         11%lower         11%lower           Load Regulation         11%lower         11%lower         11%lower           Load Regulation         11%lower         118/lower         11%lower           Load Regulation         11%lower         118/lower         118/lower           Load Regulation         12Vdc Output Current(Vdc)         0mA-20m Amax         112/lower           Dimming Control         0-10V/DMH voltage         Absolute maximum voltage-10Vmin-20Vmax         10/lower           0-10V/DMH voltage(V)         Default 0-10V dimming mode. Other dimming modes sets to PWMClock Dimming(CLK) by software configuration         12/lower         12/lower           Protection         0ver Voltage(V)         No damage.The power supply shall be self-recovery when the f		Output Voltage Range (V) Note.1			
Output         Rated Power (W)         250(max)           Output Current Set Range         6.5%lo_max~100%lo_max           Constant Power Output Set         65%lo_max~100%lo_max           Ripple Current(Idc (pk-av)/av)         10% of lo_max. ((PK-AV) /AV) with LED default mode and full load)           Current Tolerance         Now2         ±5%           Line Regulation         ±1%           Load Regulation         ±3%           Setup, Rise Time         1s(typ.), measured at 230Vac input           Hold Up Time         10ms at 230Vac 100% load           12Vdc Output Voltage (Vdc)         10.8 min. ~12Vtyp.~13.2/max.           12Vdc Output Voltage (Vdc)         0.0 mA~20mA max.           0-10V/DMI+ Voltage         Absolute maximum voltage -10Vmin-20Vmax           0-10V/DMI+ Short Current         2800wa-450uA (DIM(+)=0)           DIMMING FUNCTION         Default 0-10V dimming mode. Other dimming modes sets to PWM/Clock Dimming(CLK) by software configuration           Protection         430V max         320V max           Over Voltage(V)         430V max         320V max           Over Temperature         Decreases output current, returning to normal after over temperature is removed.           Over Temperature         Decreases output current, returning to normal after over temperature is removed.           Over Temperature <t< td=""><td></td><td></td><td>700-1050</td><td>1000-1500</td></t<>			700-1050	1000-1500	
Output         Rated Power (W)         250(max)           Output Current Set Range         6.5%lo_max~100%lo_max           Constant Power Output Set         65%lo_max~100%lo_max           Ripple Current(Idc (pk-av)/av)         10% of lo_max. ((PK-AV) /AV) with LED default mode and full load)           Current Tolerance         Now2         ±5%           Line Regulation         ±1%           Load Regulation         ±3%           Setup, Rise Time         1s(typ.), measured at 230Vac input           Hold Up Time         10ms at 230Vac 100% load           12Vdc Output Voltage (Vdc)         10.8 min. ~12Vtyp.~13.2/max.           12Vdc Output Voltage (Vdc)         0.0 mA~20mA max.           0-10V/DMI+ Voltage         Absolute maximum voltage -10Vmin-20Vmax           0-10V/DMI+ Short Current         2800wa-450uA (DIM(+)=0)           DIMMING FUNCTION         Default 0-10V dimming mode. Other dimming modes sets to PWM/Clock Dimming(CLK) by software configuration           Protection         430V max         320V max           Over Voltage(V)         430V max         320V max           Over Temperature         Decreases output current, returning to normal after over temperature is removed.           Over Temperature         Decreases output current, returning to normal after over temperature is removed.           Over Temperature <t< td=""><td></td><td>Output Current Range(mA)</td><td></td><td></td></t<>		Output Current Range(mA)			
Output         Constant Power Output Set         66%/lo_max~100%/lo_max           Ripple Current(dc (pk-av)/av)         10% of lo_max. ((PK-AV) /AV) with LED default mode and full load)           Current Tolerance         boke.2           Line Regulation         ±1%           Load Regulation         ±1%           Setup, Rise Time         10//stance           12/dc Output Voltage (Vdc)         10.8 arsured at 230Vac input           Hold Up Time         10ms at 230Vac 100% load           12/dc Output Current Tolycopy. ~13.2Vmax.         12/dc Output Current Tolycopy. ~13.2Vmax.           12/dc Output Current Tolycopy         0-10V/DMI+ Soft Current           0-10V/DMI+ Short Current         200//arx           0-10V/DMI+ Short Current         200//arx           0-10V/DMI+ Short Current         Default 0-10V dimming mode. Other dimming modes sets to PWMClock Dimming(CLK) by software configuration           0-10V/DMI+ Short Current         200//arx           0ver Voltage(V)         430V max         320V max           0ver Voltage(V)         No danage. The power supply shall be self-recovery when the fault is removed.           0ver Voltage(V)         No danage. The power supply shall be self-recovery when the fault is removed.           0ver voltage(V)         No danage. The power supply shall be self-recovery when the fault is removed.           0ver voltag		Rated Power (W)	250(r	max)	
Ripple Current(Idc (pk-av)/av)         10% of Io_max. ((PK-AV)/AV) with LED default mode and full load)           Current Tolerance         15%           Line Regulation         15%           Load Regulation         11%           Load Regulation         13%           Setup, Rise Time         10ms at 230Vac 100% load           12Vdc Output Voltage (Vdc)         0.87min.~12Vtpp.~13.2Vmax.           12Vdc Output Voltage (Vdc)         0.87min.~12Vtpp.~13.2Vmax.           0~10V/DMI+ Voltage         Absolute maximum voltage -10Vmin-20Vmax           0~10V/DMI+ Voltage         Absolute maximum voltage -10Vmin/-20Vmax           0~10V/DMI+ Short Current         280uA~450uA (DIM(+)=0)           DIMMING FUNCTION         Default 0-10V dimming mode. Other dimming modes sets to PWM/Clock Dimming(CLK) by software configuration           430V max         300V max           0ver Voltage(V)         No damage.The power supply shall be self-recovery when the fault is removed.           Over Voltage(V)         No damage.The power supply shall be vorter temperature is removed.           Over Voltage(V)         No damage.The power supply shall be vorter temperature is removed.           Over Temperature         Decreases output current.returning to normal after over temperature is removed.           Over Temperature         0.03%/C (0-50°C)           Vibration         10~500Hz, 5G 12mi		Output Current Set Range	6.5%lo max~	-100%lo max	
Current Tolerance         https://www.contexture.context	Output	Constant Power Output Set			
Current Tolerance         https://www.contexture.context		Ripple Current(Idc (pk-av)/av)	10% of Io_max. ((PK-AV) /AV) wit	h LED default mode and full load)	
Line Regulation         ±1%           Load Regulation         ±3%           Setup, Rise Time         10(p), measured at 230Vac input           Hold Up Time         100ms at 230Vac 100% load           2Vdc Output Voltage (Vdc)         0.08Vmin.~12Vtyp.~13.2Vmax.           12Vdc Output Voltage (Vdc)         0.0mA-20mA max.           0-10V/DMH Voltage         Absolute maximum voltage -10Vmin~20Vmax           0-10V/DMH Short Current         280UA-450UA (DIM(+)=0)           DilmMING FUNCTION         Default 0-10V dimming modes sets to PVM/Clock Dimming(CLK) by software configuration           0ver Voltage(V)         No damage.The power supply shall be self-recovery when the fault is removed.           0ver Formerature         Decreases output current returning to normal after over temperature is removed.           0ver Temperature         Operating Temp.         -40~+60°C (Refer to 'Derating Curve'), (Tc ≤ 90°C)           0perating Humidity         20-95%RH, non-condensing         Temp. Coefficient <td></td> <td>0</td> <td colspan="2">±5%</td>		0	±5%		
Setup, Rise Time         1s(typ.), measured at 230Vac input           Hold Up Time         10ms at 230Vac 100% load           12Vdc Output Voltage (Vdc)         10.8Vmin.~12Vtyp.~13.2Vmax.           12Vdc Output Current(Vdc)         0mA-20mA max.           0~10V/DMI+ Voltage         Absolute maximum voltage 10Vmin-20Vmax           0~10V/DMI+ Voltage         Absolute maximum voltage 10Vmin-20Vmax           0~10V/DMI+ Stont Current         280uA~450uA (DIM(+)=0)           DIMMING FUNCTION         Default 0-10V dimming mode. Other dimming modes sets to PWM/Clock Dimming(CLK) by software configuration           20ver Voltage(V)         430V max         320V max           Short Circuit         Protection Protection type: Constant current limiting.           Over Temperature         Decreases output current.returning to normal after over temperature is removed           Operating Temp.         -40~+60°C (Refer to "Dearing Curve"), (Tc ≤ 90°C)           Operating Humidity         20~95%RH, non-condensing           Storage Temp., Humidity         -40~+85°C, 5-100%RH           Temp. Coefficient         0.03%/°C (0~50°C )           Vibration         10~500Hz, 5G 12min/1cycle, period for 72min. each along X, Y, Z axes           Safety Standard         EN61347.1, EN613477.413, EN60598-1, EN62384           Withstand Voltage         I/P~O/P.3.75KVAC I/P~FG.1.875KV O/P~FG.1.875KV      <			±1%		
Hold Up Time         10ms at 230Vac 100% load           12Vdc Output Voltage (Vdc)         10.8Vmin.~12Vtpp.~13.2Vmax.           12Vdc Output Current(Vdc)         0mA-20mA max.           0~10V/DMH Voltage         Absolute maximum voltage -10Vmin~20Vmax           0~10V/DMH Voltage         Over Voltage(V)           0         430V max         320V max           0ver Voltage(V)         Vortage Notage -10Vmin~20Vmax           0ver Voltage(V)         No damage. The power supply shall be self-recovery when the fault is removed           Short Circuit         Protection type: Constant current limiting.           Over Temperature         Decreases output current,returning to normal after over temperature is removed           Operating Temp.         -40v+60°C (Refer to 'Derating Curve') , (Tcs 9°C)           Operating Humidity         200-95%RH, non-condensing           Environment         Storage Temp., Humidity           Temp. Coefficient         0.03%/C (0-56°C )           Vibration         10 ~ 500Hz, 5G 12min,1/tcycle, period for 72min. each along X, Y, Z axes           Safety Standard         EN61347-2-13. EN60598-1, EN62384		Load Regulation	±3%		
Interface         Interface <thinterface< th="">         Interface         <thinterface< th="">         Interface         <thinterface< th=""> <thinterface< th=""> <thint< td=""><td></td><td>Setup, Rise Time</td><td colspan="2">1s(typ.), measured at 230Vac input</td></thint<></thinterface<></thinterface<></thinterface<></thinterface<>		Setup, Rise Time	1s(typ.), measured at 230Vac input		
Interview         Interview <thinterview< th="">         Interview         <thinterview< th="">         Interview         <thinterview< th=""> <thinterview< th=""> <thint< td=""><td></td><td>Hold Up Time</td><td colspan="2">10ms at 230Vac 100% load</td></thint<></thinterview<></thinterview<></thinterview<></thinterview<>		Hold Up Time	10ms at 230Vac 100% load		
Dimming Control         O-10V/DMI+ Voltage         Absolute maximum voltage -10Vmin~20Vmax           0~10V/DMI+ Short Current         280uA~450uA (DIM(+)=0)           DIMMING FUNCTION         Default 0-10V dimming mode. Other dimming modes sets to PWM/Clock Dimming(CLK) by software configuration           Age         320V max           Over Voltage(V)         430V max           Short Circuit         Protection type: Constant current limiting.           Over Temperature         Decreases output current,returning to normal after over temperature is removed.           Operating Temp.         -40~+60°C (Refer to 'Derating Curve'), (Tc ≤ 90°C)           Operating Humidity         20~95%RH, non-condensing           Storage Temp., Humidity         -40~+85°C, 5-100%RH           Temp. Coefficient         0.03%/°C (0~50°C)           Vibration         10 ~ 500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes           Safety & EMC         Isolation Resistance           Safety & EMC         Isolation Resistance           IP-O/P.3.75KVAC I/P-FG.1.87KV O/P-FG.1.87KV           Mithstand Voltage         I/P-O/P.3.75KVAC I/P-FG.1.87KV O/P-FG.1.87KV           EMC Emission         EN55015, EN61000-3-2 Class C, EN61000-3-3           EMC Immunity         EN61000-4-2,3.4,5.6.8,11 (Surge L,N-FG 10KV,L-N 10KV), EN61547           Others         MTBF         300,00		12Vdc Output Voltage (Vdc)	10.8Vmin.~12Vtyp.~13.2Vmax.		
D~10V/DMI+ Short Current         280uA~450uA (DIM(+)=0)           DIMMING FUNCTION         Default 0-10V dimming mode. Other dimming modes sets to PWM/Clock Dimming(CLK) by software configuration           Protection         430V max         320V max           Over Voltage(V)         With any the power supply shall be self-recovery when the fault is removed           Short Circuit         Protection type: Constant current limiting.           Over Temperature         Decreases output current, returning to normal after over temperature is removed           Operating Temp.         -40~+60°C (Refer to "Derating Curve") , (Tc≤ 90°C)           Operating Temp.         -40~+60°C (Refer to "Derating Curve") , (Tc≤ 90°C)           Operating Temp.         -40~+60°C (Refer to "Derating Curve") , (Tc≤ 90°C)           Operating Temp.         -40~+60°C (Refer to "Derating Curve") , (Tc≤ 90°C)           Operating Temp.         -40~+60°C (Refer to "Derating Curve") , (Tc≤ 90°C)           Operating Temp.         -40~+60°C (Refer to "Derating Curve") , (Tc≤ 90°C)           Vibration         10 ~ 500Hz, 5G 12min/1cycle, period for 72min. each along X, Y, Z axes           Safety & EMC         Safety Standard         EN61347-1, EN61347-2-13, EN60598-1, EN62384           Withstand Voltage         I/P-O/P.3.75KVAC I/P-FG:1.87KV O/P-FG:1.8KV           Safety & EMC         Isolation Resistance         I/P-O/P.3.75KVAC I/P-FG:1.87KV O/P-FG:1.8KV		12Vdc Output Current(Vdc)	0mA~20mA max.		
DIMMING FUNCTION         Default 0-10V dimming mode. Other dimming modes sets to PWM/Clock Dimming(CLK) by software configuration           Protection         430V max         320V max           Over Voltage(V)         No damage. The power supply shall be self-recovery when the fault is removed           Short Circuit         Protection type: Constant current limiting.           Over Temperature         Decreases output current, returning to normal after over temperature is removed           Operating Temp.         -40~+60°C (Refer to 'Derating Curve'), (Tc ≤ 90°C)           Operating Humidity         20~95%RH, non-condensing           Environment         Storage Temp., Humidity         40~+65°C, 5-100%RH           Temp. Coefficient         0.03%/°C (0~50°C)         Vibration           Vibration         10 ~ 500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes         Safety Standard           Safety & EMC         Isolation Resistance         I/P-O/P. 37.5KVAC I/P-FG:1.87KV O/P-FG:1.8KV           Isolation Resistance         I/P-O/P. 1/P-FG, O/P-FG:1000 Ohms/500Vdc/25°C/70%RH           EMC Emission         EN61300-4-2.3.4,5.6.8.11 (Surge L, N-FG 10KV,L-N 10KV), EN61547           MTBF         300,000 hours, measured at full load, 25°C ambient temperature MIL-HDBK-217F(25°C)           Lifetime         50,000 Hours at Tc 75°C (Refer to "Life Time VS. Tcase (Ref.)")           Dimension         234 x74.5 x 4	<b>Dimming Control</b>	0~10V/DMI+ Voltage	Absolute maximum voltage -10Vmin~20Vmax		
Protection         Over Voltage(V)         430V max         320V max           Bort Circuit         No damage.The power supply shall be self-recovery when the fault is removed           Over Temperature         Decreases output current,returning to normal after over temperature is removed           Operating Temp.         -40~+60°C (Refer to 'Derating Curve'), (Tc ≤ 90°C)           Operating Humidity         20~95%RH, non-condensing           Storage Temp., Humidity         20~95%RH, non-condensing           Temp. Coefficient         0.03%/°C (0~50°C)           Vibration         10 ~ 500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes           Safety & EMC         Safety Standard           Isolation Resistance         I/P-O/P. J/P-FG. O/P-FG:1.875KV O/P-FG:1.8KV           Isolation Resistance         I/P-O/P. J/P-FG, O/P-FG:100M Ohms/500Vdc/25°C/70%RH           EMC Emission         EN61000-4-2,3,4,5,6,8,11 (Surge L,N-FG 10KV) N 10KV), EN61547           MTBF         300,000 hours, measured at full load, 25°C ambient temperature MIL-HDBK-217F(25°C)           Dimension         204 x74.5 x 40mm (LxWxH)           Weight         1.3kg(Typ.)		0~10V/DMI+ Short Current	280uA~450uA (DIM(+)=0)		
Protection         Over Voltage(V)         No damage. The power supply shall be self-recovery when the fault is removed           Short Circuit         Protection type: Constant current limiting.           Over Temperature         Decreases output current, returning to normal after over temperature is removed           Operating Temp.         -40~+60°C (Refer to 'Derating Curve'), (Tc≤ 90°C)           Operating Humidity         20~95%RH, non-condensing           Storage Temp., Humidity         -40~+85°C, 5-100%RH           Temp. Coefficient         0.03%/°C (0~50°C)           Vibration         10 ~ 500Hz, 5G 12min./tcycle, period for 72min. each along X, Y, Z axes           Safety & EMC         Safety Standard           Isolation Resistance         I/P-O/P:3.75KVAC I/P-FG:1.875KV O/P-FG:1.8KV           Vibstand Voltage         I/P-O/P, I/P-FG, O/P-FG:100M Ohms/500Vdc/25°C/70%RH           EMC Emission         EN55015, EN61000-3-2 Class C, EN61000-3-3           EMC Immunity         EN61000-4-2,3,4,5,6,8,11 (Surge L,N-FG 10KV,L-N 10KV), EN61547           MTBF         300,000 hours, measured at full load, 25°C ambient temperature MIL-HDBK-217F(25°C)           Dimension         234 x74.5 x 40mm (LxWXH)           Weight         1.3kg(Typ.)		DIMMING FUNCTION	Default 0-10V dimming mode. Other dimming modes sets	s to PWM/Clock Dimming(CLK) by software configuration	
Protection         Image: The power supply shall be self-recovery when the fault is removed           Short Circuit         Protection type: Constant current limiting.           Over Temperature         Decreases output current,returning to normal after over temperature is removed           Operating Temp.         -40~+60°C (Refer to 'Derating Curve'), (Tc≤ 90°C)           Operating Humidity         20~95%RH, non-condensing           Storage Temp., Humidity         -40~+85°C, 5-100%RH           Temp. Coefficient         0.03%/°C (0~50°C)           Vibration         10 ~ 500Hz, 5G 12min/1cycle, period for 72min. each along X, Y, Z axes           Safety & EMC         Safety Standard           Safety & EMC         Isolation Resistance           IP-O/P. J/P-O/P. J/P-FG, O/P-FG:100M Ohms/500Vdc/25°C/70%RH           EMC Emission         EN55015, EN61000-3-2           EMC Immunity         EN6100-4-2,3,4,5,6,8,11 (Surge L,N-FG 10KV,L-N 10KV), EN61547           Others         MTBF         300,000 hours, measured at full load, 25°C ambient temperature MIL-HDBK-217F(25°C)           Lifetime         50,000 Hours at Tc 75°C (Refer to "Life Time VS. Tcase (Ref.)")           Weight         1.3kg(Typ.)		Over Veltege (V)	430V max	320V max	
Short CircuitProtection type: Constant current limiting.Over TemperatureDecreases output current,returning to normal after over temperature is removedOperating Temp40~+60°C ( Refer to 'Derating Curve' ) , (Tc≤ 90°C)Operating Humidity20~95%RH, non-condensingStorage Temp., Humidity-40~+85°C, 5-100%RHTemp. Coefficient0.03%/°C ( 0~50°C )Vibration10 ~ 500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axesSafety StandardEN61347-1, EN61347-2-13, EN60598-1,EN62384Withstand VoltageI/P-O/P.375KVAC I/P-FG:1.875KV O/P-FG:1.8KVSafety & EMCIsolation ResistanceEMC EmissionEN55015, EN61000-3-2 Class C, EN61000-3-3EMC ImmunityEN61000-4-2,3,4,5,6,8,11 ( Surge L,N-FG 10KV,L-N 10KV ) , EN61547OthersLifetimeDimension234 x74,5 x 40mm (LxWxH)Weight1.3kg(Typ.)	Protoction	Over voltage(v)	No damage. The power supply shall be self-recovery when the fault is removed		
EnvironmentOperating Temp40~+60°C ( Refer to 'Derating Curve' ) , (Tc≤ 90°C)Operating Humidity20~95%RH, non-condensingStorage Temp., Humidity20~95%RH, non-condensingTemp. Coefficient0.03%/°C ( 0~50°C )Vibration10 ~ 500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axesSafety & EMCSafety StandardIsolation ResistanceI/P-O/P:3.75KVAC I/P-FG:1.875KV O/P-FG:1.8KVIsolation ResistanceI/P-O/P, I/P-FG, O/P-FG:100M Ohms/500Vdc/25°C/70%RHEMC EmissionEN61000-4-2,3,4,5,6,8,11 ( Surge L,N-FG 10KV,L-N 10KV ) , EN61547OthersLifetime300,000 hours, measured at full load, 25°C ambient temperature MIL-HDBK-217F(25°C)Dimension234 x74.5 x 40mm (LxWxH)Weight1.3kg(Typ.)	FIDIECTION	Short Circuit			
Environment         Operating Humidity         20~95%RH, non-condensing           Storage Temp., Humidity         -40~+85°C, 5-100%RH           Temp. Coefficient         0.03%/°C (0~50°C)           Vibration         10 ~ 500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes           Safety & EMC         Safety Standard           Isolation Resistance         I/P-O/P.3.75KVAC I/P-FG:1.875KV O/P-FG:1.8KV           Withstand Voltage         I/P-O/P, I/P-FG, O/P-FG:100M Ohms/500Vdc/25°C/70%RH           EMC Emission         EN55015, EN61000-3-2 Class C, EN61000-3-3           EMC Immunity         EN61000-4-2,3,4,5,6,8,11 (Surge L,N-FG 10KV,L-N 10KV), EN61547           Others         Lifetime         300,000 hours, measured at full load, 25°C ambient temperature MIL-HDBK-217F(25°C)           Dimension         234 x74.5 x 40mm (LxWxH)         Weight		Over Temperature	Decreases output current, returning to normal after over temperature is removed		
EnvironmentStorage Temp., Humidity-40~+85°C, 5-100%RHTemp. Coefficient0.03%/°C (0~50°C)Vibration10 ~ 500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axesSafety StandardEN61347-1, EN61347-2-13, EN60598-1, EN62384Withstand VoltageI/P-O/P:3.75KVAC I/P-FG:1.875KV O/P-FG:1.8KVIsolation ResistanceI/P-O/P, I/P-FG, O/P-FG:100M Ohms/500Vdc/25°C/70%RHEMC EmissionEN55015, EN61000-3-2 Class C, EN61000-3-3EMC ImmunityEN61000-4-2,3,4,5,6,8,11 (Surge L,N-FG 10KV,L-N 10KV), EN61547OthersLifetime300,000 hours, measured at full load, 25°C ambient temperature MIL-HDBK-217F(25°C)Dimension234 x74.5 x 40mm (LxWxH)Weight1.3kg(Typ.)		Operating Temp.	-40~+60°C ( Refer to 'Derating Curve' ) , (Tc≤ 90°C)		
Temp. Coefficient         0.03%/°C (0~50°C)           Vibration         10 ~ 500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes           Safety Standard         EN61347-1, EN61347-2-13, EN60598-1, EN62384           Withstand Voltage         I/P-O/P:3.75KVAC I/P-FG:1.875KV O/P-FG:1.8KV           Isolation Resistance         I/P-O/P, I/P-FG, O/P-FG:100M Ohms/500Vdc/25°C/70%RH           EMC Emission         EN55015, EN61000-3-2 Class C, EN61000-3-3           EMC Immunity         EN61000-4-2,3,4,5,6,8,11 (Surge L,N-FG 10KV,L-N 10KV), EN61547           Others         Lifetime         300,000 hours, measured at full load, 25°C ambient temperature MIL-HDBK-217F(25°C)           Dimension         234 x74.5 x 40mm (LxWxH)         Weight		Operating Humidity			
Vibration10 ~ 500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axesSafety StandardEN61347-1, EN61347-2-13, EN60598-1, EN62384Withstand VoltageI/P-O/P:3.75KVAC I/P-FG:1.875KV O/P-FG:1.8KVIsolation ResistanceI/P-O/P, I/P-FG, O/P-FG:100M Ohms/500Vdc/25°C/70%RHEMC EmissionEN55015, EN61000-3-2 Class C, EN61000-3-3EMC ImmunityEN61000-4-2,3,4,5,6,8,11 (Surge L,N-FG 10KV,L-N 10KV), EN61547OthersLifetimeDimension50,000 Hours at Tc 75°C (Refer to"Life Time VS. Tcase (Ref.)")Weight1.3kg(Typ.)	Environment	Storage Temp., Humidity	-40~+85°C, 5-100%RH		
Safety Standard         EN61347-1, EN61347-2-13, EN60598-1,EN62384           Withstand Voltage         I/P-O/P:3.75KVAC I/P-FG:1.875KV O/P-FG:1.8KV           Isolation Resistance         I/P-O/P, I/P-FG, O/P-FG:100M Ohms/500Vdc/25°C/70%RH           EMC Emission         EN55015, EN61000-3-2 Class C, EN61000-3-3           EMC Immunity         EN61000-4-2,3,4,5,6,8,11 (Surge L,N-FG 10KV,L-N 10KV), EN61547           Others         MTBF         300,000 hours, measured at full load, 25°C ambient temperature MIL-HDBK-217F(25°C)           Lifetime         50,000 Hours at Tc 75°C (Refer to"Life Time VS. Tcase (Ref.)")           Weight         1.3kg(Typ.)		Temp. Coefficient	0.03%/°C(0~50°C)		
Withstand Voltage         I/P-O/P:3.75KVAC I/P-FG:1.875KV O/P-FG:1.8KV           Safety & EMC         Isolation Resistance         I/P-O/P; J/P-FG; O/P-FG:100M Ohms/500Vdc/25°C/70%RH           EMC Emission         EN55015, EN61000-3-2 Class C, EN61000-3-3           EMC Immunity         EN61000-4-2,3,4,5,6,8,11 (Surge L,N-FG 10KV,L-N 10KV), EN61547           Others         MTBF         300,000 hours, measured at full load, 25°C ambient temperature MIL-HDBK-217F(25°C)           Dimension         234 x74.5 x 40mm (LxWxH)           Weight         1.3kg(Typ.)		Vibration	10 ~ 500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes		
Safety & EMC       Isolation Resistance       I/P-O/P, I/P-FG, O/P-FG:100M Ohms/500Vdc/25°C/70%RH         EMC Emission       EN55015, EN61000-3-2 Class C, EN61000-3-3         EMC Immunity       EN61000-4-2,3,4,5,6,8,11 (Surge L,N-FG 10KV,L-N 10KV), EN61547         Others       MTBF       300,000 hours, measured at full load, 25°C ambient temperature MIL-HDBK-217F(25°C)         Lifetime       50,000 Hours at Tc 75°C (Refer to"Life Time VS. Tcase (Ref.)")         Dimension       234 x74.5 x 40mm (LxWxH)         Weight       1.3kg(Typ.)		Safety Standard			
EMC Emission         EN55015, EN61000-3-2 Class C, EN61000-3-3           EMC Immunity         EN61000-4-2,3,4,5,6,8,11 (Surge L,N-FG 10KV,L-N 10KV), EN61547           Others         MTBF         300,000 hours, measured at full load, 25°C ambient temperature MIL-HDBK-217F(25°C)           Lifetime         50,000 Hours at Tc 75°C (Refer to"Life Time VS. Tcase (Ref.)")           Dimension         234 x74.5 x 40mm (LxWxH)           Weight         1.3kg(Typ.)	Safety & EMC	Withstand Voltage	I/P-O/P:3.75KVAC I/P-FG:1.875KV O/P-FG:1.8KV		
EMC Immunity         EN61000-4-2,3,4,5,6,8,11 (Surge L,N-FG 10KV,L-N 10KV), EN61547           MTBF         300,000 hours, measured at full load, 25°C ambient temperature MIL-HDBK-217F(25°C)           Lifetime         50,000 Hours at Tc 75°C (Refer to"Life Time VS. Tcase (Ref.)")           Dimension         234 x74.5 x 40mm (LxWxH)           Weight         1.3kg(Typ.)					
MTBF         300,000 hours, measured at full load, 25°C ambient temperature MIL-HDBK-217F(25°C)           Utientime         50,000 Hours at Tc 75°C (Refer to"Life Time VS. Tcase (Ref.)")           Dimension         234 x74.5 x 40mm (LxWxH)           Weight         1.3kg(Typ.)		EMC Emission			
Differing         50,000 Hours at Tc 75°C (Refer to "Life Time VS. Tcase (Ref.)")           Dimension         234 x74.5 x 40mm (LxWxH)           Weight         1.3kg(Typ.)		,	EN61000-4-2,3,4,5,6,8,11 (Surge L,N-FG 10KV,L-N 10KV) , EN61547		
Others         Dimension         234 x74.5 x 40mm (LxWxH)           Weight         1.3kg(Typ.)		MTBF			
Dimension         234 x74.5 x 40mm (LxWxH)           Weight         1.3kg(Typ.)	Others	Lifetime	50,000 Hours at Tc 75 °C (Refer to "Life Time VS. Tcase (Ref.)")		
	Others	Dimension	234 x74.5 x 40mm (LxWxH)		
			1.3kg(Typ.)		

te.1: Measured at full load and steady-state temperature in 25°C ambient (Efficiency will be about 2% lower if measured immediately after startup ); Note. 2: Derating may be needed under low input voltages, Please Refer to 'Derating Curve'; Note. 3: All parameters NOT specially mentioned are measured at 230VAC input , rated load and 25°C of ambient temperature ; Note. 4: refer to V/I curve All Rights Reserved

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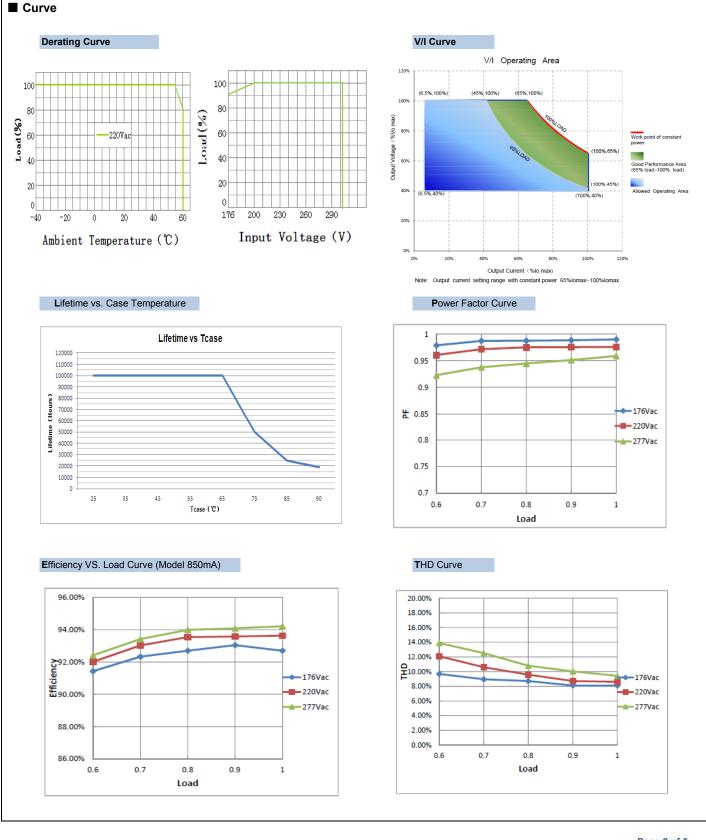
Tel: +86 (0)21 52634688 Website: www.moons.com.cn



## ME250HXXXAQ\_CP

### General-outdoor A0

DWG NO. MSSD-XXXX



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# **General-Outdoor**

DWG NO. : MSSD-XXXX A0

### Instruction

#### 1.Field Programmable Topology



The programmable driver can be programmed by using special PC software and the programmer module.

#### 2.Dimming Interface Description

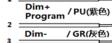
#### Pin description

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	511		
Pin	Name	Value	Description
1	Vaux 12V	10.8V-13.2V	Passive dimmers power supply
2	Dim+/Program	0-10V	Dimming/Programming input
3	Dim-	0V	DC Ground

#### DIMMING PROGRAMMING INTERFACE BK/WH(Vaux 12V)



#### 3.Dimming Software Function Instruction

Adjustable Output Current(AOC)

Adjustable Ou	tput Cu	rrent(AOC)		
Module Current		1050		
Max Current	1050	mA Powe	r 250	w

Users can set the rated current between 7%\*Max Current and 100%\*Max Current.

#### ■ PWM

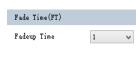
Input a PWM signal from the 2nd pin(Dim+/Program) of the dimming interface to change the output current.User can set "Positive Logic" or "Negative Logic" of the PWM signal. PWM duty circle: 1%~99%(it has both positive and negative logics ), frequency: 500Hz~5kHz, 3V~10V is high,-0.3V~0.8V is low.

#### Adjustable Startup Time(AST)

Adjustable Startup (	Time(AST)	
Start Fadeup Time	5 🔹	s

Set driver's "Start Fade up Time". It means how much time the driver costs to achieve the "Module Current" that the user set. The valid value is 0s, 1s, 2s, 5s, 10s, 20s, 40s.

#### Fade Time(FT)

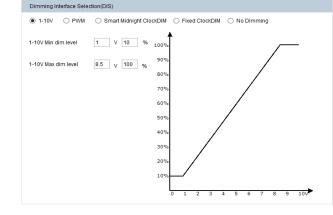


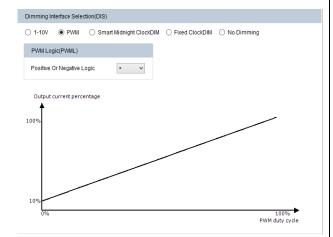
Set driver's "Fade up Time". This function is available in the Smart Midnight ClockDIM and Fixed ClockDIM mode; It means how much time the driver costs to achieve another dimming level from previous dimming level. The valid value is 0s, 1s, 2s, 5s, 10s, 20s, 40s.

#### ■ 1-10V

Allow users to set the max and min output current and corresponding output voltage to clarify the 1-10V dimming curve. Input a 0~10V signal from 2nd pin of the dimming interface. Default: input  $\leq$ 1V, output current 10%; input  $\geq$  8.5V, output current 100%.

s





#### subject to change without notice

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# **General-Outdoor**

100%

24:00

100%

24:00

100%

24.00

100%

>

100%

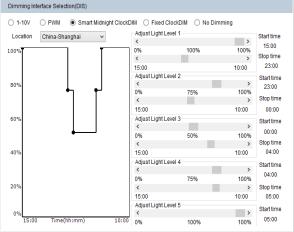
24:00

### Instruction

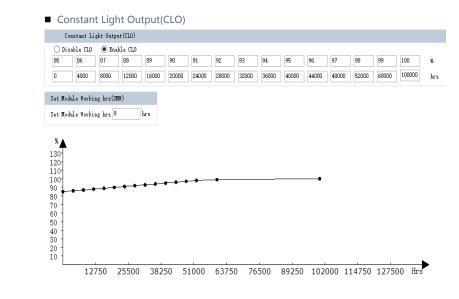
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#### Smart Midnight ClockDIM



Smart Midnight ClockDIM allows dimming to predefined light levels based on the nightly operating time. With flexibility in setting time and light levels, the user can configure the driver for specific locations and application needs. Using Smart Midnight ClockDIM, it is possible to set up to 5 dim levels and time intervals. The driver does not have a real time clock. Instead it runs a virtual clock, determined by the length of nightly operating hours. After 3 ON-OFF cycles, the driver will calculate the virtual clock time. A valid ON-time is defined as a period during which the driver operates continuously for  $\ge$ 4 hours to  $\le$ 24 hours. For example, if the requirement in summer is: 23:00-00:00: 75%, 00:00-04:00: 50%, 04:00-05:00: 75% (other time 100% or Off). The driver should be powered on for 7h, so it can calculate the virtual clock time as 22:00. Then we can set the dimming plan: 22:00~23:00: 100%, 23:00-00:00: 75%, 00:00-04:00: 50%, 04:00-05:00: 75%. From summer to winter, the valid ON-time changes day by day. The driver should be powered on for 17h in winter, and it also can calculate the virtual clock time as 17:00. Then the dimming plan is 17:00~23:00: 100%, 23:00-00:00: 75%, 00:00-04:00: 50%, 04:00-05:00: 75%, 05:00~10:00: 100%. From the above, if we set the dimming plan as shown in the picture, after repeating the driver ON-time for 3 consecutive days, the dimming plan takes effect from the 4th day onwards. Each day the driver powered on, it has a different start time according to the virtual clock time. So the driver can satisfy different requirements for different seasons.



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O PWM O Smart Midnight ClockDIM I Fixed ClockDIM O No Dimming

0%

00:00

0%

00:00

0%

00.00

0%

0%

Allow users to separate 24hrs into 5 sections and corresponding output

hrs

○ 1-10V ○ PWM ○ Smart Midnight ClockDIM ○ Fixed ClockDIM ● No Dimming

00:00

Adjust Light Level 1

Adjust Light Level 2

Adjust Light Level 3

Adjust Light Level 4

Adjust Light Level 5

20%

5 hrs:0 mins

40%

5 hrs:0 mins

60%

4 hrs:0 mins

80%

4 hrs:0 mins

100%

### Set Module Working hrs(SMW)

The driver will be in constant output mode.

### Set Module Working hrs(SMW)

Fixed ClockDIM
 Dimming Interface Selection(DIS)

○ 1-10V

100

809

60%

409

20

current

No Dimmino

Dimming Interface Selection(DIS)

Set Mod	lule Working	hrs	10	hr s

User can check how much time the driver works through this function.

Traditional light sources suffer from depreciation in light output over time. This applies to LED light sources as well. The CLO feature enables LED solutions to deliver constant lumen output through the life of the light engine. Based on the type of LEDs used, heat sinking and driver current, it is possible to estimate the depreciation of light output for specific LEDs and this information can be entered into the driver. The driver counts the number of light source working hours and will increase output current based on this input to enable CLO.

When the CLO feature is enabled, the driver nominal output current will be defined by the CLO percentage as shown by the equation below: Driver target nominal output current = CLO percentage \* AOC. For example, in the CLO profile shown in Figure, between 52,000-60,000 working hours, the CLO percentage is set at 98%. Assuming the nominal AOC is set to 500mA, the driver output current with CLO enabled will be 0.98 x 500 = 600 mA.

The CLO percentage can be set to a value between 85%-100%, in increments of 1%. The LED module working hours can be set at any value between (0-100,000 hours).

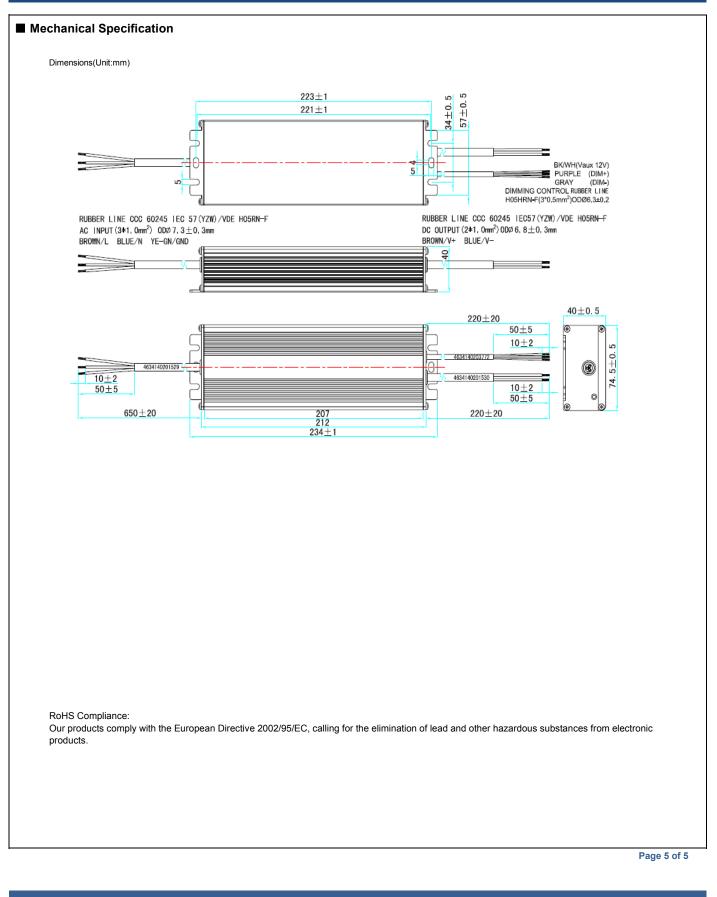
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## **General-outdoor**

DWG NO. MSSD-XXXX A0



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